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M/D

**Numerical Tables of Anomalous Scattering Factors
Calculated by the Cromer and Liberman's Method**

Satoshi SASAKI

**NATIONAL LABORATORY FOR
HIGH ENERGY PHYSICS**

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Appendix 1. Index for anomalous scattering factor tables. Each number shows the page relevant to the element looked up. The atomic number is given in parentheses.

Element		Table I-a	Table I-b	Element		Table I-a	Table I-b			
							K	L ₁	L ₂	L ₃
Li	(3)	5		Ru	(44)	25	62			
Be	(4)	5		Rh	(45)	26	62			
B	(5)	6		Pd	(46)	26	63			
C	(6)	6		Ag	(47)	27	63	79	98	116
N	(7)	7		Cd	(48)	27	64	80	98	117
O	(8)	7		In	(49)	28	64	80	99	117
F	(9)	8		Sn	(50)	28	65	81	99	118
Ne	(10)	8		Sb	(51)	29	65	81	100	118
Na	(11)	9		Te	(52)	29	66	82	100	119
Mg	(12)	9	46	I	(53)	30	66	82	101	119
Ar	(13)	10	46	Xe	(54)	30	67	83	101	120
Si	(14)	10	47	Cs	(55)	31	67	83	102	120
P	(15)	11	47	Ba	(56)	31	68	84	102	121
S	(16)	11	48	La	(57)	32	68	84	103	121
Cl	(17)	12	48	Ce	(58)	32	69	85	103	122
Ar	(18)	12	49	Pr	(59)	33	69	85	104	122
K	(19)	13	49	Nd	(60)	33	70	86	104	123
Ca	(20)	13	50	Pm	(61)	34	70	86	105	123
Sc	(21)	14	50	Sm	(62)	34	71	87	105	124
Ti	(22)	14	51	Eu	(63)	35	71	87	106	124
V	(23)	15	51	Gd	(64)	35	72	88	106	125
Cr	(24)	15	52	Tb	(65)	36	72	88	107	125
Mn	(25)	16	52	Dy	(66)	36	73	89	107	126
Fe	(26)	16	53	Ho	(67)	37	73	89	108	126
Co	(27)	17	53	Er	(68)	37	74	90	108	127
Ni	(28)	17	54	Tm	(69)	38	74	90	109	127
Cu	(29)	18	54	Yb	(70)	38	75	91	109	128
Zn	(30)	18	55	Lu	(71)	39	75	91	110	128
Ga	(31)	19	55	Hf	(72)	39	76	92	110	129
Ge	(32)	19	56	Ta	(73)	40	76	92	111	129
As	(33)	20	56	W	(74)	40	77	93	111	130
Se	(34)	20	57	Re	(75)	41	77	93	112	130
Br	(35)	21	57	Os	(76)	41	78	94	112	131
Kr	(36)	21	58	Ir	(77)	42	78	94	113	131
Rb	(37)	22	58	Pt	(78)	42	79	95	113	132
Sr	(38)	22	59	Au	(79)	43		95	114	132
Y	(39)	23	59	Hg	(80)	43		96	114	133
Zr	(40)	23	60	Tr	(81)	44		96	115	133
Nb	(41)	24	60	Pb	(82)	44		97	115	134
Mo	(42)	24	61	Bi	(83)	45		97	116	134
Tc	(43)	25	61	U	(92)	45				

ATOMIC SYMBOL = N ATOMIC NUMBER = 7

		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	-0.005	-0.005	-0.005	-0.005	-0.005	-0.004	-0.004	-0.004	-0.004	-0.004
	I	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.2	I	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.003	-0.003	-0.003
	I	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.3	I	-0.003	-0.003	-0.003	-0.003	-0.003	-0.002	-0.002	-0.002	-0.002	-0.002
	I	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
0.4	I	-0.002	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	0.000	0.000
	I	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
0.5	I	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001
	I	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
0.6	I	-0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.003
	I	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003
0.7	I	0.004	0.004	0.004	0.005	0.005	0.005	0.005	0.006	0.006	0.006
	I	0.003	0.003	0.003	0.004	0.004	0.004	0.004	0.004	0.004	0.004
0.8	I	0.006	0.007	0.007	0.007	0.007	0.008	0.008	0.008	0.008	0.009
	I	0.004	0.004	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
0.9	I	0.009	0.009	0.009	0.010	0.010	0.010	0.010	0.011	0.011	0.011
	I	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.007	0.007	0.007
1.0	I	0.012	0.012	0.012	0.012	0.013	0.013	0.013	0.014	0.014	0.014
	I	0.007	0.007	0.007	0.007	0.008	0.008	0.008	0.008	0.008	0.008
1.1	I	0.015	0.015	0.015	0.015	0.016	0.016	0.016	0.017	0.017	0.017
	I	0.009	0.009	0.009	0.009	0.009	0.010	0.010	0.010	0.010	0.010
1.2	I	0.018	0.018	0.018	0.019	0.019	0.019	0.020	0.020	0.020	0.020
	I	0.010	0.011	0.011	0.011	0.011	0.011	0.012	0.012	0.012	0.012
1.3	I	0.021	0.021	0.021	0.022	0.022	0.022	0.023	0.023	0.023	0.024
	I	0.012	0.013	0.013	0.013	0.013	0.014	0.014	0.014	0.014	0.014
1.4	I	0.024	0.024	0.025	0.025	0.026	0.026	0.026	0.027	0.027	0.027
	I	0.015	0.015	0.015	0.015	0.016	0.016	0.016	0.016	0.017	0.017
1.5	I	0.028	0.028	0.028	0.029	0.029	0.029	0.030	0.030	0.031	0.031
	I	0.017	0.017	0.018	0.018	0.018	0.018	0.019	0.019	0.019	0.019
1.6	I	0.031	0.032	0.032	0.032	0.033	0.033	0.033	0.034	0.034	0.035
	I	0.020	0.020	0.020	0.020	0.021	0.021	0.021	0.021	0.022	0.022
1.7	I	0.035	0.035	0.036	0.036	0.036	0.037	0.037	0.038	0.038	0.038
	I	0.022	0.023	0.023	0.023	0.023	0.024	0.024	0.024	0.025	0.025
1.8	I	0.039	0.039	0.040	0.040	0.040	0.041	0.041	0.041	0.042	0.042
	I	0.025	0.025	0.026	0.026	0.026	0.027	0.027	0.027	0.028	0.028
1.9	I	0.043	0.043	0.043	0.044	0.044	0.045	0.045	0.045	0.046	0.046
	I	0.028	0.028	0.029	0.029	0.029	0.030	0.030	0.030	0.031	0.031
2.0	I	0.047	0.047	0.047	0.048	0.048	0.049	0.049	0.049	0.050	0.050
	I	0.031	0.032	0.032	0.032	0.033	0.033	0.033	0.034	0.034	0.034
2.1	I	0.051	0.051	0.052	0.052	0.052	0.053	0.053	0.054	0.054	0.054
	I	0.035	0.035	0.035	0.036	0.036	0.036	0.037	0.037	0.038	0.038
2.2	I	0.055	0.055	0.056	0.056	0.057	0.057	0.057	0.058	0.058	0.059
	I	0.038	0.039	0.039	0.039	0.040	0.040	0.040	0.041	0.041	0.042
2.3	I	0.059	0.059	0.060	0.060	0.061	0.061	0.062	0.062	0.062	0.063
	I	0.042	0.042	0.043	0.043	0.043	0.044	0.044	0.045	0.045	0.045
2.4	I	0.063	0.064	0.064	0.065	0.065	0.066	0.066	0.066	0.067	0.067
	I	0.046	0.046	0.047	0.047	0.047	0.048	0.048	0.049	0.049	0.049
2.5	I	0.068	0.068	0.069	0.069	0.069	0.070	0.070	0.071	0.071	0.072
	I	0.050	0.050	0.051	0.051	0.052	0.052	0.052	0.053	0.053	0.054
2.6	I	0.072	0.073	0.073	0.073	0.074	0.074	0.075	0.075	0.076	0.076
	I	0.054	0.054	0.055	0.055	0.056	0.056	0.057	0.057	0.058	0.058
2.7	I	0.077	0.077	0.077	0.078	0.078	0.079	0.079	0.080	0.080	0.081
	I	0.058	0.059	0.059	0.060	0.060	0.061	0.061	0.062	0.062	0.062
2.8	I	0.081	0.081	0.082	0.082	0.083	0.083	0.084	0.084	0.085	0.085
	I	0.063	0.063	0.064	0.064	0.065	0.065	0.066	0.066	0.067	0.067

ATOMIC SYMBOL = O ATOMIC NUMBER = 8

		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	-0.007	-0.007	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006
	I	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.2	I	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.004	-0.004	-0.004
	I	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001
0.3	I	-0.004	-0.004	-0.003	-0.003	-0.003	-0.003	-0.003	-0.002	-0.002	-0.002
	I	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002
0.4	I	-0.002	-0.001	-0.001	-0.001	-0.001	0.000	0.000	0.000	0.000	0.001
	I	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.003
0.5	I	0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.004
	I	0.003	0.003	0.003	0.003	0.003	0.003	0.004	0.004	0.004	0.004
0.6	I	0.004	0.004	0.005	0.005	0.005	0.006	0.006	0.006	0.007	0.007
	I	0.004	0.004	0.004	0.005	0.005	0.005	0.005	0.005	0.006	0.006
0.7	I	0.007	0.008	0.008	0.009	0.009	0.009	0.010	0.010	0.010	0.011
	I	0.006	0.006	0.006	0.006	0.007	0.007	0.007	0.007	0.007	0.008
0.8	I	0.011	0.012	0.012	0.012	0.013	0.013	0.014	0.014	0.014	0.015
	I	0.008	0.008	0.008	0.009	0.009	0.009	0.009	0.009	0.010	0.010
0.9	I	0.015	0.016	0.016	0.017	0.017	0.017	0.018	0.018	0.019	0.019
	I	0.010	0.010	0.011	0.011	0.011	0.011	0.012	0.012	0.012	0.013
1.0	I	0.020	0.020	0.021	0.021	0.021	0.022	0.022	0.023	0.023	0.024
	I	0.013	0.013	0.013	0.014	0.014	0.014	0.015	0.015	0.015	0.015
1.1	I	0.024	0.025	0.025	0.026	0.026	0.027	0.027	0.028	0.028	0.029
	I	0.016	0.016	0.016	0.017	0.017	0.017	0.018	0.018	0.018	0.019
1.2	I	0.029	0.030	0.030	0.031	0.031	0.031	0.032	0.032	0.033	0.033
	I	0.019	0.019	0.020	0.020	0.020	0.021	0.021	0.021	0.022	0.022
1.3	I	0.034	0.034	0.035	0.035	0.036	0.036	0.037	0.037	0.038	0.038
	I	0.023	0.023	0.023	0.024	0.024	0.024	0.025	0.025	0.026	0.026
1.4	I	0.039	0.039	0.040	0.040	0.041	0.042	0.042	0.043	0.043	0.044
	I	0.026	0.027	0.027	0.028	0.028	0.028	0.029	0.029	0.030	0.030
1.5	I	0.044	0.045	0.045	0.046	0.046	0.047	0.047	0.048	0.049	0.049
	I	0.030	0.031	0.031	0.032	0.032	0.033	0.033	0.034	0.034	0.034
1.6	I	0.050	0.050	0.051	0.051	0.052	0.052	0.053	0.054	0.054	0.055
	I	0.035	0.035	0.036	0.036	0.037	0.037	0.038	0.038	0.039	0.039
1.7	I	0.055	0.056	0.056	0.057	0.057	0.058	0.059	0.059	0.060	0.060
	I	0.040	0.040	0.041	0.041	0.042	0.042	0.043	0.043	0.044	0.044
1.8	I	0.061	0.061	0.062	0.063	0.063	0.064	0.064	0.065	0.065	0.066
	I	0.045	0.045	0.046	0.046	0.047	0.047	0.048	0.048	0.049	0.049
1.9	I	0.067	0.067	0.068	0.068	0.069	0.070	0.070	0.071	0.071	0.072
	I	0.050	0.050	0.051	0.052	0.052	0.053	0.053	0.054	0.054	0.055
2.0	I	0.073	0.073	0.074	0.074	0.075	0.075	0.076	0.077	0.077	0.078
	I	0.055	0.056	0.057	0.057	0.058	0.058	0.059	0.059	0.060	0.061
2.1	I	0.078	0.079	0.080	0.080	0.081	0.081	0.082	0.083	0.083	0.084
	I	0.061	0.062	0.062	0.063	0.064	0.064	0.065	0.066	0.066	0.067
2.2	I	0.085	0.085	0.086	0.086	0.087	0.088	0.088	0.089	0.089	0.090
	I	0.067	0.068	0.069	0.069	0.070	0.071	0.071	0.072	0.072	0.073
2.3	I	0.091	0.091	0.092	0.092	0.093	0.094	0.094	0.095	0.096	0.096
	I	0.074	0.074	0.075	0.076	0.076	0.077	0.078	0.078	0.079	0.080
2.4	I	0.097	0.097	0.098	0.099	0.099	0.100	0.100	0.101	0.102	0.102
	I	0.080	0.081	0.082	0.082	0.083	0.084	0.085	0.085	0.086	0.087
2.5	I	0.103	0.104	0.104	0.105	0.105	0.106	0.107	0.107	0.108	0.109
	I	0.087	0.088	0.089	0.089	0.090	0.091	0.092	0.092	0.093	0.094
2.6	I	0.109	0.110	0.110	0.111	0.112	0.112	0.113	0.114	0.114	0.115
	I	0.095	0.095	0.096	0.097	0.097	0.098	0.099	0.100	0.100	0.101
2.7	I	0.115	0.116	0.117	0.117	0.118	0.119	0.119	0.120	0.121	0.121
	I	0.102	0.103	0.103	0.104	0.105	0.106	0.107	0.107	0.108	0.109
2.8	I	0.122	0.122	0.123	0.124	0.124	0.125	0.126	0.126	0.127	0.127
	I	0.110	0.110	0.111	0.112	0.113	0.114	0.114	0.115	0.116	0.117

ATOMIC SYMBOL = F ATOMIC NUMBER = 9

I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.008	-0.008	-0.008	-0.008	-0.008	-0.007	-0.007	-0.007	-0.007
	I	F''	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
0.2	I	F'	-0.007	-0.006	-0.006	-0.006	-0.006	-0.005	-0.005	-0.005	-0.004
	I	F''	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
0.3	I	F'	-0.004	-0.004	-0.003	-0.003	-0.003	-0.002	-0.002	-0.001	-0.001
	I	F''	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.003
0.4	I	F'	-0.001	0.000	0.000	0.000	0.001	0.001	0.002	0.002	0.003
	I	F''	0.003	0.003	0.003	0.003	0.004	0.004	0.004	0.004	0.005
0.5	I	F'	0.003	0.004	0.004	0.005	0.005	0.006	0.006	0.007	0.007
	I	F''	0.005	0.005	0.005	0.005	0.006	0.006	0.006	0.007	0.007
0.6	I	F'	0.008	0.008	0.009	0.009	0.010	0.010	0.011	0.012	0.013
	I	F''	0.007	0.007	0.008	0.008	0.008	0.009	0.009	0.009	0.010
0.7	I	F'	0.013	0.014	0.014	0.015	0.015	0.016	0.016	0.017	0.018
	I	F''	0.010	0.010	0.011	0.011	0.011	0.012	0.012	0.013	0.013
0.8	I	F'	0.019	0.019	0.020	0.020	0.021	0.022	0.022	0.023	0.024
	I	F''	0.013	0.014	0.014	0.014	0.015	0.015	0.016	0.016	0.017
0.9	I	F'	0.025	0.025	0.026	0.026	0.027	0.028	0.028	0.029	0.030
	I	F''	0.017	0.018	0.018	0.018	0.019	0.019	0.020	0.021	0.021
1.0	I	F'	0.031	0.031	0.032	0.033	0.033	0.034	0.035	0.035	0.036
	I	F''	0.022	0.022	0.022	0.023	0.023	0.024	0.024	0.025	0.026
1.1	I	F'	0.037	0.038	0.039	0.039	0.040	0.041	0.041	0.042	0.043
	I	F''	0.026	0.027	0.027	0.028	0.028	0.029	0.029	0.030	0.031
1.2	I	F'	0.044	0.045	0.046	0.046	0.047	0.048	0.048	0.049	0.051
	I	F''	0.032	0.032	0.033	0.033	0.034	0.035	0.035	0.036	0.037
1.3	I	F'	0.051	0.052	0.053	0.053	0.054	0.055	0.056	0.056	0.058
	I	F''	0.037	0.038	0.039	0.039	0.040	0.041	0.042	0.042	0.043
1.4	I	F'	0.059	0.059	0.060	0.061	0.062	0.062	0.063	0.064	0.065
	I	F''	0.044	0.044	0.045	0.046	0.046	0.047	0.048	0.048	0.050
1.5	I	F'	0.066	0.067	0.068	0.068	0.069	0.070	0.071	0.072	0.073
	I	F''	0.050	0.051	0.052	0.053	0.053	0.054	0.055	0.055	0.057
1.6	I	F'	0.074	0.074	0.075	0.076	0.077	0.077	0.078	0.079	0.080
	I	F''	0.058	0.058	0.059	0.060	0.061	0.061	0.062	0.063	0.065
1.7	I	F'	0.081	0.082	0.083	0.084	0.085	0.085	0.086	0.087	0.088
	I	F''	0.065	0.066	0.067	0.068	0.068	0.069	0.070	0.071	0.073
1.8	I	F'	0.089	0.090	0.091	0.092	0.092	0.093	0.094	0.095	0.096
	I	F''	0.073	0.074	0.075	0.076	0.077	0.078	0.078	0.079	0.080
1.9	I	F'	0.097	0.098	0.099	0.100	0.100	0.101	0.102	0.103	0.104
	I	F''	0.082	0.083	0.084	0.085	0.085	0.086	0.087	0.088	0.089
2.0	I	F'	0.105	0.106	0.107	0.108	0.108	0.109	0.110	0.111	0.112
	I	F''	0.091	0.092	0.093	0.094	0.095	0.095	0.096	0.097	0.098
2.1	I	F'	0.113	0.114	0.115	0.116	0.117	0.117	0.118	0.119	0.120
	I	F''	0.100	0.101	0.102	0.103	0.104	0.105	0.106	0.107	0.108
2.2	I	F'	0.121	0.122	0.123	0.124	0.125	0.126	0.126	0.127	0.128
	I	F''	0.110	0.111	0.112	0.113	0.114	0.115	0.116	0.117	0.118
2.3	I	F'	0.130	0.130	0.131	0.132	0.133	0.134	0.135	0.135	0.136
	I	F''	0.120	0.121	0.122	0.123	0.124	0.126	0.127	0.128	0.129
2.4	I	F'	0.138	0.139	0.140	0.140	0.141	0.142	0.143	0.144	0.145
	I	F''	0.131	0.132	0.133	0.134	0.135	0.136	0.137	0.139	0.140
2.5	I	F'	0.146	0.147	0.148	0.149	0.149	0.150	0.151	0.152	0.153
	I	F''	0.142	0.143	0.144	0.145	0.146	0.148	0.149	0.150	0.151
2.6	I	F'	0.154	0.155	0.156	0.157	0.158	0.158	0.159	0.160	0.162
	I	F''	0.153	0.154	0.156	0.157	0.158	0.159	0.160	0.162	0.164
2.7	I	F'	0.162	0.163	0.164	0.165	0.166	0.167	0.167	0.168	0.170
	I	F''	0.165	0.166	0.168	0.169	0.170	0.171	0.172	0.174	0.176
2.8	I	F'	0.171	0.171	0.172	0.173	0.174	0.175	0.175	0.176	0.178
	I	F''	0.177	0.179	0.180	0.181	0.182	0.184	0.185	0.186	0.189

ATOMIC SYMBOL = NE ATOMIC NUMBER = 10

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.010	-0.010	-0.010	-0.009	-0.009	-0.009	-0.009	-0.008	-0.008	-0.008
	I	F"	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001
0.2	I	F'	-0.007	-0.007	-0.007	-0.006	-0.006	-0.006	-0.005	-0.005	-0.004	-0.004
	I	F"	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002
0.3	I	F'	-0.004	-0.003	-0.003	-0.002	-0.002	-0.001	-0.001	0.000	0.000	0.001
	I	F"	0.002	0.003	0.003	0.003	0.003	0.003	0.004	0.004	0.004	0.004
0.4	I	F'	0.001	0.002	0.002	0.003	0.003	0.003	0.004	0.005	0.006	0.006
	I	F"	0.005	0.005	0.005	0.006	0.006	0.006	0.006	0.007	0.007	0.007
0.5	I	F'	0.007	0.008	0.008	0.009	0.010	0.010	0.011	0.012	0.012	0.013
	I	F"	0.008	0.008	0.008	0.009	0.009	0.009	0.010	0.010	0.011	0.011
0.6	I	F'	0.014	0.014	0.015	0.016	0.016	0.017	0.018	0.019	0.019	0.020
	I	F"	0.011	0.012	0.012	0.013	0.013	0.014	0.014	0.015	0.015	0.015
0.7	I	F'	0.021	0.022	0.022	0.023	0.024	0.025	0.025	0.026	0.027	0.028
	I	F"	0.016	0.016	0.017	0.017	0.018	0.018	0.019	0.020	0.020	0.021
0.8	I	F'	0.029	0.029	0.030	0.031	0.032	0.033	0.033	0.034	0.035	0.036
	I	F"	0.021	0.022	0.022	0.023	0.024	0.024	0.025	0.025	0.026	0.027
0.9	I	F'	0.037	0.038	0.038	0.039	0.040	0.041	0.042	0.043	0.044	0.045
	I	F"	0.027	0.028	0.029	0.029	0.030	0.031	0.032	0.032	0.033	0.033
1.0	I	F'	0.045	0.046	0.047	0.048	0.049	0.050	0.051	0.052	0.053	0.054
	I	F"	0.034	0.035	0.035	0.036	0.037	0.038	0.038	0.039	0.040	0.041
1.1	I	F'	0.055	0.055	0.056	0.057	0.058	0.059	0.060	0.061	0.062	0.063
	I	F"	0.042	0.042	0.043	0.044	0.045	0.046	0.046	0.047	0.048	0.049
1.2	I	F'	0.064	0.065	0.066	0.067	0.068	0.069	0.070	0.071	0.072	0.073
	I	F"	0.050	0.051	0.052	0.052	0.053	0.054	0.055	0.056	0.057	0.058
1.3	I	F'	0.074	0.075	0.076	0.077	0.077	0.078	0.079	0.080	0.081	0.082
	I	F"	0.059	0.060	0.061	0.062	0.063	0.064	0.065	0.066	0.067	0.068
1.4	I	F'	0.083	0.084	0.085	0.086	0.087	0.088	0.089	0.090	0.091	0.092
	I	F"	0.069	0.070	0.071	0.072	0.073	0.074	0.075	0.076	0.077	0.078
1.5	I	F'	0.093	0.094	0.095	0.096	0.097	0.098	0.099	0.100	0.102	0.103
	I	F"	0.079	0.080	0.081	0.082	0.083	0.084	0.085	0.087	0.088	0.089
1.6	I	F'	0.104	0.105	0.106	0.107	0.108	0.109	0.110	0.111	0.112	0.113
	I	F"	0.090	0.091	0.092	0.093	0.095	0.096	0.097	0.098	0.099	0.100
1.7	I	F'	0.114	0.115	0.116	0.117	0.118	0.119	0.120	0.121	0.122	0.123
	I	F"	0.102	0.103	0.104	0.105	0.107	0.108	0.109	0.110	0.111	0.113
1.8	I	F'	0.124	0.125	0.126	0.127	0.128	0.129	0.130	0.131	0.132	0.133
	I	F"	0.114	0.115	0.117	0.118	0.119	0.120	0.122	0.123	0.124	0.126
1.9	I	F'	0.134	0.135	0.137	0.138	0.139	0.140	0.141	0.142	0.143	0.144
	I	F"	0.127	0.128	0.130	0.131	0.132	0.134	0.135	0.136	0.138	0.139
2.0	I	F'	0.145	0.146	0.147	0.148	0.149	0.150	0.151	0.152	0.153	0.154
	I	F"	0.141	0.142	0.143	0.145	0.146	0.148	0.149	0.151	0.152	0.153
2.1	I	F'	0.155	0.156	0.157	0.158	0.159	0.160	0.161	0.163	0.164	0.165
	I	F"	0.155	0.156	0.158	0.159	0.161	0.162	0.164	0.165	0.167	0.168
2.2	I	F'	0.166	0.167	0.168	0.169	0.170	0.171	0.172	0.173	0.174	0.175
	I	F"	0.170	0.171	0.173	0.174	0.176	0.177	0.179	0.181	0.182	0.184
2.3	I	F'	0.176	0.177	0.178	0.179	0.180	0.181	0.182	0.183	0.184	0.185
	I	F"	0.185	0.187	0.188	0.190	0.192	0.193	0.195	0.197	0.198	0.200
2.4	I	F'	0.186	0.187	0.188	0.189	0.190	0.191	0.192	0.193	0.194	0.195
	I	F"	0.201	0.203	0.205	0.206	0.208	0.210	0.211	0.213	0.215	0.216
2.5	I	F'	0.196	0.197	0.198	0.199	0.201	0.202	0.203	0.204	0.205	0.206
	I	F"	0.218	0.220	0.222	0.223	0.225	0.227	0.228	0.230	0.232	0.234
2.6	I	F'	0.207	0.208	0.209	0.210	0.211	0.212	0.213	0.214	0.215	0.216
	I	F"	0.235	0.237	0.239	0.241	0.242	0.244	0.246	0.248	0.250	0.251
2.7	I	F'	0.217	0.218	0.219	0.219	0.220	0.221	0.222	0.223	0.224	0.225
	I	F"	0.253	0.255	0.257	0.259	0.261	0.262	0.264	0.266	0.268	0.270
2.8	I	F'	0.226	0.227	0.228	0.229	0.230	0.231	0.232	0.233	0.234	0.235
	I	F"	0.272	0.274	0.275	0.277	0.279	0.281	0.283	0.285	0.287	0.288

ATOMIC SYMBOL = NA ATOMIC NUMBER = 11

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.013	-0.012	-0.012	-0.012	-0.011	-0.011	-0.011	-0.010	-0.010	-0.010
	I	F''	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
0.2	I	F'	-0.009	-0.009	-0.008	-0.008	-0.007	-0.007	-0.006	-0.006	-0.005	-0.004
	I	F''	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.004
0.3	I	F'	-0.004	-0.003	-0.003	-0.002	-0.001	-0.001	0.000	0.001	0.002	0.002
	I	F''	0.004	0.004	0.004	0.005	0.005	0.005	0.006	0.006	0.006	0.007
0.4	I	F'	0.003	0.004	0.005	0.005	0.006	0.007	0.008	0.008	0.009	0.010
	I	F''	0.007	0.008	0.008	0.008	0.009	0.009	0.010	0.010	0.011	0.011
0.5	I	F'	0.011	0.012	0.013	0.014	0.014	0.015	0.016	0.017	0.018	0.019
	I	F''	0.012	0.012	0.013	0.013	0.014	0.014	0.015	0.016	0.016	0.017
0.6	I	F'	0.020	0.021	0.022	0.023	0.024	0.025	0.026	0.027	0.028	0.029
	I	F''	0.017	0.018	0.019	0.019	0.020	0.021	0.021	0.022	0.023	0.023
0.7	I	F'	0.030	0.031	0.032	0.033	0.034	0.035	0.036	0.037	0.038	0.039
	I	F''	0.024	0.025	0.026	0.026	0.027	0.028	0.029	0.030	0.030	0.031
0.8	I	F'	0.040	0.041	0.042	0.043	0.044	0.046	0.047	0.048	0.049	0.050
	I	F''	0.032	0.033	0.034	0.035	0.036	0.036	0.037	0.038	0.039	0.040
0.9	I	F'	0.051	0.052	0.053	0.055	0.056	0.057	0.058	0.059	0.060	0.061
	I	F''	0.041	0.042	0.043	0.044	0.045	0.046	0.047	0.048	0.049	0.050
1.0	I	F'	0.063	0.064	0.065	0.066	0.067	0.069	0.070	0.071	0.072	0.073
	I	F''	0.051	0.052	0.053	0.054	0.056	0.057	0.058	0.059	0.060	0.061
1.1	I	F'	0.075	0.076	0.077	0.078	0.079	0.081	0.082	0.083	0.084	0.086
	I	F''	0.062	0.064	0.065	0.066	0.067	0.068	0.070	0.071	0.072	0.073
1.2	I	F'	0.087	0.088	0.089	0.090	0.092	0.093	0.094	0.095	0.097	0.098
	I	F''	0.075	0.076	0.077	0.078	0.080	0.081	0.082	0.084	0.085	0.087
1.3	I	F'	0.099	0.100	0.102	0.103	0.104	0.105	0.107	0.108	0.109	0.111
	I	F''	0.088	0.089	0.091	0.092	0.094	0.095	0.096	0.098	0.099	0.101
1.4	I	F'	0.112	0.113	0.114	0.116	0.117	0.118	0.119	0.121	0.122	0.123
	I	F''	0.102	0.104	0.105	0.107	0.108	0.110	0.111	0.113	0.114	0.116
1.5	I	F'	0.124	0.126	0.127	0.128	0.130	0.131	0.132	0.133	0.135	0.136
	I	F''	0.117	0.119	0.121	0.122	0.124	0.125	0.127	0.129	0.130	0.132
1.6	I	F'	0.137	0.139	0.140	0.141	0.142	0.144	0.145	0.146	0.147	0.149
	I	F''	0.134	0.135	0.137	0.139	0.140	0.142	0.144	0.145	0.147	0.149
1.7	I	F'	0.150	0.151	0.153	0.154	0.155	0.156	0.158	0.159	0.160	0.162
	I	F''	0.151	0.152	0.154	0.156	0.158	0.160	0.161	0.163	0.165	0.167
1.8	I	F'	0.163	0.164	0.165	0.167	0.168	0.169	0.170	0.172	0.173	0.174
	I	F''	0.169	0.171	0.172	0.174	0.176	0.178	0.180	0.182	0.184	0.186
1.9	I	F'	0.176	0.177	0.178	0.179	0.181	0.182	0.183	0.184	0.186	0.187
	I	F''	0.188	0.190	0.192	0.194	0.196	0.197	0.199	0.201	0.203	0.205
2.0	I	F'	0.188	0.189	0.191	0.192	0.193	0.194	0.196	0.197	0.198	0.199
	I	F''	0.208	0.210	0.212	0.214	0.216	0.218	0.220	0.222	0.224	0.226
2.1	I	F'	0.201	0.202	0.203	0.204	0.206	0.207	0.208	0.209	0.211	0.212
	I	F''	0.228	0.230	0.232	0.235	0.237	0.239	0.241	0.243	0.245	0.248
2.2	I	F'	0.213	0.214	0.215	0.217	0.218	0.219	0.220	0.222	0.223	0.224
	I	F''	0.250	0.252	0.254	0.256	0.259	0.261	0.263	0.265	0.268	0.270
2.3	I	F'	0.225	0.226	0.228	0.229	0.230	0.231	0.232	0.234	0.235	0.236
	I	F''	0.272	0.275	0.277	0.279	0.281	0.284	0.286	0.288	0.291	0.293
2.4	I	F'	0.237	0.238	0.239	0.241	0.242	0.243	0.244	0.245	0.246	0.248
	I	F''	0.296	0.298	0.300	0.303	0.305	0.308	0.310	0.312	0.315	0.317
2.5	I	F'	0.249	0.250	0.251	0.252	0.253	0.254	0.256	0.257	0.258	0.259
	I	F''	0.320	0.322	0.325	0.327	0.330	0.332	0.335	0.337	0.340	0.342
2.6	I	F'	0.260	0.261	0.262	0.263	0.265	0.266	0.267	0.268	0.267	0.268
	I	F''	0.345	0.347	0.350	0.352	0.355	0.357	0.360	0.363	0.365	0.368
2.7	I	F'	0.269	0.270	0.272	0.273	0.274	0.275	0.276	0.277	0.278	0.279
	I	F''	0.370	0.373	0.375	0.378	0.381	0.384	0.386	0.391	0.394	0.397
2.8	I	F'	0.280	0.281	0.282	0.283	0.284	0.285	0.286	0.287	0.288	0.289
	I	F''	0.397	0.399	0.402	0.405	0.407	0.410	0.413	0.415	0.418	0.421

ATOMIC SYMBOL = MG ATOMIC NUMBER = 12

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.016	-0.016	-0.015	-0.015	-0.014	-0.014	-0.013	-0.013	-0.012	-0.012
	I	F''	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002
0.2	I	F'	-0.011	-0.011	-0.010	-0.009	-0.009	-0.008	-0.007	-0.006	-0.006	-0.005
	I	F''	0.002	0.003	0.003	0.003	0.004	0.004	0.004	0.005	0.005	0.005
0.3	I	F'	-0.004	-0.003	-0.002	-0.001	0.000	0.000	0.001	0.002	0.003	0.004
	I	F''	0.006	0.006	0.007	0.007	0.008	0.008	0.009	0.009	0.010	0.010
0.4	I	F'	0.005	0.006	0.007	0.008	0.009	0.010	0.011	0.012	0.014	0.015
	I	F''	0.011	0.011	0.012	0.013	0.013	0.014	0.014	0.015	0.016	0.017
0.5	I	F'	0.016	0.017	0.018	0.019	0.020	0.022	0.023	0.024	0.025	0.026
	I	F''	0.017	0.018	0.019	0.020	0.020	0.021	0.022	0.023	0.024	0.025
0.6	I	F'	0.028	0.029	0.030	0.031	0.032	0.034	0.035	0.036	0.038	0.039
	I	F''	0.026	0.026	0.027	0.028	0.029	0.030	0.031	0.032	0.033	0.034
0.7	I	F'	0.040	0.042	0.043	0.044	0.046	0.047	0.048	0.050	0.051	0.052
	I	F''	0.035	0.036	0.037	0.039	0.040	0.041	0.042	0.043	0.044	0.045
0.8	I	F'	0.054	0.055	0.056	0.058	0.059	0.061	0.062	0.064	0.065	0.066
	I	F''	0.047	0.048	0.049	0.050	0.052	0.053	0.054	0.056	0.057	0.058
0.9	I	F'	0.068	0.069	0.071	0.072	0.074	0.075	0.077	0.078	0.079	0.081
	I	F''	0.060	0.061	0.062	0.064	0.065	0.067	0.068	0.070	0.071	0.073
1.0	I	F'	0.082	0.084	0.085	0.087	0.088	0.090	0.091	0.093	0.094	0.096
	I	F''	0.074	0.076	0.077	0.079	0.080	0.082	0.083	0.085	0.087	0.088
1.1	I	F'	0.097	0.099	0.100	0.102	0.103	0.105	0.106	0.108	0.109	0.111
	I	F''	0.090	0.092	0.093	0.095	0.097	0.098	0.100	0.102	0.104	0.106
1.2	I	F'	0.113	0.114	0.116	0.117	0.119	0.120	0.122	0.123	0.125	0.126
	I	F''	0.107	0.109	0.111	0.113	0.115	0.117	0.119	0.120	0.122	0.124
1.3	I	F'	0.128	0.129	0.131	0.132	0.134	0.135	0.137	0.139	0.140	0.142
	I	F''	0.126	0.128	0.130	0.132	0.134	0.136	0.138	0.140	0.142	0.145
1.4	I	F'	0.143	0.145	0.146	0.148	0.149	0.151	0.152	0.154	0.155	0.157
	I	F''	0.147	0.149	0.151	0.153	0.155	0.157	0.159	0.161	0.164	0.166
1.5	I	F'	0.158	0.160	0.162	0.163	0.165	0.166	0.168	0.169	0.171	0.172
	I	F''	0.168	0.170	0.172	0.175	0.177	0.179	0.182	0.184	0.186	0.188
1.6	I	F'	0.174	0.175	0.177	0.178	0.180	0.181	0.183	0.184	0.186	0.187
	I	F''	0.191	0.193	0.196	0.198	0.200	0.203	0.205	0.207	0.210	0.212
1.7	I	F'	0.189	0.190	0.192	0.193	0.195	0.196	0.198	0.199	0.201	0.202
	I	F''	0.215	0.217	0.220	0.222	0.225	0.227	0.230	0.232	0.235	0.238
1.8	I	F'	0.204	0.205	0.207	0.208	0.210	0.211	0.213	0.214	0.216	0.217
	I	F''	0.240	0.243	0.245	0.248	0.251	0.253	0.256	0.259	0.261	0.264
1.9	I	F'	0.218	0.220	0.221	0.223	0.224	0.226	0.227	0.229	0.230	0.231
	I	F''	0.267	0.269	0.272	0.275	0.278	0.280	0.283	0.286	0.289	0.292
2.0	I	F'	0.233	0.234	0.236	0.237	0.238	0.240	0.241	0.243	0.244	0.245
	I	F''	0.294	0.297	0.300	0.303	0.306	0.309	0.312	0.315	0.317	0.320
2.1	I	F'	0.247	0.248	0.250	0.251	0.252	0.254	0.255	0.256	0.258	0.259
	I	F''	0.323	0.326	0.329	0.332	0.335	0.338	0.341	0.344	0.347	0.350
2.2	I	F'	0.259	0.260	0.262	0.263	0.264	0.266	0.267	0.268	0.269	0.271
	I	F''	0.353	0.357	0.360	0.363	0.366	0.369	0.372	0.375	0.378	0.381
2.3	I	F'	0.272	0.273	0.274	0.276	0.277	0.278	0.279	0.281	0.282	0.283
	I	F''	0.385	0.388	0.391	0.394	0.397	0.400	0.404	0.407	0.410	0.413
2.4	I	F'	0.284	0.285	0.287	0.288	0.289	0.290	0.291	0.293	0.294	0.295
	I	F''	0.417	0.420	0.423	0.426	0.430	0.433	0.436	0.440	0.443	0.446
2.5	I	F'	0.296	0.297	0.298	0.299	0.301	0.302	0.303	0.304	0.305	0.306
	I	F''	0.450	0.453	0.457	0.460	0.463	0.467	0.470	0.474	0.477	0.480
2.6	I	F'	0.307	0.308	0.309	0.310	0.312	0.313	0.314	0.315	0.316	0.317
	I	F''	0.484	0.487	0.491	0.494	0.498	0.501	0.505	0.508	0.512	0.516
2.7	I	F'	0.318	0.319	0.320	0.321	0.322	0.323	0.324	0.325	0.326	0.327
	I	F''	0.519	0.523	0.526	0.530	0.533	0.537	0.541	0.544	0.548	0.552
2.8	I	F'	0.328	0.329	0.330	0.331	0.332	0.332	0.333	0.334	0.335	0.336
	I	F''	0.555	0.559	0.563	0.566	0.570	0.574	0.577	0.581	0.585	0.589

ATOMIC SYMBOL = AL ATOMIC NUMBER = 13

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.018	-0.018	-0.017	-0.017	-0.016	-0.016	-0.015	-0.014	-0.013	-0.013
	I	F''	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.003
0.2	I	F'	-0.012	-0.011	-0.010	-0.009	-0.008	-0.007	-0.006	-0.005	-0.004	-0.003
	I	F''	0.003	0.004	0.004	0.005	0.005	0.006	0.006	0.007	0.007	0.008
0.3	I	F'	-0.002	-0.001	0.000	0.001	0.002	0.004	0.005	0.006	0.007	0.008
	I	F''	0.008	0.009	0.010	0.010	0.011	0.012	0.012	0.013	0.014	0.015
0.4	I	F'	0.010	0.011	0.012	0.014	0.015	0.016	0.018	0.019	0.021	0.022
	I	F''	0.015	0.016	0.017	0.018	0.019	0.020	0.021	0.022	0.023	0.024
0.5	I	F'	0.023	0.025	0.026	0.028	0.029	0.031	0.032	0.034	0.035	0.037
	I	F''	0.025	0.026	0.027	0.028	0.029	0.030	0.031	0.033	0.034	0.035
0.6	I	F'	0.038	0.040	0.042	0.043	0.045	0.046	0.048	0.050	0.051	0.053
	I	F''	0.036	0.038	0.039	0.040	0.041	0.043	0.044	0.046	0.047	0.049
0.7	I	F'	0.055	0.056	0.058	0.060	0.061	0.063	0.065	0.066	0.068	0.070
	I	F''	0.050	0.051	0.053	0.055	0.056	0.058	0.059	0.061	0.062	0.064
0.8	I	F'	0.071	0.073	0.075	0.077	0.078	0.080	0.082	0.084	0.085	0.087
	I	F''	0.066	0.068	0.069	0.071	0.073	0.075	0.076	0.078	0.080	0.082
0.9	I	F'	0.089	0.091	0.093	0.094	0.096	0.098	0.100	0.102	0.103	0.105
	I	F''	0.084	0.086	0.088	0.090	0.092	0.094	0.096	0.098	0.100	0.102
1.0	I	F'	0.107	0.109	0.111	0.112	0.114	0.116	0.118	0.120	0.122	0.123
	I	F''	0.104	0.106	0.108	0.110	0.112	0.115	0.117	0.119	0.121	0.124
1.1	I	F'	0.125	0.127	0.129	0.131	0.133	0.134	0.136	0.138	0.140	0.142
	I	F''	0.126	0.128	0.130	0.133	0.135	0.138	0.140	0.142	0.145	0.147
1.2	I	F'	0.144	0.145	0.147	0.149	0.151	0.153	0.155	0.156	0.158	0.160
	I	F''	0.150	0.152	0.155	0.157	0.160	0.163	0.165	0.168	0.171	0.173
1.3	I	F'	0.162	0.164	0.165	0.167	0.169	0.171	0.173	0.174	0.176	0.178
	I	F''	0.176	0.179	0.181	0.184	0.187	0.190	0.192	0.195	0.198	0.201
1.4	I	F'	0.180	0.181	0.183	0.185	0.187	0.189	0.190	0.192	0.194	0.196
	I	F''	0.204	0.207	0.209	0.212	0.215	0.218	0.221	0.224	0.227	0.230
1.5	I	F'	0.197	0.199	0.201	0.203	0.204	0.206	0.208	0.210	0.211	0.213
	I	F''	0.233	0.236	0.239	0.242	0.245	0.248	0.252	0.255	0.258	0.261
1.6	I	F'	0.215	0.217	0.218	0.220	0.222	0.224	0.225	0.227	0.229	0.230
	I	F''	0.264	0.267	0.271	0.274	0.277	0.280	0.284	0.287	0.290	0.294
1.7	I	F'	0.232	0.234	0.235	0.237	0.239	0.240	0.242	0.244	0.245	0.247
	I	F''	0.297	0.300	0.304	0.307	0.311	0.314	0.317	0.321	0.324	0.328
1.8	I	F'	0.249	0.250	0.252	0.253	0.254	0.256	0.257	0.259	0.260	0.262
	I	F''	0.331	0.335	0.339	0.342	0.346	0.349	0.353	0.356	0.360	0.364
1.9	I	F'	0.263	0.265	0.267	0.268	0.270	0.271	0.273	0.274	0.276	0.277
	I	F''	0.367	0.371	0.375	0.378	0.382	0.386	0.390	0.393	0.397	0.401
2.0	I	F'	0.279	0.280	0.281	0.283	0.284	0.286	0.287	0.289	0.290	0.291
	I	F''	0.405	0.409	0.412	0.416	0.420	0.424	0.428	0.432	0.436	0.440
2.1	I	F'	0.293	0.294	0.296	0.297	0.298	0.300	0.301	0.302	0.304	0.305
	I	F''	0.444	0.448	0.452	0.456	0.460	0.464	0.468	0.472	0.476	0.480
2.2	I	F'	0.306	0.308	0.309	0.310	0.311	0.313	0.314	0.315	0.316	0.318
	I	F''	0.484	0.488	0.492	0.496	0.500	0.505	0.509	0.513	0.517	0.521
2.3	I	F'	0.319	0.320	0.321	0.322	0.324	0.325	0.326	0.327	0.328	0.329
	I	F''	0.526	0.530	0.534	0.538	0.543	0.547	0.551	0.556	0.560	0.564
2.4	I	F'	0.331	0.332	0.333	0.334	0.335	0.336	0.337	0.338	0.339	0.340
	I	F''	0.569	0.573	0.577	0.582	0.586	0.591	0.595	0.600	0.604	0.608
2.5	I	F'	0.341	0.342	0.343	0.344	0.345	0.346	0.347	0.348	0.349	0.350
	I	F''	0.613	0.617	0.622	0.627	0.631	0.636	0.640	0.645	0.649	0.654
2.6	I	F'	0.351	0.352	0.353	0.354	0.354	0.355	0.356	0.357	0.358	0.359
	I	F''	0.659	0.663	0.668	0.673	0.677	0.682	0.687	0.691	0.696	0.701
2.7	I	F'	0.359	0.360	0.361	0.362	0.363	0.363	0.364	0.365	0.366	0.366
	I	F''	0.705	0.710	0.715	0.720	0.725	0.729	0.734	0.739	0.744	0.749
2.8	I	F'	0.367	0.368	0.368	0.369	0.370	0.370	0.371	0.371	0.372	0.373
	I	F''	0.754	0.758	0.763	0.768	0.773	0.778	0.783	0.788	0.793	0.798

ATOMIC SYMBOL = SI ATOMIC NUMBER = 14

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.023	-0.022	-0.021	-0.020	-0.020	-0.019	-0.018	-0.017	-0.016	-0.015
	I	F''	0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.003	0.004	0.004
0.2	I	F'	-0.014	-0.013	-0.012	-0.010	-0.009	-0.008	-0.007	-0.006	-0.004	-0.003
	I	F''	0.005	0.005	0.006	0.006	0.007	0.008	0.008	0.009	0.010	0.011
0.3	I	F'	-0.001	0.000	0.001	0.003	0.004	0.006	0.007	0.009	0.010	0.012
	I	F''	0.012	0.012	0.013	0.014	0.015	0.016	0.017	0.018	0.019	0.020
0.4	I	F'	0.014	0.015	0.017	0.019	0.020	0.022	0.024	0.026	0.027	0.029
	I	F''	0.021	0.022	0.024	0.025	0.026	0.027	0.029	0.030	0.031	0.033
0.5	I	F'	0.031	0.033	0.034	0.036	0.038	0.040	0.042	0.044	0.046	0.048
	I	F''	0.034	0.036	0.037	0.039	0.040	0.042	0.043	0.045	0.047	0.048
0.6	I	F'	0.050	0.051	0.053	0.055	0.057	0.059	0.061	0.063	0.065	0.067
	I	F''	0.050	0.052	0.053	0.055	0.057	0.059	0.061	0.063	0.065	0.067
0.7	I	F'	0.069	0.071	0.073	0.076	0.078	0.080	0.082	0.084	0.086	0.088
	I	F''	0.069	0.071	0.073	0.075	0.077	0.079	0.081	0.083	0.085	0.088
0.8	I	F'	0.090	0.092	0.094	0.096	0.099	0.101	0.103	0.105	0.107	0.109
	I	F''	0.090	0.092	0.095	0.097	0.099	0.102	0.104	0.107	0.109	0.112
0.9	I	F'	0.111	0.113	0.116	0.118	0.120	0.122	0.124	0.126	0.129	0.131
	I	F''	0.114	0.117	0.119	0.122	0.125	0.127	0.130	0.133	0.135	0.138
1.0	I	F'	0.133	0.135	0.137	0.139	0.141	0.144	0.146	0.148	0.150	0.152
	I	F''	0.141	0.144	0.147	0.150	0.153	0.156	0.158	0.161	0.165	0.168
1.1	I	F'	0.154	0.157	0.159	0.161	0.163	0.165	0.167	0.169	0.172	0.174
	I	F''	0.171	0.174	0.177	0.180	0.183	0.186	0.190	0.193	0.196	0.199
1.2	I	F'	0.176	0.178	0.180	0.182	0.184	0.186	0.188	0.190	0.192	0.194
	I	F''	0.203	0.206	0.210	0.213	0.216	0.220	0.223	0.227	0.230	0.234
1.3	I	F'	0.197	0.199	0.201	0.203	0.205	0.207	0.208	0.210	0.212	0.214
	I	F''	0.238	0.241	0.245	0.248	0.252	0.256	0.260	0.263	0.267	0.271
1.4	I	F'	0.216	0.218	0.220	0.222	0.224	0.226	0.228	0.230	0.232	0.234
	I	F''	0.275	0.279	0.282	0.286	0.290	0.294	0.298	0.302	0.306	0.310
1.5	I	F'	0.236	0.238	0.240	0.242	0.244	0.246	0.247	0.249	0.251	0.253
	I	F''	0.314	0.318	0.322	0.326	0.330	0.334	0.338	0.342	0.347	0.351
1.6	I	F'	0.255	0.256	0.258	0.260	0.262	0.264	0.265	0.267	0.269	0.271
	I	F''	0.355	0.359	0.363	0.368	0.372	0.376	0.381	0.385	0.389	0.394
1.7	I	F'	0.272	0.274	0.276	0.278	0.279	0.281	0.283	0.284	0.286	0.288
	I	F''	0.398	0.403	0.407	0.412	0.416	0.421	0.425	0.430	0.434	0.439
1.8	I	F'	0.289	0.291	0.293	0.294	0.296	0.297	0.299	0.300	0.302	0.304
	I	F''	0.443	0.448	0.453	0.457	0.462	0.467	0.472	0.476	0.481	0.486
1.9	I	F'	0.305	0.307	0.308	0.310	0.311	0.313	0.314	0.315	0.317	0.318
	I	F''	0.491	0.495	0.500	0.505	0.510	0.515	0.520	0.525	0.530	0.535
2.0	I	F'	0.320	0.321	0.322	0.324	0.325	0.326	0.328	0.329	0.330	0.332
	I	F''	0.540	0.545	0.550	0.555	0.560	0.565	0.570	0.575	0.580	0.586
2.1	I	F'	0.333	0.334	0.335	0.337	0.338	0.339	0.340	0.341	0.343	0.344
	I	F''	0.591	0.596	0.601	0.606	0.612	0.617	0.622	0.627	0.633	0.638
2.2	I	F'	0.345	0.346	0.347	0.348	0.349	0.350	0.351	0.352	0.353	0.354
	I	F''	0.643	0.649	0.654	0.660	0.665	0.670	0.676	0.681	0.687	0.692
2.3	I	F'	0.355	0.356	0.357	0.358	0.359	0.360	0.361	0.362	0.363	0.363
	I	F''	0.698	0.703	0.709	0.714	0.720	0.726	0.731	0.737	0.743	0.748
2.4	I	F'	0.364	0.365	0.366	0.366	0.367	0.368	0.369	0.369	0.370	0.371
	I	F''	0.754	0.760	0.765	0.771	0.777	0.783	0.788	0.794	0.800	0.806
2.5	I	F'	0.371	0.372	0.373	0.373	0.374	0.374	0.375	0.375	0.376	0.376
	I	F''	0.812	0.818	0.823	0.829	0.835	0.841	0.847	0.853	0.859	0.865
2.6	I	F'	0.377	0.377	0.378	0.378	0.379	0.379	0.379	0.380	0.380	0.380
	I	F''	0.871	0.877	0.883	0.889	0.895	0.901	0.907	0.913	0.920	0.926
2.7	I	F'	0.381	0.381	0.381	0.381	0.382	0.382	0.382	0.382	0.382	0.382
	I	F''	0.932	0.938	0.944	0.950	0.957	0.963	0.969	0.975	0.982	0.988
2.8	I	F'	0.382	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.382	0.382
	I	F''	0.994	1.001	1.007	1.013	1.020	1.026	1.032	1.039	1.045	1.052

ATOMIC SYMBOL = P

ATOMIC NUMBER = 15

			I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'		-0.026	-0.025	-0.024	-0.023	-0.022	-0.021	-0.019	-0.018	-0.017	-0.016
	I	F''		-0.001	0.002	0.002	0.003	0.003	0.003	0.004	0.005	0.005	0.006
0.2	I	F'		-0.014	-0.013	-0.012	-0.010	-0.009	-0.007	-0.005	-0.004	-0.002	0.000
	I	F''		0.006	0.007	0.008	0.009	0.010	0.011	0.011	0.012	0.015	0.015
0.3	I	F'		0.001	0.003	0.005	0.007	0.008	0.010	0.012	0.014	0.016	0.018
	I	F''		0.016	0.017	0.018	0.019	0.020	0.022	0.023	0.024	0.026	0.027
0.4	I	F'		0.020	0.022	0.024	0.026	0.028	0.030	0.033	0.035	0.037	0.039
	I	F''		0.029	0.030	0.032	0.034	0.035	0.037	0.039	0.040	0.042	0.044
0.5	I	F'		0.041	0.044	0.046	0.048	0.050	0.053	0.055	0.057	0.059	0.061
	I	F''		0.046	0.048	0.050	0.052	0.054	0.056	0.058	0.060	0.063	0.065
0.6	I	F'		0.064	0.066	0.069	0.071	0.074	0.076	0.078	0.081	0.083	0.086
	I	F''		0.067	0.069	0.072	0.074	0.076	0.079	0.081	0.084	0.087	0.089
0.7	I	F'		0.088	0.090	0.093	0.095	0.098	0.100	0.103	0.105	0.108	0.110
	I	F''		0.092	0.094	0.097	0.100	0.103	0.106	0.108	0.111	0.114	0.117
0.8	I	F'		0.113	0.115	0.118	0.120	0.123	0.125	0.128	0.130	0.133	0.135
	I	F''		0.120	0.123	0.126	0.129	0.133	0.136	0.139	0.142	0.145	0.149
0.9	I	F'		0.138	0.140	0.143	0.145	0.148	0.150	0.153	0.155	0.158	0.160
	I	F''		0.152	0.155	0.159	0.162	0.166	0.169	0.173	0.177	0.180	0.184
1.0	I	F'		0.163	0.165	0.168	0.170	0.173	0.175	0.178	0.180	0.183	0.185
	I	F''		0.187	0.191	0.195	0.199	0.203	0.206	0.210	0.214	0.218	0.222
1.1	I	F'		0.187	0.190	0.192	0.195	0.197	0.200	0.202	0.204	0.207	0.209
	I	F''		0.226	0.230	0.234	0.239	0.243	0.247	0.251	0.255	0.260	0.264
1.2	I	F'		0.212	0.214	0.216	0.219	0.221	0.223	0.226	0.228	0.230	0.233
	I	F''		0.268	0.273	0.277	0.282	0.286	0.291	0.295	0.300	0.304	0.309
1.3	I	F'		0.235	0.237	0.240	0.242	0.242	0.244	0.246	0.249	0.251	0.253
	I	F''		0.314	0.318	0.323	0.328	0.333	0.337	0.342	0.347	0.352	0.357
1.4	I	F'		0.255	0.257	0.259	0.261	0.263	0.265	0.267	0.270	0.272	0.274
	I	F''		0.362	0.367	0.372	0.377	0.382	0.387	0.392	0.397	0.402	0.407
1.5	I	F'		0.276	0.278	0.280	0.281	0.283	0.285	0.287	0.289	0.291	0.293
	I	F''		0.412	0.417	0.423	0.428	0.433	0.439	0.444	0.449	0.455	0.460
1.6	I	F'		0.295	0.297	0.298	0.300	0.302	0.304	0.306	0.307	0.309	0.311
	I	F''		0.465	0.471	0.476	0.482	0.488	0.493	0.499	0.504	0.510	0.516
1.7	I	F'		0.312	0.314	0.316	0.317	0.319	0.321	0.322	0.324	0.325	0.327
	I	F''		0.521	0.527	0.533	0.539	0.544	0.550	0.556	0.562	0.568	0.574
1.8	I	F'		0.328	0.330	0.331	0.333	0.334	0.336	0.337	0.339	0.340	0.341
	I	F''		0.580	0.586	0.592	0.598	0.604	0.610	0.616	0.622	0.628	0.634
1.9	I	F'		0.343	0.344	0.345	0.346	0.348	0.349	0.350	0.351	0.352	0.354
	I	F''		0.640	0.647	0.653	0.659	0.665	0.672	0.678	0.684	0.691	0.697
2.0	I	F'		0.355	0.356	0.357	0.358	0.359	0.360	0.361	0.362	0.363	0.364
	I	F''		0.703	0.710	0.716	0.723	0.729	0.736	0.742	0.749	0.755	0.762
2.1	I	F'		0.365	0.366	0.367	0.367	0.368	0.369	0.370	0.371	0.371	0.372
	I	F''		0.769	0.775	0.782	0.789	0.795	0.802	0.809	0.816	0.823	0.829
2.2	I	F'		0.373	0.373	0.374	0.375	0.375	0.376	0.376	0.377	0.377	0.378
	I	F''		0.836	0.843	0.850	0.857	0.864	0.871	0.878	0.885	0.892	0.899
2.3	I	F'		0.378	0.379	0.379	0.379	0.380	0.380	0.380	0.381	0.381	0.381
	I	F''		0.906	0.913	0.920	0.927	0.934	0.941	0.948	0.956	0.963	0.970
2.4	I	F'		0.381	0.381	0.382	0.382	0.382	0.382	0.382	0.382	0.382	0.382
	I	F''		0.977	0.985	0.992	0.999	1.007	1.014	1.021	1.029	1.036	1.044
2.5	I	F'		0.382	0.382	0.381	0.381	0.381	0.381	0.381	0.380	0.380	0.380
	I	F''		1.051	1.058	1.066	1.073	1.081	1.089	1.096	1.104	1.111	1.119
2.6	I	F'		0.379	0.379	0.378	0.378	0.377	0.377	0.376	0.376	0.375	0.375
	I	F''		1.127	1.134	1.142	1.150	1.157	1.165	1.173	1.181	1.188	1.196
2.7	I	F'		0.374	0.373	0.372	0.372	0.371	0.370	0.369	0.368	0.367	0.366
	I	F''		1.204	1.212	1.220	1.228	1.236	1.243	1.251	1.259	1.267	1.275
2.8	I	F'		0.365	0.364	0.363	0.362	0.361	0.360	0.359	0.358	0.356	0.355
	I	F''		1.283	1.291	1.299	1.307	1.316	1.324	1.332	1.340	1.348	1.356

ATOMIC SYMBOL = S

ATOMIC NUMBER = 16

			I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'		-0.029	-0.028	-0.027	-0.026	-0.024	-0.023	-0.022	-0.020	-0.019	-0.017
	I	F''		0.002	0.002	0.003	0.003	0.004	0.005	0.005	0.006	0.007	0.008
0.2	I	F'		-0.015	-0.014	-0.012	-0.010	-0.008	-0.006	-0.004	-0.002	0.000	0.002
	I	F''		0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.017	0.018	0.019
0.3	I	F'		0.004	0.006	0.008	0.011	0.013	0.015	0.018	0.020	0.022	0.025
	I	F''		0.021	0.022	0.024	0.025	0.027	0.029	0.031	0.032	0.034	0.036
0.4	I	F'		0.027	0.030	0.032	0.035	0.037	0.040	0.042	0.045	0.047	0.050
	I	F''		0.038	0.040	0.042	0.044	0.047	0.049	0.051	0.053	0.056	0.058
0.5	I	F'		0.053	0.055	0.058	0.061	0.063	0.066	0.069	0.072	0.074	0.077
	I	F''		0.061	0.063	0.066	0.068	0.071	0.074	0.077	0.079	0.082	0.085
0.6	I	F'		0.080	0.083	0.085	0.088	0.091	0.094	0.097	0.099	0.102	0.105
	I	F''		0.088	0.091	0.094	0.097	0.100	0.104	0.107	0.110	0.113	0.117
0.7	I	F'		0.108	0.111	0.114	0.117	0.119	0.122	0.125	0.128	0.131	0.134
	I	F''		0.120	0.124	0.127	0.131	0.134	0.138	0.142	0.145	0.149	0.153
0.8	I	F'		0.137	0.139	0.142	0.145	0.148	0.151	0.154	0.157	0.159	0.162
	I	F''		0.157	0.161	0.165	0.169	0.173	0.177	0.181	0.185	0.190	0.194
0.9	I	F'		0.165	0.168	0.171	0.174	0.176	0.179	0.182	0.185	0.188	0.191
	I	F''		0.198	0.203	0.207	0.211	0.216	0.221	0.225	0.230	0.234	0.239
1.0	I	F'		0.193	0.196	0.199	0.202	0.204	0.207	0.210	0.213	0.215	0.218
	I	F''		0.244	0.249	0.253	0.258	0.263	0.268	0.273	0.278	0.283	0.289
1.1	I	F'		0.221	0.223	0.226	0.229	0.231	0.234	0.235	0.237	0.240	0.242
	I	F''		0.294	0.299	0.304	0.309	0.315	0.320	0.326	0.331	0.336	0.342
1.2	I	F'		0.245	0.247	0.250	0.252	0.255	0.257	0.259	0.262	0.264	0.267
	I	F''		0.347	0.353	0.359	0.364	0.370	0.376	0.381	0.387	0.393	0.399
1.3	I	F'		0.269	0.271	0.274	0.276	0.278	0.280	0.283	0.285	0.287	0.289
	I	F''		0.405	0.411	0.417	0.423	0.429	0.435	0.441	0.447	0.453	0.459
1.4	I	F'		0.291	0.293	0.296	0.298	0.300	0.302	0.304	0.306	0.308	0.310
	I	F''		0.466	0.472	0.478	0.485	0.491	0.497	0.504	0.510	0.517	0.523
1.5	I	F'		0.312	0.313	0.315	0.317	0.319	0.321	0.323	0.324	0.326	0.328
	I	F''		0.530	0.536	0.543	0.550	0.556	0.563	0.570	0.577	0.583	0.590
1.6	I	F'		0.329	0.331	0.333	0.334	0.336	0.338	0.339	0.341	0.342	0.344
	I	F''		0.597	0.604	0.611	0.618	0.625	0.632	0.639	0.646	0.653	0.660
1.7	I	F'		0.345	0.346	0.348	0.349	0.350	0.352	0.353	0.354	0.356	0.357
	I	F''		0.668	0.675	0.682	0.689	0.697	0.704	0.711	0.719	0.726	0.734

ATOMIC SYMBOL = CL ATOMIC NUMBER = 17

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F"	-0.034	-0.032	-0.031	-0.029	-0.028	-0.026	-0.024	-0.023	-0.021	-0.019
	I	F"	0.002	0.003	0.004	0.004	0.005	0.006	0.007	0.008	0.009	0.010
0.2	I	F"	-0.017	-0.014	-0.012	-0.010	-0.008	-0.005	-0.003	-0.001	0.002	0.004
	I	F"	0.011	0.013	0.014	0.015	0.017	0.018	0.020	0.022	0.023	0.025
0.3	I	F"	0.007	0.010	0.012	0.015	0.018	0.020	0.023	0.026	0.029	0.032
	I	F"	0.027	0.029	0.031	0.033	0.035	0.037	0.040	0.042	0.044	0.047
0.4	I	F"	0.035	0.037	0.040	0.043	0.046	0.049	0.052	0.055	0.059	0.062
	I	F"	0.049	0.052	0.055	0.057	0.060	0.063	0.066	0.069	0.072	0.075
0.5	I	F"	0.065	0.068	0.071	0.074	0.077	0.080	0.084	0.087	0.090	0.093
	I	F"	0.078	0.082	0.085	0.088	0.092	0.095	0.099	0.102	0.106	0.110
0.6	I	F"	0.096	0.100	0.103	0.106	0.109	0.113	0.116	0.119	0.122	0.126
	I	F"	0.113	0.117	0.121	0.125	0.129	0.133	0.137	0.141	0.146	0.150
0.7	I	F"	0.129	0.132	0.136	0.139	0.142	0.145	0.149	0.152	0.155	0.158
	I	F"	0.154	0.159	0.163	0.168	0.172	0.177	0.182	0.187	0.191	0.196
0.8	I	F"	0.162	0.165	0.168	0.171	0.174	0.178	0.181	0.184	0.187	0.190
	I	F"	0.201	0.206	0.211	0.216	0.221	0.227	0.232	0.237	0.243	0.248
0.9	I	F"	0.193	0.197	0.200	0.203	0.206	0.209	0.212	0.215	0.218	0.221
	I	F"	0.253	0.259	0.265	0.270	0.276	0.282	0.287	0.293	0.299	0.305
1.0	I	F"	0.224	0.227	0.229	0.231	0.234	0.237	0.240	0.243	0.246	0.249
	I	F"	0.311	0.317	0.323	0.329	0.336	0.342	0.348	0.354	0.361	0.367
1.1	I	F"	0.251	0.254	0.257	0.260	0.262	0.265	0.268	0.270	0.273	0.275
	I	F"	0.374	0.380	0.387	0.393	0.400	0.407	0.413	0.420	0.427	0.434
1.2	I	F"	0.278	0.280	0.283	0.285	0.288	0.290	0.293	0.295	0.297	0.300
	I	F"	0.441	0.448	0.455	0.462	0.469	0.476	0.483	0.490	0.498	0.505
1.3	I	F"	0.302	0.304	0.306	0.309	0.311	0.313	0.315	0.317	0.319	0.321
	I	F"	0.512	0.520	0.527	0.535	0.542	0.550	0.558	0.565	0.573	0.581
1.4	I	F"	0.323	0.325	0.327	0.329	0.331	0.333	0.334	0.336	0.338	0.340
	I	F"	0.589	0.596	0.604	0.612	0.620	0.628	0.636	0.644	0.652	0.660
1.5	I	F"	0.341	0.343	0.344	0.346	0.347	0.349	0.350	0.352	0.353	0.354
	I	F"	0.668	0.677	0.685	0.693	0.701	0.710	0.718	0.727	0.735	0.744
1.6	I	F"	0.356	0.357	0.358	0.359	0.360	0.362	0.363	0.364	0.365	0.366
	I	F"	0.752	0.761	0.769	0.778	0.787	0.795	0.804	0.813	0.822	0.831
1.7	I	F"	0.367	0.367	0.368	0.369	0.370	0.370	0.371	0.372	0.372	0.373
	I	F"	0.839	0.848	0.857	0.866	0.875	0.885	0.894	0.903	0.912	0.921
1.8	I	F"	0.373	0.374	0.374	0.375	0.375	0.375	0.375	0.376	0.376	0.376
	I	F"	0.930	0.940	0.949	0.958	0.968	0.977	0.987	0.996	1.006	1.015
1.9	I	F"	0.376	0.376	0.376	0.376	0.376	0.375	0.375	0.375	0.375	0.374
	I	F"	1.025	1.034	1.044	1.054	1.064	1.073	1.083	1.093	1.103	1.113
2.0	I	F"	0.374	0.373	0.373	0.372	0.371	0.371	0.370	0.369	0.368	0.368
	I	F"	1.123	1.133	1.142	1.153	1.163	1.173	1.183	1.193	1.203	1.213
2.1	I	F"	0.367	0.366	0.365	0.363	0.362	0.361	0.360	0.358	0.357	0.356
	I	F"	1.223	1.234	1.244	1.254	1.265	1.275	1.285	1.296	1.306	1.317
2.2	I	F"	0.351	0.349	0.348	0.346	0.344	0.342	0.340	0.338	0.336	0.334
	I	F"	1.327	1.338	1.348	1.359	1.369	1.380	1.391	1.401	1.412	1.423
2.3	I	F"	0.332	0.330	0.328	0.325	0.323	0.321	0.318	0.316	0.313	0.310
	I	F"	1.433	1.444	1.455	1.466	1.476	1.487	1.498	1.509	1.520	1.531
2.4	I	F"	0.308	0.305	0.302	0.299	0.296	0.292	0.288	0.285	0.282	0.279
	I	F"	1.542	1.553	1.564	1.575	1.586	1.597	1.608	1.619	1.630	1.642
2.5	I	F"	0.275	0.272	0.268	0.265	0.261	0.257	0.253	0.249	0.245	0.241
	I	F"	1.653	1.664	1.675	1.687	1.698	1.709	1.720	1.732	1.743	1.755
2.6	I	F"	0.237	0.233	0.229	0.224	0.220	0.215	0.211	0.206	0.201	0.197
	I	F"	1.766	1.778	1.789	1.800	1.812	1.824	1.835	1.847	1.858	1.870
2.7	I	F"	0.192	0.187	0.182	0.176	0.171	0.166	0.161	0.155	0.150	0.144
	I	F"	1.882	1.893	1.905	1.917	1.928	1.940	1.952	1.964	1.976	1.987
2.8	I	F"	0.138	0.132	0.126	0.120	0.114	0.108	0.102	0.096	0.089	0.083
	I	F"	1.999	2.011	2.023	2.035	2.047	2.059	2.071	2.083	2.095	2.107

ATOMIC SYMBOL = AR ATOMIC NUMBER = 18

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.038	-0.036	-0.035	-0.033	-0.031	-0.029	-0.026	-0.024	-0.022	-0.019
	I	F''	0.003	0.004	0.005	0.006	0.007	0.008	0.009	0.010	0.012	0.013
0.2	I	F'	-0.017	-0.014	-0.012	-0.009	-0.006	-0.004	-0.001	0.002	0.005	0.008
	I	F''	0.015	0.016	0.018	0.020	0.022	0.024	0.026	0.028	0.030	0.032
0.3	I	F'	0.011	0.014	0.017	0.020	0.024	0.027	0.030	0.033	0.037	0.040
	I	F''	0.035	0.037	0.040	0.043	0.045	0.048	0.051	0.054	0.057	0.060
0.4	I	F'	0.044	0.047	0.050	0.054	0.057	0.061	0.064	0.068	0.072	0.075
	I	F''	0.063	0.067	0.070	0.073	0.077	0.081	0.084	0.088	0.092	0.096
0.5	I	F'	0.079	0.082	0.086	0.090	0.093	0.097	0.101	0.104	0.108	0.112
	I	F''	0.100	0.104	0.108	0.112	0.116	0.121	0.125	0.130	0.134	0.139
0.6	I	F'	0.115	0.119	0.123	0.126	0.130	0.134	0.137	0.141	0.145	0.148
	I	F''	0.144	0.149	0.153	0.158	0.163	0.169	0.174	0.179	0.184	0.190
0.7	I	F'	0.152	0.156	0.159	0.163	0.167	0.170	0.174	0.178	0.181	0.185
	I	F''	0.195	0.201	0.206	0.212	0.218	0.224	0.229	0.235	0.241	0.248
0.8	I	F'	0.188	0.192	0.195	0.199	0.202	0.206	0.209	0.213	0.216	0.220
	I	F''	0.254	0.260	0.266	0.273	0.279	0.286	0.292	0.299	0.305	0.312
0.9	I	F'	0.221	0.225	0.228	0.231	0.234	0.238	0.241	0.244	0.247	0.250
	I	F''	0.319	0.326	0.333	0.340	0.347	0.354	0.361	0.368	0.376	0.383
1.0	I	F'	0.253	0.256	0.259	0.263	0.265	0.268	0.271	0.274	0.277	0.280
	I	F''	0.390	0.398	0.405	0.413	0.420	0.428	0.436	0.444	0.452	0.460
1.1	I	F'	0.283	0.285	0.288	0.291	0.294	0.296	0.299	0.301	0.304	0.306
	I	F''	0.468	0.476	0.484	0.492	0.500	0.508	0.517	0.525	0.533	0.542
1.2	I	F'	0.309	0.311	0.313	0.316	0.318	0.320	0.322	0.325	0.327	0.329
	I	F''	0.550	0.559	0.568	0.576	0.585	0.594	0.603	0.612	0.621	0.630
1.3	I	F'	0.331	0.333	0.335	0.337	0.338	0.340	0.342	0.344	0.345	0.347
	I	F''	0.639	0.648	0.657	0.667	0.676	0.685	0.695	0.704	0.714	0.723
1.4	I	F'	0.349	0.350	0.352	0.353	0.354	0.356	0.357	0.358	0.359	0.361
	I	F''	0.733	0.742	0.752	0.762	0.771	0.781	0.791	0.801	0.811	0.821
1.5	I	F'	0.362	0.363	0.364	0.365	0.365	0.366	0.367	0.368	0.368	0.369
	I	F''	0.831	0.841	0.851	0.861	0.871	0.881	0.892	0.902	0.912	0.923
1.6	I	F'	0.370	0.370	0.371	0.371	0.371	0.372	0.372	0.372	0.372	0.372
	I	F''	0.933	0.944	0.954	0.965	0.975	0.986	0.997	1.008	1.018	1.029
1.7	I	F'	0.372	0.372	0.372	0.372	0.371	0.371	0.371	0.370	0.370	0.369
	I	F''	1.040	1.051	1.062	1.073	1.084	1.095	1.106	1.117	1.129	1.140
1.8	I	F'	0.368	0.368	0.367	0.366	0.365	0.364	0.363	0.362	0.361	0.360
	I	F''	1.151	1.163	1.174	1.185	1.197	1.208	1.220	1.231	1.243	1.255
1.9	I	F'	0.358	0.357	0.356	0.354	0.350	0.348	0.347	0.345	0.343	0.341
	I	F''	1.266	1.278	1.290	1.302	1.313	1.325	1.337	1.349	1.361	1.373
2.0	I	F'	0.339	0.337	0.334	0.332	0.330	0.327	0.325	0.321	0.318	0.316
	I	F''	1.385	1.397	1.409	1.421	1.433	1.445	1.457	1.470	1.482	1.494
2.1	I	F'	0.313	0.310	0.307	0.304	0.300	0.297	0.294	0.290	0.287	0.283
	I	F''	1.506	1.519	1.531	1.544	1.556	1.569	1.581	1.594	1.606	1.619
2.2	I	F'	0.279	0.276	0.272	0.268	0.264	0.259	0.255	0.251	0.246	0.242
	I	F''	1.631	1.644	1.657	1.669	1.682	1.695	1.708	1.721	1.733	1.746
2.3	I	F'	0.237	0.233	0.228	0.223	0.218	0.213	0.207	0.202	0.197	0.191
	I	F''	1.759	1.772	1.785	1.798	1.811	1.824	1.837	1.850	1.864	1.877
2.4	I	F'	0.186	0.180	0.174	0.168	0.162	0.156	0.150	0.143	0.137	0.130
	I	F''	1.890	1.903	1.917	1.930	1.943	1.956	1.970	1.983	1.997	2.010
2.5	I	F'	0.124	0.117	0.110	0.103	0.096	0.088	0.081	0.073	0.066	0.058
	I	F''	2.024	2.037	2.051	2.064	2.078	2.091	2.105	2.119	2.132	2.146
2.6	I	F'	0.050	0.042	0.034	0.026	0.017	0.009	0.000	-0.009	-0.018	-0.027
	I	F''	2.160	2.174	2.188	2.201	2.215	2.229	2.243	2.257	2.271	2.285
2.7	I	F'	-0.037	-0.047	-0.056	-0.066	-0.076	-0.086	-0.096	-0.106	-0.117	-0.127
	I	F''	2.299	2.313	2.327	2.341	2.355	2.369	2.383	2.397	2.412	2.426
2.8	I	F'	-0.138	-0.149	-0.160	-0.172	-0.183	-0.195	-0.207	-0.219	-0.231	-0.243
	I	F''	2.440	2.454	2.468	2.483	2.497	2.511	2.526	2.540	2.555	2.569

ATOMIC SYMBOL = K

ATOMIC NUMBER = 19

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
I	0.1	F'	-0.042	-0.040	-0.038	-0.036	-0.033	-0.031	-0.028	-0.026	-0.023	-0.020
	I	F''	0.004	0.005	0.006	0.007	0.009	0.010	0.012	0.013	0.015	0.017
I	0.2	F'	-0.017	-0.014	-0.011	-0.008	-0.005	-0.001	0.002	0.005	0.009	0.012
	I	F''	0.019	0.021	0.023	0.025	0.027	0.030	0.032	0.035	0.038	0.041
I	0.3	F'	0.016	0.020	0.023	0.027	0.031	0.035	0.038	0.042	0.046	0.050
	I	F''	0.044	0.047	0.050	0.053	0.057	0.060	0.064	0.067	0.071	0.075
I	0.4	F'	0.054	0.058	0.062	0.066	0.070	0.074	0.078	0.082	0.086	0.090
	I	F''	0.079	0.083	0.088	0.092	0.096	0.101	0.106	0.110	0.115	0.120
I	0.5	F'	0.094	0.098	0.102	0.107	0.111	0.115	0.119	0.123	0.127	0.131
	I	F''	0.125	0.130	0.135	0.140	0.146	0.151	0.157	0.162	0.168	0.174
I	0.6	F'	0.135	0.139	0.144	0.148	0.152	0.156	0.160	0.164	0.168	0.172
	I	F''	0.179	0.185	0.192	0.198	0.204	0.210	0.217	0.223	0.230	0.236
I	0.7	F'	0.176	0.180	0.184	0.188	0.192	0.196	0.200	0.204	0.207	0.211
	I	F''	0.243	0.250	0.257	0.264	0.271	0.278	0.285	0.293	0.300	0.308
I	0.8	F'	0.214	0.217	0.221	0.225	0.228	0.232	0.236	0.239	0.243	0.246
	I	F''	0.315	0.323	0.331	0.338	0.346	0.354	0.362	0.370	0.378	0.387
I	0.9	F'	0.250	0.253	0.256	0.260	0.263	0.266	0.269	0.273	0.276	0.279
	I	F''	0.395	0.403	0.412	0.420	0.429	0.437	0.446	0.455	0.464	0.473
I	1.0	F'	0.282	0.285	0.288	0.291	0.294	0.297	0.299	0.302	0.305	0.308
	I	F''	0.482	0.491	0.500	0.509	0.519	0.528	0.538	0.547	0.557	0.566
I	1.1	F'	0.310	0.313	0.315	0.318	0.320	0.322	0.325	0.327	0.329	0.331
	I	F''	0.576	0.586	0.596	0.606	0.616	0.626	0.636	0.646	0.656	0.667
I	1.2	F'	0.333	0.335	0.337	0.339	0.341	0.343	0.345	0.346	0.348	0.349
	I	F''	0.677	0.687	0.698	0.709	0.719	0.730	0.741	0.751	0.762	0.773
I	1.3	F'	0.351	0.352	0.354	0.355	0.356	0.357	0.358	0.359	0.360	0.361
	I	F''	0.784	0.795	0.807	0.818	0.829	0.840	0.852	0.863	0.875	0.886
I	1.4	F'	0.362	0.362	0.363	0.364	0.364	0.365	0.365	0.365	0.366	0.366
	I	F''	0.898	0.909	0.921	0.933	0.945	0.956	0.968	0.980	0.992	1.004
I	1.5	F'	0.366	0.366	0.366	0.366	0.366	0.365	0.365	0.365	0.364	0.364
	I	F''	1.016	1.028	1.041	1.053	1.065	1.077	1.090	1.102	1.115	1.127
I	1.6	F'	0.363	0.362	0.361	0.360	0.359	0.358	0.357	0.356	0.355	0.353
	I	F''	1.140	1.152	1.165	1.178	1.191	1.204	1.216	1.229	1.242	1.255
I	1.7	F'	0.352	0.350	0.347	0.345	0.343	0.341	0.339	0.336	0.334	0.332
	I	F''	1.268	1.282	1.295	1.308	1.321	1.334	1.348	1.361	1.374	1.388
I	1.8	F'	0.329	0.327	0.324	0.321	0.318	0.315	0.312	0.309	0.306	0.302
	I	F''	1.401	1.415	1.428	1.442	1.456	1.469	1.483	1.497	1.511	1.525
I	1.9	F'	0.299	0.295	0.292	0.288	0.284	0.280	0.276	0.272	0.267	0.263
	I	F''	1.538	1.552	1.566	1.580	1.594	1.609	1.623	1.637	1.651	1.665
I	2.0	F'	0.258	0.254	0.249	0.244	0.239	0.234	0.228	0.223	0.217	0.212
	I	F''	1.680	1.694	1.708	1.723	1.737	1.752	1.766	1.781	1.795	1.810
I	2.1	F'	0.206	0.200	0.194	0.188	0.182	0.175	0.169	0.162	0.155	0.148
	I	F''	1.824	1.839	1.854	1.869	1.883	1.898	1.913	1.928	1.943	1.958
I	2.2	F'	0.141	0.134	0.126	0.119	0.111	0.103	0.095	0.087	0.078	0.070
	I	F''	1.973	1.988	2.003	2.018	2.033	2.048	2.064	2.079	2.094	2.109
I	2.3	F'	0.061	0.053	0.044	0.035	0.025	0.016	0.006	-0.004	-0.013	-0.024
	I	F''	2.125	2.140	2.156	2.171	2.186	2.202	2.218	2.233	2.249	2.264
I	2.4	F'	-0.034	-0.044	-0.055	-0.066	-0.077	-0.088	-0.099	-0.111	-0.123	-0.135
	I	F''	2.280	2.296	2.311	2.327	2.343	2.359	2.374	2.390	2.406	2.422
I	2.5	F'	-0.147	-0.160	-0.172	-0.185	-0.198	-0.212	-0.225	-0.239	-0.253	-0.267
	I	F''	2.438	2.454	2.470	2.486	2.502	2.518	2.534	2.551	2.567	2.583
I	2.6	F'	-0.282	-0.296	-0.311	-0.327	-0.342	-0.358	-0.374	-0.390	-0.407	-0.424
	I	F''	2.599	2.615	2.632	2.648	2.664	2.681	2.697	2.714	2.730	2.747
I	2.7	F'	-0.441	-0.459	-0.477	-0.495	-0.513	-0.532	-0.552	-0.571	-0.591	-0.611
	I	F''	2.763	2.780	2.796	2.813	2.830	2.846	2.863	2.880	2.896	2.913
I	2.8	F'	-0.632	-0.653	-0.675	-0.697	-0.719	-0.742	-0.765	-0.789	-0.813	-0.837
	I	F''	2.930	2.947	2.964	2.980	2.997	3.014	3.031	3.048	3.065	3.082

ATOMIC SYMBOL = CA

ATOMIC NUMBER = 20

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.047	-0.045	-0.042	-0.039	-0.037	-0.034	-0.031	-0.027	-0.024	-0.021
	I	F''	0.005	0.007	0.008	0.009	0.011	0.013	0.015	0.017	0.019	0.021
0.2	I	F'	-0.017	-0.014	-0.010	-0.007	-0.003	0.001	0.005	0.009	0.013	0.017
	I	F''	0.023	0.026	0.028	0.031	0.034	0.037	0.040	0.044	0.047	0.051
0.3	I	F'	0.021	0.025	0.030	0.034	0.038	0.043	0.047	0.051	0.056	0.060
	I	F''	0.054	0.058	0.062	0.066	0.070	0.075	0.079	0.084	0.088	0.093
0.4	I	F'	0.065	0.069	0.074	0.078	0.083	0.087	0.092	0.096	0.101	0.105
	I	F''	0.098	0.103	0.108	0.114	0.119	0.125	0.131	0.136	0.142	0.148
0.5	I	F'	0.110	0.115	0.119	0.124	0.128	0.133	0.137	0.142	0.146	0.151
	I	F''	0.154	0.160	0.167	0.173	0.180	0.186	0.193	0.200	0.207	0.214
0.6	I	F'	0.155	0.160	0.164	0.169	0.173	0.178	0.182	0.186	0.191	0.195
	I	F''	0.221	0.228	0.236	0.243	0.251	0.259	0.266	0.274	0.282	0.290
0.7	I	F'	0.199	0.202	0.207	0.211	0.215	0.219	0.223	0.227	0.231	0.235
	I	F''	0.299	0.307	0.315	0.324	0.332	0.341	0.350	0.359	0.368	0.377
0.8	I	F'	0.239	0.242	0.246	0.250	0.254	0.257	0.261	0.264	0.268	0.271
	I	F''	0.386	0.395	0.404	0.414	0.423	0.433	0.443	0.452	0.462	0.472
0.9	I	F'	0.275	0.278	0.282	0.285	0.288	0.291	0.294	0.297	0.300	0.303
	I	F''	0.482	0.492	0.502	0.513	0.523	0.534	0.544	0.555	0.565	0.576
1.0	I	F'	0.306	0.309	0.311	0.314	0.317	0.319	0.322	0.324	0.326	0.329
	I	F''	0.587	0.598	0.609	0.620	0.631	0.643	0.654	0.666	0.677	0.689
1.1	I	F'	0.331	0.333	0.335	0.337	0.339	0.341	0.342	0.344	0.346	0.347
	I	F''	0.700	0.712	0.724	0.736	0.748	0.760	0.772	0.784	0.797	0.809
1.2	I	F'	0.349	0.350	0.351	0.352	0.353	0.354	0.355	0.356	0.357	0.358
	I	F''	0.821	0.834	0.847	0.859	0.872	0.885	0.898	0.911	0.924	0.937
1.3	I	F'	0.358	0.358	0.359	0.359	0.359	0.359	0.359	0.359	0.358	0.358
	I	F''	0.950	0.963	0.977	0.990	1.004	1.017	1.031	1.044	1.058	1.072
1.4	I	F'	0.357	0.357	0.356	0.355	0.355	0.354	0.353	0.352	0.350	0.349
	I	F''	1.086	1.100	1.113	1.127	1.141	1.155	1.170	1.184	1.198	1.212
1.5	I	F'	0.348	0.346	0.344	0.343	0.340	0.338	0.336	0.334	0.332	0.329
	I	F''	1.227	1.241	1.256	1.270	1.285	1.299	1.314	1.329	1.344	1.358
1.6	I	F'	0.326	0.324	0.321	0.318	0.315	0.312	0.308	0.305	0.301	0.298
	I	F''	1.373	1.388	1.403	1.418	1.434	1.449	1.464	1.479	1.495	1.510
1.7	I	F'	0.294	0.290	0.286	0.282	0.277	0.273	0.268	0.264	0.259	0.254
	I	F''	1.525	1.541	1.556	1.572	1.588	1.603	1.619	1.635	1.651	1.666
1.8	I	F'	0.249	0.243	0.238	0.232	0.226	0.220	0.214	0.208	0.202	0.195
	I	F''	1.682	1.698	1.714	1.730	1.746	1.763	1.779	1.795	1.811	1.828
1.9	I	F'	0.188	0.181	0.174	0.167	0.160	0.152	0.145	0.137	0.129	0.120
	I	F''	1.844	1.860	1.877	1.893	1.910	1.927	1.943	1.960	1.977	1.993
2.0	I	F'	0.112	0.103	0.095	0.086	0.077	0.067	0.058	0.048	0.038	0.028
	I	F''	2.010	2.027	2.044	2.061	2.078	2.095	2.112	2.129	2.146	2.163
2.1	I	F'	0.018	0.007	-0.004	-0.015	-0.026	-0.037	-0.049	-0.061	-0.073	-0.085
	I	F''	2.180	2.198	2.215	2.232	2.250	2.267	2.284	2.302	2.319	2.337
2.2	I	F'	-0.098	-0.111	-0.124	-0.137	-0.151	-0.165	-0.179	-0.194	-0.208	-0.223
	I	F''	2.355	2.372	2.390	2.408	2.425	2.443	2.461	2.479	2.497	2.515
2.3	I	F'	-0.239	-0.254	-0.270	-0.286	-0.303	-0.320	-0.337	-0.355	-0.373	-0.391
	I	F''	2.532	2.550	2.568	2.587	2.605	2.623	2.641	2.659	2.677	2.696
2.4	I	F'	-0.410	-0.429	-0.448	-0.468	-0.488	-0.508	-0.529	-0.551	-0.573	-0.595
	I	F''	2.714	2.732	2.750	2.769	2.787	2.806	2.824	2.843	2.861	2.880
2.5	I	F'	-0.618	-0.641	-0.665	-0.689	-0.714	-0.739	-0.765	-0.791	-0.818	-0.846
	I	F''	2.898	2.917	2.935	2.954	2.973	2.992	3.010	3.029	3.048	3.067
2.6	I	F'	-0.874	-0.903	-0.933	-0.963	-0.994	-1.026	-1.059	-1.093	-1.127	-1.162
	I	F''	3.086	3.105	3.124	3.143	3.162	3.181	3.200	3.219	3.238	3.257
2.7	I	F'	-1.199	-1.236	-1.275	-1.314	-1.355	-1.397	-1.440	-1.485	-1.531	-1.579
	I	F''	3.276	3.295	3.314	3.334	3.353	3.372	3.392	3.411	3.430	3.450
2.8	I	F'	-1.629	-1.680	-1.733	-1.788	-1.846	-1.906	-1.968	-2.034	-2.103	-2.175
	I	F''	3.469	3.489	3.508	3.528	3.547	3.567	3.586	3.606	3.626	3.645

ATOMIC SYMBOL = SC ATOMIC NUMBER = 21

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.052	-0.050	-0.047	-0.043	-0.040	-0.037	-0.033	-0.030	-0.026	-0.022
	I	F''	0.007	0.008	0.010	0.012	0.014	0.016	0.018	0.020	0.023	0.026
0.2	I	F'	-0.018	-0.014	-0.010	-0.005	-0.001	0.003	0.008	0.012	0.017	0.022
	I	F''	0.029	0.032	0.035	0.038	0.042	0.046	0.050	0.054	0.058	0.062
0.3	I	F'	0.027	0.031	0.036	0.041	0.046	0.051	0.056	0.061	0.066	0.071
	I	F''	0.067	0.071	0.076	0.081	0.086	0.092	0.097	0.103	0.108	0.114
0.4	I	F'	0.076	0.081	0.086	0.091	0.096	0.101	0.106	0.111	0.116	0.121
	I	F''	0.120	0.126	0.133	0.139	0.146	0.153	0.160	0.167	0.174	0.181
0.5	I	F'	0.126	0.131	0.136	0.141	0.146	0.151	0.156	0.161	0.166	0.171
	I	F''	0.188	0.196	0.203	0.211	0.219	0.227	0.235	0.244	0.252	0.261
0.6	I	F'	0.176	0.180	0.185	0.190	0.194	0.198	0.203	0.207	0.212	0.216
	I	F''	0.269	0.278	0.287	0.296	0.305	0.314	0.324	0.333	0.343	0.353
0.7	I	F'	0.221	0.225	0.229	0.234	0.238	0.242	0.246	0.250	0.254	0.258
	I	F''	0.362	0.372	0.382	0.393	0.403	0.413	0.424	0.434	0.445	0.456
0.8	I	F'	0.262	0.266	0.269	0.273	0.277	0.280	0.284	0.287	0.290	0.294
	I	F''	0.467	0.478	0.489	0.500	0.512	0.523	0.535	0.546	0.558	0.570
0.9	I	F'	0.297	0.300	0.303	0.306	0.309	0.312	0.315	0.317	0.320	0.322
	I	F''	0.582	0.594	0.606	0.618	0.631	0.643	0.656	0.669	0.681	0.694
1.0	I	F'	0.325	0.327	0.329	0.331	0.333	0.335	0.337	0.339	0.341	0.342
	I	F''	0.707	0.720	0.733	0.747	0.760	0.773	0.787	0.800	0.814	0.828
1.1	I	F'	0.344	0.345	0.347	0.348	0.349	0.350	0.351	0.351	0.352	0.353
	I	F''	0.842	0.856	0.870	0.884	0.898	0.913	0.927	0.942	0.956	0.971
1.2	I	F'	0.353	0.354	0.354	0.354	0.354	0.354	0.354	0.353	0.353	0.352
	I	F''	0.986	1.001	1.015	1.030	1.046	1.061	1.076	1.091	1.107	1.122
1.3	I	F'	0.351	0.350	0.348	0.347	0.346	0.344	0.343	0.341	0.335	0.333
	I	F''	1.138	1.154	1.169	1.185	1.201	1.217	1.233	1.249	1.266	1.282
1.4	I	F'	0.331	0.329	0.326	0.324	0.321	0.318	0.315	0.312	0.308	0.305
	I	F''	1.298	1.314	1.331	1.347	1.364	1.380	1.397	1.414	1.430	1.447
1.5	I	F'	0.301	0.297	0.293	0.289	0.285	0.280	0.276	0.271	0.266	0.261
	I	F''	1.464	1.481	1.498	1.515	1.532	1.549	1.567	1.584	1.601	1.619
1.6	I	F'	0.256	0.245	0.239	0.233	0.226	0.220	0.213	0.207	0.200	0.194
	I	F''	1.656	1.674	1.691	1.708	1.725	1.742	1.760	1.778	1.796	1.814
1.7	I	F'	0.193	0.185	0.178	0.170	0.162	0.154	0.146	0.137	0.128	0.119
	I	F''	1.814	1.832	1.851	1.869	1.887	1.905	1.924	1.942	1.961	1.979
1.8	I	F'	0.110	0.101	0.091	0.081	0.071	0.060	0.050	0.039	0.028	0.016
	I	F''	1.998	2.017	2.035	2.054	2.073	2.092	2.111	2.129	2.148	2.168
1.9	I	F'	0.005	-0.007	-0.019	-0.032	-0.044	-0.057	-0.071	-0.084	-0.098	-0.112
	I	F''	2.187	2.206	2.225	2.244	2.263	2.283	2.302	2.322	2.341	2.361
2.0	I	F'	-0.127	-0.142	-0.157	-0.172	-0.188	-0.204	-0.221	-0.238	-0.255	-0.272
	I	F''	2.380	2.400	2.420	2.439	2.459	2.479	2.499	2.518	2.538	2.558
2.1	I	F'	-0.290	-0.309	-0.328	-0.348	-0.368	-0.388	-0.408	-0.429	-0.451	-0.472
	I	F''	2.578	2.598	2.619	2.639	2.659	2.679	2.699	2.719	2.740	2.760
2.2	I	F'	-0.495	-0.518	-0.541	-0.565	-0.590	-0.615	-0.641	-0.667	-0.694	-0.722
	I	F''	2.780	2.801	2.821	2.842	2.862	2.883	2.903	2.924	2.945	2.965
2.3	I	F'	-0.750	-0.779	-0.809	-0.839	-0.871	-0.903	-0.936	-0.970	-1.005	-1.041
	I	F''	2.986	3.007	3.028	3.049	3.069	3.090	3.111	3.132	3.153	3.174
2.4	I	F'	-1.078	-1.116	-1.155	-1.195	-1.237	-1.280	-1.324	-1.370	-1.417	-1.466
	I	F''	3.195	3.217	3.238	3.259	3.280	3.301	3.323	3.344	3.365	3.387
2.5	I	F'	-1.517	-1.570	-1.625	-1.683	-1.742	-1.805	-1.870	-1.939	-2.011	-2.087
	I	F''	3.408	3.430	3.451	3.473	3.494	3.516	3.537	3.559	3.581	3.603
2.6	I	F'	-2.167	-2.252	-2.343	-2.440	-2.509	-2.622	-2.745	-2.881	-3.033	-3.203
	I	F''	3.624	3.646	3.668	3.690	3.715	3.740	3.766	3.792	3.818	3.844
2.7	I	F'	-3.399	-3.630	-3.910	-4.268	-4.769	-5.626	-6.901	-8.574	-10.843	-14.417
	I	F''	3.871	3.897	3.924	3.951	3.978	4.006	4.036	4.039	4.041	4.044
2.8	I	F'	-4.118	-3.890	-3.705	-3.551	-3.419	-3.305	-3.203	-3.112	-3.030	-2.955
	I	F''	0.447	0.450	0.453	0.456	0.459	0.462	0.464	0.467	0.470	0.473

ATOMIC SYMBOL = TI ATOMIC NUMBER = 22

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.056	-0.053	-0.050	-0.046	-0.042	-0.038	-0.034	-0.030	-0.025	-0.021
	I	F''	0.008	0.010	0.012	0.014	0.017	0.019	0.022	0.025	0.028	0.032
0.2	I	F'	-0.016	-0.012	-0.007	-0.002	0.003	0.008	0.013	0.018	0.024	0.029
	I	F''	0.035	0.039	0.043	0.047	0.052	0.056	0.061	0.066	0.071	0.076
0.3	I	F'	0.034	0.040	0.045	0.050	0.056	0.061	0.067	0.073	0.078	0.084
	I	F''	0.081	0.087	0.093	0.099	0.105	0.111	0.118	0.125	0.132	0.139
0.4	I	F'	0.089	0.095	0.100	0.106	0.111	0.117	0.122	0.128	0.133	0.139
	I	F''	0.146	0.153	0.161	0.169	0.177	0.185	0.193	0.201	0.210	0.219
0.5	I	F'	0.144	0.150	0.155	0.160	0.166	0.171	0.176	0.182	0.186	0.191
	I	F''	0.227	0.236	0.246	0.255	0.264	0.274	0.284	0.293	0.304	0.314
0.6	I	F'	0.196	0.201	0.206	0.211	0.216	0.221	0.225	0.230	0.235	0.239
	I	F''	0.324	0.334	0.345	0.356	0.367	0.378	0.389	0.400	0.412	0.423
0.7	I	F'	0.244	0.248	0.252	0.256	0.261	0.265	0.269	0.273	0.277	0.280
	I	F''	0.435	0.447	0.458	0.471	0.483	0.495	0.508	0.520	0.533	0.546
0.8	I	F'	0.284	0.288	0.291	0.294	0.298	0.301	0.304	0.307	0.310	0.313
	I	F''	0.559	0.572	0.585	0.598	0.612	0.625	0.639	0.653	0.667	0.681
0.9	I	F'	0.316	0.318	0.321	0.323	0.326	0.328	0.330	0.332	0.334	0.336
	I	F''	0.695	0.709	0.724	0.738	0.753	0.767	0.782	0.797	0.812	0.827
1.0	I	F'	0.337	0.339	0.340	0.342	0.343	0.344	0.345	0.345	0.346	0.347
	I	F''	0.843	0.858	0.874	0.889	0.905	0.921	0.937	0.953	0.969	0.985
1.1	I	F'	0.347	0.347	0.347	0.347	0.347	0.347	0.346	0.346	0.344	0.343
	I	F''	1.002	1.018	1.035	1.051	1.068	1.085	1.102	1.119	1.136	1.153
1.2	I	F'	0.342	0.340	0.339	0.337	0.336	0.330	0.328	0.325	0.323	0.320
	I	F''	1.171	1.188	1.206	1.223	1.241	1.259	1.277	1.294	1.312	1.330
1.3	I	F'	0.317	0.314	0.311	0.308	0.304	0.300	0.296	0.292	0.288	0.283
	I	F''	1.348	1.367	1.385	1.403	1.422	1.440	1.459	1.477	1.496	1.515
1.4	I	F'	0.278	0.273	0.268	0.263	0.257	0.251	0.245	0.239	0.233	0.226
	I	F''	1.534	1.553	1.572	1.591	1.610	1.629	1.649	1.668	1.688	1.707
1.5	I	F'	0.219	0.212	0.205	0.197	0.189	0.181	0.173	0.165	0.156	0.147
	I	F''	1.727	1.746	1.766	1.786	1.806	1.826	1.846	1.866	1.886	1.906
1.6	I	F'	0.138	0.128	0.118	0.108	0.098	0.087	0.077	0.065	0.054	0.042
	I	F''	1.926	1.947	1.967	1.988	2.008	2.029	2.049	2.070	2.091	2.112
1.7	I	F'	0.030	0.018	0.005	-0.008	-0.021	-0.035	-0.049	-0.063	-0.078	-0.093
	I	F''	2.133	2.154	2.175	2.196	2.217	2.238	2.259	2.281	2.302	2.323
1.8	I	F'	-0.109	-0.125	-0.141	-0.157	-0.174	-0.192	-0.210	-0.228	-0.247	-0.266
	I	F''	2.345	2.367	2.389	2.410	2.431	2.453	2.475	2.497	2.519	2.541
1.9	I	F'	-0.285	-0.306	-0.326	-0.349	-0.371	-0.393	-0.416	-0.439	-0.463	-0.487
	I	F''	2.563	2.585	2.607	2.629	2.651	2.674	2.696	2.718	2.741	2.763
2.0	I	F'	-0.512	-0.538	-0.564	-0.592	-0.619	-0.648	-0.677	-0.707	-0.738	-0.770
	I	F''	2.785	2.808	2.830	2.853	2.876	2.898	2.921	2.944	2.966	2.989
2.1	I	F'	-0.803	-0.836	-0.871	-0.906	-0.943	-0.981	-1.020	-1.060	-1.101	-1.144
	I	F''	3.012	3.035	3.058	3.081	3.104	3.127	3.150	3.174	3.197	3.220
2.2	I	F'	-1.189	-1.234	-1.282	-1.331	-1.382	-1.436	-1.491	-1.549	-1.609	-1.672
	I	F''	3.243	3.267	3.290	3.313	3.337	3.360	3.384	3.407	3.431	3.455
2.3	I	F'	-1.738	-1.807	-1.880	-1.957	-2.038	-2.125	-2.217	-2.316	-2.386	-2.501
	I	F''	3.478	3.502	3.526	3.550	3.573	3.597	3.621	3.645	3.669	3.693
2.4	I	F'	-2.628	-2.768	-2.924	-3.101	-3.306	-3.549	-3.848	-4.239	-4.812	-5.926
	I	F''	3.726	3.754	3.783	3.812	3.841	3.870	3.900	3.930	3.960	3.990
2.5	I	F'	-6.572	-5.125	-4.535	-4.165	-3.896	-3.687	-3.516	-3.372	-3.248	-3.140
	I	F''	0.444	0.448	0.451	0.454	0.457	0.460	0.464	0.467	0.470	0.473
2.6	I	F'	-3.044	-2.958	-2.879	-2.808	-2.742	-2.682	-2.626	-2.573	-2.524	-2.478
	I	F''	0.677	0.480	0.483	0.487	0.490	0.493	0.497	0.500	0.503	0.507
2.7	I	F'	-2.635	-2.394	-2.355	-2.318	-2.283	-2.250	-2.218	-2.188	-2.159	-2.131
	I	F''	0.510	0.513	0.517	0.520	0.523	0.527	0.530	0.534	0.537	0.541
2.8	I	F'	-2.104	-2.078	-2.053	-2.029	-2.006	-1.984	-1.962	-1.941	-1.921	-1.901
	I	F''	0.544	0.548	0.551	0.555	0.558	0.562	0.565	0.569	0.572	0.576

ATOMIC SYMBOL = V

ATOMIC NUMBER = 23

			I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'		-0.062	-0.058	-0.054	-0.050	-0.046	-0.041	-0.037	-0.032	-0.027	-0.022
	I	F''		0.010	0.012	0.015	0.017	0.020	0.023	0.027	0.030	0.034	0.038
0.2	I	F'		-0.016	-0.011	-0.006	0.000	0.006	0.011	0.017	0.023	0.029	0.035
	I	F''		0.043	0.047	0.052	0.057	0.062	0.068	0.073	0.079	0.085	0.091
0.3	I	F'		0.061	0.067	0.073	0.079	0.085	0.091	0.097	0.104	0.110	0.116
	I	F''		0.098	0.105	0.112	0.119	0.126	0.134	0.142	0.150	0.158	0.166
0.4	I	F'		0.102	0.108	0.114	0.120	0.126	0.132	0.138	0.143	0.149	0.155
	I	F''		0.175	0.184	0.193	0.202	0.211	0.221	0.231	0.241	0.251	0.261
0.5	I	F'		0.161	0.167	0.172	0.178	0.183	0.189	0.194	0.200	0.205	0.210
	I	F''		0.272	0.282	0.293	0.304	0.315	0.327	0.338	0.350	0.362	0.374
0.6	I	F'		0.216	0.221	0.226	0.231	0.236	0.240	0.245	0.250	0.254	0.259
	I	F''		0.386	0.398	0.411	0.424	0.436	0.449	0.462	0.476	0.489	0.503
0.7	I	F'		0.263	0.267	0.271	0.275	0.279	0.283	0.287	0.291	0.294	0.297
	I	F''		0.517	0.530	0.544	0.559	0.573	0.588	0.602	0.617	0.632	0.647
0.8	I	F'		0.301	0.304	0.307	0.310	0.313	0.315	0.318	0.320	0.322	0.325
	I	F''		0.662	0.678	0.693	0.709	0.724	0.740	0.756	0.773	0.789	0.805
0.9	I	F'		0.327	0.328	0.330	0.332	0.333	0.334	0.336	0.337	0.337	0.338
	I	F''		0.822	0.839	0.856	0.873	0.890	0.907	0.924	0.942	0.959	0.977
1.0	I	F'		0.338	0.339	0.339	0.339	0.339	0.338	0.337	0.336	0.335	0.334
	I	F''		0.995	1.013	1.031	1.049	1.068	1.086	1.105	1.124	1.142	1.161
1.1	I	F'		0.333	0.331	0.329	0.328	0.322	0.319	0.317	0.314	0.311	0.308
	I	F''		1.180	1.200	1.219	1.238	1.258	1.277	1.297	1.316	1.336	1.356
1.2	I	F'		0.304	0.301	0.297	0.293	0.289	0.284	0.279	0.274	0.269	0.263
	I	F''		1.376	1.396	1.416	1.436	1.457	1.477	1.498	1.519	1.539	1.560
1.3	I	F'		0.257	0.251	0.245	0.239	0.232	0.225	0.218	0.210	0.202	0.194
	I	F''		1.581	1.602	1.623	1.644	1.666	1.687	1.709	1.730	1.752	1.774
1.4	I	F'		0.186	0.177	0.168	0.159	0.149	0.139	0.129	0.119	0.108	0.097
	I	F''		1.795	1.817	1.839	1.861	1.883	1.906	1.928	1.950	1.972	1.995
1.5	I	F'		0.085	0.073	0.061	0.049	0.036	0.022	0.009	-0.005	-0.020	-0.034
	I	F''		2.018	2.040	2.063	2.086	2.108	2.131	2.154	2.177	2.201	2.224
1.6	I	F'		-0.050	-0.065	-0.081	-0.098	-0.115	-0.132	-0.150	-0.168	-0.187	-0.207
	I	F''		2.247	2.271	2.294	2.317	2.341	2.365	2.388	2.412	2.436	2.460
1.7	I	F'		-0.227	-0.247	-0.268	-0.289	-0.312	-0.336	-0.359	-0.383	-0.408	-0.433
	I	F''		2.484	2.508	2.532	2.556	2.580	2.605	2.629	2.653	2.678	2.702
1.8	I	F'		-0.459	-0.486	-0.514	-0.542	-0.571	-0.601	-0.632	-0.663	-0.696	-0.730
	I	F''		2.726	2.751	2.776	2.800	2.825	2.850	2.874	2.899	2.924	2.949
1.9	I	F'		-0.764	-0.800	-0.837	-0.875	-0.914	-0.955	-0.997	-1.040	-1.085	-1.132
	I	F''		2.974	2.999	3.024	3.049	3.075	3.100	3.125	3.150	3.176	3.201
2.0	I	F'		-1.180	-1.230	-1.283	-1.337	-1.394	-1.453	-1.515	-1.580	-1.648	-1.720
	I	F''		3.227	3.252	3.278	3.303	3.329	3.355	3.381	3.406	3.432	3.458
2.1	I	F'		-1.795	-1.875	-1.960	-2.051	-2.148	-2.252	-2.365	-2.445	-2.581	-2.733
	I	F''		3.484	3.510	3.536	3.562	3.588	3.614	3.640	3.671	3.702	3.733
2.2	I	F'		-2.905	-3.102	-3.335	-3.619	-3.985	-4.503	-5.146	-7.425	-5.167	-4.496
	I	F''		3.767	3.799	3.832	3.865	3.899	3.933	3.967	4.011	4.054	4.098
2.3	I	F'		-4.097	-3.815	-3.598	-3.422	-3.276	-3.150	-3.041	-2.944	-2.857	-2.779
	I	F''		4.461	4.465	4.468	4.472	4.476	4.479	4.483	4.487	4.490	4.494
2.4	I	F'		-2.707	-2.642	-2.582	-2.526	-2.474	-2.425	-2.379	-2.337	-2.296	-2.258
	I	F''		4.498	4.502	4.505	4.509	4.513	4.517	4.520	4.524	4.528	4.532
2.5	I	F'		-2.221	-2.187	-2.154	-2.122	-2.092	-2.063	-2.036	-2.009	-1.984	-1.959
	I	F''		4.536	4.539	4.543	4.547	4.551	4.555	4.559	4.563	4.567	4.570
2.6	I	F'		-1.936	-1.913	-1.891	-1.870	-1.849	-1.829	-1.810	-1.791	-1.773	-1.755
	I	F''		4.574	4.578	4.582	4.586	4.590	4.594	4.598	4.602	4.606	4.610
2.7	I	F'		-1.738	-1.721	-1.705	-1.689	-1.673	-1.658	-1.644	-1.629	-1.615	-1.601
	I	F''		4.614	4.618	4.622	4.626	4.631	4.635	4.639	4.643	4.647	4.651
2.8	I	F'		-1.588	-1.575	-1.562	-1.549	-1.537	-1.525	-1.513	-1.502	-1.490	-1.479
	I	F''		4.655	4.659	4.664	4.668	4.672	4.676	4.680	4.685	4.689	4.693

ATOMIC SYMBOL = CR

ATOMIC NUMBER = 24

			I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'		-0.068	-0.063	-0.059	-0.054	-0.049	-0.044	-0.038	-0.033	-0.027	-0.021
	I	F''		0.012	0.015	0.018	0.021	0.024	0.028	0.032	0.037	0.041	0.046
0.2	I	F'		-0.015	-0.009	-0.003	0.003	0.009	0.016	0.022	0.029	0.035	0.042
	I	F''		0.051	0.057	0.062	0.068	0.074	0.081	0.088	0.094	0.102	0.109
0.3	I	F'		0.049	0.055	0.062	0.069	0.076	0.082	0.089	0.096	0.103	0.109
	I	F''		0.117	0.125	0.133	0.142	0.150	0.159	0.168	0.178	0.188	0.198
0.4	I	F'		0.116	0.123	0.129	0.136	0.142	0.148	0.154	0.160	0.166	0.172
	I	F''		0.208	0.218	0.229	0.240	0.251	0.262	0.274	0.286	0.298	0.310
0.5	I	F'		0.178	0.184	0.190	0.196	0.202	0.207	0.213	0.218	0.224	0.229
	I	F''		0.322	0.335	0.347	0.360	0.373	0.387	0.400	0.414	0.428	0.442
0.6	I	F'		0.234	0.239	0.244	0.249	0.254	0.259	0.263	0.268	0.272	0.276
	I	F''		0.456	0.470	0.485	0.500	0.515	0.530	0.545	0.561	0.577	0.592
0.7	I	F'		0.280	0.284	0.288	0.291	0.295	0.298	0.302	0.305	0.307	0.310
	I	F''		0.609	0.625	0.641	0.658	0.674	0.691	0.708	0.726	0.743	0.761
0.8	I	F'		0.313	0.315	0.318	0.320	0.322	0.323	0.325	0.326	0.328	0.329
	I	F''		0.778	0.796	0.814	0.833	0.851	0.869	0.888	0.907	0.926	0.945
0.9	I	F'		0.329	0.330	0.331	0.331	0.331	0.331	0.329	0.329	0.328	0.327
	I	F''		0.964	0.984	1.003	1.023	1.043	1.063	1.083	1.103	1.124	1.144
1.0	I	F'		0.326	0.324	0.323	0.321	0.315	0.312	0.309	0.306	0.303	0.300
	I	F''		1.165	1.186	1.207	1.228	1.249	1.271	1.292	1.313	1.335	1.357
1.1	I	F'		0.296	0.292	0.288	0.283	0.278	0.273	0.267	0.262	0.256	0.250
	I	F''		1.378	1.400	1.422	1.445	1.467	1.489	1.512	1.534	1.557	1.580
1.2	I	F'		0.243	0.236	0.229	0.222	0.214	0.206	0.198	0.189	0.180	0.171
	I	F''		1.603	1.626	1.649	1.672	1.696	1.719	1.743	1.767	1.791	1.814
1.3	I	F'		0.161	0.151	0.140	0.130	0.118	0.107	0.095	0.082	0.070	0.056
	I	F''		1.839	1.863	1.887	1.911	1.936	1.960	1.985	2.010	2.034	2.059
1.4	I	F'		0.043	0.028	0.014	-0.001	-0.017	-0.033	-0.049	-0.066	-0.083	-0.101
	I	F''		2.084	2.109	2.135	2.160	2.185	2.210	2.236	2.261	2.287	2.313
1.5	I	F'		-0.120	-0.139	-0.159	-0.179	-0.200	-0.221	-0.243	-0.266	-0.289	-0.313
	I	F''		2.338	2.364	2.390	2.416	2.442	2.469	2.495	2.521	2.548	2.574
1.6	I	F'		-0.340	-0.366	-0.392	-0.419	-0.447	-0.476	-0.506	-0.537	-0.568	-0.601
	I	F''		2.601	2.627	2.654	2.681	2.707	2.734	2.761	2.788	2.815	2.842
1.7	I	F'		-0.635	-0.669	-0.705	-0.743	-0.781	-0.821	-0.862	-0.904	-0.949	-0.994
	I	F''		2.869	2.896	2.924	2.952	2.980	3.008	3.036	3.064	3.092	3.119

ATOMIC SYMBOL = MN ATOMIC NUMBER = 25

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.073	-0.068	-0.063	-0.057	-0.052	-0.046	-0.040	-0.033	-0.027	-0.021
	I	F''	0.014	0.018	0.021	0.025	0.029	0.034	0.039	0.044	0.049	0.055
0.2	I	F'	-0.014	-0.007	0.000	0.007	0.014	0.021	0.028	0.035	0.043	0.050
	I	F''	0.061	0.067	0.074	0.081	0.088	0.096	0.104	0.112	0.120	0.129
0.3	I	F'	0.057	0.065	0.072	0.079	0.087	0.094	0.102	0.109	0.116	0.123
	I	F''	0.138	0.148	0.157	0.167	0.178	0.188	0.199	0.210	0.221	0.233
0.4	I	F'	0.131	0.138	0.145	0.152	0.156	0.163	0.169	0.176	0.182	0.189
	I	F''	0.245	0.257	0.270	0.283	0.296	0.309	0.322	0.336	0.350	0.364
0.5	I	F'	0.195	0.201	0.207	0.213	0.219	0.224	0.230	0.235	0.241	0.246
	I	F''	0.378	0.393	0.408	0.423	0.438	0.453	0.469	0.485	0.501	0.518
0.6	I	F'	0.251	0.256	0.261	0.265	0.270	0.274	0.278	0.282	0.286	0.289
	I	F''	0.534	0.551	0.568	0.585	0.602	0.620	0.638	0.656	0.674	0.692
0.7	I	F'	0.293	0.296	0.299	0.302	0.305	0.307	0.310	0.312	0.314	0.316
	I	F''	0.711	0.730	0.749	0.768	0.787	0.807	0.827	0.846	0.867	0.887
0.8	I	F'	0.317	0.318	0.320	0.320	0.321	0.321	0.321	0.321	0.320	0.320
	I	F''	0.907	0.928	0.949	0.970	0.991	1.012	1.034	1.056	1.078	1.100
0.9	I	F'	0.319	0.318	0.316	0.315	0.313	0.307	0.304	0.301	0.298	0.295
	I	F''	1.122	1.144	1.167	1.189	1.212	1.235	1.258	1.281	1.305	1.328
1.0	I	F'	0.291	0.287	0.282	0.278	0.272	0.267	0.261	0.255	0.249	0.242
	I	F''	1.352	1.375	1.399	1.423	1.447	1.471	1.496	1.520	1.545	1.570
1.1	I	F'	0.235	0.228	0.220	0.212	0.204	0.195	0.186	0.176	0.166	0.156
	I	F''	1.594	1.620	1.645	1.670	1.695	1.721	1.747	1.772	1.798	1.824
1.2	I	F'	0.145	0.134	0.122	0.110	0.098	0.085	0.071	0.057	0.043	0.028
	I	F''	1.851	1.877	1.903	1.930	1.956	1.983	2.010	2.037	2.064	2.091
1.3	I	F'	0.012	-0.004	-0.021	-0.038	-0.056	-0.074	-0.093	-0.113	-0.133	-0.154
	I	F''	2.119	2.146	2.174	2.201	2.229	2.257	2.285	2.313	2.341	2.370
1.4	I	F'	-0.176	-0.198	-0.221	-0.245	-0.270	-0.295	-0.323	-0.350	-0.378	-0.408
	I	F''	2.398	2.427	2.455	2.484	2.512	2.541	2.570	2.599	2.628	2.657
1.5	I	F'	-0.438	-0.469	-0.501	-0.534	-0.569	-0.605	-0.641	-0.680	-0.719	-0.760
	I	F''	2.686	2.716	2.745	2.774	2.804	2.833	2.863	2.892	2.922	2.952
1.6	I	F'	-0.803	-0.847	-0.893	-0.941	-0.990	-1.042	-1.096	-1.153	-1.212	-1.274
	I	F''	2.981	3.011	3.041	3.071	3.101	3.131	3.161	3.192	3.222	3.252
1.7	I	F'	-1.359	-1.407	-1.479	-1.555	-1.636	-1.722	-1.813	-1.912	-2.018	-2.132
	I	F''	3.282	3.313	3.343	3.374	3.404	3.435	3.466	3.496	3.527	3.558
1.8	I	F'	-2.258	-2.349	-2.504	-2.680	-2.884	-3.127	-3.426	-3.819	-4.397	-5.539
	I	F''	3.589	3.622	3.659	3.698	3.737	3.776	3.816	3.856	3.897	3.938
1.9	I	F'	-6.024	-4.685	-4.126	-3.773	-3.518	-3.319	-3.157	-3.021	-2.904	-2.801
	I	F''	0.464	0.468	0.473	0.477	0.482	0.486	0.491	0.495	0.500	0.504
2.0	I	F'	-2.711	-2.629	-2.556	-2.488	-2.427	-2.370	-2.317	-2.268	-2.222	-2.179
	I	F''	0.509	0.513	0.518	0.522	0.527	0.532	0.536	0.541	0.546	0.550
2.1	I	F'	-2.138	-2.100	-2.064	-2.029	-1.996	-1.965	-1.935	-1.907	-1.880	-1.853
	I	F''	0.555	0.560	0.565	0.569	0.574	0.579	0.584	0.589	0.594	0.598
2.2	I	F'	-1.828	-1.804	-1.781	-1.758	-1.737	-1.716	-1.695	-1.676	-1.657	-1.638
	I	F''	0.603	0.608	0.613	0.618	0.623	0.628	0.633	0.638	0.643	0.648
2.3	I	F'	-1.620	-1.603	-1.586	-1.569	-1.553	-1.538	-1.523	-1.508	-1.493	-1.479
	I	F''	0.653	0.658	0.663	0.668	0.674	0.679	0.684	0.689	0.694	0.699
2.4	I	F'	-1.465	-1.452	-1.438	-1.426	-1.413	-1.400	-1.388	-1.376	-1.365	-1.353
	I	F''	0.705	0.710	0.715	0.720	0.726	0.731	0.736	0.741	0.747	0.752
2.5	I	F'	-1.342	-1.331	-1.320	-1.310	-1.299	-1.289	-1.279	-1.269	-1.259	-1.249
	I	F''	0.757	0.763	0.768	0.774	0.779	0.785	0.790	0.795	0.801	0.806
2.6	I	F'	-1.240	-1.231	-1.221	-1.212	-1.203	-1.195	-1.186	-1.177	-1.169	-1.161
	I	F''	0.812	0.817	0.823	0.829	0.834	0.840	0.845	0.851	0.857	0.862
2.7	I	F'	-1.152	-1.144	-1.136	-1.128	-1.121	-1.113	-1.105	-1.098	-1.090	-1.083
	I	F''	0.868	0.874	0.879	0.885	0.891	0.896	0.902	0.908	0.914	0.920
2.8	I	F'	-1.076	-1.069	-1.061	-1.054	-1.047	-1.041	-1.034	-1.027	-1.020	-1.014
	I	F''	0.925	0.931	0.937	0.943	0.949	0.955	0.961	0.967	0.972	0.978

ATOMIC SYMBOL = FE ATOMIC NUMBER = 26

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.080	-0.074	-0.068	-0.062	-0.056	-0.049	-0.042	-0.035	-0.028	-0.021
	I	F''	0.017	0.021	0.025	0.030	0.035	0.040	0.046	0.052	0.058	0.065
0.2	I	F'	-0.013	-0.006	0.002	0.009	0.017	0.025	0.033	0.041	0.049	0.057
	I	F''	0.072	0.079	0.087	0.095	0.104	0.113	0.122	0.132	0.142	0.152
0.3	I	F'	0.065	0.073	0.081	0.089	0.097	0.105	0.112	0.120	0.128	0.136
	I	F''	0.163	0.174	0.185	0.197	0.209	0.221	0.234	0.247	0.260	0.273
0.4	I	F'	0.143	0.148	0.155	0.163	0.170	0.176	0.183	0.190	0.196	0.203
	I	F''	0.287	0.302	0.316	0.331	0.346	0.361	0.376	0.392	0.408	0.425
0.5	I	F'	0.209	0.215	0.221	0.227	0.233	0.238	0.244	0.249	0.254	0.259
	I	F''	0.441	0.458	0.475	0.492	0.510	0.528	0.546	0.564	0.583	0.602
0.6	I	F'	0.263	0.268	0.275	0.276	0.280	0.284	0.287	0.291	0.294	0.296
	I	F''	0.621	0.640	0.660	0.679	0.700	0.720	0.740	0.761	0.782	0.803
0.7	I	F'	0.299	0.301	0.303	0.305	0.307	0.308	0.309	0.310	0.311	0.310
	I	F''	0.824	0.846	0.868	0.890	0.912	0.935	0.957	0.980	1.003	1.026
0.8	I	F'	0.310	0.310	0.309	0.308	0.307	0.306	0.304	0.302	0.295	0.292
	I	F''	1.050	1.074	1.097	1.121	1.146	1.170	1.195	1.220	1.245	1.270
0.9	I	F'	0.289	0.286	0.281	0.277	0.272	0.267	0.262	0.256	0.250	0.243
	I	F''	1.295	1.320	1.345	1.371	1.397	1.423	1.449	1.475	1.502	1.528
1.0	I	F'	0.236	0.229	0.221	0.213	0.204	0.195	0.186	0.176	0.165	0.154
	I	F''	1.555	1.582	1.609	1.637	1.664	1.691	1.719	1.747	1.775	1.803
1.1	I	F'	0.143	0.131	0.119	0.106	0.092	0.078	0.064	0.048	0.033	0.016
	I	F''	1.831	1.860	1.888	1.917	1.946	1.975	2.004	2.033	2.063	2.092
1.2	I	F'	-0.001	-0.018	-0.036	-0.055	-0.075	-0.095	-0.116	-0.138	-0.161	-0.184
	I	F''	2.122	2.152	2.182	2.212	2.242	2.272	2.303	2.333	2.364	2.395
1.3	I	F'	-0.209	-0.234	-0.260	-0.287	-0.315	-0.343	-0.373	-0.404	-0.436	-0.470
	I	F''	2.426	2.457	2.488	2.519	2.551	2.582	2.614	2.646	2.678	2.710
1.4	I	F'	-0.505	-0.542	-0.579	-0.619	-0.660	-0.702	-0.746	-0.792	-0.840	-0.890
	I	F''	2.742	2.774	2.806	2.839	2.871	2.903	2.935	2.968	3.000	3.033
1.5	I	F'	-0.942	-0.997	-1.053	-1.113	-1.175	-1.241	-1.310	-1.383	-1.460	-1.542
	I	F''	3.065	3.098	3.130	3.163	3.196	3.228	3.261	3.294	3.327	3.360
1.6	I	F'	-1.630	-1.723	-1.823	-1.931	-2.049	-2.178	-2.320	-2.478	-2.609	-2.822
	I	F''	3.392	3.425	3.458	3.491	3.524	3.557	3.590	3.623	3.656	3.689
1.7	I	F'	-3.077	-3.397	-3.846	-4.490	-5.336	-6.381	-7.631	-9.094	-10.868	-13.054
	I	F''	3.757	3.801	3.846	3.891	3.937	3.983	4.029	4.076	4.123	4.170
1.8	I	F'	-3.170	-3.501	-4.006	-4.691	-5.561	-6.621	-7.871	-9.321	-11.071	-13.221
	I	F''	4.496	4.541	4.587	4.633	4.679	4.725	4.771	4.817	4.863	4.909
1.9	I	F'	-2.268	-2.217	-2.170	-2.126	-2.084	-2.045	-2.008	-1.973	-1.939	-1.908
	I	F''	0.546	0.551	0.557	0.562	0.567	0.572	0.577	0.583	0.588	0.593
2.0	I	F'	-1.877	-1.848	-1.821	-1.794	-1.769	-1.744	-1.721	-1.698	-1.676	-1.655
	I	F''	0.599	0.604	0.610	0.615	0.620	0.626	0.631	0.637	0.642	0.648
2.1	I	F'	-1.635	-1.615	-1.596	-1.577	-1.559	-1.542	-1.525	-1.508	-1.492	-1.476
	I	F''	0.653	0.659	0.664	0.670	0.676	0.681	0.687	0.693	0.698	0.704
2.2	I	F'	-1.461	-1.446	-1.431	-1.417	-1.403	-1.390	-1.376	-1.363	-1.351	-1.338
	I	F''	0.710	0.716	0.721	0.727	0.733	0.739	0.745	0.750	0.756	0.762
2.3	I	F'	-1.326	-1.314	-1.302	-1.291	-1.279	-1.268	-1.257	-1.247	-1.236	-1.226
	I	F''	0.768	0.774	0.780	0.786	0.792	0.798	0.804	0.810	0.816	0.822
2.4	I	F'	-1.216	-1.206	-1.196	-1.186	-1.177	-1.167	-1.158	-1.149	-1.140	-1.131
	I	F''	0.828	0.834	0.841	0.847	0.853	0.859	0.865	0.872	0.878	0.884
2.5	I	F'	-1.122	-1.113	-1.105	-1.096	-1.088	-1.080	-1.072	-1.064	-1.056	-1.048
	I	F''	0.890	0.897	0.903	0.909	0.916	0.922	0.928	0.935	0.941	0.948
2.6	I	F'	-1.040	-1.033	-1.025	-1.018	-1.010	-1.003	-0.996	-0.989	-0.982	-0.975
	I	F''	0.954	0.961	0.967	0.974	0.980	0.987	0.993	1.000	1.006	1.013
2.7	I	F'	-0.968	-0.961	-0.954	-0.948	-0.941	-0.934	-0.928	-0.921	-0.915	-0.909
	I	F''	1.020	1.026	1.033	1.040	1.046	1.053	1.060	1.067	1.073	1.080
2.8	I	F'	-0.902	-0.896	-0.890	-0.884	-0.878	-0.872	-0.866	-0.860	-0.854	-0.848
	I	F''	1.087	1.094	1.101	1.108	1.114	1.121	1.128	1.135	1.142	1.149

ATOMIC SYMBOL = CO ATOMIC NUMBER = 27

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.085	-0.079	-0.072	-0.065	-0.058	-0.051	-0.043	-0.035	-0.027	-0.019
	I	F''	0.020	0.025	0.030	0.035	0.041	0.047	0.054	0.061	0.068	0.076
0.2	I	F'	-0.011	-0.003	0.005	0.014	0.022	0.031	0.040	0.048	0.057	0.066
	I	F''	0.084	0.093	0.102	0.112	0.122	0.132	0.143	0.154	0.166	0.177
0.3	I	F'	0.074	0.083	0.091	0.100	0.108	0.117	0.125	0.133	0.139	0.147
	I	F''	0.190	0.203	0.216	0.229	0.243	0.257	0.272	0.287	0.302	0.318
0.4	I	F'	0.154	0.162	0.169	0.177	0.184	0.191	0.198	0.204	0.211	0.217
	I	F''	0.334	0.350	0.367	0.384	0.401	0.419	0.436	0.455	0.473	0.492
0.5	I	F'	0.223	0.229	0.235	0.241	0.246	0.251	0.256	0.261	0.265	0.270
	I	F''	0.511	0.530	0.550	0.570	0.590	0.610	0.631	0.652	0.673	0.695
0.6	I	F'	0.274	0.277	0.281	0.284	0.287	0.290	0.292	0.294	0.296	0.298
	I	F''	0.717	0.739	0.761	0.784	0.807	0.830	0.853	0.877	0.901	0.925
0.7	I	F'	0.299	0.300	0.300	0.301	0.301	0.300	0.300	0.299	0.297	0.295
	I	F''	0.949	0.974	0.999	1.024	1.049	1.075	1.101	1.127	1.153	1.180
0.8	I	F'	0.293	0.288	0.284	0.281	0.277	0.273	0.268	0.263	0.257	0.251
	I	F''	1.206	1.233	1.260	1.287	1.315	1.342	1.370	1.398	1.426	1.454
0.9	I	F'	0.245	0.238	0.231	0.223	0.215	0.206	0.197	0.187	0.177	0.166
	I	F''	1.483	1.511	1.540	1.569	1.598	1.628	1.657	1.687	1.717	1.747
1.0	I	F'	0.155	0.143	0.131	0.118	0.104	0.090	0.075	0.059	0.043	0.026
	I	F''	1.778	1.808	1.839	1.869	1.900	1.931	1.963	1.994	2.026	2.058
1.1	I	F'	0.009	-0.010	-0.029	-0.049	-0.070	-0.091	-0.114	-0.137	-0.161	-0.186
	I	F''	2.089	2.122	2.154	2.186	2.219	2.251	2.284	2.317	2.350	2.384
1.2	I	F'	-0.212	-0.239	-0.268	-0.297	-0.329	-0.360	-0.393	-0.428	-0.463	-0.500
	I	F''	2.417	2.451	2.484	2.518	2.552	2.586	2.620	2.654	2.689	2.723
1.3	I	F'	-0.539	-0.579	-0.621	-0.665	-0.711	-0.758	-0.808	-0.860	-0.915	-0.973
	I	F''	2.758	2.793	2.828	2.863	2.898	2.933	2.969	3.004	3.040	3.076
1.4	I	F'	-1.033	-1.097	-1.164	-1.234	-1.309	-1.388	-1.473	-1.563	-1.659	-1.763
	I	F''	3.111	3.146	3.182	3.217	3.252	3.287	3.323	3.358	3.394	3.429
1.5	I	F'	-1.875	-1.998	-2.133	-2.283	-2.405	-2.599	-2.828	-3.110	-3.474	-3.992
	I	F''	3.464	3.500	3.535	3.571	3.612	3.657	3.702	3.749	3.797	3.847
1.6	I	F'	-4.915	-6.666	-4.639	-4.007	-3.630	-3.364	-3.160	-2.996	-2.859	-2.741
	I	F''	3.897	0.474	0.479	0.485	0.490	0.496	0.501	0.506	0.512	0.517
1.7	I	F'	-2.639	-2.549	-2.468	-2.395	-2.329	-2.269	-2.213	-2.161	-2.113	-2.068
	I	F''	0.523	0.528	0.534	0.540	0.545	0.551	0.557	0.562	0.568	0.574
1.8	I	F'	-2.025	-1.986	-1.948	-1.913	-1.879	-1.847	-1.817	-1.788	-1.760	-1.733
	I	F''	0.579	0.585	0.591	0.597	0.603	0.609	0.615	0.621	0.626	0.632
1.9	I	F'	-1.708	-1.683	-1.659	-1.637	-1.615	-1.594	-1.573	-1.553	-1.534	-1.515
	I	F''	0.638	0.644	0.651	0.657	0.663	0.669	0.675	0.681	0.687	0.693
2.0	I	F'	-1.497	-1.480	-1.463	-1.446	-1.430	-1.414	-1.399	-1.384	-1.369	-1.355
	I	F''	0.700	0.706	0.712	0.719	0.725	0.731	0.738	0.744	0.750	0.757
2.1	I	F'	-1.341	-1.327	-1.314	-1.301	-1.288	-1.276	-1.263	-1.251	-1.240	-1.228
	I	F''	0.763	0.770	0.776	0.783	0.789	0.796	0.802	0.809	0.816	0.822
2.2	I	F'	-1.217	-1.205	-1.195	-1.184	-1.173	-1.163	-1.152	-1.142	-1.132	-1.123
	I	F''	0.829	0.836	0.842	0.849	0.856	0.863	0.869	0.876	0.883	0.890
2.3	I	F'	-1.113	-1.103	-1.094	-1.085	-1.076	-1.067	-1.058	-1.049	-1.041	-1.032
	I	F''	0.897	0.904	0.911	0.918	0.925	0.932	0.939	0.946	0.953	0.960
2.4	I	F'	-1.024	-1.015	-1.007	-0.999	-0.991	-0.983	-0.975	-0.967	-0.960	-0.952
	I	F''	0.967	0.974	0.981	0.988	0.996	1.003	1.010	1.017	1.024	1.032
2.5	I	F'	-0.945	-0.937	-0.930	-0.923	-0.916	-0.908	-0.901	-0.894	-0.888	-0.881
	I	F''	1.039	1.046	1.054	1.061	1.069	1.076	1.083	1.091	1.098	1.106
2.6	I	F'	-0.874	-0.867	-0.861	-0.854	-0.847	-0.841	-0.834	-0.828	-0.822	-0.816
	I	F''	1.113	1.121	1.128	1.136	1.144	1.151	1.159	1.166	1.174	1.182
2.7	I	F'	-0.809	-0.803	-0.797	-0.791	-0.785	-0.779	-0.773	-0.767	-0.761	-0.756
	I	F''	1.189	1.197	1.205	1.213	1.221	1.228	1.236	1.244	1.252	1.260
2.8	I	F'	-0.750	-0.744	-0.739	-0.733	-0.727	-0.722	-0.716	-0.711	-0.705	-0.700
	I	F''	1.268	1.276	1.284	1.292	1.300	1.308	1.316	1.324	1.332	1.340

ATOMIC SYMBOL = NI ATOMIC NUMBER = 28

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.093	-0.086	-0.079	-0.071	-0.063	-0.055	-0.047	-0.038	-0.030	-0.021
	I	F''	0.024	0.029	0.035	0.041	0.048	0.055	0.063	0.071	0.079	0.089
0.2	I	F'	-0.012	-0.003	0.006	0.015	0.024	0.034	0.043	0.052	0.062	0.071
	I	F''	0.098	0.108	0.119	0.130	0.142	0.154	0.166	0.179	0.192	0.206
0.3	I	F'	0.080	0.089	0.098	0.107	0.116	0.122	0.131	0.139	0.147	0.155
	I	F''	0.220	0.235	0.250	0.266	0.282	0.298	0.315	0.332	0.350	0.367
0.4	I	F'	0.163	0.171	0.178	0.186	0.193	0.200	0.207	0.213	0.220	0.226
	I	F''	0.386	0.404	0.423	0.442	0.462	0.482	0.503	0.523	0.545	0.566
0.5	I	F'	0.231	0.237	0.242	0.247	0.252	0.257	0.261	0.265	0.268	0.272
	I	F''	0.588	0.610	0.632	0.655	0.678	0.701	0.725	0.749	0.773	0.797
0.6	I	F'	0.275	0.277	0.280	0.282	0.284	0.285	0.286	0.287	0.287	0.287
	I	F''	0.822	0.847	0.873	0.899	0.925	0.951	0.977	1.004	1.031	1.059
0.7	I	F'	0.286	0.285	0.284	0.282	0.280	0.274	0.271	0.267	0.263	0.258
	I	F''	1.086	1.114	1.143	1.171	1.200	1.229	1.258	1.287	1.317	1.346
0.8	I	F'	0.253	0.248	0.242	0.235	0.228	0.220	0.212	0.204	0.194	0.184
	I	F''	1.376	1.406	1.437	1.467	1.498	1.529	1.561	1.592	1.624	1.656
0.9	I	F'	0.174	0.163	0.151	0.139	0.126	0.112	0.097	0.082	0.066	0.050
	I	F''	1.688	1.720	1.753	1.785	1.818	1.851	1.885	1.918	1.952	1.986
1.0	I	F'	0.032	0.014	-0.005	-0.025	-0.045	-0.067	-0.090	-0.113	-0.138	-0.164
	I	F''	2.020	2.054	2.088	2.123	2.158	2.193	2.228	2.263	2.299	2.334
1.1	I	F'	-0.191	-0.218	-0.248	-0.278	-0.310	-0.345	-0.380	-0.416	-0.453	-0.492
	I	F''	2.370	2.406	2.442	2.479	2.515	2.552	2.588	2.625	2.662	2.699
1.2	I	F'	-0.533	-0.576	-0.621	-0.667	-0.716	-0.768	-0.821	-0.878	-0.937	-1.000
	I	F''	2.736	2.773	2.810	2.848	2.886	2.923	2.961	3.000	3.038	3.076
1.3	I	F'	-1.066	-1.136	-1.211	-1.290	-1.374	-1.465	-1.562	-1.668	-1.784	-1.912
	I	F''	3.115	3.153	3.192	3.231	3.270	3.309	3.348	3.387	3.427	3.466
1.4	I	F'	-2.051	-2.202	-2.347	-2.534	-2.757	-3.033	-3.393	-3.816	-4.299	-4.840
	I	F''	3.503	3.539	3.575	3.616	3.661	3.709	3.761	3.816	3.874	3.934
1.5	I	F'	-4.500	-3.891	-3.525	-3.265	-3.066	-2.905	-2.771	-2.656	-2.556	-2.467
	I	F''	0.485	0.491	0.497	0.503	0.509	0.515	0.521	0.527	0.533	0.539
1.6	I	F'	-2.388	-2.317	-2.252	-2.193	-2.138	-2.087	-2.040	-1.996	-1.954	-1.915
	I	F''	0.545	0.551	0.557	0.564	0.570	0.576	0.582	0.589	0.595	0.602
1.7	I	F'	-1.879	-1.844	-1.811	-1.779	-1.749	-1.721	-1.693	-1.667	-1.642	-1.618
	I	F''	0.608	0.614	0.621	0.627	0.634	0.640	0.647	0.654	0.660	0.667
1.8	I	F'	-1.595	-1.572	-1.551	-1.530	-1.510	-1.490	-1.471	-1.453	-1.435	-1.417
	I	F''	0.674	0.680	0.687	0.694	0.701	0.707	0.714	0.721	0.728	0.735
1.9	I	F'	-1.401	-1.384	-1.368	-1.353	-1.337	-1.322	-1.308	-1.294	-1.280	-1.266
	I	F''	0.742	0.749	0.756	0.763	0.770	0.777	0.784	0.791	0.799	0.806
2.0	I	F'	-1.253	-1.240	-1.228	-1.215	-1.203	-1.191	-1.179	-1.168	-1.156	-1.145
	I	F''	0.813	0.820	0.827	0.835	0.842	0.849	0.857	0.864	0.872	0.879
2.1	I	F'	-1.134	-1.123	-1.113	-1.102	-1.092	-1.082	-1.072	-1.062	-1.052	-1.043
	I	F''	0.887	0.894	0.902	0.909	0.917	0.924	0.932	0.940	0.947	0.955
2.2	I	F'	-1.033	-1.024	-1.015	-1.006	-0.997	-0.988	-0.980	-0.971	-0.963	-0.954
	I	F''	0.963	0.970	0.978	0.986	0.994	1.002	1.010	1.018	1.025	1.033
2.3	I	F'	-0.946	-0.938	-0.930	-0.922	-0.914	-0.906	-0.898	-0.891	-0.883	-0.875
	I	F''	1.041	1.049	1.057	1.066	1.074	1.082	1.090	1.098	1.106	1.114
2.4	I	F'	-0.868	-0.861	-0.853	-0.846	-0.839	-0.832	-0.825	-0.818	-0.811	-0.804
	I	F''	1.123	1.131	1.139	1.147	1.156	1.164	1.172	1.181	1.189	1.198
2.5	I	F'	-0.798	-0.791	-0.784	-0.778	-0.771	-0.765	-0.758	-0.752	-0.746	-0.739
	I	F''	1.206	1.215	1.223	1.232	1.240	1.249	1.257	1.266	1.275	1.283
2.6	I	F'	-0.733	-0.727	-0.721	-0.715	-0.709	-0.703	-0.697	-0.691	-0.685	-0.679
	I	F''	1.292	1.301	1.310	1.318	1.327	1.336	1.345	1.354	1.363	1.371
2.7	I	F'	-0.673	-0.668	-0.662	-0.656	-0.651	-0.645	-0.640	-0.634	-0.629	-0.623
	I	F''	1.380	1.389	1.398	1.407	1.416	1.425	1.434	1.444	1.453	1.462
2.8	I	F'	-0.618	-0.613	-0.607	-0.602	-0.600	-0.595	-0.590	-0.585	-0.580	-0.575
	I	F''	1.471	1.480	1.489	1.499	1.508	1.517	1.526	1.536	1.545	1.555

ATOMIC SYMBOL = CU ATOMIC NUMBER = 29

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.099	-0.091	-0.083	-0.075	-0.066	-0.057	-0.048	-0.038	-0.029	-0.019
	I	F''	0.028	0.034	0.040	0.048	0.055	0.064	0.073	0.082	0.092	0.103
0.2	I	F'	-0.009	0.000	0.010	0.020	0.030	0.040	0.050	0.060	0.070	0.080
	I	F''	0.114	0.125	0.138	0.150	0.164	0.177	0.192	0.207	0.222	0.238
0.3	I	F'	0.090	0.099	0.106	0.116	0.125	0.134	0.142	0.151	0.159	0.167
	I	F''	0.254	0.271	0.289	0.306	0.324	0.343	0.362	0.381	0.401	0.422
0.4	I	F'	0.175	0.183	0.191	0.198	0.205	0.212	0.218	0.224	0.230	0.236
	I	F''	0.442	0.464	0.485	0.507	0.530	0.552	0.576	0.599	0.623	0.647
0.5	I	F'	0.241	0.246	0.251	0.255	0.259	0.263	0.266	0.269	0.271	0.273
	I	F''	0.672	0.697	0.722	0.748	0.774	0.801	0.827	0.855	0.882	0.910
0.6	I	F'	0.275	0.276	0.277	0.278	0.278	0.277	0.276	0.275	0.273	0.271
	I	F''	0.938	0.966	0.995	1.024	1.053	1.083	1.113	1.144	1.174	1.205
0.7	I	F'	0.265	0.261	0.257	0.253	0.248	0.242	0.236	0.229	0.221	0.213
	I	F''	1.236	1.267	1.299	1.331	1.363	1.395	1.428	1.461	1.494	1.527
0.8	I	F'	0.204	0.195	0.185	0.174	0.163	0.151	0.138	0.124	0.110	0.095
	I	F''	1.561	1.595	1.629	1.663	1.698	1.733	1.768	1.803	1.839	1.875
0.9	I	F'	0.079	0.062	0.044	0.025	0.006	-0.015	-0.036	-0.059	-0.083	-0.107
	I	F''	1.910	1.947	1.983	2.020	2.057	2.094	2.131	2.168	2.206	2.244
1.0	I	F'	-0.133	-0.161	-0.189	-0.219	-0.250	-0.282	-0.316	-0.357	-0.394	-0.434
	I	F''	2.282	2.320	2.359	2.397	2.436	2.475	2.515	2.554	2.593	2.632
1.1	I	F'	-0.475	-0.517	-0.562	-0.609	-0.659	-0.711	-0.765	-0.823	-0.883	-0.947
	I	F''	2.671	2.711	2.751	2.791	2.831	2.871	2.911	2.951	2.992	3.033
1.2	I	F'	-1.015	-1.086	-1.162	-1.244	-1.330	-1.424	-1.524	-1.633	-1.752	-1.883
	I	F''	3.073	3.114	3.155	3.197	3.238	3.279	3.321	3.363	3.405	3.446
1.3	I	F'	-2.028	-2.191	-2.334	-2.554	-2.819	-3.157	-3.622	-4.384	-5.345	-6.480
	I	F''	3.489	3.531	3.576	3.628	3.680	3.733	3.788	3.843	3.899	3.949
1.4	I	F'	-3.934	-3.523	-3.242	-3.031	-2.862	-2.723	-2.604	-2.501	-2.411	-2.331
	I	F''	0.495	0.502	0.508	0.515	0.521	0.528	0.534	0.541	0.548	0.554
1.5	I	F'	-2.258	-2.192	-2.132	-2.077	-2.026	-1.978	-1.933	-1.892	-1.853	-1.816
	I	F''	0.561	0.568	0.575	0.582	0.588	0.595	0.602	0.609	0.616	0.623
1.6	I	F'	-1.781	-1.748	-1.716	-1.686	-1.657	-1.630	-1.604	-1.578	-1.554	-1.531
	I	F''	0.630	0.637	0.645	0.652	0.659	0.666	0.673	0.681	0.688	0.695
1.7	I	F'	-1.508	-1.486	-1.465	-1.445	-1.426	-1.406	-1.388	-1.370	-1.353	-1.336
	I	F''	0.703	0.710	0.718	0.725	0.733	0.740	0.748	0.755	0.763	0.771
1.8	I	F'	-1.319	-1.303	-1.287	-1.272	-1.257	-1.242	-1.228	-1.214	-1.200	-1.187
	I	F''	0.779	0.786	0.794	0.802	0.810	0.818	0.825	0.833	0.841	0.849
1.9	I	F'	-1.174	-1.161	-1.148	-1.136	-1.123	-1.111	-1.100	-1.088	-1.077	-1.066
	I	F''	0.857	0.865	0.873	0.882	0.890	0.898	0.906	0.914	0.923	0.931
2.0	I	F'	-1.055	-1.044	-1.033	-1.023	-1.012	-1.002	-0.992	-0.982	-0.972	-0.963
	I	F''	0.939	0.948	0.956	0.964	0.973	0.981	0.990	0.998	1.007	1.015
2.1	I	F'	-0.953	-0.944	-0.935	-0.925	-0.916	-0.907	-0.899	-0.890	-0.881	-0.873
	I	F''	1.024	1.033	1.041	1.050	1.059	1.068	1.076	1.085	1.094	1.103
2.2	I	F'	-0.864	-0.856	-0.848	-0.839	-0.831	-0.823	-0.815	-0.807	-0.800	-0.792
	I	F''	1.112	1.121	1.130	1.139	1.148	1.157	1.166	1.175	1.184	1.193
2.3	I	F'	-0.784	-0.777	-0.769	-0.762	-0.754	-0.747	-0.740	-0.733	-0.726	-0.719
	I	F''	1.203	1.212	1.221	1.230	1.240	1.249	1.258	1.268	1.277	1.287
2.4	I	F'	-0.712	-0.705	-0.698	-0.691	-0.684	-0.677	-0.671	-0.664	-0.658	-0.651
	I	F''	1.296	1.306	1.315	1.325	1.334	1.344	1.354	1.363	1.373	1.383
2.5	I	F'	-0.645	-0.638	-0.632	-0.626	-0.619	-0.613	-0.607	-0.601	-0.595	-0.589
	I	F''	1.392	1.402	1.412	1.422	1.432	1.442	1.451	1.461	1.471	1.481
2.6	I	F'	-0.583	-0.576	-0.574	-0.568	-0.562	-0.556	-0.551	-0.545	-0.539	-0.534
	I	F''	1.491	1.501	1.511	1.522	1.532	1.542	1.552	1.562	1.572	1.582
2.7	I	F'	-0.528	-0.522	-0.517	-0.511	-0.506	-0.501	-0.495	-0.490	-0.484	-0.479
	I	F''	1.593	1.603	1.613	1.624	1.634	1.644	1.655	1.665	1.676	1.686
2.8	I	F'	-0.474	-0.469	-0.464	-0.458	-0.453	-0.448	-0.443	-0.438	-0.433	-0.428
	I	F''	1.696	1.707	1.718	1.728	1.739	1.749	1.760	1.771	1.781	1.792

ATOMIC SYMBOL = ZN ATOMIC NUMBER = 30

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.106	-0.098	-0.089	-0.079	-0.070	-0.060	-0.050	-0.040	-0.029	-0.019
	I	F''	0.032	0.039	0.047	0.055	0.064	0.073	0.084	0.095	0.106	0.118
0.2	I	F'	-0.008	0.002	0.013	0.024	0.034	0.045	0.056	0.066	0.077	0.087
	I	F''	0.131	0.144	0.158	0.173	0.188	0.204	0.220	0.237	0.255	0.273
0.3	I	F'	0.095	0.104	0.114	0.123	0.133	0.142	0.151	0.159	0.167	0.176
	I	F''	0.292	0.311	0.330	0.350	0.371	0.392	0.414	0.436	0.458	0.481
0.4	I	F'	0.183	0.191	0.198	0.205	0.212	0.218	0.224	0.229	0.234	0.239
	I	F''	0.505	0.529	0.553	0.578	0.603	0.629	0.656	0.682	0.709	0.737
0.5	I	F'	0.243	0.247	0.251	0.254	0.257	0.259	0.261	0.262	0.263	0.263
	I	F''	0.764	0.793	0.821	0.850	0.880	0.909	0.939	0.970	1.001	1.032
0.6	I	F'	0.263	0.262	0.261	0.259	0.256	0.251	0.248	0.243	0.238	0.233
	I	F''	1.064	1.096	1.128	1.161	1.194	1.227	1.261	1.294	1.328	1.363
0.7	I	F'	0.227	0.220	0.212	0.204	0.195	0.185	0.175	0.164	0.151	0.139
	I	F''	1.398	1.433	1.468	1.504	1.540	1.576	1.612	1.649	1.686	1.723
0.8	I	F'	0.125	0.110	0.095	0.078	0.061	0.042	0.023	0.003	-0.019	-0.042
	I	F''	1.761	1.799	1.837	1.875	1.914	1.953	1.992	2.031	2.071	2.111
0.9	I	F'	-0.066	-0.091	-0.117	-0.145	-0.174	-0.204	-0.237	-0.270	-0.306	-0.348
	I	F''	2.151	2.191	2.232	2.273	2.314	2.355	2.396	2.438	2.480	2.522
1.0	I	F'	-0.387	-0.428	-0.471	-0.516	-0.564	-0.614	-0.667	-0.722	-0.781	-0.845
	I	F''	2.564	2.606	2.648	2.690	2.733	2.776	2.819	2.862	2.905	2.948
1.1	I	F'	-0.909	-0.978	-1.053	-1.132	-1.216	-1.307	-1.405	-1.511	-1.626	-1.753
	I	F''	2.992	3.035	3.079	3.123	3.167	3.212	3.256	3.301	3.345	3.390
1.2	I	F'	-1.894	-2.051	-2.230	-2.388	-2.638	-2.952	-3.372	-4.016	-5.523	-4.970
	I	F''	3.435	3.480	3.525	3.578	3.635	3.693	3.753	3.813	3.875	3.941
1.3	I	F'	-4.009	-3.542	-3.236	-3.011	-2.835	-2.690	-2.568	-2.463	-2.371	-2.289
	I	F''	0.498	0.505	0.512	0.519	0.526	0.534	0.541	0.548	0.556	0.563
1.4	I	F'	-2.216	-2.150	-2.089	-2.033	-1.982	-1.934	-1.890	-1.848	-1.809	-1.772
	I	F''	0.570	0.578	0.585	0.593	0.600	0.608	0.615	0.623	0.631	0.638
1.5	I	F'	-1.737	-1.704	-1.673	-1.643	-1.614	-1.587	-1.561	-1.536	-1.512	-1.488
	I	F''	0.646	0.654	0.662	0.669	0.677	0.685	0.693	0.701	0.709	0.717
1.6	I	F'	-1.466	-1.444	-1.424	-1.403	-1.384	-1.365	-1.347	-1.329	-1.311	-1.294
	I	F''	0.725	0.734	0.742	0.750	0.758	0.767	0.775	0.783	0.792	0.800
1.7	I	F'	-1.278	-1.262	-1.246	-1.231	-1.216	-1.202	-1.187	-1.174	-1.160	-1.147
	I	F''	0.809	0.817	0.826	0.834	0.843	0.852	0.860	0.869	0.878	0.887
1.8	I	F'	-1.133	-1.121	-1.108	-1.096	-1.084	-1.072	-1.060	-1.048	-1.037	-1.026
	I	F''	0.895	0.904	0.913	0.922	0.931	0.940	0.949	0.958	0.968	0.977
1.9	I	F'	-1.015	-1.004	-0.994	-0.983	-0.973	-0.963	-0.953	-0.943	-0.933	-0.923
	I	F''	0.986	0.995	1.004	1.014	1.023	1.032	1.042	1.051	1.061	1.070
2.0	I	F'	-0.914	-0.905	-0.895	-0.886	-0.877	-0.868	-0.859	-0.851	-0.842	-0.834
	I	F''	1.080	1.089	1.099	1.109	1.118	1.128	1.138	1.148	1.158	1.167
2.1	I	F'	-0.825	-0.817	-0.808	-0.800	-0.792	-0.784	-0.776	-0.768	-0.761	-0.753
	I	F''	1.177	1.187	1.197	1.207	1.217	1.227	1.237	1.247	1.258	1.268
2.2	I	F'	-0.745	-0.738	-0.730	-0.723	-0.716	-0.708	-0.701	-0.694	-0.687	-0.680
	I	F''	1.278	1.288	1.299	1.309	1.319	1.330	1.340	1.351	1.361	1.372
2.3	I	F'	-0.673	-0.666	-0.659	-0.652	-0.646	-0.639	-0.632	-0.626	-0.619	-0.613
	I	F''	1.382	1.393	1.403	1.414	1.425	1.435	1.446	1.457	1.468	1.479
2.4	I	F'	-0.609	-0.603	-0.597	-0.591	-0.584	-0.578	-0.572	-0.566	-0.560	-0.554
	I	F''	1.489	1.500	1.511	1.522	1.533	1.544	1.555	1.566	1.577	1.588
2.5	I	F'	-0.548	-0.542	-0.536	-0.531	-0.525	-0.519	-0.513	-0.508	-0.502	-0.497
	I	F''	1.599	1.611	1.622	1.633	1.644	1.656	1.667	1.678	1.690	1.701
2.6	I	F'	-0.491	-0.486	-0.480	-0.475	-0.470	-0.464	-0.459	-0.454	-0.448	-0.443
	I	F''	1.713	1.724	1.736	1.747	1.759	1.770	1.782	1.794	1.805	1.817
2.7	I	F'	-0.438	-0.433	-0.428	-0.423	-0.418	-0.415	-0.410	-0.406	-0.401	-0.397
	I	F''	1.829	1.841	1.852	1.864	1.876	1.888	1.900	1.912	1.924	1.936
2.8	I	F'	-0.391	-0.391	-0.386	-0.381	-0.377	-0.372	-0.368	-0.363	-0.359	-0.354
	I	F''	1.948	1.960	1.972	1.984	1.996	2.008	2.020	2.032	2.044	2.057

ATOMIC SYMBOL = GA ATOMIC NUMBER = 31

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.114	-0.104	-0.094	-0.084	-0.074	-0.063	-0.052	-0.041	-0.030	-0.018
	I	F''	0.037	0.045	0.054	0.063	0.073	0.084	0.096	0.108	0.122	0.135
0.2	I	F'	-0.007	0.004	0.016	0.027	0.039	0.050	0.061	0.072	0.081	0.091
	I	F''	0.150	0.165	0.181	0.198	0.215	0.233	0.252	0.271	0.291	0.311
0.3	I	F'	0.101	0.111	0.121	0.131	0.140	0.149	0.158	0.167	0.175	0.183
	I	F''	0.332	0.354	0.376	0.399	0.422	0.446	0.470	0.495	0.520	0.546
0.4	I	F'	0.190	0.197	0.204	0.210	0.216	0.222	0.227	0.231	0.235	0.239
	I	F''	0.573	0.600	0.627	0.655	0.684	0.713	0.743	0.772	0.803	0.834
0.5	I	F'	0.242	0.244	0.246	0.248	0.249	0.249	0.249	0.248	0.247	0.245
	I	F''	0.865	0.896	0.928	0.961	0.994	1.027	1.061	1.095	1.130	1.165
0.6	I	F'	0.241	0.237	0.233	0.228	0.222	0.216	0.209	0.201	0.192	0.183
	I	F''	1.200	1.236	1.272	1.308	1.345	1.382	1.419	1.457	1.495	1.533
0.7	I	F'	0.172	0.161	0.149	0.136	0.122	0.107	0.091	0.074	0.056	0.036
	I	F''	1.572	1.611	1.651	1.690	1.730	1.770	1.811	1.852	1.893	1.935
0.8	I	F'	0.016	-0.006	-0.029	-0.053	-0.078	-0.105	-0.134	-0.164	-0.195	-0.229
	I	F''	1.976	2.018	2.061	2.103	2.146	2.189	2.233	2.276	2.320	2.365
0.9	I	F'	-0.264	-0.301	-0.344	-0.385	-0.429	-0.474	-0.523	-0.573	-0.627	-0.684
	I	F''	2.409	2.454	2.499	2.543	2.588	2.633	2.679	2.724	2.770	2.816
1.0	I	F'	-0.744	-0.808	-0.876	-0.948	-1.025	-1.107	-1.196	-1.291	-1.395	-1.507
	I	F''	2.862	2.908	2.955	3.001	3.048	3.095	3.142	3.190	3.237	3.285
1.1	I	F'	-1.631	-1.767	-1.920	-2.094	-2.236	-2.474	-2.770	-3.159	-3.733	-4.871
	I	F''	3.333	3.381	3.429	3.477	3.526	3.588	3.652	3.717	3.784	3.852
1.2	I	F'	-5.334	-4.071	-3.546	-3.217	-2.980	-2.797	-2.648	-2.523	-2.416	-2.323
	I	F''	0.493	0.500	0.508	0.516	0.523	0.531	0.539	0.547	0.555	0.563
1.3	I	F'	-2.240	-2.166	-2.100	-2.039	-1.983	-1.932	-1.884	-1.839	-1.798	-1.759
	I	F''	0.571	0.579	0.587	0.595	0.603	0.612	0.620	0.628	0.637	0.645
1.4	I	F'	-1.722	-1.687	-1.654	-1.623	-1.593	-1.565	-1.537	-1.511	-1.486	-1.462
	I	F''	0.654	0.662	0.671	0.679	0.688	0.696	0.705	0.714	0.722	0.731
1.5	I	F'	-1.439	-1.417	-1.395	-1.375	-1.354	-1.335	-1.316	-1.298	-1.280	-1.263
	I	F''	0.740	0.749	0.758	0.767	0.776	0.785	0.794	0.803	0.812	0.821
1.6	I	F'	-1.246	-1.229	-1.213	-1.198	-1.182	-1.167	-1.153	-1.139	-1.125	-1.111
	I	F''	0.831	0.840	0.849	0.859	0.868	0.878	0.887	0.897	0.906	0.916
1.7	I	F'	-1.098	-1.084	-1.072	-1.059	-1.047	-1.034	-1.022	-1.011	-0.999	-0.988
	I	F''	0.926	0.935	0.945	0.955	0.965	0.975	0.985	0.995	1.005	1.015
1.8	I	F'	-0.976	-0.965	-0.954	-0.944	-0.933	-0.923	-0.913	-0.902	-0.892	-0.883
	I	F''	1.025	1.035	1.045	1.055	1.066	1.076	1.086	1.097	1.107	1.118
1.9	I	F'	-0.873	-0.863	-0.854	-0.844	-0.835	-0.826	-0.817	-0.808	-0.799	-0.791
	I	F''	1.128	1.139	1.149	1.160	1.171	1.181	1.192	1.203	1.214	1.224
2.0	I	F'	-0.782	-0.773	-0.765	-0.757	-0.748	-0.740	-0.732	-0.724	-0.716	-0.708
	I	F''	1.235	1.246	1.257	1.268	1.279	1.290	1.302	1.313	1.324	1.335
2.1	I	F'	-0.700	-0.693	-0.685	-0.677	-0.670	-0.662	-0.655	-0.648	-0.640	-0.633
	I	F''	1.347	1.358	1.369	1.381	1.392	1.404	1.415	1.427	1.438	1.450
2.2	I	F'	-0.626	-0.622	-0.615	-0.608	-0.601	-0.594	-0.587	-0.581	-0.574	-0.567
	I	F''	1.461	1.473	1.485	1.497	1.508	1.520	1.532	1.544	1.556	1.568
2.3	I	F'	-0.561	-0.554	-0.548	-0.542	-0.535	-0.529	-0.523	-0.517	-0.511	-0.504
	I	F''	1.580	1.592	1.604	1.616	1.628	1.640	1.653	1.665	1.677	1.689
2.4	I	F'	-0.498	-0.492	-0.486	-0.481	-0.475	-0.469	-0.463	-0.457	-0.452	-0.446
	I	F''	1.702	1.714	1.727	1.739	1.751	1.764	1.777	1.789	1.802	1.814
2.5	I	F'	-0.440	-0.437	-0.432	-0.426	-0.421	-0.415	-0.410	-0.408	-0.403	-0.398
	I	F''	1.827	1.840	1.853	1.865	1.878	1.891	1.904	1.917	1.930	1.943
2.6	I	F'	-0.393	-0.388	-0.383	-0.378	-0.373	-0.368	-0.363	-0.358	-0.353	-0.348
	I	F''	1.956	1.969	1.982	1.995	2.008	2.021	2.034	2.047	2.060	2.074
2.7	I	F'	-0.344	-0.334	-0.334	-0.330	-0.325	-0.321	-0.316	-0.311	-0.307	-0.303
	I	F''	2.087	2.100	2.114	2.127	2.140	2.154	2.167	2.181	2.194	2.208
2.8	I	F'	-0.298	-0.294	-0.290	-0.285	-0.281	-0.277	-0.273	-0.268	-0.264	-0.260
	I	F''	2.221	2.235	2.249	2.262	2.276	2.290	2.304	2.317	2.331	2.345

ATOMIC SYMBOL = GE ATOMIC NUMBER = 32

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.121	-0.111	-0.100	-0.089	-0.078	-0.066	-0.054	-0.042	-0.030	-0.018
	I	F''	0.042	0.052	0.061	0.072	0.084	0.096	0.110	0.124	0.139	0.154
0.2	I	F'	-0.006	0.006	0.019	0.031	0.043	0.054	0.064	0.075	0.086	0.097
	I	F''	0.171	0.188	0.206	0.225	0.245	0.265	0.286	0.308	0.330	0.353
0.3	I	F'	0.107	0.117	0.127	0.137	0.146	0.155	0.164	0.172	0.180	0.187
	I	F''	0.377	0.401	0.426	0.451	0.477	0.504	0.531	0.559	0.588	0.617
0.4	I	F'	0.194	0.201	0.206	0.212	0.217	0.221	0.225	0.228	0.231	0.233
	I	F''	0.647	0.677	0.708	0.739	0.771	0.804	0.837	0.871	0.904	0.939
0.5	I	F'	0.234	0.235	0.235	0.234	0.233	0.231	0.227	0.223	0.219	0.214
	I	F''	0.974	1.009	1.045	1.081	1.118	1.155	1.193	1.231	1.269	1.308
0.6	I	F'	0.208	0.201	0.193	0.184	0.175	0.164	0.153	0.140	0.126	0.112
	I	F''	1.347	1.387	1.427	1.467	1.508	1.549	1.590	1.632	1.675	1.717
0.7	I	F'	0.096	0.079	0.061	0.042	0.021	-0.001	-0.025	-0.049	-0.076	-0.104
	I	F''	1.760	1.803	1.847	1.891	1.935	1.980	2.025	2.070	2.116	2.162
0.8	I	F'	-0.133	-0.165	-0.198	-0.233	-0.270	-0.309	-0.355	-0.399	-0.446	-0.495
	I	F''	2.208	2.254	2.301	2.348	2.396	2.443	2.491	2.539	2.587	2.635
0.9	I	F'	-0.547	-0.602	-0.661	-0.723	-0.790	-0.860	-0.936	-1.017	-1.104	-1.198
	I	F''	2.683	2.732	2.781	2.830	2.879	2.929	2.979	3.029	3.079	3.129
1.0	I	F'	-1.300	-1.412	-1.534	-1.669	-1.820	-1.991	-2.188	-2.361	-2.650	-3.050
	I	F''	3.180	3.231	3.282	3.333	3.384	3.436	3.487	3.548	3.616	3.686
1.1	I	F'	-3.584	-4.639	-5.441	-6.037	-6.494	-6.810	-6.992	-7.073	-7.089	-7.046
	I	F''	3.758	3.831	3.906	3.981	4.056	4.131	4.206	4.281	4.356	4.431
1.2	I	F'	-2.358	-2.265	-2.183	-2.109	-2.043	-1.983	-1.927	-1.876	-1.829	-1.785
	I	F''	0.563	0.571	0.580	0.589	0.598	0.606	0.615	0.624	0.633	0.642
1.3	I	F'	-1.744	-1.705	-1.669	-1.634	-1.602	-1.571	-1.541	-1.513	-1.486	-1.460
	I	F''	0.652	0.661	0.670	0.679	0.689	0.698	0.708	0.717	0.727	0.736
1.4	I	F'	-1.436	-1.412	-1.389	-1.367	-1.345	-1.325	-1.304	-1.285	-1.266	-1.248
	I	F''	0.746	0.756	0.765	0.775	0.785	0.795	0.804	0.814	0.824	0.834
1.5	I	F'	-1.230	-1.213	-1.196	-1.180	-1.164	-1.148	-1.133	-1.118	-1.103	-1.089
	I	F''	0.844	0.854	0.865	0.875	0.885	0.895	0.906	0.916	0.926	0.937
1.6	I	F'	-1.075	-1.061	-1.048	-1.035	-1.022	-1.009	-0.997	-0.984	-0.972	-0.960
	I	F''	0.948	0.958	0.969	0.979	0.990	1.001	1.012	1.023	1.034	1.045
1.7	I	F'	-0.949	-0.937	-0.926	-0.915	-0.904	-0.893	-0.883	-0.872	-0.862	-0.851
	I	F''	1.056	1.067	1.078	1.089	1.100	1.111	1.123	1.134	1.145	1.157
1.8	I	F'	-0.841	-0.831	-0.822	-0.812	-0.802	-0.793	-0.783	-0.774	-0.765	-0.756
	I	F''	1.168	1.180	1.192	1.203	1.215	1.227	1.238	1.250	1.262	1.274
1.9	I	F'	-0.747	-0.738	-0.729	-0.721	-0.712	-0.704	-0.695	-0.687	-0.679	-0.671
	I	F''	1.286	1.298	1.310	1.322	1.334	1.346	1.358	1.371	1.383	1.395
2.0	I	F'	-0.662	-0.654	-0.647	-0.641	-0.633	-0.625	-0.618	-0.610	-0.603	-0.595
	I	F''	1.408	1.420	1.433	1.445	1.458	1.470	1.483	1.496	1.508	1.521
2.1	I	F'	-0.588	-0.581	-0.574	-0.566	-0.559	-0.552	-0.545	-0.539	-0.532	-0.525
	I	F''	1.534	1.547	1.559	1.572	1.585	1.598	1.611	1.624	1.638	1.651
2.2	I	F'	-0.518	-0.511	-0.505	-0.498	-0.492	-0.485	-0.479	-0.473	-0.466	-0.460
	I	F''	1.664	1.677	1.690	1.704	1.717	1.731	1.744	1.758	1.771	1.785
2.3	I	F'	-0.456	-0.449	-0.443	-0.437	-0.431	-0.425	-0.423	-0.417	-0.411	-0.406
	I	F''	1.798	1.812	1.826	1.839	1.853	1.867	1.881	1.894	1.908	1.922
2.4	I	F'	-0.400	-0.394	-0.389	-0.383	-0.378	-0.372	-0.367	-0.362	-0.356	-0.351
	I	F''	1.936	1.964	1.964	1.978	1.992	2.006	2.020	2.035	2.049	2.063
2.5	I	F'	-0.346	-0.341	-0.335	-0.330	-0.325	-0.320	-0.315	-0.310	-0.306	-0.301
	I	F''	2.077	2.092	2.106	2.121	2.135	2.150	2.164	2.179	2.193	2.208
2.6	I	F'	-0.296	-0.291	-0.286	-0.282	-0.277	-0.273	-0.268	-0.263	-0.259	-0.255
	I	F''	2.223	2.237	2.252	2.267	2.282	2.296	2.311	2.326	2.341	2.356
2.7	I	F'	-0.250	-0.246	-0.241	-0.237	-0.233	-0.229	-0.225	-0.220	-0.216	-0.212
	I	F''	2.371	2.386	2.401	2.416	2.432	2.447	2.462	2.477	2.493	2.508
2.8	I	F'	-0.208	-0.204	-0.200	-0.196	-0.193	-0.189	-0.185	-0.181	-0.177	-0.174
	I	F''	2.523	2.539	2.554	2.570	2.585	2.601	2.616	2.632	2.647	2.663

ATOMIC SYMBOL = AS ATOMIC NUMBER = 33

	I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.129	-0.117	-0.106	-0.093	-0.081	-0.069	-0.056	-0.043	-0.030	-0.017
	I	F''	0.048	0.059	0.070	0.082	0.095	0.110	0.125	0.140	0.157	0.175
0.2	I	F'	-0.004	0.009	0.021	0.034	0.047	0.057	0.068	0.080	0.091	0.102
	I	F''	0.194	0.213	0.234	0.255	0.277	0.300	0.323	0.347	0.372	0.398
0.3	I	F'	0.113	0.123	0.133	0.142	0.152	0.160	0.168	0.176	0.183	0.190
	I	F''	0.424	0.452	0.480	0.508	0.537	0.567	0.598	0.629	0.661	0.694
0.4	I	F'	0.196	0.201	0.206	0.210	0.214	0.216	0.218	0.220	0.220	0.220
	I	F''	0.727	0.761	0.795	0.830	0.866	0.902	0.939	0.977	1.014	1.052
0.5	I	F'	0.219	0.218	0.215	0.211	0.207	0.202	0.195	0.188	0.180	0.171
	I	F''	1.091	1.131	1.170	1.211	1.251	1.292	1.334	1.376	1.419	1.462
0.6	I	F'	0.161	0.150	0.137	0.124	0.109	0.093	0.076	0.057	0.037	0.015
	I	F''	1.505	1.549	1.593	1.638	1.683	1.728	1.774	1.821	1.867	1.914
0.7	I	F'	-0.007	-0.032	-0.058	-0.086	-0.116	-0.147	-0.181	-0.216	-0.254	-0.294
	I	F''	1.962	2.009	2.058	2.106	2.155	2.204	2.254	2.303	2.354	2.404
0.8	I	F'	-0.337	-0.386	-0.435	-0.486	-0.540	-0.598	-0.660	-0.726	-0.796	-0.872
	I	F''	2.455	2.506	2.557	2.608	2.660	2.712	2.764	2.816	2.869	2.921
0.9	I	F'	-0.953	-1.040	-1.135	-1.238	-1.350	-1.474	-1.611	-1.764	-1.939	-2.142
	I	F''	2.974	3.028	3.081	3.135	3.189	3.243	3.298	3.352	3.407	3.462
1.0	I	F'	-2.324	-2.625	-3.026	-3.630	-4.912	-4.898	-3.828	-3.346	-3.038	-2.815
	I	F''	3.524	3.596	3.671	3.747	3.826	0.500	0.509	0.518	0.527	0.536
1.1	I	F'	-2.641	-2.499	-2.380	-2.277	-2.188	-2.109	-2.038	-1.974	-1.915	-1.862
	I	F''	0.545	0.554	0.563	0.573	0.582	0.591	0.601	0.610	0.620	0.630
1.2	I	F'	-1.812	-1.766	-1.723	-1.683	-1.645	-1.610	-1.576	-1.544	-1.514	-1.485
	I	F''	0.639	0.649	0.659	0.669	0.679	0.689	0.699	0.709	0.719	0.730
1.3	I	F'	-1.457	-1.431	-1.405	-1.381	-1.358	-1.335	-1.313	-1.292	-1.272	-1.252
	I	F''	0.740	0.750	0.761	0.772	0.782	0.793	0.804	0.814	0.825	0.836
1.4	I	F'	-1.233	-1.215	-1.196	-1.179	-1.162	-1.145	-1.129	-1.113	-1.097	-1.082
	I	F''	0.847	0.858	0.869	0.880	0.891	0.902	0.913	0.924	0.936	0.947
1.5	I	F'	-1.067	-1.053	-1.038	-1.024	-1.011	-0.997	-0.984	-0.971	-0.958	-0.946
	I	F''	0.958	0.970	0.981	0.993	1.005	1.016	1.028	1.040	1.052	1.063
1.6	I	F'	-0.914	-0.922	-0.930	-0.898	-0.886	-0.875	-0.864	-0.853	-0.842	-0.831
	I	F''	1.075	1.087	1.099	1.111	1.124	1.136	1.148	1.160	1.173	1.185
1.7	I	F'	-0.821	-0.810	-0.800	-0.790	-0.780	-0.770	-0.760	-0.750	-0.741	-0.731
	I	F''	1.198	1.210	1.223	1.235	1.248	1.261	1.274	1.286	1.299	1.312
1.8	I	F'	-0.722	-0.713	-0.704	-0.695	-0.686	-0.677	-0.668	-0.659	-0.652	-0.644
	I	F''	1.325	1.338	1.351	1.365	1.378	1.391	1.404	1.418	1.431	1.445
1.9	I	F'	-0.636	-0.627	-0.619	-0.611	-0.603	-0.595	-0.587	-0.579	-0.571	-0.564
	I	F''	1.458	1.472	1.485	1.499	1.512	1.526	1.540	1.554	1.568	1.582
2.0	I	F'	-0.556	-0.548	-0.541	-0.534	-0.526	-0.519	-0.512	-0.505	-0.497	-0.490
	I	F''	1.595	1.609	1.624	1.638	1.652	1.666	1.680	1.695	1.709	1.723
2.1	I	F'	-0.483	-0.478	-0.471	-0.464	-0.458	-0.451	-0.444	-0.441	-0.434	-0.428
	I	F''	1.738	1.752	1.767	1.781	1.796	1.811	1.825	1.840	1.855	1.870
2.2	I	F'	-0.421	-0.415	-0.409	-0.403	-0.397	-0.391	-0.385	-0.379	-0.373	-0.367
	I	F''	1.884	1.899	1.914	1.929	1.944	1.959	1.974	1.990	2.005	2.020
2.3	I	F'	-0.361	-0.355	-0.350	-0.344	-0.338	-0.333	-0.327	-0.322	-0.316	-0.311
	I	F''	2.035	2.051	2.066	2.081	2.097	2.112	2.128	2.143	2.159	2.175
2.4	I	F'	-0.306	-0.300	-0.295	-0.290	-0.285	-0.280	-0.275	-0.270	-0.265	-0.260
	I	F''	2.190	2.206	2.222	2.238	2.254	2.269	2.285	2.301	2.317	2.334
2.5	I	F'	-0.255	-0.250	-0.246	-0.241	-0.236	-0.231	-0.227	-0.222	-0.218	-0.213
	I	F''	2.350	2.366	2.382	2.398	2.414	2.431	2.447	2.464	2.480	2.496
2.6	I	F'	-0.209	-0.205	-0.200	-0.196	-0.192	-0.188	-0.183	-0.179	-0.175	-0.171
	I	F''	2.513	2.529	2.546	2.563	2.579	2.596	2.613	2.630	2.646	2.663
2.7	I	F'	-0.167	-0.163	-0.159	-0.156	-0.152	-0.148	-0.144	-0.141	-0.137	-0.134
	I	F''	2.680	2.697	2.714	2.731	2.748	2.765	2.782	2.800	2.817	2.834
2.8	I	F'	-0.130	-0.127	-0.123	-0.120	-0.116	-0.113	-0.110	-0.107	-0.103	-0.100
	I	F''	2.851	2.869	2.886	2.903	2.921	2.938	2.956	2.973	2.991	3.009

ATOMIC SYMBOL = SE ATOMIC NUMBER = 34

	I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.136	-0.124	-0.111	-0.098	-0.085	-0.071	-0.058	-0.044	-0.030	-0.016
	I	F''	0.055	0.067	0.079	0.093	0.108	0.124	0.141	0.159	0.178	0.198
0.2	I	F'	-0.003	0.011	0.024	0.035	0.048	0.060	0.073	0.084	0.096	0.107
	I	F''	0.219	0.241	0.264	0.288	0.312	0.338	0.364	0.391	0.419	0.448
0.3	I	F'	0.117	0.127	0.137	0.146	0.155	0.163	0.170	0.177	0.183	0.189
	I	F''	0.477	0.507	0.539	0.570	0.603	0.636	0.670	0.705	0.741	0.777
0.4	I	F'	0.194	0.198	0.201	0.203	0.205	0.206	0.205	0.204	0.202	0.199
	I	F''	0.814	0.851	0.890	0.929	0.968	1.009	1.049	1.091	1.133	1.175
0.5	I	F'	0.195	0.190	0.185	0.178	0.170	0.160	0.150	0.138	0.126	0.111
	I	F''	1.218	1.261	1.305	1.350	1.395	1.440	1.486	1.533	1.579	1.627
0.6	I	F'	0.096	0.079	0.061	0.041	0.019	-0.004	-0.029	-0.055	-0.084	-0.114
	I	F''	1.675	1.723	1.772	1.821	1.871	1.921	1.971	2.022	2.073	2.125
0.7	I	F'	-0.147	-0.182	-0.219	-0.258	-0.300	-0.346	-0.397	-0.448	-0.503	-0.562
	I	F''	2.177	2.230	2.283	2.336	2.390	2.444	2.498	2.552	2.607	2.661
0.8	I	F'	-0.624	-0.691	-0.763	-0.840	-0.923	-1.013	-1.111	-1.218	-1.335	-1.465
	I	F''	2.717	2.772	2.828	2.884	2.940	2.997	3.054	3.111	3.168	3.226
0.9	I	F'	-1.609	-1.773	-1.961	-2.182	-2.393	-2.739	-3.224	-4.051	-7.156	-4.111
	I	F''	3.284	3.342	3.400	3.459	3.528	3.605	3.684	3.765	0.500	0.509
1.0	I	F'	-3.467	-3.099	-2.846	-2.654	-2.500	-2.373	-2.265	-2.171	-2.089	-2.015
	I	F''	0.519	0.528	0.538	0.547	0.557	0.567	0.577	0.587	0.597	0.607
1.1	I	F'	-1.949	-1.889	-1.834	-1.783	-1.736	-1.692	-1.651	-1.613	-1.577	-1.543
	I	F''	0.617	0.628	0.638	0.649	0.659	0.670	0.680	0.691	0.702	0.713
1.2	I	F'	-1.510	-1.480	-1.450	-1.422	-1.396	-1.370	-1.345	-1.322	-1.299	-1.277
	I	F''	0.724	0.735	0.746	0.757	0.769	0.780	0.791	0.803	0.814	0.826
1.3	I	F'	-1.255	-1.235	-1.215	-1.196	-1.177	-1.159	-1.141	-1.124	-1.107	-1.091
	I	F''	0.838	0.850	0.862	0.873	0.885	0.898	0.910	0.922	0.934	0.947
1.4	I	F'	-1.075	-1.059	-1.044	-1.029	-1.014	-0.999	-0.985	-0.971	-0.958	-0.944
	I	F''	0.959	0.971	0.983	0.996	1.008	1.021	1.033	1.046	1.059	1.072
1.5	I	F'	-0.931	-0.918	-0.906	-0.893	-0.881	-0.869	-0.857	-0.845	-0.834	-0.822
	I	F''	1.085	1.097	1.110	1.123	1.137	1.150	1.163	1.176	1.190	1.203
1.6	I	F'	-0.811	-0.800	-0.789	-0.778	-0.768	-0.757	-0.747	-0.737	-0.727	-0.717
	I	F''	1.216	1.230	1.244	1.257	1.271	1.285	1.299	1.312	1.326	1.340
1.7	I	F'	-0.707	-0.697	-0.687	-0.679	-0.670	-0.660	-0.651	-0.642	-0.633	-0.624
	I	F''	1.354	1.369	1.383	1.397	1.411	1.426	1.440	1.455	1.469	1.484
1.8	I	F'	-0.615	-0.607	-0.598	-0.589	-0.581	-0.573	-0.564	-0.556	-0.548	-0.540
	I	F''	1.498	1.513	1.528	1.542	1.557	1.572	1.587	1.602	1.617	1.632
1.9	I	F'	-0.532	-0.524	-0.516	-0.509	-0.502	-0.494	-0.487	-0.480	-0.472	-0.465
	I	F''	1.648	1.663	1.678	1.694	1.709	1.724	1.740	1.755	1.771	1.787
2.0	I	F'	-0.460	-0.453	-0.446	-0.439	-0.432	-0.425	-0.418	-0.411	-0.405	-0.398
	I	F''	1.802	1.818	1.834	1.850	1.866	1.882	1.898	1.914	1.930	1.946
2.1	I	F'	-0.391	-0.385	-0.378	-0.372	-0.366	-0.360	-0.353	-0.347	-0.341	-0.335
	I	F''	1.962	1.978	1.995	2.011	2.027	2.044	2.060	2.077	2.093	2.110
2.2	I	F'	-0.329	-0.323	-0.317	-0.311	-0.306	-0.300	-0.294	-0.288	-0.283	-0.278
	I	F''	2.127	2.143	2.160	2.177	2.194	2.211	2.228	2.245	2.262	2.279
2.3	I	F'	-0.272	-0.267	-0.262	-0.256	-0.251	-0.246	-0.241	-0.236	-0.231	-0.226
	I	F''	2.296	2.313	2.331	2.348	2.365	2.383	2.400	2.418	2.435	2.453
2.4	I	F'	-0.221	-0.216	-0.211	-0.206	-0.202	-0.197	-0.192	-0.188	-0.183	-0.179
	I	F''	2.470	2.488	2.506	2.524	2.541	2.559	2.577	2.595	2.613	2.631
2.5	I	F'	-0.174	-0.170	-0.166	-0.161	-0.157	-0.153	-0.149	-0.145	-0.141	-0.137
	I	F''	2.649	2.668	2.686	2.704	2.722	2.740	2.759	2.777	2.796	2.814
2.6	I	F'	-0.133	-0.129	-0.125	-0.122	-0.118	-0.114	-0.111	-0.107	-0.104	-0.100
	I	F''	2.833	2.851	2.870	2.889	2.907	2.926	2.945	2.964	2.983	3.002
2.7	I	F'	-0.097	-0.093	-0.090	-0.087	-0.084	-0.080	-0.077	-0.074	-0.071	-0.068
	I	F''	3.020	3.039	3.059	3.078	3.097	3.116	3.135	3.154	3.174	3.193
2.8	I	F'	-0.065	-0.063	-0.060	-0.057	-0.054	-0.052	-0.049	-0.046	-0.044	-0.041
	I	F''	3.212	3.232	3.251	3.271	3.290	3.310	3.330	3.349	3.369	3.389

ATOMIC SYMBOL = BR ATOMIC NUMBER = 35

I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I F'	-0.145	-0.132	-0.118	-0.104	-0.089	-0.075	-0.060	-0.046	-0.031	-0.017
0.1	I F''	0.062	0.075	0.090	0.105	0.122	0.140	0.159	0.179	0.200	0.223
0.2	I F'	-0.003	0.012	0.024	0.037	0.050	0.063	0.075	0.087	0.098	0.109
0.2	I F''	0.246	0.271	0.296	0.323	0.350	0.378	0.408	0.438	0.469	0.501
0.3	I F'	0.119	0.129	0.138	0.146	0.154	0.161	0.168	0.174	0.179	0.183
0.3	I F''	0.534	0.567	0.602	0.637	0.674	0.711	0.748	0.787	0.826	0.866
0.4	I F'	0.186	0.188	0.190	0.191	0.190	0.189	0.186	0.179	0.174	0.168
0.4	I F''	0.907	0.949	0.991	1.034	1.078	1.123	1.168	1.213	1.259	1.306
0.5	I F'	0.160	0.152	0.142	0.130	0.118	0.103	0.088	0.070	0.051	0.031
0.5	I F''	1.353	1.401	1.449	1.498	1.548	1.598	1.648	1.699	1.751	1.803
0.6	I F'	0.009	-0.016	-0.042	-0.070	-0.100	-0.133	-0.168	-0.205	-0.245	-0.288
0.6	I F''	1.856	1.909	1.962	2.016	2.071	2.125	2.181	2.237	2.293	2.349
0.7	I F'	-0.334	-0.386	-0.439	-0.496	-0.556	-0.622	-0.692	-0.767	-0.849	-0.937
0.7	I F''	2.406	2.464	2.521	2.579	2.637	2.696	2.754	2.813	2.873	2.933
0.8	I F'	-1.033	-1.138	-1.254	-1.382	-1.524	-1.686	-1.871	-2.089	-2.299	-2.636
0.8	I F''	2.993	3.053	3.114	3.175	3.236	3.298	3.360	3.422	3.489	3.569
0.9	I F'	-3.106	-3.889	-8.540	-4.102	-3.431	-3.056	-2.800	-2.607	-2.453	-2.326
0.9	I F''	3.651	3.735	3.822	0.512	0.522	0.532	0.543	0.553	0.564	0.574
1.0	I F'	-2.219	-2.125	-2.043	-1.970	-1.904	-1.845	-1.790	-1.740	-1.693	-1.649
1.0	I F''	0.585	0.596	0.607	0.617	0.628	0.640	0.651	0.662	0.673	0.685
1.1	I F'	-1.609	-1.571	-1.535	-1.501	-1.469	-1.438	-1.409	-1.381	-1.354	-1.329
1.1	I F''	0.696	0.708	0.720	0.731	0.743	0.755	0.767	0.779	0.791	0.804
1.2	I F'	-1.304	-1.281	-1.258	-1.236	-1.215	-1.194	-1.174	-1.155	-1.136	-1.118
1.2	I F''	0.816	0.829	0.841	0.854	0.866	0.879	0.892	0.905	0.918	0.931
1.3	I F'	-1.100	-1.083	-1.066	-1.049	-1.033	-1.018	-1.003	-0.988	-0.973	-0.959
1.3	I F''	0.944	0.957	0.971	0.984	0.998	1.011	1.025	1.039	1.052	1.066
1.4	I F'	-0.945	-0.931	-0.917	-0.904	-0.891	-0.878	-0.865	-0.852	-0.840	-0.828
1.4	I F''	1.080	1.094	1.108	1.122	1.136	1.150	1.164	1.178	1.193	1.207
1.5	I F'	-0.816	-0.804	-0.792	-0.781	-0.769	-0.758	-0.747	-0.736	-0.725	-0.715
1.5	I F''	1.221	1.236	1.250	1.265	1.280	1.295	1.309	1.324	1.339	1.354
1.6	I F'	-0.704	-0.695	-0.685	-0.675	-0.665	-0.655	-0.645	-0.635	-0.626	-0.617
1.6	I F''	1.369	1.385	1.400	1.415	1.431	1.446	1.462	1.477	1.493	1.508
1.7	I F'	-0.607	-0.598	-0.589	-0.580	-0.571	-0.562	-0.553	-0.545	-0.536	-0.528
1.7	I F''	1.524	1.540	1.556	1.572	1.588	1.604	1.620	1.636	1.653	1.669
1.8	I F'	-0.520	-0.512	-0.504	-0.496	-0.488	-0.481	-0.474	-0.466	-0.458	-0.451
1.8	I F''	1.685	1.702	1.718	1.735	1.752	1.768	1.785	1.802	1.819	1.836
1.9	I F'	-0.443	-0.436	-0.428	-0.421	-0.414	-0.407	-0.400	-0.393	-0.386	-0.379
1.9	I F''	1.853	1.870	1.887	1.904	1.921	1.938	1.956	1.973	1.990	2.008
2.0	I F'	-0.372	-0.365	-0.359	-0.352	-0.345	-0.339	-0.332	-0.326	-0.320	-0.314
2.0	I F''	2.025	2.043	2.061	2.078	2.096	2.114	2.132	2.150	2.168	2.186
2.1	I F'	-0.307	-0.301	-0.295	-0.289	-0.283	-0.277	-0.272	-0.266	-0.260	-0.255
2.1	I F''	2.204	2.222	2.240	2.259	2.277	2.295	2.314	2.332	2.351	2.370
2.2	I F'	-0.249	-0.244	-0.238	-0.233	-0.227	-0.222	-0.217	-0.212	-0.207	-0.202
2.2	I F''	2.388	2.407	2.426	2.445	2.463	2.482	2.501	2.520	2.539	2.559
2.3	I F'	-0.197	-0.192	-0.187	-0.182	-0.177	-0.173	-0.168	-0.164	-0.159	-0.155
2.3	I F''	2.578	2.597	2.616	2.636	2.655	2.674	2.694	2.714	2.733	2.753
2.4	I F'	-0.150	-0.146	-0.142	-0.137	-0.133	-0.129	-0.125	-0.121	-0.117	-0.113
2.4	I F''	2.772	2.792	2.812	2.832	2.852	2.872	2.892	2.912	2.932	2.952
2.5	I F'	-0.109	-0.106	-0.102	-0.098	-0.095	-0.091	-0.088	-0.084	-0.081	-0.078
2.5	I F''	2.972	2.993	3.013	3.033	3.054	3.074	3.095	3.115	3.136	3.156
2.6	I F'	-0.074	-0.071	-0.068	-0.065	-0.062	-0.059	-0.056	-0.053	-0.051	-0.048
2.6	I F''	3.177	3.198	3.219	3.240	3.260	3.281	3.302	3.323	3.344	3.366
2.7	I F'	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045
2.7	I F''	3.387	3.408	3.429	3.451	3.472	3.493	3.515	3.536	3.558	3.579
2.8	I F'	-0.022	-0.020	-0.018	-0.016	-0.014	-0.013	-0.011	-0.009	-0.008	-0.006
2.8	I F''	3.601	3.623	3.644	3.666	3.688	3.710	3.732	3.754	3.776	3.798

ATOMIC SYMBOL = KR ATOMIC NUMBER = 36

I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I F'	-0.153	-0.139	-0.124	-0.109	-0.094	-0.078	-0.063	-0.048	-0.032	-0.017
	I	0.070	0.085	0.101	0.119	0.137	0.157	0.178	0.201	0.225	0.250
0.2	I F'	-0.003	0.011	0.025	0.038	0.052	0.064	0.077	0.088	0.100	0.110
	I	0.276	0.303	0.331	0.361	0.391	0.423	0.455	0.489	0.523	0.558
0.3	I F'	0.120	0.129	0.138	0.145	0.152	0.158	0.163	0.168	0.171	0.173
	I	0.595	0.632	0.670	0.710	0.750	0.791	0.833	0.875	0.919	0.963
0.4	I F'	0.175	0.175	0.174	0.172	0.165	0.160	0.154	0.146	0.137	0.126
	I	1.008	1.054	1.101	1.149	1.197	1.246	1.295	1.345	1.396	1.447
0.5	I F'	0.114	0.101	0.085	0.068	0.050	0.029	0.006	-0.018	-0.045	-0.074
	I	1.499	1.551	1.605	1.658	1.713	1.767	1.823	1.879	1.935	1.992
0.6	I F'	-0.105	-0.139	-0.176	-0.215	-0.257	-0.303	-0.352	-0.407	-0.464	-0.525
	I	2.050	2.108	2.166	2.225	2.285	2.345	2.405	2.466	2.527	2.589
0.7	I F'	-0.591	-0.662	-0.739	-0.822	-0.913	-1.012	-1.120	-1.240	-1.374	-1.524
	I	2.650	2.713	2.775	2.838	2.901	2.965	3.029	3.093	3.158	3.223
0.8	I F'	-1.696	-1.894	-2.131	-2.374	-2.760	-3.335	-4.503	-4.787	-3.652	-3.168
	I	3.288	3.354	3.420	3.494	3.578	3.665	3.754	0.511	0.521	0.532
0.9	I F'	-2.863	-2.644	-2.473	-2.335	-2.220	-2.121	-2.034	-1.958	-1.889	-1.827
	I	0.543	0.554	0.566	0.577	0.588	0.600	0.611	0.623	0.635	0.647
1.0	I F'	-1.771	-1.719	-1.671	-1.626	-1.585	-1.546	-1.509	-1.474	-1.441	-1.410
	I	0.659	0.671	0.683	0.695	0.708	0.720	0.733	0.745	0.758	0.771
1.1	I F'	-1.381	-1.352	-1.325	-1.299	-1.274	-1.250	-1.227	-1.204	-1.183	-1.162
	I	0.784	0.797	0.810	0.823	0.836	0.850	0.863	0.877	0.890	0.904
1.2	I F'	-1.141	-1.122	-1.103	-1.084	-1.066	-1.048	-1.031	-1.014	-0.998	-0.982
	I	0.918	0.932	0.946	0.960	0.974	0.989	1.003	1.017	1.032	1.047
1.3	I F'	-0.966	-0.951	-0.936	-0.922	-0.908	-0.894	-0.880	-0.867	-0.854	-0.841
	I	1.062	1.076	1.091	1.106	1.121	1.137	1.152	1.167	1.183	1.198
1.4	I F'	-0.828	-0.815	-0.803	-0.790	-0.778	-0.766	-0.754	-0.742	-0.731	-0.720
	I	1.214	1.229	1.245	1.261	1.276	1.292	1.308	1.324	1.340	1.356
1.5	I F'	-0.708	-0.697	-0.686	-0.676	-0.665	-0.654	-0.644	-0.634	-0.624	-0.614
	I	1.372	1.388	1.405	1.421	1.438	1.454	1.471	1.488	1.504	1.521
1.6	I F'	-0.604	-0.594	-0.584	-0.575	-0.565	-0.556	-0.547	-0.538	-0.529	-0.520
	I	1.538	1.555	1.572	1.589	1.607	1.624	1.641	1.659	1.676	1.694
1.7	I F'	-0.511	-0.503	-0.495	-0.486	-0.478	-0.470	-0.461	-0.453	-0.445	-0.437
	I	1.711	1.729	1.747	1.765	1.783	1.801	1.819	1.837	1.855	1.873
1.8	I F'	-0.429	-0.421	-0.413	-0.406	-0.398	-0.391	-0.383	-0.376	-0.369	-0.361
	I	1.891	1.910	1.928	1.947	1.965	1.984	2.003	2.022	2.040	2.059
1.9	I F'	-0.354	-0.347	-0.340	-0.333	-0.326	-0.320	-0.313	-0.306	-0.299	-0.293
	I	2.078	2.097	2.117	2.136	2.155	2.174	2.194	2.213	2.233	2.252
2.0	I F'	-0.287	-0.280	-0.274	-0.268	-0.262	-0.256	-0.250	-0.244	-0.238	-0.232
	I	2.272	2.291	2.311	2.331	2.351	2.371	2.391	2.411	2.431	2.451
2.1	I F'	-0.226	-0.221	-0.215	-0.210	-0.204	-0.199	-0.193	-0.188	-0.183	-0.178
	I	2.471	2.492	2.512	2.533	2.553	2.574	2.594	2.615	2.636	2.656
2.2	I F'	-0.173	-0.168	-0.163	-0.158	-0.153	-0.148	-0.144	-0.139	-0.135	-0.130
	I	2.677	2.698	2.719	2.740	2.761	2.783	2.804	2.825	2.846	2.868
2.3	I F'	-0.126	-0.121	-0.117	-0.113	-0.109	-0.105	-0.101	-0.097	-0.093	-0.089
	I	2.889	2.911	2.932	2.954	2.976	2.997	3.019	3.041	3.063	3.085
2.4	I F'	-0.085	-0.082	-0.078	-0.075	-0.071	-0.068	-0.065	-0.061	-0.058	-0.055
	I	3.107	3.129	3.151	3.173	3.195	3.218	3.240	3.263	3.285	3.308
2.5	I F'	-0.052	-0.049	-0.046	-0.043	-0.040	-0.038	-0.035	-0.032	-0.030	-0.027
	I	3.330	3.353	3.375	3.398	3.421	3.444	3.467	3.490	3.513	3.536
2.6	I F'	-0.025	-0.023	-0.020	-0.018	-0.016	-0.014	-0.012	-0.010	-0.008	-0.007
	I	3.559	3.582	3.605	3.629	3.652	3.675	3.699	3.722	3.746	3.769
2.7	I F'	-0.005	-0.003	-0.002	0.000	0.001	0.002	0.004	0.005	0.006	0.007
	I	3.793	3.817	3.840	3.864	3.888	3.912	3.936	3.960	3.984	4.008
2.8	I F'	0.008	0.009	0.010	0.010	0.011	0.012	0.012	0.013	0.013	0.013
	I	4.032	4.056	4.081	4.105	4.129	4.154	4.178	4.203	4.227	4.251

ATOMIC SYMBOL = RB ATOMIC NUMBER = 37

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.162	-0.147	-0.131	-0.115	-0.099	-0.082	-0.066	-0.050	-0.034	-0.019
	I	F''	0.079	0.096	0.113	0.133	0.154	0.176	0.199	0.224	0.251	0.279
0.2	I	F'	-0.004	0.010	0.025	0.039	0.052	0.065	0.077	0.088	0.099	0.109
	I	F''	0.307	0.338	0.369	0.401	0.435	0.470	0.506	0.543	0.581	0.620
0.3	I	F'	0.118	0.127	0.134	0.141	0.146	0.151	0.154	0.156	0.158	0.157
	I	F''	0.660	0.701	0.744	0.787	0.831	0.876	0.922	0.970	1.018	1.067
0.4	I	F'	0.156	0.149	0.144	0.138	0.131	0.122	0.112	0.099	0.085	0.069
	I	F''	1.116	1.167	1.218	1.270	1.322	1.376	1.430	1.485	1.540	1.596
0.5	I	F'	0.052	0.032	0.010	-0.014	-0.041	-0.070	-0.101	-0.135	-0.172	-0.212
	I	F''	1.653	1.710	1.768	1.827	1.886	1.946	2.006	2.067	2.129	2.191
0.6	I	F'	-0.255	-0.302	-0.353	-0.410	-0.469	-0.533	-0.602	-0.677	-0.759	-0.848
	I	F''	2.254	2.317	2.381	2.445	2.510	2.574	2.640	2.705	2.772	2.838
0.7	I	F'	-0.946	-1.053	-1.172	-1.304	-1.453	-1.623	-1.820	-2.055	-2.297	-2.679
	I	F''	2.905	2.973	3.040	3.109	3.177	3.246	3.315	3.385	3.459	3.546
0.8	I	F'	-3.245	-4.378	-4.762	-3.602	-3.116	-2.812	-2.594	-2.425	-2.288	-2.174
	I	F''	3.636	3.729	0.514	0.525	0.537	0.548	0.560	0.572	0.584	0.596
0.9	I	F'	-2.076	-1.990	-1.915	-1.847	-1.785	-1.730	-1.678	-1.631	-1.586	-1.545
	I	F''	0.609	0.621	0.634	0.646	0.659	0.672	0.685	0.698	0.711	0.724
1.0	I	F'	-1.507	-1.470	-1.436	-1.403	-1.372	-1.343	-1.314	-1.287	-1.261	-1.236
	I	F''	0.738	0.751	0.765	0.778	0.792	0.806	0.820	0.834	0.849	0.863
1.1	I	F'	-1.212	-1.189	-1.167	-1.145	-1.124	-1.104	-1.084	-1.065	-1.046	-1.028
	I	F''	0.877	0.892	0.906	0.921	0.936	0.951	0.966	0.981	0.996	1.012
1.2	I	F'	-1.010	-0.993	-0.976	-0.959	-0.943	-0.927	-0.912	-0.897	-0.882	-0.867
	I	F''	1.027	1.043	1.059	1.074	1.090	1.106	1.122	1.138	1.155	1.171
1.3	I	F'	-0.853	-0.839	-0.825	-0.812	-0.799	-0.786	-0.773	-0.760	-0.748	-0.740
	I	F''	1.188	1.204	1.221	1.238	1.254	1.271	1.289	1.306	1.323	1.340
1.4	I	F'	-0.728	-0.716	-0.705	-0.693	-0.682	-0.670	-0.659	-0.648	-0.637	-0.626
	I	F''	1.358	1.375	1.392	1.410	1.427	1.445	1.462	1.480	1.498	1.516
1.5	I	F'	-0.616	-0.605	-0.595	-0.585	-0.575	-0.565	-0.555	-0.545	-0.536	-0.527
	I	F''	1.534	1.552	1.570	1.589	1.607	1.625	1.644	1.662	1.681	1.700
1.6	I	F'	-0.518	-0.508	-0.499	-0.490	-0.481	-0.472	-0.464	-0.455	-0.446	-0.438
	I	F''	1.719	1.738	1.757	1.776	1.795	1.814	1.833	1.853	1.872	1.892
1.7	I	F'	-0.430	-0.421	-0.413	-0.405	-0.397	-0.389	-0.381	-0.374	-0.366	-0.358
	I	F''	1.911	1.931	1.951	1.971	1.991	2.011	2.031	2.051	2.071	2.091
1.8	I	F'	-0.351	-0.343	-0.336	-0.329	-0.322	-0.315	-0.308	-0.301	-0.294	-0.287
	I	F''	2.112	2.132	2.153	2.173	2.194	2.215	2.235	2.256	2.277	2.298
1.9	I	F'	-0.281	-0.274	-0.267	-0.261	-0.255	-0.248	-0.242	-0.236	-0.230	-0.224
	I	F''	2.319	2.341	2.362	2.383	2.405	2.426	2.448	2.469	2.491	2.513
2.0	I	F'	-0.218	-0.212	-0.207	-0.201	-0.195	-0.190	-0.185	-0.179	-0.174	-0.169
	I	F''	2.534	2.556	2.578	2.600	2.622	2.645	2.667	2.689	2.711	2.734
2.1	I	F'	-0.164	-0.159	-0.154	-0.149	-0.144	-0.139	-0.134	-0.130	-0.125	-0.121
	I	F''	2.756	2.779	2.802	2.824	2.847	2.870	2.893	2.916	2.939	2.962
2.2	I	F'	-0.117	-0.112	-0.108	-0.104	-0.100	-0.096	-0.092	-0.088	-0.084	-0.081
	I	F''	2.985	3.008	3.031	3.055	3.078	3.102	3.125	3.149	3.173	3.196
2.3	I	F'	-0.077	-0.074	-0.070	-0.067	-0.064	-0.060	-0.057	-0.054	-0.051	-0.048
	I	F''	3.220	3.244	3.268	3.292	3.316	3.340	3.364	3.389	3.413	3.437
2.4	I	F'	-0.045	-0.043	-0.040	-0.037	-0.035	-0.033	-0.030	-0.028	-0.026	-0.024
	I	F''	3.462	3.486	3.511	3.535	3.560	3.585	3.610	3.634	3.659	3.684
2.5	I	F'	-0.022	-0.020	-0.018	-0.016	-0.014	-0.013	-0.011	-0.010	-0.008	-0.007
	I	F''	3.709	3.734	3.760	3.785	3.810	3.836	3.861	3.886	3.912	3.937
2.6	I	F'	-0.006	-0.005	-0.004	-0.003	-0.002	-0.001	0.000	-0.002	-0.001	-0.001
	I	F''	3.963	3.989	4.015	4.040	4.066	4.092	4.118	4.144	4.170	4.196
2.7	I	F'	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	-0.005	-0.005	-0.005
	I	F''	4.223	4.249	4.275	4.302	4.328	4.354	4.381	4.408	4.434	4.461
2.8	I	F'	-0.006	-0.007	-0.007	-0.008	-0.009	-0.010	-0.011	-0.012	-0.014	-0.015
	I	F''	4.488	4.514	4.541	4.568	4.595	4.622	4.649	4.676	4.703	4.731

ATOMIC SYMBOL = SR ATOMIC NUMBER = 38

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.171	-0.155	-0.138	-0.121	-0.103	-0.086	-0.069	-0.052	-0.036	-0.020
	I	F''	0.089	0.107	0.127	0.149	0.172	0.196	0.223	0.251	0.280	0.311
0.2	I	F'	-0.005	0.011	0.025	0.039	0.053	0.065	0.077	0.088	0.098	0.108
	I	F''	0.343	0.376	0.411	0.447	0.484	0.522	0.562	0.603	0.645	0.688
0.3	I	F'	0.116	0.123	0.129	0.135	0.138	0.141	0.142	0.142	0.141	0.133
	I	F''	0.732	0.778	0.825	0.872	0.921	0.971	1.022	1.074	1.126	1.180
0.4	I	F'	0.128	0.122	0.113	0.104	0.092	0.078	0.062	0.044	0.024	0.001
	I	F''	1.234	1.289	1.345	1.402	1.460	1.518	1.577	1.637	1.698	1.759
0.5	I	F'	-0.024	-0.051	-0.081	-0.114	-0.151	-0.190	-0.233	-0.279	-0.330	-0.385
	I	F''	1.821	1.884	1.947	2.011	2.076	2.141	2.207	2.273	2.340	2.408
0.6	I	F'	-0.447	-0.512	-0.583	-0.660	-0.744	-0.836	-0.938	-1.050	-1.175	-1.315
	I	F''	2.476	2.565	2.614	2.683	2.753	2.823	2.894	2.966	3.037	3.110
0.7	I	F'	-1.474	-1.658	-1.874	-2.137	-2.427	-2.896	-3.685	-7.912	-3.849	-3.214
	I	F''	3.182	3.255	3.329	3.403	3.487	3.579	3.675	0.521	0.534	0.546
0.8	I	F'	-2.857	-2.613	-2.428	-2.281	-2.160	-2.057	-1.968	-1.889	-1.819	-1.755
	I	F''	0.559	0.572	0.585	0.598	0.611	0.624	0.638	0.651	0.665	0.679
0.9	I	F'	-1.698	-1.645	-1.596	-1.551	-1.509	-1.470	-1.432	-1.397	-1.364	-1.332
	I	F''	0.693	0.707	0.721	0.735	0.750	0.764	0.779	0.794	0.809	0.824
1.0	I	F'	-1.302	-1.273	-1.246	-1.219	-1.194	-1.169	-1.146	-1.123	-1.100	-1.079
	I	F''	0.839	0.854	0.869	0.885	0.900	0.916	0.932	0.948	0.964	0.980
1.1	I	F'	-1.058	-1.038	-1.018	-0.999	-0.980	-0.962	-0.944	-0.927	-0.910	-0.893
	I	F''	0.997	1.013	1.030	1.046	1.063	1.080	1.097	1.114	1.131	1.149
1.2	I	F'	-0.877	-0.861	-0.845	-0.830	-0.815	-0.800	-0.785	-0.771	-0.757	-0.743
	I	F''	1.166	1.184	1.202	1.219	1.237	1.255	1.274	1.292	1.310	1.329
1.3	I	F'	-0.734	-0.720	-0.707	-0.695	-0.682	-0.670	-0.658	-0.646	-0.636	-0.625
	I	F''	1.347	1.366	1.384	1.403	1.422	1.441	1.460	1.480	1.499	1.519
1.4	I	F'	-0.614	-0.602	-0.591	-0.580	-0.569	-0.558	-0.547	-0.536	-0.526	-0.516
	I	F''	1.538	1.557	1.577	1.597	1.616	1.636	1.656	1.676	1.696	1.716
1.5	I	F'	-0.506	-0.496	-0.486	-0.476	-0.466	-0.456	-0.447	-0.438	-0.428	-0.419
	I	F''	1.737	1.757	1.778	1.798	1.819	1.840	1.860	1.881	1.902	1.924
1.6	I	F'	-0.410	-0.401	-0.392	-0.384	-0.375	-0.366	-0.358	-0.350	-0.341	-0.333
	I	F''	1.945	1.966	1.987	2.009	2.030	2.052	2.074	2.096	2.117	2.139
1.7	I	F'	-0.325	-0.317	-0.309	-0.301	-0.294	-0.286	-0.279	-0.271	-0.264	-0.257
	I	F''	2.161	2.184	2.206	2.228	2.251	2.273	2.296	2.318	2.341	2.364
1.8	I	F'	-0.250	-0.243	-0.236	-0.229	-0.222	-0.215	-0.209	-0.202	-0.196	-0.190
	I	F''	2.387	2.410	2.433	2.456	2.479	2.502	2.526	2.549	2.573	2.596
1.9	I	F'	-0.183	-0.177	-0.171	-0.165	-0.159	-0.154	-0.148	-0.142	-0.137	-0.131
	I	F''	2.620	2.644	2.668	2.692	2.716	2.740	2.764	2.788	2.813	2.837
2.0	I	F'	-0.126	-0.121	-0.116	-0.110	-0.105	-0.100	-0.096	-0.091	-0.086	-0.082
	I	F''	2.861	2.886	2.911	2.935	2.960	2.985	3.010	3.035	3.060	3.085
2.1	I	F'	-0.077	-0.073	-0.069	-0.064	-0.060	-0.056	-0.052	-0.048	-0.045	-0.041
	I	F''	3.110	3.136	3.161	3.187	3.212	3.238	3.263	3.289	3.315	3.341
2.2	I	F'	-0.037	-0.034	-0.030	-0.027	-0.024	-0.021	-0.018	-0.015	-0.012	-0.009
	I	F''	3.367	3.393	3.419	3.445	3.472	3.498	3.524	3.551	3.577	3.604
2.3	I	F'	-0.006	-0.004	-0.001	0.001	0.004	0.006	0.006	0.008	0.010	0.012
	I	F''	3.631	3.657	3.684	3.711	3.738	3.765	3.792	3.819	3.847	3.874
2.4	I	F'	0.014	0.015	0.017	0.018	0.020	0.021	0.019	0.020	0.021	0.022
	I	F''	3.901	3.929	3.956	3.984	4.011	4.039	4.067	4.095	4.122	4.150
2.5	I	F'	0.023	0.023	0.024	0.024	0.025	0.025	0.025	0.025	0.025	0.025
	I	F''	4.178	4.206	4.235	4.263	4.291	4.319	4.348	4.376	4.405	4.433
2.6	I	F'	0.025	0.024	0.024	0.023	0.023	0.022	0.021	0.020	0.019	0.018
	I	F''	4.462	4.491	4.519	4.548	4.577	4.606	4.635	4.664	4.693	4.723
2.7	I	F'	0.017	0.015	0.014	0.012	0.011	0.009	0.007	0.005	0.003	0.001
	I	F''	4.752	4.781	4.811	4.840	4.869	4.899	4.929	4.958	4.988	5.018
2.8	I	F'	-0.006	-0.009	-0.011	-0.014	-0.017	-0.020	-0.023	-0.026	-0.029	-0.032
	I	F''	5.048	5.078	5.107	5.137	5.167	5.197	5.228	5.258	5.288	5.318

ATOMIC SYMBOL = Y ATOMIC NUMBER = 39

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.180	-0.163	-0.145	-0.127	-0.108	-0.090	-0.073	-0.055	-0.038	-0.022
	I	F''	0.099	0.119	0.141	0.165	0.191	0.218	0.247	0.278	0.311	0.344
0.2	I	F'	-0.006	0.009	0.024	0.038	0.051	0.063	0.074	0.085	0.094	0.102
	I	F''	0.380	0.416	0.455	0.494	0.535	0.578	0.621	0.666	0.712	0.760
0.3	I	F'	0.109	0.115	0.119	0.122	0.124	0.124	0.122	0.114	0.109	0.102
	I	F''	0.809	0.859	0.910	0.962	1.015	1.070	1.126	1.182	1.239	1.298
0.4	I	F'	0.092	0.081	0.068	0.053	0.035	0.015	-0.007	-0.032	-0.061	-0.092
	I	F''	1.357	1.417	1.478	1.540	1.602	1.666	1.731	1.796	1.862	1.928
0.5	I	F'	-0.126	-0.164	-0.205	-0.250	-0.299	-0.353	-0.413	-0.478	-0.548	-0.625
	I	F''	1.996	2.064	2.132	2.202	2.272	2.343	2.414	2.486	2.559	2.632
0.6	I	F'	-0.709	-0.802	-0.904	-1.017	-1.144	-1.287	-1.450	-1.639	-1.863	-2.138
	I	F''	2.705	2.779	2.854	2.929	3.004	3.080	3.157	3.234	3.311	3.389
0.7	I	F'	-2.452	-2.963	-3.892	-5.205	-3.604	-3.065	-2.744	-2.519	-2.346	-2.208
	I	F''	3.477	3.574	3.674	0.528	0.541	0.555	0.568	0.582	0.596	0.610
0.8	I	F'	-2.092	-1.994	-1.908	-1.832	-1.765	-1.703	-1.647	-1.596	-1.549	-1.505
	I	F''	0.624	0.638	0.653	0.667	0.682	0.697	0.712	0.727	0.742	0.757
0.9	I	F'	-1.464	-1.425	-1.388	-1.354	-1.321	-1.290	-1.260	-1.232	-1.205	-1.178
	I	F''	0.773	0.789	0.804	0.820	0.836	0.853	0.869	0.885	0.902	0.919
1.0	I	F'	-1.153	-1.129	-1.105	-1.082	-1.060	-1.039	-1.018	-0.998	-0.979	-0.959
	I	F''	0.936	0.953	0.970	0.987	1.004	1.022	1.040	1.057	1.075	1.093
1.1	I	F'	-0.941	-0.922	-0.904	-0.887	-0.870	-0.853	-0.837	-0.821	-0.805	-0.789
	I	F''	1.111	1.130	1.148	1.167	1.185	1.204	1.223	1.242	1.262	1.281
1.2	I	F'	-0.774	-0.763	-0.748	-0.734	-0.720	-0.706	-0.692	-0.679	-0.665	-0.652
	I	F''	1.300	1.320	1.339	1.359	1.379	1.399	1.419	1.439	1.460	1.480
1.3	I	F'	-0.639	-0.627	-0.614	-0.605	-0.593	-0.581	-0.569	-0.558	-0.550	-0.539
	I	F''	1.501	1.521	1.542	1.563	1.584	1.605	1.626	1.648	1.669	1.690
1.4	I	F'	-0.528	-0.517	-0.507	-0.496	-0.485	-0.475	-0.465	-0.455	-0.445	-0.435
	I	F''	1.712	1.733	1.755	1.777	1.799	1.821	1.843	1.865	1.887	1.910
1.5	I	F'	-0.425	-0.416	-0.406	-0.397	-0.387	-0.378	-0.369	-0.360	-0.352	-0.343
	I	F''	1.932	1.955	1.978	2.000	2.023	2.046	2.069	2.093	2.116	2.139
1.6	I	F'	-0.334	-0.326	-0.317	-0.309	-0.301	-0.293	-0.285	-0.277	-0.270	-0.262
	I	F''	2.163	2.186	2.210	2.234	2.258	2.281	2.306	2.330	2.354	2.378
1.7	I	F'	-0.254	-0.247	-0.240	-0.232	-0.225	-0.218	-0.211	-0.205	-0.198	-0.191
	I	F''	2.403	2.427	2.452	2.477	2.501	2.526	2.551	2.576	2.601	2.627
1.8	I	F'	-0.185	-0.178	-0.172	-0.166	-0.160	-0.154	-0.148	-0.142	-0.136	-0.131
	I	F''	2.652	2.677	2.703	2.729	2.754	2.780	2.806	2.832	2.858	2.884
1.9	I	F'	-0.125	-0.120	-0.114	-0.109	-0.104	-0.099	-0.094	-0.089	-0.085	-0.080
	I	F''	2.910	2.937	2.963	2.990	3.016	3.043	3.069	3.096	3.123	3.150
2.0	I	F'	-0.076	-0.071	-0.067	-0.063	-0.058	-0.054	-0.051	-0.047	-0.043	-0.039
	I	F''	3.177	3.204	3.232	3.259	3.286	3.314	3.342	3.369	3.397	3.425
2.1	I	F'	-0.036	-0.032	-0.031	-0.027	-0.024	-0.021	-0.018	-0.016	-0.013	-0.010
	I	F''	3.453	3.481	3.509	3.537	3.565	3.593	3.622	3.650	3.679	3.707
2.2	I	F'	-0.010	-0.008	-0.006	-0.004	-0.002	0.000	0.002	0.003	0.005	0.006
	I	F''	3.736	3.765	3.794	3.823	3.852	3.881	3.910	3.939	3.968	3.998
2.3	I	F'	0.008	0.009	0.010	0.011	0.012	0.013	0.013	0.014	0.015	0.015
	I	F''	4.027	4.057	4.086	4.116	4.146	4.175	4.205	4.235	4.265	4.295
2.4	I	F'	0.015	0.015	0.015	0.015	0.015	0.015	0.014	0.014	0.013	0.012
	I	F''	4.325	4.356	4.386	4.416	4.447	4.477	4.508	4.539	4.570	4.600
2.5	I	F'	0.011	0.010	0.009	0.008	0.006	0.005	0.003	0.002	0.000	-0.002
	I	F''	4.631	4.662	4.693	4.724	4.756	4.787	4.818	4.849	4.881	4.912
2.6	I	F'	-0.004	-0.007	-0.013	-0.016	-0.018	-0.021	-0.024	-0.027	-0.030	-0.033
	I	F''	4.944	4.976	5.007	5.039	5.071	5.103	5.135	5.167	5.199	5.231
2.7	I	F'	-0.037	-0.040	-0.044	-0.047	-0.051	-0.055	-0.059	-0.064	-0.068	-0.072
	I	F''	5.263	5.295	5.327	5.360	5.392	5.425	5.457	5.490	5.522	5.555
2.8	I	F'	-0.077	-0.082	-0.087	-0.092	-0.097	-0.102	-0.108	-0.113	-0.115	-0.111
	I	F''	5.588	5.621	5.654	5.687	5.720	5.753	5.786	5.819	5.853	5.886

ATOMIC SYMBOL = ZR ATOMIC NUMBER = 40

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.190	-0.171	-0.152	-0.133	-0.114	-0.096	-0.077	-0.059	-0.042	-0.025
	I	F''	0.110	0.133	0.157	0.183	0.212	0.242	0.274	0.308	0.343	0.381
0.2	I	F'	-0.009	0.006	0.021	0.034	0.047	0.059	0.069	0.078	0.086	0.093
	I	F''	0.419	0.460	0.502	0.545	0.590	0.637	0.684	0.734	0.784	0.836
0.3	I	F'	0.098	0.102	0.104	0.104	0.103	0.095	0.089	0.082	0.072	0.061
	I	F''	0.890	0.944	1.000	1.057	1.116	1.175	1.235	1.297	1.359	1.422
0.4	I	F'	0.047	0.030	0.011	-0.011	-0.036	-0.063	-0.095	-0.129	-0.167	-0.210
	I	F''	1.486	1.552	1.618	1.685	1.754	1.823	1.893	1.964	2.035	2.107
0.5	I	F'	-0.256	-0.307	-0.363	-0.425	-0.493	-0.567	-0.648	-0.738	-0.838	-0.948
	I	F''	2.180	2.254	2.328	2.404	2.479	2.556	2.633	2.710	2.788	2.867
0.6	I	F'	-1.072	-1.211	-1.371	-1.555	-1.773	-2.040	-2.343	-2.826	-3.664	-5.855
	I	F''	2.946	3.026	3.106	3.187	3.268	3.350	3.438	3.527	3.640	0.530
0.7	I	F'	-3.642	-3.063	-2.729	-2.497	-2.322	-2.181	-2.065	-1.966	-1.880	-1.804
	I	F''	0.544	0.559	0.573	0.588	0.603	0.618	0.633	0.648	0.663	0.679
0.8	I	F'	-1.736	-1.674	-1.619	-1.567	-1.520	-1.476	-1.435	-1.396	-1.360	-1.325
	I	F''	0.695	0.710	0.726	0.743	0.759	0.775	0.792	0.809	0.826	0.843
0.9	I	F'	-1.292	-1.261	-1.231	-1.203	-1.175	-1.149	-1.124	-1.099	-1.076	-1.053
	I	F''	0.860	0.878	0.895	0.913	0.931	0.949	0.967	0.985	1.003	1.022
1.0	I	F'	-1.031	-1.009	-0.988	-0.968	-0.948	-0.928	-0.910	-0.891	-0.873	-0.855
	I	F''	1.041	1.060	1.079	1.098	1.117	1.136	1.156	1.176	1.196	1.216
1.1	I	F'	-0.838	-0.821	-0.804	-0.788	-0.775	-0.760	-0.744	-0.729	-0.714	-0.700
	I	F''	1.236	1.256	1.277	1.297	1.318	1.339	1.360	1.381	1.402	1.423
1.2	I	F'	-0.685	-0.671	-0.657	-0.644	-0.630	-0.620	-0.607	-0.594	-0.582	-0.574
	I	F''	1.445	1.466	1.488	1.510	1.532	1.554	1.576	1.598	1.621	1.643
1.3	I	F'	-0.561	-0.549	-0.538	-0.526	-0.514	-0.503	-0.492	-0.481	-0.470	-0.459
	I	F''	1.666	1.689	1.712	1.735	1.758	1.781	1.804	1.828	1.851	1.875
1.4	I	F'	-0.449	-0.438	-0.428	-0.418	-0.408	-0.398	-0.388	-0.379	-0.369	-0.360
	I	F''	1.899	1.923	1.947	1.971	1.995	2.019	2.044	2.068	2.093	2.117
1.5	I	F'	-0.350	-0.341	-0.332	-0.323	-0.315	-0.306	-0.298	-0.289	-0.281	-0.273
	I	F''	2.142	2.167	2.192	2.217	2.243	2.268	2.294	2.319	2.345	2.371
1.6	I	F'	-0.265	-0.257	-0.249	-0.241	-0.234	-0.226	-0.219	-0.211	-0.204	-0.197
	I	F''	2.397	2.423	2.449	2.475	2.501	2.528	2.554	2.581	2.608	2.635
1.7	I	F'	-0.190	-0.184	-0.177	-0.170	-0.164	-0.158	-0.151	-0.145	-0.139	-0.133
	I	F''	2.662	2.689	2.716	2.743	2.770	2.798	2.825	2.853	2.881	2.909
1.8	I	F'	-0.128	-0.122	-0.116	-0.111	-0.105	-0.100	-0.095	-0.090	-0.085	-0.080
	I	F''	2.937	2.965	2.993	3.021	3.049	3.078	3.106	3.135	3.164	3.192
1.9	I	F'	-0.076	-0.071	-0.068	-0.064	-0.059	-0.055	-0.051	-0.048	-0.044	-0.040
	I	F''	3.221	3.250	3.279	3.309	3.338	3.367	3.397	3.426	3.456	3.486
2.0	I	F'	-0.039	-0.035	-0.032	-0.029	-0.026	-0.023	-0.020	-0.018	-0.015	-0.013
	I	F''	3.515	3.545	3.575	3.605	3.636	3.666	3.696	3.727	3.757	3.788
2.1	I	F'	-0.011	-0.009	-0.006	-0.005	-0.003	-0.001	0.000	0.002	0.003	0.004
	I	F''	3.819	3.849	3.880	3.911	3.942	3.973	4.005	4.036	4.067	4.099
2.2	I	F'	0.005	0.006	0.007	0.008	0.008	0.009	0.009	0.009	0.009	0.009
	I	F''	4.130	4.162	4.194	4.225	4.257	4.289	4.321	4.353	4.386	4.418
2.3	I	F'	0.009	0.008	0.008	0.007	0.007	0.006	0.005	0.004	0.002	0.001
	I	F''	4.450	4.483	4.515	4.548	4.581	4.613	4.646	4.679	4.712	4.745
2.4	I	F'	-0.001	-0.002	-0.004	-0.006	-0.008	-0.014	-0.016	-0.019	-0.022	-0.024
	I	F''	4.779	4.812	4.845	4.879	4.912	4.946	4.979	5.013	5.047	5.080
2.5	I	F'	-0.027	-0.030	-0.034	-0.037	-0.040	-0.044	-0.048	-0.052	-0.056	-0.060
	I	F''	5.114	5.148	5.182	5.216	5.250	5.285	5.319	5.353	5.388	5.422
2.6	I	F'	-0.065	-0.069	-0.074	-0.078	-0.083	-0.089	-0.094	-0.099	-0.105	-0.116
	I	F''	5.457	5.492	5.526	5.561	5.596	5.631	5.666	5.701	5.736	5.772
2.7	I	F'	-0.122	-0.128	-0.134	-0.141	-0.147	-0.154	-0.161	-0.168	-0.175	-0.192
	I	F''	5.807	5.842	5.877	5.913	5.948	5.984	6.019	6.055	6.091	6.127
2.8	I	F'	-0.200	-0.207	-0.215	-0.223	-0.232	-0.240	-0.248	-0.257	-0.266	-0.275
	I	F''	6.162	6.198	6.234	6.270	6.305	6.341	6.377	6.414	6.450	6.486

ATOMIC SYMBOL = NB

ATOMIC NUMBER = 41

I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I F'	-0.200	-0.180	-0.160	-0.140	-0.120	-0.100	-0.081	-0.063	-0.045	-0.028
	I F''	0.122	0.147	0.174	0.203	0.234	0.267	0.303	0.340	0.379	0.420
0.2	I F'	-0.012	0.003	0.017	0.030	0.042	0.053	0.062	0.070	0.076	0.081
	I F''	0.462	0.506	0.552	0.600	0.649	0.700	0.752	0.806	0.861	0.918
0.3	I F'	0.084	0.085	0.084	0.077	0.071	0.064	0.054	0.042	0.027	0.010
	I F''	0.976	1.036	1.097	1.159	1.222	1.286	1.352	1.418	1.486	1.554
0.4	I F'	-0.011	-0.034	-0.061	-0.091	-0.125	-0.162	-0.205	-0.251	-0.303	-0.359
	I F''	1.624	1.695	1.767	1.840	1.914	1.989	2.065	2.142	2.219	2.297
0.5	I F'	-0.422	-0.491	-0.567	-0.652	-0.745	-0.849	-0.965	-1.096	-1.246	-1.418
	I F''	2.375	2.455	2.535	2.616	2.698	2.780	2.863	2.947	3.031	3.116
0.6	I F'	-1.620	-1.863	-2.168	-2.549	-3.186	-4.757	-4.023	-3.208	-2.805	-2.542
	I F''	3.202	3.288	3.375	3.472	3.574	3.680	0.545	0.558	0.574	0.589
0.7	I F'	-2.349	-2.197	-2.073	-1.968	-1.878	-1.799	-1.729	-1.666	-1.608	-1.556
	I F''	0.605	0.621	0.637	0.653	0.669	0.686	0.702	0.719	0.736	0.754
0.8	I F'	-1.507	-1.462	-1.420	-1.381	-1.343	-1.308	-1.275	-1.243	-1.213	-1.184
	I F''	0.771	0.789	0.806	0.824	0.842	0.861	0.879	0.898	0.916	0.935
0.9	I F'	-1.156	-1.129	-1.103	-1.078	-1.054	-1.031	-1.008	-0.986	-0.965	-0.944
	I F''	0.955	0.974	0.993	1.013	1.033	1.053	1.073	1.093	1.113	1.134
1.0	I F'	-0.924	-0.904	-0.885	-0.866	-0.848	-0.830	-0.812	-0.798	-0.781	-0.765
	I F''	1.155	1.175	1.197	1.218	1.239	1.261	1.282	1.304	1.326	1.348
1.1	I F'	-0.748	-0.732	-0.717	-0.701	-0.686	-0.671	-0.657	-0.645	-0.631	-0.617
	I F''	1.370	1.393	1.415	1.438	1.461	1.484	1.507	1.530	1.554	1.577
1.2	I F'	-0.603	-0.594	-0.581	-0.568	-0.555	-0.543	-0.530	-0.518	-0.506	-0.494
	I F''	1.601	1.625	1.648	1.672	1.697	1.721	1.745	1.770	1.794	1.819
1.3	I F'	-0.482	-0.471	-0.460	-0.448	-0.437	-0.427	-0.416	-0.405	-0.395	-0.385
	I F''	1.844	1.869	1.895	1.920	1.945	1.971	1.997	2.023	2.049	2.075
1.4	I F'	-0.375	-0.365	-0.355	-0.346	-0.336	-0.327	-0.317	-0.308	-0.299	-0.290
	I F''	2.101	2.127	2.154	2.180	2.207	2.234	2.261	2.288	2.315	2.342
1.5	I F'	-0.282	-0.273	-0.264	-0.256	-0.248	-0.240	-0.232	-0.224	-0.216	-0.209
	I F''	2.370	2.397	2.425	2.452	2.480	2.508	2.536	2.563	2.593	2.621
1.6	I F'	-0.201	-0.194	-0.187	-0.180	-0.173	-0.166	-0.159	-0.153	-0.146	-0.140
	I F''	2.650	2.679	2.707	2.736	2.765	2.794	2.824	2.853	2.882	2.912
1.7	I F'	-0.134	-0.128	-0.122	-0.116	-0.110	-0.106	-0.100	-0.095	-0.090	-0.085
	I F''	2.942	2.971	3.001	3.031	3.061	3.092	3.122	3.152	3.183	3.214
1.8	I F'	-0.080	-0.075	-0.072	-0.067	-0.063	-0.059	-0.055	-0.051	-0.047	-0.043
	I F''	3.244	3.275	3.306	3.337	3.368	3.400	3.431	3.463	3.494	3.526
1.9	I F'	-0.040	-0.036	-0.033	-0.030	-0.027	-0.024	-0.021	-0.019	-0.016	-0.014
	I F''	3.558	3.589	3.621	3.654	3.686	3.718	3.750	3.783	3.815	3.848
2.0	I F'	-0.012	-0.010	-0.008	-0.006	-0.004	-0.003	-0.001	0.000	0.001	0.002
	I F''	3.881	3.914	3.947	3.980	4.013	4.046	4.080	4.113	4.147	4.180
2.1	I F'	0.003	0.003	0.004	0.004	0.005	0.005	0.005	0.004	0.004	0.004
	I F''	4.214	4.248	4.282	4.316	4.350	4.384	4.418	4.453	4.487	4.522
2.2	I F'	0.003	0.002	0.001	0.000	-0.001	-0.002	-0.004	-0.006	-0.007	-0.009
	I F''	4.557	4.591	4.626	4.661	4.696	4.731	4.767	4.802	4.837	4.873
2.3	I F'	-0.015	-0.017	-0.020	-0.022	-0.025	-0.028	-0.031	-0.034	-0.038	-0.041
	I F''	4.908	4.944	4.979	5.015	5.051	5.087	5.123	5.159	5.195	5.231
2.4	I F'	-0.045	-0.049	-0.053	-0.057	-0.062	-0.066	-0.071	-0.076	-0.081	-0.086
	I F''	5.268	5.304	5.341	5.377	5.414	5.451	5.488	5.525	5.562	5.599
2.5	I F'	-0.092	-0.097	-0.108	-0.114	-0.120	-0.126	-0.133	-0.139	-0.146	-0.153
	I F''	5.636	5.673	5.710	5.748	5.785	5.822	5.860	5.897	5.935	5.973
2.6	I F'	-0.160	-0.168	-0.184	-0.192	-0.200	-0.208	-0.216	-0.225	-0.234	-0.243
	I F''	6.011	6.049	6.087	6.124	6.162	6.200	6.238	6.277	6.315	6.353
2.7	I F'	-0.252	-0.261	-0.270	-0.280	-0.290	-0.300	-0.310	-0.320	-0.331	-0.342
	I F''	6.391	6.430	6.468	6.507	6.545	6.584	6.623	6.662	6.701	6.740
2.8	I F'	-0.353	-0.364	-0.375	-0.387	-0.399	-0.411	-0.423	-0.435	-0.448	-0.460
	I F''	6.779	6.818	6.857	6.896	6.935	6.975	7.014	7.054	7.093	7.133

ATOMIC SYMBOL = MO

ATOMIC NUMBER = 42

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.211	-0.190	-0.169	-0.148	-0.127	-0.107	-0.087	-0.068	-0.051	-0.034
	I	F''	0.134	0.162	0.191	0.223	0.258	0.294	0.333	0.374	0.417	0.462
0.2	I	F'	-0.018	-0.003	0.010	0.023	0.033	0.042	0.050	0.056	0.060	0.062
	I	F''	0.508	0.557	0.607	0.659	0.712	0.768	0.825	0.883	0.944	1.005
0.3	I	F'	0.062	0.056	0.052	0.045	0.035	0.023	0.008	-0.010	-0.032	-0.056
	I	F''	1.069	1.133	1.199	1.266	1.334	1.404	1.474	1.546	1.619	1.694
0.4	I	F'	-0.084	-0.116	-0.152	-0.192	-0.237	-0.288	-0.345	-0.407	-0.476	-0.553
	I	F''	1.769	1.844	1.924	2.002	2.082	2.163	2.245	2.328	2.411	2.495
0.5	I	F'	-0.638	-0.733	-0.839	-0.958	-1.093	-1.247	-1.426	-1.638	-1.897	-2.227
	I	F''	2.579	2.665	2.751	2.838	2.926	3.014	3.104	3.193	3.284	3.375
0.6	I	F'	-2.658	-3.427	-4.122	-5.628	-3.014	-2.671	-2.437	-2.261	-2.121	-2.005
	I	F''	3.479	3.586	0.537	0.552	0.569	0.585	0.601	0.618	0.635	0.652
0.7	I	F'	-1.906	-1.821	-1.746	-1.678	-1.618	-1.562	-1.511	-1.464	-1.420	-1.380
	I	F''	0.670	0.687	0.705	0.723	0.741	0.759	0.777	0.796	0.815	0.834
0.8	I	F'	-1.341	-1.305	-1.270	-1.237	-1.206	-1.176	-1.148	-1.120	-1.094	-1.068
	I	F''	0.853	0.873	0.892	0.912	0.932	0.952	0.973	0.993	1.014	1.035
0.9	I	F'	-1.043	-1.019	-0.996	-0.974	-0.952	-0.931	-0.910	-0.890	-0.870	-0.851
	I	F''	1.056	1.077	1.099	1.120	1.142	1.164	1.186	1.209	1.231	1.254
1.0	I	F'	-0.835	-0.817	-0.799	-0.781	-0.764	-0.747	-0.730	-0.714	-0.698	-0.685
	I	F''	1.277	1.300	1.323	1.346	1.370	1.393	1.417	1.441	1.465	1.489
1.1	I	F'	-0.669	-0.654	-0.639	-0.625	-0.613	-0.599	-0.586	-0.572	-0.558	-0.545
	I	F''	1.514	1.538	1.563	1.588	1.613	1.638	1.664	1.689	1.715	1.740
1.2	I	F'	-0.532	-0.519	-0.507	-0.494	-0.482	-0.470	-0.458	-0.446	-0.435	-0.423
	I	F''	1.766	1.792	1.819	1.845	1.872	1.898	1.925	1.952	1.979	2.006
1.3	I	F'	-0.412	-0.402	-0.391	-0.380	-0.370	-0.360	-0.349	-0.340	-0.330	-0.320
	I	F''	2.034	2.062	2.089	2.117	2.145	2.173	2.202	2.230	2.259	2.288
1.4	I	F'	-0.311	-0.301	-0.292	-0.283	-0.274	-0.265	-0.257	-0.248	-0.240	-0.231
	I	F''	2.316	2.345	2.374	2.403	2.433	2.462	2.491	2.521	2.551	2.581
1.5	I	F'	-0.223	-0.215	-0.207	-0.200	-0.192	-0.185	-0.178	-0.171	-0.164	-0.157
	I	F''	2.611	2.641	2.671	2.702	2.732	2.763	2.794	2.825	2.856	2.887
1.6	I	F'	-0.150	-0.144	-0.138	-0.131	-0.125	-0.119	-0.114	-0.108	-0.102	-0.098
	I	F''	2.918	2.950	2.981	3.013	3.045	3.077	3.109	3.141	3.173	3.206
1.7	I	F'	-0.093	-0.088	-0.083	-0.078	-0.074	-0.069	-0.065	-0.061	-0.057	-0.053
	I	F''	3.238	3.271	3.304	3.336	3.369	3.403	3.436	3.469	3.503	3.536
1.8	I	F'	-0.049	-0.046	-0.042	-0.039	-0.036	-0.033	-0.030	-0.027	-0.025	-0.022
	I	F''	3.570	3.604	3.637	3.671	3.706	3.740	3.774	3.809	3.843	3.878
1.9	I	F'	-0.020	-0.018	-0.016	-0.014	-0.013	-0.011	-0.010	-0.009	-0.008	-0.007
	I	F''	3.913	3.948	3.983	4.018	4.053	4.088	4.124	4.159	4.195	4.231
2.0	I	F'	-0.007	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.007	-0.008
	I	F''	4.267	4.303	4.339	4.375	4.411	4.447	4.484	4.521	4.557	4.594
2.1	I	F'	-0.009	-0.010	-0.011	-0.013	-0.015	-0.016	-0.018	-0.023	-0.026	-0.028
	I	F''	4.631	4.668	4.705	4.742	4.780	4.817	4.854	4.892	4.930	4.967
2.2	I	F'	-0.031	-0.034	-0.037	-0.040	-0.044	-0.047	-0.051	-0.055	-0.059	-0.064
	I	F''	5.005	5.043	5.081	5.119	5.157	5.196	5.234	5.273	5.311	5.350
2.3	I	F'	-0.068	-0.073	-0.078	-0.083	-0.088	-0.094	-0.099	-0.109	-0.116	-0.122
	I	F''	5.389	5.427	5.466	5.505	5.545	5.584	5.623	5.662	5.702	5.741
2.4	I	F'	-0.128	-0.135	-0.142	-0.149	-0.156	-0.164	-0.179	-0.187	-0.195	-0.203
	I	F''	5.781	5.821	5.860	5.900	5.940	5.980	6.020	6.060	6.100	6.140
2.5	I	F'	-0.212	-0.221	-0.230	-0.239	-0.248	-0.258	-0.267	-0.277	-0.288	-0.298
	I	F''	6.181	6.221	6.261	6.302	6.342	6.383	6.424	6.464	6.505	6.546
2.6	I	F'	-0.309	-0.320	-0.331	-0.342	-0.353	-0.365	-0.377	-0.389	-0.401	-0.414
	I	F''	6.587	6.628	6.669	6.711	6.752	6.793	6.835	6.876	6.918	6.959
2.7	I	F'	-0.427	-0.440	-0.453	-0.467	-0.480	-0.494	-0.509	-0.523	-0.538	-0.553
	I	F''	7.001	7.043	7.085	7.127	7.169	7.211	7.253	7.295	7.338	7.380
2.8	I	F'	-0.568	-0.583	-0.599	-0.615	-0.631	-0.647	-0.664	-0.683	-0.700	-0.718
	I	F''	7.423	7.465	7.508	7.550	7.593	7.636	7.679	7.722	7.765	7.808

ATOMIC SYMBOL = TC ATOMIC NUMBER = 43

I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	-0.221	-0.199	-0.177	-0.156	-0.134	-0.113	-0.093	-0.074	-0.057	-0.040
	F'	0.148	0.178	0.211	0.246	0.283	0.323	0.366	0.410	0.457	0.506
0.2	I	-0.024	-0.010	0.002	0.014	0.023	0.031	0.036	0.040	0.041	0.040
	F'	0.557	0.609	0.664	0.721	0.779	0.839	0.901	0.965	1.030	1.098
0.3	I	0.033	0.027	0.017	0.006	-0.009	-0.027	-0.049	-0.074	-0.103	-0.136
	F'	1.166	1.235	1.306	1.379	1.453	1.528	1.604	1.682	1.761	1.841
0.4	I	-0.174	-0.217	-0.264	-0.318	-0.378	-0.445	-0.521	-0.604	-0.698	-0.803
	F'	1.923	2.005	2.089	2.174	2.260	2.347	2.435	2.524	2.614	2.704
0.5	I	-0.922	-1.057	-1.212	-1.393	-1.607	-1.869	-2.205	-2.651	-3.140	-3.693
	F'	2.795	2.887	2.979	3.073	3.167	3.261	3.356	3.453	3.554	3.651
0.6	I	-3.513	-2.939	-2.611	-2.385	-2.214	-2.078	-1.965	-1.869	-1.785	-1.711
	F'	0.558	0.575	0.593	0.610	0.628	0.646	0.664	0.683	0.701	0.720
0.7	I	-1.645	-1.585	-1.531	-1.481	-1.434	-1.391	-1.350	-1.312	-1.276	-1.242
	F'	0.739	0.759	0.778	0.798	0.818	0.838	0.858	0.879	0.900	0.920
0.8	I	-1.209	-1.178	-1.148	-1.120	-1.092	-1.066	-1.040	-1.015	-0.991	-0.968
	F'	0.942	0.963	0.985	1.006	1.028	1.051	1.073	1.096	1.119	1.142
0.9	I	-0.946	-0.924	-0.902	-0.881	-0.861	-0.844	-0.825	-0.806	-0.787	-0.769
	F'	1.165	1.188	1.212	1.236	1.260	1.284	1.308	1.333	1.357	1.382
1.0	I	-0.752	-0.734	-0.717	-0.703	-0.687	-0.670	-0.655	-0.642	-0.627	-0.612
	F'	1.407	1.432	1.458	1.483	1.509	1.535	1.561	1.588	1.614	1.640
1.1	I	-0.597	-0.583	-0.569	-0.555	-0.541	-0.528	-0.514	-0.501	-0.488	-0.475
	F'	1.667	1.694	1.721	1.748	1.776	1.803	1.831	1.859	1.887	1.915
1.2	I	-0.463	-0.451	-0.439	-0.427	-0.415	-0.404	-0.392	-0.381	-0.370	-0.359
	F'	1.944	1.972	2.001	2.030	2.059	2.089	2.118	2.148	2.177	2.207
1.3	I	-0.349	-0.338	-0.328	-0.318	-0.309	-0.299	-0.290	-0.280	-0.271	-0.263
	F'	2.237	2.268	2.298	2.329	2.359	2.390	2.421	2.452	2.484	2.515
1.4	I	-0.254	-0.245	-0.237	-0.228	-0.220	-0.212	-0.204	-0.196	-0.189	-0.181
	F'	2.547	2.578	2.610	2.642	2.674	2.706	2.739	2.771	2.804	2.836
1.5	I	-0.174	-0.167	-0.160	-0.153	-0.147	-0.140	-0.134	-0.128	-0.122	-0.117
	F'	2.869	2.902	2.935	2.969	3.002	3.036	3.069	3.103	3.137	3.171
1.6	I	-0.111	-0.105	-0.100	-0.095	-0.090	-0.085	-0.081	-0.076	-0.072	-0.068
	F'	3.206	3.240	3.274	3.309	3.344	3.379	3.414	3.449	3.484	3.520
1.7	I	-0.064	-0.060	-0.056	-0.052	-0.049	-0.046	-0.043	-0.040	-0.037	-0.035
	F'	3.555	3.591	3.627	3.662	3.698	3.735	3.771	3.807	3.844	3.881
1.8	I	-0.033	-0.031	-0.029	-0.027	-0.025	-0.024	-0.022	-0.021	-0.020	-0.020
	F'	3.917	3.954	3.991	4.028	4.066	4.103	4.141	4.178	4.216	4.254
1.9	I	-0.019	-0.019	-0.018	-0.018	-0.019	-0.019	-0.019	-0.020	-0.021	-0.022
	F'	4.292	4.330	4.368	4.406	4.445	4.483	4.522	4.561	4.600	4.639
2.0	I	-0.023	-0.025	-0.027	-0.028	-0.033	-0.035	-0.038	-0.040	-0.043	-0.046
	F'	4.678	4.717	4.757	4.796	4.836	4.875	4.915	4.955	4.995	5.035
2.1	I	-0.049	-0.053	-0.057	-0.060	-0.064	-0.069	-0.073	-0.078	-0.083	-0.088
	F'	5.075	5.115	5.156	5.196	5.237	5.277	5.318	5.359	5.400	5.441
2.2	I	-0.093	-0.098	-0.108	-0.114	-0.120	-0.127	-0.133	-0.140	-0.147	-0.154
	F'	5.482	5.524	5.565	5.607	5.648	5.690	5.731	5.773	5.815	5.857
2.3	I	-0.162	-0.169	-0.184	-0.192	-0.201	-0.210	-0.218	-0.228	-0.237	-0.247
	F'	5.899	5.941	5.984	6.026	6.068	6.111	6.153	6.196	6.238	6.281
2.4	I	-0.256	-0.267	-0.277	-0.287	-0.298	-0.309	-0.320	-0.332	-0.344	-0.356
	F'	6.324	6.367	6.410	6.453	6.496	6.540	6.583	6.626	6.670	6.714
2.5	I	-0.368	-0.380	-0.393	-0.406	-0.419	-0.433	-0.447	-0.461	-0.476	-0.491
	F'	6.757	6.801	6.845	6.889	6.933	6.977	7.021	7.066	7.110	7.154
2.6	I	-0.506	-0.521	-0.538	-0.553	-0.569	-0.585	-0.602	-0.619	-0.636	-0.653
	F'	7.199	7.243	7.288	7.333	7.378	7.423	7.468	7.513	7.558	7.603
2.7	I	-0.670	-0.688	-0.706	-0.725	-0.744	-0.763	-0.782	-0.802	-0.821	-0.842
	F'	7.648	7.694	7.739	7.785	7.831	7.876	7.922	7.967	8.013	8.059
2.8	I	-0.862	-0.883	-0.904	-0.926	-0.947	-0.970	-0.992	-1.015	-1.038	-1.061
	F'	8.105	8.151	8.198	8.244	8.290	8.337	8.383	8.430	8.476	8.523

ATOMIC SYMBOL = RU ATOMIC NUMBER = 44

I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	-0.232	-0.209	-0.186	-0.163	-0.141	-0.120	-0.099	-0.080	-0.063	-0.046
	F'	0.163	0.196	0.231	0.270	0.311	0.354	0.401	0.449	0.500	0.553
0.2	I	-0.031	-0.018	-0.007	0.003	0.011	0.016	0.019	0.020	0.018	0.009
	F'	0.608	0.666	0.725	0.787	0.850	0.915	0.983	1.052	1.123	1.195
0.3	I	0.001	-0.010	-0.024	-0.041	-0.063	-0.088	-0.118	-0.152	-0.190	-0.235
	F'	1.269	1.344	1.421	1.499	1.578	1.659	1.742	1.826	1.911	1.997
0.4	I	-0.285	-0.341	-0.404	-0.475	-0.556	-0.646	-0.748	-0.863	-0.994	-1.145
	F'	2.085	2.174	2.264	2.356	2.448	2.542	2.636	2.732	2.827	2.924
0.5	I	-1.320	-1.528	-1.781	-2.103	-2.522	-3.051	-3.608	-3.592	-2.958	-2.612
	F'	3.021	3.119	3.217	3.316	3.423	3.538	3.658	0.560	0.579	0.597
0.6	I	-2.378	-2.203	-2.064	-1.949	-1.852	-1.767	-1.693	-1.627	-1.567	-1.512
	F'	0.615	0.634	0.653	0.673	0.692	0.712	0.732	0.752	0.773	0.793
0.7	I	-1.461	-1.415	-1.371	-1.330	-1.292	-1.255	-1.221	-1.188	-1.157	-1.127
	F'	0.814	0.836	0.857	0.879	0.901	0.923	0.945	0.968	0.991	1.014
0.8	I	-1.098	-1.070	-1.044	-1.018	-0.993	-0.968	-0.945	-0.922	-0.900	-0.881
	F'	1.037	1.061	1.084	1.108	1.132	1.157	1.181	1.206	1.231	1.257
0.9	I	-0.860	-0.839	-0.819	-0.800	-0.780	-0.762	-0.743	-0.728	-0.710	-0.693
	F'	1.282	1.308	1.334	1.360	1.386	1.412	1.439	1.466	1.493	1.520
1.0	I	-0.676	-0.662	-0.646	-0.630	-0.614	-0.599	-0.584	-0.569	-0.554	-0.540
	F'	1.548	1.575	1.603	1.631	1.659	1.687	1.716	1.745	1.774	1.803
1.1	I	-0.526	-0.512	-0.498	-0.485	-0.471	-0.458	-0.445	-0.433	-0.420	-0.408
	F'	1.832	1.861	1.891	1.921	1.951	1.981	2.012	2.042	2.073	2.104
1.2	I	-0.396	-0.384	-0.372	-0.361	-0.350	-0.339	-0.328	-0.317	-0.307	-0.296
	F'	2.135	2.166	2.198	2.230	2.262	2.294	2.326	2.358	2.391	2.424
1.3	I	-0.286	-0.276	-0.267	-0.257	-0.248	-0.239	-0.230	-0.222	-0.216	-0.208
	F'	2.457	2.490	2.523	2.556	2.590	2.624	2.658	2.692	2.726	2.761
1.4	I	-0.201	-0.193	-0.185	-0.177	-0.170	-0.163	-0.156	-0.149	-0.142	-0.136
	F'	2.795	2.830	2.864	2.899	2.934	2.970	3.005	3.040	3.076	3.112
1.5	I	-0.129	-0.123	-0.117	-0.111	-0.106	-0.100	-0.095	-0.090	-0.085	-0.081
	F'	3.148	3.184	3.220	3.256	3.293	3.330	3.366	3.403	3.440	3.478
1.6	I	-0.076	-0.072	-0.068	-0.064	-0.060	-0.056	-0.053	-0.050	-0.047	-0.044
	F'	3.515	3.553	3.590	3.628	3.666	3.704	3.742	3.781	3.819	3.858
1.7	I	-0.041	-0.039	-0.036	-0.034	-0.032	-0.031	-0.029	-0.028	-0.027	-0.026
	F'	3.897	3.936	3.975	4.014	4.053	4.093	4.132	4.172	4.212	4.252
1.8	I	-0.025	-0.025	-0.025	-0.025	-0.025	-0.025	-0.026	-0.026	-0.027	-0.028
	F'	4.292	4.333	4.373	4.413	4.454	4.495	4.536	4.577	4.618	4.659
1.9	I	-0.030	-0.031	-0.033	-0.037	-0.040	-0.042	-0.045	-0.048	-0.051	-0.054
	F'	4.701	4.742	4.784	4.826	4.868	4.910	4.952	4.994	5.036	5.079
2.0	I	-0.058	-0.062	-0.066	-0.070	-0.074	-0.079	-0.084	-0.089	-0.095	-0.103
	F'	5.121	5.164	5.207	5.250	5.293	5.336	5.380	5.423	5.467	5.510
2.1	I	-0.109	-0.116	-0.122	-0.129	-0.135	-0.143	-0.150	-0.158	-0.165	-0.179
	F'	5.554	5.598	5.642	5.686	5.730	5.774	5.818	5.863	5.907	5.952
2.2	I	-0.188	-0.197	-0.205	-0.215	-0.224	-0.234	-0.244	-0.254	-0.265	-0.275
	F'	5.996	6.041	6.086	6.131	6.176	6.221	6.266	6.312	6.357	6.403
2.3	I	-0.286	-0.298	-0.309	-0.322	-0.334	-0.347	-0.359	-0.374	-0.387	-0.400
	F'	6.448	6.494	6.540	6.586	6.632	6.678	6.724	6.770	6.817	6.863
2.4	I	-0.414	-0.428	-0.443	-0.457	-0.472	-0.488	-0.503	-0.519	-0.535	-0.552
	F'	6.910	6.956	7.003	7.050	7.097	7.144	7.191	7.238	7.285	7.333
2.5	I	-0.568	-0.585	-0.603	-0.621	-0.639	-0.657	-0.676	-0.694	-0.714	-0.733
	F'	7.380	7.428	7.475	7.523	7.571	7.619	7.667	7.715	7.763	7.811
2.6	I	-0.753	-0.774	-0.794	-0.815	-0.836	-0.858	-0.880	-0.902	-0.925	-0.948
	F'	7.860	7.908	7.957	8.005	8.054	8.103	8.151	8.200	8.249	8.298
2.7	I	-0.972	-0.995	-1.019	-1.044	-1.069	-1.094	-1.120	-1.146	-1.172	-1.199
	F'	8.348	8.397	8.446	8.495	8.545	8.594	8.644	8.694	8.744	8.793
2.8	I	-1.226	-1.254	-1.282	-1.310	-1.339	-1.368	-1.398	-1.428	-1.459	-1.490
	F'	8.843	8.893	8.944	8.994	9.044	9.094	9.145	9.195	9.246	9.297

ATOMIC SYMBOL = RH ATOMIC NUMBER = 45

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.245	-0.221	-0.197	-0.174	-0.151	-0.130	-0.109	-0.090	-0.073	-0.057
	I	F''	0.179	0.215	0.253	0.295	0.340	0.387	0.438	0.490	0.545	0.603
0.2	I	F'	-0.043	-0.031	-0.021	-0.013	-0.008	-0.005	-0.005	-0.011	-0.017	-0.027
	I	F''	0.663	0.725	0.789	0.856	0.924	0.995	1.068	1.143	1.218	1.296
0.3	I	F'	-0.039	-0.056	-0.076	-0.101	-0.130	-0.164	-0.203	-0.248	-0.299	-0.357
	I	F''	1.376	1.457	1.539	1.624	1.709	1.797	1.885	1.976	2.067	2.160
0.4	I	F'	-0.423	-0.497	-0.584	-0.679	-0.787	-0.910	-1.051	-1.216	-1.410	-1.644
	I	F''	2.255	2.351	2.447	2.544	2.643	2.743	2.843	2.945	3.047	3.150
0.5	I	F'	-1.937	-2.310	-2.903	-3.623	-4.483	-5.483	-6.623	-7.903	-9.323	-10.893
	I	F''	3.254	3.359	3.477	3.600	3.728	3.860	3.997	4.139	4.286	4.438
0.6	I	F'	-1.958	-1.857	-1.769	-1.693	-1.624	-1.563	-1.506	-1.455	-1.407	-1.363
	I	F''	0.677	0.697	0.718	0.739	0.761	0.783	0.805	0.827	0.849	0.872
0.7	I	F'	-1.321	-1.282	-1.245	-1.210	-1.177	-1.145	-1.115	-1.085	-1.057	-1.030
	I	F''	0.895	0.918	0.942	0.966	0.990	1.014	1.039	1.063	1.088	1.114
0.8	I	F'	-1.004	-0.978	-0.953	-0.930	-0.909	-0.886	-0.864	-0.843	-0.822	-0.801
	I	F''	1.139	1.165	1.191	1.217	1.244	1.270	1.297	1.325	1.352	1.380
0.9	I	F'	-0.781	-0.764	-0.745	-0.727	-0.708	-0.690	-0.676	-0.659	-0.642	-0.625
	I	F''	1.407	1.435	1.464	1.492	1.521	1.550	1.579	1.608	1.638	1.667
1.0	I	F'	-0.609	-0.593	-0.577	-0.562	-0.547	-0.532	-0.517	-0.503	-0.489	-0.475
	I	F''	1.697	1.727	1.758	1.788	1.819	1.850	1.881	1.912	1.944	1.976
1.1	I	F'	-0.461	-0.448	-0.435	-0.422	-0.409	-0.396	-0.384	-0.372	-0.360	-0.348
	I	F''	2.008	2.040	2.073	2.105	2.138	2.171	2.204	2.238	2.271	2.305
1.2	I	F'	-0.337	-0.325	-0.314	-0.303	-0.293	-0.282	-0.272	-0.264	-0.255	-0.245
	I	F''	2.339	2.373	2.408	2.442	2.477	2.512	2.547	2.583	2.618	2.654
1.3	I	F'	-0.236	-0.226	-0.217	-0.209	-0.204	-0.195	-0.187	-0.179	-0.172	-0.164
	I	F''	2.690	2.726	2.762	2.799	2.836	2.872	2.909	2.947	2.984	3.021
1.4	I	F'	-0.157	-0.150	-0.143	-0.137	-0.130	-0.124	-0.118	-0.112	-0.107	-0.101
	I	F''	3.059	3.097	3.135	3.173	3.211	3.249	3.287	3.326	3.365	3.404
1.5	I	F'	-0.096	-0.091	-0.086	-0.082	-0.077	-0.073	-0.069	-0.065	-0.062	-0.058
	I	F''	3.443	3.482	3.522	3.561	3.601	3.641	3.681	3.722	3.762	3.802
1.6	I	F'	-0.055	-0.052	-0.050	-0.047	-0.045	-0.043	-0.041	-0.039	-0.038	-0.037
	I	F''	3.843	3.884	3.925	3.966	4.008	4.049	4.091	4.132	4.174	4.216
1.7	I	F'	-0.036	-0.035	-0.035	-0.034	-0.034	-0.034	-0.035	-0.035	-0.036	-0.037
	I	F''	4.259	4.301	4.344	4.386	4.429	4.472	4.515	4.558	4.602	4.645
1.8	I	F'	-0.039	-0.040	-0.044	-0.046	-0.048	-0.051	-0.053	-0.056	-0.060	-0.063
	I	F''	4.689	4.733	4.776	4.821	4.865	4.909	4.953	4.998	5.043	5.088
1.9	I	F'	-0.067	-0.071	-0.075	-0.080	-0.085	-0.090	-0.095	-0.100	-0.109	-0.115
	I	F''	5.132	5.178	5.223	5.268	5.314	5.359	5.405	5.451	5.497	5.543
2.0	I	F'	-0.122	-0.128	-0.135	-0.142	-0.150	-0.158	-0.166	-0.179	-0.187	-0.196
	I	F''	5.589	5.635	5.682	5.728	5.775	5.822	5.869	5.916	5.963	6.010
2.1	I	F'	-0.206	-0.215	-0.226	-0.236	-0.246	-0.257	-0.269	-0.280	-0.292	-0.304
	I	F''	6.057	6.105	6.152	6.200	6.247	6.295	6.343	6.391	6.439	6.487
2.2	I	F'	-0.316	-0.328	-0.341	-0.354	-0.367	-0.381	-0.395	-0.409	-0.424	-0.439
	I	F''	6.536	6.584	6.633	6.682	6.730	6.779	6.828	6.877	6.926	6.976
2.3	I	F'	-0.454	-0.470	-0.486	-0.502	-0.519	-0.536	-0.553	-0.570	-0.588	-0.607
	I	F''	7.025	7.075	7.124	7.174	7.224	7.274	7.324	7.374	7.424	7.474
2.4	I	F'	-0.625	-0.644	-0.664	-0.684	-0.704	-0.724	-0.745	-0.766	-0.788	-0.810
	I	F''	7.525	7.575	7.626	7.677	7.727	7.778	7.829	7.880	7.931	7.983
2.5	I	F'	-0.832	-0.855	-0.878	-0.901	-0.925	-0.949	-0.974	-0.999	-1.025	-1.051
	I	F''	8.034	8.086	8.137	8.189	8.241	8.292	8.344	8.396	8.448	8.501
2.6	I	F'	-1.077	-1.104	-1.131	-1.159	-1.187	-1.215	-1.244	-1.274	-1.304	-1.334
	I	F''	8.553	8.605	8.658	8.710	8.763	8.816	8.868	8.921	8.974	9.027
2.7	I	F'	-1.365	-1.396	-1.428	-1.460	-1.493	-1.526	-1.560	-1.594	-1.629	-1.664
	I	F''	9.080	9.134	9.187	9.240	9.294	9.347	9.401	9.455	9.509	9.563
2.8	I	F'	-1.705	-1.741	-1.778	-1.816	-1.854	-1.893	-1.932	-1.972	-2.012	-2.053
	I	F''	9.616	9.670	9.724	9.778	9.832	9.887	9.941	9.995	10.050	10.104

ATOMIC SYMBOL = PD ATOMIC NUMBER = 46

	I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.257	-0.232	-0.208	-0.184	-0.161	-0.139	-0.119	-0.100	-0.083	-0.068
	I	F''	0.196	0.235	0.277	0.322	0.371	0.423	0.477	0.534	0.594	0.656
0.2	I	F'	-0.056	-0.045	-0.037	-0.031	-0.028	-0.029	-0.036	-0.043	-0.054	-0.068
	I	F''	0.721	0.788	0.858	0.930	1.004	1.080	1.158	1.238	1.320	1.404
0.3	I	F'	-0.087	-0.110	-0.138	-0.171	-0.210	-0.255	-0.306	-0.365	-0.431	-0.507
	I	F''	1.489	1.576	1.665	1.756	1.848	1.942	2.037	2.134	2.233	2.332
0.4	I	F'	-0.595	-0.694	-0.806	-0.936	-1.086	-1.262	-1.474	-1.734	-2.067	-2.520
	I	F''	2.433	2.536	2.639	2.744	2.850	2.957	3.066	3.174	3.282	3.394
0.5	I	F'	-3.314	-5.752	-3.387	-2.828	-2.509	-2.290	-2.125	-1.992	-1.883	-1.789
	I	F''	3.515	0.552	0.572	0.592	0.613	0.634	0.655	0.676	0.698	0.720
0.6	I	F'	-1.708	-1.636	-1.571	-1.513	-1.459	-1.410	-1.364	-1.321	-1.281	-1.243
	I	F''	0.743	0.765	0.788	0.811	0.835	0.859	0.883	0.907	0.932	0.957
0.7	I	F'	-1.207	-1.172	-1.140	-1.108	-1.078	-1.049	-1.021	-0.994	-0.968	-0.943
	I	F''	0.982	1.007	1.033	1.059	1.085	1.112	1.139	1.166	1.193	1.221
0.8	I	F'	-0.921	-0.897	-0.874	-0.852	-0.830	-0.808	-0.790	-0.769	-0.749	-0.730
	I	F''	1.249	1.277	1.305	1.334	1.363	1.392	1.422	1.451	1.481	1.511
0.9	I	F'	-0.711	-0.695	-0.676	-0.659	-0.641	-0.624	-0.607	-0.590	-0.574	-0.558
	I	F''	1.541	1.572	1.603	1.634	1.665	1.696	1.728	1.760	1.792	1.825
1.0	I	F'	-0.542	-0.527	-0.512	-0.497	-0.482	-0.468	-0.454	-0.440	-0.426	-0.413
	I	F''	1.857	1.890	1.923	1.957	1.990	2.024	2.058	2.092	2.127	2.161
1.1	I	F'	-0.400	-0.387	-0.374	-0.362	-0.349	-0.337	-0.326	-0.314	-0.303	-0.294
	I	F''	2.196	2.231	2.267	2.302	2.338	2.374	2.410	2.447	2.483	2.520
1.2	I	F'	-0.283	-0.273	-0.263	-0.252	-0.242	-0.236	-0.227	-0.218	-0.209	-0.200
	I	F''	2.557	2.595	2.632	2.670	2.708	2.746	2.784	2.822	2.861	2.900
1.3	I	F'	-0.191	-0.183	-0.175	-0.167	-0.160	-0.152	-0.145	-0.138	-0.132	-0.125
	I	F''	2.939	2.978	3.018	3.058	3.097	3.137	3.178	3.218	3.259	3.300
1.4	I	F'	-0.119	-0.113	-0.108	-0.102	-0.097	-0.092	-0.087	-0.083	-0.078	-0.074
	I	F''	3.341	3.382	3.423	3.464	3.506	3.547	3.589	3.631	3.673	3.716
1.5	I	F'	-0.070	-0.067	-0.063	-0.060	-0.057	-0.055	-0.052	-0.050	-0.048	-0.046
	I	F''	3.758	3.801	3.844	3.887	3.930	3.974	4.017	4.061	4.105	4.149
1.6	I	F'	-0.045	-0.043	-0.042	-0.042	-0.041	-0.041	-0.041	-0.041	-0.042	-0.043
	I	F''	4.193	4.238	4.282	4.327	4.372	4.417	4.462	4.507	4.553	4.599
1.7	I	F'	-0.044	-0.045	-0.048	-0.050	-0.052	-0.054	-0.057	-0.060	-0.063	-0.066
	I	F''	4.644	4.690	4.737	4.783	4.829	4.876	4.923	4.969	5.017	5.064
1.8	I	F'	-0.070	-0.074	-0.078	-0.083	-0.088	-0.093	-0.098	-0.106	-0.113	-0.119
	I	F''	5.111	5.158	5.206	5.254	5.302	5.350	5.398	5.446	5.495	5.543
1.9	I	F'	-0.126	-0.133	-0.140	-0.147	-0.155	-0.164	-0.177	-0.185	-0.195	-0.205
	I	F''	5.592	5.641	5.690	5.739	5.788	5.838	5.887	5.937	5.986	6.036
2.0	I	F'	-0.215	-0.225	-0.235	-0.246	-0.257	-0.269	-0.280	-0.292	-0.305	-0.318
	I	F''	6.086	6.136	6.186	6.236	6.287	6.337	6.388	6.439	6.490	6.541
2.1	I	F'	-0.331	-0.344	-0.358	-0.372	-0.386	-0.401	-0.416	-0.432	-0.448	-0.464
	I	F''	6.592	6.643	6.694	6.746	6.797	6.849	6.901	6.953	7.005	7.057
2.2	I	F'	-0.481	-0.498	-0.515	-0.533	-0.551	-0.569	-0.588	-0.607	-0.627	-0.647
	I	F''	7.110	7.162	7.214	7.267	7.320	7.373	7.426	7.479	7.532	7.585
2.3	I	F'	-0.668	-0.688	-0.710	-0.731	-0.753	-0.776	-0.799	-0.822	-0.846	-0.870
	I	F''	7.639	7.692	7.746	7.800	7.853	7.907	7.961	8.016	8.070	8.124
2.4	I	F'	-0.875	-0.920	-0.945	-0.971	-0.998	-1.025	-1.052	-1.080	-1.108	-1.137
	I	F''	8.179	8.233	8.288	8.343	8.398	8.453	8.508	8.563	8.618	8.674
2.5	I	F'	-1.166	-1.196	-1.226	-1.257	-1.288	-1.320	-1.353	-1.386	-1.419	-1.453
	I	F''	8.729	8.785	8.840	8.896	8.952	9.008	9.064	9.120	9.177	9.233
2.6	I	F'	-1.487	-1.523	-1.558	-1.594	-1.631	-1.674	-1.712	-1.750	-1.790	-1.829
	I	F''	9.289	9.346	9.402	9.459	9.516	9.573	9.630	9.687	9.744	9.801
2.7	I	F'	-1.870	-1.911	-1.953	-1.995	-2.039	-2.082	-2.127	-2.172	-2.218	-2.265
	I	F''	9.858	9.915	9.972	10.030	10.087	10.145	10.202	10.260	10.318	10.376
2.8	I	F'	-2.312	-2.360	-2.409	-2.459	-2.509	-2.561	-2.613	-2.670	-2.724	-2.779
	I	F''	10.434	10.492	10.550	10.608	10.667	10.725	10.784	10.842	10.901	10.959

ATOMIC SYMBOL = AG

ATOMIC NUMBER = 47

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.271	-0.245	-0.220	-0.195	-0.172	-0.150	-0.130	-0.112	-0.096	-0.082
	I	F''	-0.214	-0.256	-0.302	-0.351	-0.404	-0.460	-0.519	-0.581	-0.645	-0.712
0.2	I	F'	-0.071	-0.062	-0.056	-0.054	-0.054	-0.062	-0.070	-0.082	-0.099	-0.120
	I	F''	0.782	0.855	0.930	1.007	1.087	1.169	1.253	1.339	1.427	1.517
0.3	I	F'	-0.146	-0.177	-0.214	-0.258	-0.308	-0.367	-0.433	-0.510	-0.600	-0.700
	I	F''	1.608	1.702	1.797	1.894	1.993	2.094	2.196	2.300	2.405	2.511
0.4	I	F'	-0.816	-0.949	-1.104	-1.288	-1.510	-1.787	-2.153	-2.700	-3.728	-4.229
	I	F''	2.618	2.727	2.838	2.949	3.062	3.176	3.291	3.401	3.530	0.562
0.5	I	F'	-3.125	-2.679	-2.403	-2.206	-2.055	-1.932	-1.829	-1.741	-1.663	-1.594
	I	F''	0.584	0.605	0.627	0.649	0.671	0.694	0.717	0.741	0.764	0.789
0.6	I	F'	-1.532	-1.476	-1.424	-1.376	-1.331	-1.289	-1.250	-1.213	-1.177	-1.143
	I	F''	0.813	0.838	0.863	0.888	0.914	0.940	0.966	0.993	1.019	1.047
0.7	I	F'	-1.111	-1.080	-1.050	-1.022	-0.994	-0.967	-0.943	-0.918	-0.894	-0.870
	I	F''	1.074	1.102	1.130	1.159	1.187	1.216	1.246	1.275	1.305	1.335
0.8	I	F'	-0.847	-0.825	-0.805	-0.783	-0.763	-0.742	-0.724	-0.705	-0.686	-0.667
	I	F''	1.365	1.396	1.427	1.458	1.490	1.521	1.553	1.585	1.618	1.651
0.9	I	F'	-0.649	-0.631	-0.613	-0.596	-0.579	-0.563	-0.546	-0.531	-0.515	-0.499
	I	F''	1.684	1.717	1.750	1.784	1.818	1.852	1.887	1.922	1.957	1.992
1.0	I	F'	-0.484	-0.469	-0.455	-0.440	-0.426	-0.413	-0.399	-0.386	-0.373	-0.360
	I	F''	2.027	2.063	2.099	2.135	2.172	2.209	2.246	2.283	2.320	2.358
1.1	I	F'	-0.350	-0.338	-0.326	-0.314	-0.302	-0.291	-0.283	-0.273	-0.262	-0.252
	I	F''	2.396	2.434	2.473	2.511	2.550	2.589	2.629	2.668	2.708	2.748
1.2	I	F'	-0.242	-0.232	-0.223	-0.214	-0.205	-0.196	-0.188	-0.180	-0.172	-0.164
	I	F''	2.788	2.829	2.870	2.910	2.952	2.993	3.035	3.076	3.118	3.161
1.3	I	F'	-0.157	-0.149	-0.143	-0.136	-0.130	-0.123	-0.118	-0.112	-0.107	-0.102
	I	F''	3.203	3.246	3.289	3.332	3.375	3.419	3.462	3.506	3.550	3.595
1.4	I	F'	-0.097	-0.093	-0.088	-0.084	-0.080	-0.077	-0.074	-0.071	-0.068	-0.066
	I	F''	3.639	3.684	3.728	3.773	3.818	3.863	3.909	3.954	4.000	4.046
1.5	I	F'	-0.063	-0.062	-0.060	-0.058	-0.057	-0.057	-0.056	-0.056	-0.056	-0.056
	I	F''	4.092	4.138	4.185	4.232	4.278	4.325	4.373	4.420	4.468	4.515
1.6	I	F'	-0.057	-0.057	-0.059	-0.061	-0.063	-0.065	-0.067	-0.070	-0.073	-0.076
	I	F''	4.563	4.611	4.660	4.708	4.757	4.805	4.854	4.904	4.953	5.002
1.7	I	F'	-0.079	-0.083	-0.087	-0.092	-0.097	-0.102	-0.109	-0.115	-0.121	-0.128
	I	F''	5.052	5.102	5.151	5.202	5.252	5.302	5.353	5.403	5.454	5.505
1.8	I	F'	-0.135	-0.142	-0.150	-0.157	-0.165	-0.177	-0.186	-0.195	-0.205	-0.215
	I	F''	5.556	5.608	5.659	5.711	5.763	5.814	5.866	5.918	5.971	6.023
1.9	I	F'	-0.225	-0.235	-0.244	-0.258	-0.269	-0.281	-0.294	-0.306	-0.320	-0.333
	I	F''	6.076	6.128	6.181	6.234	6.287	6.340	6.394	6.447	6.501	6.554
2.0	I	F'	-0.347	-0.361	-0.376	-0.391	-0.406	-0.422	-0.438	-0.455	-0.472	-0.489
	I	F''	6.608	6.662	6.714	6.771	6.825	6.880	6.934	6.989	7.044	7.099
2.1	I	F'	-0.507	-0.525	-0.544	-0.563	-0.582	-0.602	-0.623	-0.643	-0.665	-0.686
	I	F''	7.154	7.210	7.265	7.321	7.376	7.432	7.488	7.544	7.600	7.657
2.2	I	F'	-0.708	-0.731	-0.754	-0.778	-0.802	-0.826	-0.851	-0.876	-0.902	-0.929
	I	F''	7.713	7.769	7.826	7.883	7.940	7.997	8.054	8.111	8.169	8.226
2.3	I	F'	-0.956	-0.983	-1.011	-1.039	-1.068	-1.098	-1.128	-1.158	-1.190	-1.221
	I	F''	8.284	8.341	8.399	8.457	8.515	8.573	8.632	8.690	8.748	8.807
2.4	I	F'	-1.254	-1.286	-1.320	-1.354	-1.388	-1.424	-1.459	-1.495	-1.533	-1.570
	I	F''	8.866	8.924	8.983	9.042	9.102	9.161	9.220	9.280	9.339	9.399
2.5	I	F'	-1.609	-1.653	-1.692	-1.733	-1.774	-1.816	-1.858	-1.901	-1.945	-1.990
	I	F''	9.459	9.518	9.578	9.638	9.698	9.758	9.818	9.878	9.939	9.999
2.6	I	F'	-2.035	-2.081	-2.128	-2.176	-2.224	-2.274	-2.324	-2.374	-2.427	-2.479
	I	F''	10.060	10.120	10.181	10.242	10.303	10.364	10.425	10.486	10.547	10.609
2.7	I	F'	-2.533	-2.592	-2.648	-2.705	-2.762	-2.820	-2.880	-2.940	-3.002	-3.065
	I	F''	10.670	10.732	10.793	10.855	10.916	10.978	11.040	11.102	11.164	11.226
2.8	I	F'	-3.129	-3.194	-3.260	-3.327	-3.396	-3.473	-3.544	-3.617	-3.691	-3.766
	I	F''	11.288	11.350	11.412	11.474	11.537	11.599	11.662	11.724	11.786	11.849

ATOMIC SYMBOL = CD

ATOMIC NUMBER = 48

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.285	-0.258	-0.232	-0.207	-0.184	-0.162	-0.143	-0.125	-0.111	-0.098
	I	F''	0.233	0.278	0.328	0.381	0.439	0.499	0.563	0.630	0.699	0.772
0.2	I	F'	-0.089	-0.083	-0.080	-0.080	-0.088	-0.097	-0.111	-0.129	-0.152	-0.181
	I	F''	0.847	0.925	1.006	1.090	1.175	1.263	1.353	1.445	1.539	1.636
0.3	I	F'	-0.216	-0.257	-0.306	-0.362	-0.428	-0.503	-0.593	-0.693	-0.809	-0.944
	I	F''	1.734	1.834	1.936	2.040	2.146	2.254	2.363	2.473	2.585	2.698
0.4	I	F'	-1.102	-1.290	-1.519	-1.807	-2.192	-2.763	-3.404	-4.209	-5.293	-6.654
	I	F''	2.813	2.929	3.047	3.165	3.286	3.413	3.545	3.680	3.819	3.961
0.5	I	F'	-2.339	-2.154	-2.010	-1.892	-1.793	-1.708	-1.633	-1.566	-1.505	-1.450
	I	F''	0.638	0.661	0.685	0.709	0.734	0.759	0.784	0.810	0.835	0.862
0.6	I	F'	-1.399	-1.352	-1.308	-1.266	-1.227	-1.190	-1.155	-1.122	-1.089	-1.059
	I	F''	0.888	0.915	0.943	0.970	0.998	1.027	1.055	1.084	1.114	1.143
0.7	I	F'	-1.029	-1.000	-0.975	-0.948	-0.922	-0.897	-0.872	-0.851	-0.827	-0.805
	I	F''	1.173	1.204	1.234	1.265	1.296	1.328	1.360	1.392	1.424	1.457
0.8	I	F'	-0.783	-0.764	-0.743	-0.722	-0.702	-0.683	-0.664	-0.645	-0.627	-0.609
	I	F''	1.490	1.523	1.557	1.591	1.625	1.659	1.694	1.729	1.764	1.800
0.9	I	F'	-0.591	-0.574	-0.557	-0.540	-0.524	-0.508	-0.492	-0.477	-0.462	-0.447
	I	F''	1.835	1.878	1.920	1.963	2.007	2.051	2.095	2.139	2.183	2.227
1.0	I	F'	-0.433	-0.418	-0.407	-0.393	-0.380	-0.367	-0.354	-0.341	-0.332	-0.320
	I	F''	2.209	2.248	2.287	2.327	2.366	2.406	2.446	2.487	2.527	2.568
1.1	I	F'	-0.308	-0.297	-0.286	-0.275	-0.265	-0.254	-0.244	-0.235	-0.225	-0.216
	I	F''	2.609	2.651	2.693	2.734	2.777	2.819	2.862	2.905	2.948	2.991
1.2	I	F'	-0.207	-0.199	-0.190	-0.182	-0.174	-0.167	-0.160	-0.153	-0.146	-0.140
	I	F''	3.035	3.079	3.123	3.167	3.212	3.257	3.302	3.347	3.393	3.439
1.3	I	F'	-0.134	-0.128	-0.123	-0.118	-0.113	-0.108	-0.104	-0.100	-0.097	-0.094
	I	F''	3.485	3.531	3.578	3.624	3.671	3.718	3.766	3.814	3.861	3.910
1.4	I	F'	-0.091	-0.088	-0.085	-0.083	-0.081	-0.080	-0.078	-0.077	-0.077	-0.076
	I	F''	3.958	4.006	4.054	4.103	4.151	4.200	4.249	4.299	4.348	4.398
1.5	I	F'	-0.076	-0.076	-0.077	-0.078	-0.079	-0.081	-0.083	-0.085	-0.088	-0.090
	I	F''	4.448	4.498	4.548	4.599	4.650	4.701	4.752	4.803	4.854	4.906
1.6	I	F'	-0.094	-0.097	-0.101	-0.105	-0.110	-0.115	-0.120	-0.127	-0.133	-0.140
	I	F''	4.958	5.010	5.062	5.114	5.167	5.220	5.272	5.326	5.379	5.432
1.7	I	F'	-0.146	-0.153	-0.161	-0.169	-0.177	-0.185	-0.193	-0.206	-0.216	-0.226
	I	F''	5.486	5.539	5.593	5.647	5.702	5.756	5.810	5.865	5.920	5.975
1.8	I	F'	-0.237	-0.248	-0.259	-0.270	-0.283	-0.295	-0.308	-0.321	-0.335	-0.349
	I	F''	6.030	6.085	6.141	6.196	6.252	6.308	6.364	6.420	6.477	6.533
1.9	I	F'	-0.364	-0.379	-0.394	-0.410	-0.426	-0.443	-0.460	-0.477	-0.495	-0.514
	I	F''	6.590	6.647	6.704	6.761	6.818	6.875	6.933	6.990	7.048	7.106
2.0	I	F'	-0.533	-0.552	-0.572	-0.592	-0.613	-0.634	-0.656	-0.679	-0.701	-0.725
	I	F''	7.164	7.223	7.281	7.340	7.398	7.457	7.516	7.575	7.634	7.694
2.1	I	F'	-0.748	-0.773	-0.797	-0.823	-0.849	-0.875	-0.902	-0.929	-0.958	-0.986
	I	F''	7.753	7.813	7.872	7.932	7.992	8.052	8.113	8.173	8.234	8.2

ATOMIC SYMBOL = IN ATOMIC NUMBER = 49

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.299	-0.271	-0.245	-0.220	-0.196	-0.175	-0.156	-0.140	-0.127	-0.117
	I	F''	0.253	0.302	0.356	0.414	0.475	0.541	0.610	0.682	0.757	0.835
0.2	I	F'	-0.110	-0.106	-0.107	-0.115	-0.124	-0.139	-0.158	-0.184	-0.215	-0.253
	I	F''	0.916	1.000	1.087	1.176	1.267	1.361	1.458	1.556	1.657	1.760
0.3	I	F'	-0.299	-0.353	-0.415	-0.488	-0.573	-0.673	-0.787	-0.920	-1.077	-1.264
	I	F''	1.865	1.973	2.082	2.193	2.306	2.421	2.537	2.654	2.774	2.895
0.4	I	F'	-1.494	-1.784	-2.173	-2.761	-4.115	-3.763	-2.943	-2.557	-2.308	-2.127
	I	F''	3.017	3.142	3.267	3.397	3.530	0.574	0.598	0.622	0.646	0.671
0.5	I	F'	-1.986	-1.870	-1.773	-1.689	-1.614	-1.548	-1.488	-1.433	-1.383	-1.336
	I	F''	0.696	0.722	0.748	0.774	0.801	0.828	0.855	0.883	0.911	0.940
0.6	I	F'	-1.292	-1.251	-1.212	-1.175	-1.140	-1.106	-1.074	-1.043	-1.015	-0.987
	I	F''	0.969	0.998	1.028	1.058	1.088	1.119	1.150	1.182	1.214	1.246
0.7	I	F'	-0.959	-0.932	-0.906	-0.883	-0.858	-0.834	-0.811	-0.791	-0.769	-0.747
	I	F''	1.279	1.311	1.345	1.378	1.412	1.446	1.481	1.516	1.551	1.586
0.8	I	F'	-0.726	-0.706	-0.686	-0.666	-0.647	-0.628	-0.610	-0.592	-0.574	-0.557
	I	F''	1.622	1.658	1.694	1.731	1.768	1.805	1.843	1.881	1.919	1.958
0.9	I	F'	-0.540	-0.523	-0.507	-0.491	-0.476	-0.462	-0.447	-0.433	-0.418	-0.404
	I	F''	1.997	2.036	2.076	2.115	2.155	2.196	2.236	2.277	2.319	2.360
1.0	I	F'	-0.393	-0.380	-0.367	-0.354	-0.342	-0.330	-0.318	-0.306	-0.295	-0.284
	I	F''	2.402	2.444	2.486	2.529	2.572	2.615	2.659	2.702	2.746	2.791
1.1	I	F'	-0.273	-0.263	-0.253	-0.243	-0.234	-0.225	-0.216	-0.207	-0.199	-0.191
	I	F''	2.835	2.880	2.925	2.971	3.016	3.062	3.108	3.155	3.202	3.249
1.2	I	F'	-0.184	-0.176	-0.169	-0.163	-0.156	-0.150	-0.145	-0.139	-0.134	-0.130
	I	F''	3.296	3.343	3.391	3.439	3.487	3.536	3.585	3.634	3.683	3.733
1.3	I	F'	-0.125	-0.121	-0.118	-0.114	-0.112	-0.109	-0.107	-0.105	-0.104	-0.103
	I	F''	3.783	3.833	3.883	3.933	3.984	4.035	4.087	4.138	4.190	4.242
1.4	I	F'	-0.103	-0.102	-0.102	-0.102	-0.102	-0.103	-0.104	-0.106	-0.108	-0.110
	I	F''	4.294	4.346	4.398	4.450	4.503	4.556	4.609	4.662	4.716	4.769
1.5	I	F'	-0.112	-0.115	-0.119	-0.122	-0.126	-0.131	-0.135	-0.141	-0.147	-0.153
	I	F''	4.823	4.877	4.932	4.986	5.041	5.096	5.151	5.206	5.262	5.317
1.6	I	F'	-0.159	-0.166	-0.173	-0.181	-0.189	-0.197	-0.206	-0.217	-0.227	-0.237
	I	F''	5.373	5.429	5.486	5.542	5.599	5.655	5.712	5.770	5.827	5.884
1.7	I	F'	-0.248	-0.259	-0.270	-0.282	-0.294	-0.307	-0.320	-0.334	-0.348	-0.362
	I	F''	5.942	6.000	6.058	6.116	6.174	6.233	6.291	6.350	6.409	6.469
1.8	I	F'	-0.377	-0.392	-0.408	-0.425	-0.442	-0.459	-0.477	-0.495	-0.514	-0.533
	I	F''	6.528	6.587	6.647	6.707	6.767	6.827	6.887	6.948	7.009	7.069
1.9	I	F'	-0.553	-0.573	-0.594	-0.616	-0.637	-0.660	-0.683	-0.706	-0.730	-0.755
	I	F''	7.130	7.191	7.253	7.314	7.376	7.438	7.499	7.561	7.624	7.686
2.0	I	F'	-0.780	-0.806	-0.832	-0.859	-0.887	-0.915	-0.944	-0.973	-1.003	-1.034
	I	F''	7.749	7.811	7.874	7.937	8.000	8.063	8.127	8.190	8.254	8.318
2.1	I	F'	-1.065	-1.097	-1.129	-1.163	-1.197	-1.231	-1.267	-1.302	-1.339	-1.377
	I	F''	8.381	8.446	8.510	8.574	8.639	8.703	8.768	8.833	8.898	8.963
2.2	I	F'	-1.415	-1.454	-1.493	-1.534	-1.575	-1.617	-1.664	-1.707	-1.752	-1.797
	I	F''	9.028	9.094	9.159	9.225	9.291	9.357	9.423	9.489	9.555	9.621
2.3	I	F'	-1.844	-1.891	-1.939	-1.988	-2.037	-2.088	-2.140	-2.193	-2.247	-2.301
	I	F''	9.688	9.754	9.821	9.888	9.955	10.022	10.089	10.156	10.223	10.291
2.4	I	F'	-2.357	-2.414	-2.472	-2.537	-2.597	-2.658	-2.721	-2.785	-2.850	-2.916
	I	F''	10.359	10.426	10.494	10.562	10.630	10.698	10.766	10.834	10.902	10.970
2.5	I	F'	-2.984	-3.053	-3.124	-3.196	-3.269	-3.344	-3.429	-3.507	-3.587	-3.669
	I	F''	11.039	11.107	11.176	11.245	11.314	11.383	11.452	11.521	11.590	11.659
2.6	I	F'	-3.752	-3.837	-3.924	-4.013	-4.105	-4.198	-4.293	-4.391	-4.492	-4.595
	I	F''	11.728	11.797	11.866	11.935	12.005	12.074	12.144	12.214	12.284	12.353
2.7	I	F'	-4.700	-4.809	-4.920	-5.035	-5.153	-5.275	-5.401	-5.531	-5.666	-5.800
	I	F''	12.423	12.493	12.564	12.634	12.704	12.774	12.845	12.915	12.986	13.057
2.8	I	F'	-5.945	-6.097	-6.255	-6.422	-6.598	-6.785	-6.986	-7.204	-7.445	-7.718
	I	F''	13.128	13.199	13.271	13.342	13.414	13.486	13.558	13.630	13.702	13.774

ATOMIC SYMBOL = SN ATOMIC NUMBER = 50

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.314	-0.286	-0.259	-0.234	-0.210	-0.190	-0.172	-0.158	-0.146	-0.138
	I	F''	0.274	0.328	0.386	0.448	0.514	0.585	0.659	0.737	0.817	0.901
0.2	I	F'	-0.134	-0.134	-0.142	-0.152	-0.167	-0.188	-0.215	-0.249	-0.290	-0.340
	I	F''	0.988	1.078	1.171	1.266	1.364	1.465	1.568	1.673	1.781	1.891
0.3	I	F'	-0.398	-0.467	-0.548	-0.644	-0.754	-0.883	-1.036	-1.218	-1.441	-1.723
	I	F''	2.003	2.117	2.234	2.352	2.472	2.594	2.717	2.842	2.969	3.097
0.4	I	F'	-2.100	-2.656	-3.862	-3.855	-2.958	-2.557	-2.304	-2.121	-1.978	-1.862
	I	F''	3.227	3.362	3.503	0.574	0.600	0.625	0.651	0.678	0.704	0.731
0.5	I	F'	-1.764	-1.680	-1.605	-1.539	-1.479	-1.424	-1.373	-1.326	-1.282	-1.241
	I	F''	0.758	0.786	0.814	0.843	0.872	0.901	0.931	0.961	0.992	1.023
0.6	I	F'	-1.202	-1.165	-1.129	-1.096	-1.063	-1.034	-1.004	-0.975	-0.947	-0.922
	I	F''	1.055	1.086	1.119	1.151	1.185	1.218	1.252	1.286	1.320	1.355
0.7	I	F'	-0.895	-0.870	-0.845	-0.823	-0.800	-0.777	-0.755	-0.733	-0.712	-0.692
	I	F''	1.391	1.426	1.462	1.499	1.535	1.572	1.610	1.647	1.685	1.724
0.8	I	F'	-0.672	-0.652	-0.633	-0.614	-0.595	-0.577	-0.560	-0.542	-0.527	-0.510
	I	F''	1.763	1.802	1.841	1.881	1.921	1.961	2.002	2.043	2.085	2.127
0.9	I	F'	-0.494	-0.478	-0.463	-0.450	-0.435	-0.421	-0.407	-0.393	-0.379	-0.366
	I	F''	2.169	2.211	2.254	2.297	2.340	2.384	2.428	2.472	2.517	2.561
1.0	I	F'	-0.354	-0.341	-0.329	-0.317	-0.306	-0.295	-0.284	-0.274	-0.263	-0.254
	I	F''	2.607	2.652	2.698	2.744	2.790	2.837	2.884	2.931	2.979	3.027
1.1	I	F'	-0.244	-0.235	-0.226	-0.218	-0.209	-0.202	-0.194	-0.187	-0.180	-0.174
	I	F''	3.075	3.124	3.172	3.221	3.271	3.320	3.370	3.421	3.471	3.522
1.2	I	F'	-0.168	-0.162	-0.156	-0.151	-0.147	-0.142	-0.138	-0.135	-0.131	-0.129
	I	F''	3.573	3.624	3.676	3.728	3.780	3.832	3.885	3.938	3.991	4.045
1.3	I	F'	-0.126	-0.124	-0.122	-0.121	-0.121	-0.121	-0.120	-0.120	-0.120	-0.120
	I	F''	4.098	4.152	4.207	4.261	4.316	4.371	4.426	4.482	4.538	4.594
1.4	I	F'	-0.129	-0.131	-0.133	-0.136	-0.139	-0.142	-0.146	-0.151	-0.156	-0.161
	I	F''	4.650	4.706	4.762	4.819	4.875	4.932	4.990	5.047	5.105	5.162
1.5	I	F'	-0.167	-0.173	-0.179	-0.186	-0.194	-0.201	-0.210	-0.218	-0.229	-0.238
	I	F''	5.220	5.279	5.337	5.396	5.455	5.514	5.573	5.633	5.692	5.752
1.6	I	F'	-0.249	-0.259	-0.270	-0.282	-0.294	-0.306	-0.319	-0.333	-0.347	-0.361
	I	F''	5.812	5.873	5.933	5.994	6.055	6.116	6.177	6.238	6.300	6.362
1.7	I	F'	-0.376	-0.392	-0.408	-0.424	-0.441	-0.459	-0.477	-0.495	-0.515	-0.534
	I	F''	6.424	6.486	6.548	6.611	6.673	6.736	6.799	6.863	6.926	6.990
1.8	I	F'	-0.554	-0.575	-0.597	-0.619	-0.641	-0.664	-0.688	-0.712	-0.737	-0.763
	I	F''	7.054	7.117	7.182	7.246	7.310	7.375	7.440	7.505	7.570	7.635
1.9	I	F'	-0.789	-0.816	-0.843	-0.872	-0.900	-0.930	-0.960	-0.991	-1.022	-1.054
	I	F''	7.701	7.766	7.832	7.898	7.964	8.031	8.097	8.164	8.230	8.297
2.0	I	F'	-1.081	-1.121	-1.155	-1.190	-1.226	-1.263	-1.300	-1.338	-1.377	-1.417
	I	F''	8.344	8.432	8.499	8.567	8.634	8.702	8.770	8.838	8.907	8.975
2.1	I	F'	-1.458	-1.499	-1.542	-1.585	-1.632	-1.677	-1.723	-1.770	-1.817	-1.866
	I	F''	9.044	9.112	9.181	9.250	9.319	9.389	9.458	9.527	9.597	9.667
2.2	I	F'	-1.916	-1.967	-2.018	-2.071	-2.125	-2.180	-2.236	-2.293	-2.352	-2.411
	I	F''	9.736	9.806	9.877	9.947	10.017	10.088	10.158	10.229	10.300	10.371
2.3	I	F'	-2.477	-2.539	-2.603	-2.667	-2.733	-2.801	-2.869	-2.939	-3.011	-3.084
	I	F''	10.442	10.513	10.584	10.656	10.727	10.799	10.870	10.942	11.014	11.086
2.4	I	F'	-3.159	-3.236	-3.314	-3.402	-3.484	-3.567	-3.653	-3.740	-3.830	-3.921
	I	F''	11.158	11.230	11.303	11.375	11.447	11.519	11.592	11.664	11.737	11.810
2.5	I	F'	-4.015	-4.111	-4.210	-4.311	-4.415	-4.521	-4.631	-4.744	-4.860	-4.979
	I	F''	11.882	11.955	12.028	12.101	12.174	12.248	12.321	12.395	12.468	12.542
2.6	I	F'	-5.102	-5.230	-5.361	-5.498	-5.640	-5.781	-5.935	-6.096	-6.265	-6.443
	I	F''	12.615	12.689	12.763	12.837	12.911	12.985	13.060	13.135	13.210	13.285
2.7	I	F'	-6.632	-6.835	-7.055	-7.298	-7.572	-7.896	-8.312	-8.992	-9.592	-8.917
	I	F''	13.360	13.436	13.511	13.587	13.662	13.738	13.814	13.890	12.115	12.187
2.8	I	F'	-8.748	-8.706	-8.727	-8.786	-8.875	-8.901	-9.036	-9.191	-9.367	-9.565
	I	F''	12.258	12.330	12.401	12.473	12.545	12.622	12.702	12.783	12.864	12.945

ATOMIC SYMBOL = SB ATOMIC NUMBER = 51

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
3	I											
0.1	I	F'	-0.330	-0.302	-0.274	-0.249	-0.226	-0.207	-0.191	-0.178	-0.169	-0.164
	I	F''	0.296	0.354	0.417	0.484	0.555	0.632	0.711	0.794	0.881	0.971
0.2	I	F'	-0.163	-0.170	-0.180	-0.196	-0.217	-0.246	-0.282	-0.326	-0.380	-0.443
	I	F''	1.064	1.160	1.259	1.361	1.466	1.573	1.683	1.796	1.911	2.028
0.3	I	F'	-0.518	-0.607	-0.712	-0.834	-0.979	-1.153	-1.365	-1.631	-1.982	-2.486
	I	F''	2.148	2.270	2.393	2.519	2.646	2.775	2.907	3.040	3.174	3.312
0.4	I	F'	-3.454	-4.239	-5.049	-5.801	-6.529	-7.237	-7.989	-8.780	-9.614	-10.484
	I	F''	3.455	0.572	0.598	0.625	0.652	0.680	0.709	0.737	0.766	0.795
0.5	I	F'	-1.608	-1.541	-1.480	-1.424	-1.373	-1.325	-1.281	-1.239	-1.199	-1.162
	I	F''	0.825	0.855	0.885	0.916	0.948	0.980	1.012	1.045	1.078	1.112
0.6	I	F'	-1.126	-1.093	-1.061	-1.029	-0.999	-0.970	-0.943	-0.916	-0.889	-0.864
	I	F''	1.146	1.180	1.215	1.251	1.286	1.323	1.359	1.396	1.434	1.471
0.7	I	F'	-0.840	-0.816	-0.792	-0.770	-0.747	-0.725	-0.704	-0.683	-0.663	-0.643
	I	F''	1.509	1.548	1.587	1.626	1.666	1.706	1.746	1.787	1.828	1.870
0.8	I	F'	-0.624	-0.605	-0.587	-0.569	-0.552	-0.534	-0.517	-0.503	-0.487	-0.471
	I	F''	1.912	1.954	1.996	2.039	2.083	2.126	2.171	2.215	2.260	2.305
0.9	I	F'	-0.456	-0.441	-0.426	-0.412	-0.398	-0.385	-0.371	-0.359	-0.346	-0.334
	I	F''	2.350	2.396	2.442	2.488	2.535	2.582	2.630	2.678	2.726	2.774
1.0	I	F'	-0.322	-0.311	-0.300	-0.289	-0.279	-0.269	-0.260	-0.250	-0.241	-0.233
	I	F''	2.823	2.872	2.922	2.971	3.021	3.072	3.123	3.174	3.225	3.277
1.1	I	F'	-0.225	-0.217	-0.210	-0.202	-0.196	-0.190	-0.184	-0.178	-0.173	-0.168
	I	F''	3.329	3.381	3.434	3.486	3.540	3.593	3.647	3.701	3.756	3.810
1.2	I	F'	-0.164	-0.160	-0.156	-0.154	-0.151	-0.149	-0.148	-0.146	-0.145	-0.144
	I	F''	3.865	3.921	3.976	4.032	4.089	4.145	4.202	4.259	4.316	4.374
1.3	I	F'	-0.144	-0.145	-0.148	-0.150	-0.152	-0.154	-0.157	-0.160	-0.164	-0.169
	I	F''	4.432	4.490	4.548	4.607	4.666	4.725	4.785	4.844	4.904	4.965
1.4	I	F'	-0.174	-0.179	-0.185	-0.191	-0.197	-0.204	-0.211	-0.219	-0.227	-0.236
	I	F''	5.025	5.085	5.146	5.206	5.267	5.329	5.390	5.452	5.514	5.576
1.5	I	F'	-0.245	-0.256	-0.266	-0.277	-0.288	-0.300	-0.312	-0.325	-0.338	-0.352
	I	F''	5.638	5.701	5.763	5.826	5.890	5.953	6.017	6.081	6.145	6.209
1.6	I	F'	-0.367	-0.382	-0.398	-0.414	-0.430	-0.448	-0.466	-0.484	-0.503	-0.523
	I	F''	6.273	6.338	6.403	6.468	6.533	6.599	6.665	6.731	6.797	6.863
1.7	I	F'	-0.543	-0.564	-0.585	-0.607	-0.630	-0.653	-0.677	-0.702	-0.727	-0.753
	I	F''	6.929	6.996	7.063	7.130	7.197	7.265	7.332	7.400	7.468	7.536
1.8	I	F'	-0.780	-0.808	-0.836	-0.864	-0.894	-0.924	-0.955	-0.987	-1.019	-1.052
	I	F''	7.605	7.673	7.742	7.811	7.880	7.949	8.019	8.089	8.158	8.228
1.9	I	F'	-1.086	-1.121	-1.157	-1.193	-1.231	-1.269	-1.308	-1.347	-1.388	-1.430
	I	F''	8.299	8.369	8.439	8.510	8.581	8.652	8.723	8.795	8.866	8.938
2.0	I	F'	-1.472	-1.516	-1.560	-1.608	-1.655	-1.702	-1.751	-1.800	-1.850	-1.902
	I	F''	9.010	9.082	9.154	9.226	9.298	9.371	9.444	9.516	9.589	9.662
2.1	I	F'	-1.955	-2.008	-2.063	-2.119	-2.177	-2.235	-2.295	-2.356	-2.424	-2.488
	I	F''	9.736	9.809	9.883	9.956	10.030	10.104	10.178	10.252	10.327	10.401
2.2	I	F'	-2.553	-2.619	-2.687	-2.757	-2.828	-2.901	-2.975	-3.051	-3.128	-3.208
	I	F''	10.476	10.550	10.625	10.700	10.775	10.850	10.925	11.000	11.076	11.151
2.3	I	F'	-3.289	-3.380	-3.465	-3.552	-3.642	-3.733	-3.827	-3.924	-4.023	-4.124
	I	F''	11.227	11.303	11.379	11.454	11.530	11.606	11.682	11.759	11.835	11.911
2.4	I	F'	-4.228	-4.335	-4.445	-4.559	-4.675	-4.795	-4.920	-5.048	-5.181	-5.318
	I	F''	11.988	12.065	12.141	12.218	12.295	12.372	12.449	12.527	12.604	12.682
2.5	I	F'	-5.461	-5.609	-5.759	-5.921	-6.091	-6.271	-6.461	-6.665	-6.886	-7.127
	I	F''	12.759	12.837	12.915	12.993	13.072	13.150	13.229	13.308	13.387	13.466
2.6	I	F'	-7.399	-7.716	-8.114	-8.714	-10.013	-8.893	-8.691	-8.642	-8.663	-8.728
	I	F''	13.546	13.625	13.704	13.784	13.864	13.944	14.024	14.104	14.184	14.264
2.7	I	F'	-8.729	-8.852	-9.000	-9.171	-9.366	-9.588	-9.840	-10.127	-10.459	-10.851
	I	F''	12.473	12.558	12.643	12.729	12.815	12.902	12.989	13.077	13.166	13.255
2.8	I	F'	-11.334	-11.971	-12.966	-17.697	-13.398	-12.727	-12.226	-12.084	-12.037	-12.046
	I	F''	13.344	13.434	13.525	13.616	13.707	13.798	13.889	13.980	14.071	14.162

ATOMIC SYMBOL = TE ATOMIC NUMBER = 52

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
3	I											
0.1	I	F'	-0.349	-0.320	-0.293	-0.268	-0.246	-0.228	-0.214	-0.203	-0.197	-0.196
	I	F''	0.320	0.382	0.449	0.522	0.599	0.681	0.766	0.855	0.948	1.044
0.2	I	F'	-0.201	-0.211	-0.227	-0.250	-0.280	-0.318	-0.364	-0.421	-0.489	-0.570
	I	F''	1.144	1.246	1.352	1.461	1.573	1.687	1.804	1.924	2.046	2.171
0.3	I	F'	-0.667	-0.780	-0.915	-1.077	-1.273	-1.518	-1.837	-2.284	-3.033	-4.430
	I	F''	2.299	2.428	2.559	2.693	2.828	2.966	3.106	3.247	3.391	0.567
0.4	I	F'	-3.249	-2.697	-2.390	-2.180	-2.023	-1.897	-1.793	-1.704	-1.626	-1.556
	I	F''	0.594	0.622	0.650	0.679	0.709	0.739	0.769	0.800	0.831	0.863
0.5	I	F'	-1.494	-1.437	-1.385	-1.336	-1.291	-1.248	-1.208	-1.170	-1.134	-1.100
	I	F''	0.895	0.927	0.961	0.994	1.028	1.063	1.098	1.133	1.169	1.206
0.6	I	F'	-1.067	-1.035	-1.004	-0.975	-0.947	-0.919	-0.894	-0.868	-0.843	-0.818
	I	F''	1.243	1.280	1.318	1.356	1.395	1.434	1.473	1.513	1.553	1.594
0.7	I	F'	-0.794	-0.771	-0.748	-0.726	-0.705	-0.684	-0.664	-0.644	-0.625	-0.606
	I	F''	1.635	1.677	1.719	1.761	1.804	1.847	1.891	1.935	1.979	2.024
0.8	I	F'	-0.587	-0.570	-0.553	-0.536	-0.519	-0.502	-0.486	-0.471	-0.456	-0.441
	I	F''	2.069	2.115	2.161	2.207	2.254	2.301	2.349	2.397	2.445	2.494
0.9	I	F'	-0.426	-0.412	-0.399	-0.385	-0.373	-0.360	-0.348	-0.336	-0.325	-0.314
	I	F''	2.543	2.592	2.642	2.692	2.742	2.793	2.844	2.896	2.948	3.000
1.0	I	F'	-0.304	-0.295	-0.284	-0.274	-0.265	-0.257	-0.249	-0.241	-0.233	-0.227
	I	F''	3.052	3.105	3.159	3.212	3.266	3.321	3.375	3.430	3.486	3.541
1.1	I	F'	-0.220	-0.214	-0.208	-0.203	-0.199	-0.194	-0.191	-0.187	-0.184	-0.182
	I	F''	3.597	3.657	3.710	3.767	3.824	3.882	3.940	3.998	4.057	4.116
1.2	I	F'	-0.179	-0.178	-0.176	-0.175	-0.175	-0.175	-0.179	-0.180	-0.182	-0.184
	I	F''	4.175	4.235	4.294	4.355	4.415	4.476	4.537	4.598	4.660	4.722
1.3	I	F'	-0.186	-0.189	-0.193	-0.197	-0.202	-0.211	-0.217	-0.224	-0.231	-0.239
	I	F''	4.784	4.846	4.909	4.972	5.035	5.099	5.162	5.226	5.291	5.355
1.4	I	F'	-0.247	-0.256	-0.265	-0.275	-0.285	-0.296	-0.307	-0.319	-0.331	-0.344
	I	F''	5.420	5.484	5.549	5.615	5.680	5.746	5.812	5.878	5.944	6.011
1.5	I	F'	-0.358	-0.372	-0.386	-0.402	-0.418	-0.434	-0.451	-0.469	-0.488	-0.507
	I	F''	6.078	6.145	6.212	6.280	6.347	6.415	6.484	6.552	6.621	6.689
1.6	I	F'	-0.527	-0.547	-0.568	-0.590	-0.612	-0.635	-0.659	-0.683	-0.709	-0.734
	I	F''	6.759	6.828	6.897	6.967	7.037	7.107	7.178	7.248	7.319	7.390
1.7	I	F'	-0.761	-0.788	-0.817	-0.845	-0.875	-0.906	-0.937	-0.969	-1.002	-1.036
	I	F''	7.461	7.533	7.604	7.676	7.748	7.820	7.893	7.966	8.038	8.111
1.8	I	F'	-1.070	-1.106	-1.142	-1.179	-1.217	-1.256	-1.296	-1.337	-1.379	-1.421
	I	F''	8.185	8.258	8.332	8.405	8.479	8.553	8.628	8.702	8.777	8.852
1.9	I	F'	-1.465	-1.510	-1.556	-1.603	-1.654	-1.703	-1.753	-1.805	-1.857	-1.911
	I	F''	8.927	9.002	9.078	9.153	9.229	9.305	9.381	9.457	9.533	9.610
2.0	I	F'	-1.966	-2.022	-2.079	-2.138	-2.198	-2.260	-2.323	-2.391	-2.457	-2.524
	I	F''	9.686	9.763	9.840	9.917	9.994	10.072	10.149	10.227	10.305	10.

ATOMIC SYMBOL = I ATOMIC NUMBER = 53

I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F	-0.367	-0.338	-0.311	-0.286	-0.265	-0.249	-0.237	-0.229	-0.226
	I	F	0.345	0.412	0.484	0.561	0.644	0.732	0.824	0.919	-0.230
0.2	I	F	-0.239	-0.255	-0.278	-0.308	-0.348	-0.396	-0.456	-0.528	-0.614
	I	F	1.227	1.336	1.449	1.588	1.684	1.806	1.930	2.058	-0.718
0.3	I	F	-0.841	-0.989	-1.167	-1.388	-1.671	-2.053	-2.636	-3.359	-4.255
	I	F	2.455	2.592	2.732	2.873	3.017	3.163	3.311	3.462	-2.320
0.4	I	F	-2.482	-2.243	-2.069	-1.933	-1.822	-1.728	-1.647	-1.576	-1.511
	I	F	0.645	0.675	0.705	0.736	0.768	0.801	0.834	0.867	-0.855
0.5	I	F	-1.398	-1.348	-1.302	-1.258	-1.217	-1.178	-1.142	-1.106	-1.072
	I	F	0.970	1.005	1.041	1.077	1.114	1.151	1.189	1.227	-1.041
0.6	I	F	-1.009	-0.979	-0.950	-0.923	-0.896	-0.870	-0.844	-0.819	-0.795
	I	F	1.345	1.385	1.426	1.467	1.509	1.551	1.594	1.637	-0.771
0.7	I	F	-0.748	-0.727	-0.705	-0.684	-0.663	-0.643	-0.624	-0.605	-0.587
	I	F	1.769	1.814	1.859	1.904	1.951	1.997	2.044	2.092	-0.569
0.8	I	F	-0.551	-0.534	-0.517	-0.500	-0.484	-0.469	-0.454	-0.439	-0.425
	I	F	2.237	2.286	2.335	2.385	2.436	2.486	2.537	2.589	-0.411
0.9	I	F	-0.398	-0.385	-0.372	-0.360	-0.349	-0.337	-0.326	-0.316	-0.306
	I	F	2.746	2.799	2.853	2.907	2.961	3.016	3.071	3.126	-0.297
1.0	I	F	-0.287	-0.279	-0.271	-0.263	-0.255	-0.249	-0.243	-0.237	-0.232
	I	F	3.295	3.352	3.409	3.467	3.525	3.584	3.643	3.702	-0.227
1.1	I	F	-0.222	-0.218	-0.214	-0.211	-0.209	-0.206	-0.205	-0.203	-0.203
	I	F	3.881	3.942	4.003	4.064	4.126	4.188	4.250	4.313	-0.203
1.2	I	F	-0.206	-0.207	-0.209	-0.211	-0.213	-0.216	-0.219	-0.224	-0.233
	I	F	4.503	4.567	4.631	4.695	4.760	4.825	4.891	4.957	-0.238
1.3	I	F	-0.244	-0.250	-0.257	-0.265	-0.273	-0.281	-0.291	-0.306	-0.317
	I	F	5.155	5.222	5.289	5.357	5.425	5.493	5.561	5.630	-0.328
1.4	I	F	-0.340	-0.353	-0.366	-0.380	-0.395	-0.410	-0.426	-0.443	-0.460
	I	F	5.837	5.906	5.975	6.045	6.115	6.186	6.256	6.327	-0.478
1.5	I	F	-0.497	-0.516	-0.536	-0.557	-0.578	-0.601	-0.624	-0.647	-0.672
	I	F	6.541	6.613	6.685	6.757	6.830	6.903	6.976	7.049	-0.697
1.6	I	F	-0.723	-0.750	-0.777	-0.806	-0.835	-0.865	-0.896	-0.928	-0.961
	I	F	7.270	7.344	7.419	7.493	7.568	7.643	7.718	7.794	-0.994
1.7	I	F	-1.029	-1.064	-1.101	-1.138	-1.176	-1.215	-1.256	-1.297	-1.339
	I	F	8.022	8.098	8.175	8.252	8.329	8.406	8.483	8.561	-1.383
1.8	I	F	-1.427	-1.472	-1.519	-1.567	-1.617	-1.668	-1.719	-1.772	-1.825
	I	F	8.795	8.873	8.952	9.031	9.110	9.189	9.268	9.348	-1.881
1.9	I	F	-1.937	-1.995	-2.054	-2.115	-2.177	-2.240	-2.305	-2.376	-2.444
	I	F	9.588	9.668	9.748	9.829	9.910	9.991	10.072	10.153	-2.514
2.0	I	F	-2.586	-2.659	-2.734	-2.811	-2.890	-2.971	-3.054	-3.139	-3.227
	I	F	10.398	10.479	10.561	10.644	10.726	10.808	10.891	10.974	-3.316
2.1	I	F	-3.415	-3.509	-3.607	-3.706	-3.809	-3.914	-4.023	-4.135	-4.250
	I	F	11.223	11.306	11.389	11.472	11.556	11.639	11.723	11.807	-4.369
2.2	I	F	-4.492	-4.619	-4.750	-4.886	-5.027	-5.174	-5.327	-5.486	-5.654
	I	F	12.060	12.144	12.228	12.313	12.398	12.483	12.568	12.653	-5.829
2.3	I	F	-6.014	-6.211	-6.421	-6.647	-6.896	-7.173	-7.495	-7.893	-8.372
	I	F	12.909	12.995	13.081	13.167	13.253	13.339	13.425	13.511	-10.537
2.4	I	F	-8.786	-8.581	-8.546	-8.586	-8.585	-8.710	-8.866	-9.053	-9.271
	I	F	11.939	12.021	12.104	12.186	12.273	12.365	12.458	12.551	-9.524
2.5	I	F	-9.819	-10.167	-10.588	-11.124	-11.884	-13.355	-13.593	-12.450	-12.032
	I	F	12.835	12.931	13.027	13.124	13.222	13.320	9.628	9.690	-11.837
2.6	I	F	-11.575	-11.574	-11.635	-11.751	-11.920	-12.148	-12.441	-12.817	-13.304
	I	F	9.889	9.971	10.053	10.136	10.220	10.305	10.391	10.478	-13.956
2.7	I	F	-14.898	-16.516	-23.865	-16.820	-15.101	-14.113	-13.417	-12.879	-12.441
	I	F	10.746	10.837	10.929	3.359	3.359	3.398	3.417	3.437	-10.566
2.8	I	F	-11.750	-11.467	-11.215	-10.987	-10.779	-10.588	-10.412	-10.247	-10.094
	I	F	3.497	3.517	3.536	3.556	3.576	3.596	3.616	3.637	-9.951

ATOMIC SYMBOL = Xe ATOMIC NUMBER = 54

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.385	-0.355	-0.328	-0.304	-0.285	-0.270	-0.261	-0.256	-0.259	-0.267
	I	F''	0.371	0.443	0.520	0.603	0.692	0.786	0.884	0.986	1.091	1.201
0.2	I	F'	-0.281	-0.304	-0.335	-0.375	-0.425	-0.487	-0.563	-0.654	-0.764	-0.876
	I	F''	1.314	1.430	1.550	1.674	1.800	1.929	2.062	2.197	2.335	2.475
0.3	I	F'	-1.056	-1.252	-1.498	-1.822	-2.283	-3.081	-5.021	-3.126	-2.683	-2.335
	I	F''	2.618	2.763	2.911	3.060	3.212	3.368	3.525	3.683	3.845	4.011
0.4	I	F'	-2.136	-1.985	-1.864	-1.763	-1.676	-1.601	-1.534	-1.473	-1.417	-1.365
	I	F''	0.698	0.731	0.764	0.797	0.832	0.867	0.903	0.939	0.975	1.012
0.5	I	F'	-1.317	-1.272	-1.230	-1.190	-1.152	-1.116	-1.081	-1.049	-1.017	-0.986
	I	F''	1.049	1.087	1.126	1.165	1.205	1.245	1.286	1.327	1.369	1.412
0.6	I	F'	-0.937	-0.928	-0.901	-0.874	-0.848	-0.822	-0.797	-0.774	-0.751	-0.728
	I	F''	1.455	1.498	1.542	1.586	1.631	1.677	1.723	1.769	1.816	1.863
0.7	I	F'	-0.706	-0.686	-0.665	-0.644	-0.625	-0.605	-0.587	-0.568	-0.550	-0.533
	I	F''	1.911	1.959	2.008	2.057	2.107	2.157	2.208	2.259	2.310	2.362
0.8	I	F'	-0.516	-0.500	-0.484	-0.469	-0.454	-0.439	-0.425	-0.412	-0.399	-0.386
	I	F''	2.415	2.468	2.521	2.575	2.629	2.684	2.739	2.794	2.850	2.907
0.9	I	F'	-0.374	-0.362	-0.351	-0.340	-0.330	-0.320	-0.311	-0.302	-0.294	-0.287
	I	F''	2.964	3.021	3.078	3.136	3.195	3.254	3.313	3.373	3.433	3.493
1.0	I	F'	-0.279	-0.272	-0.266	-0.260	-0.255	-0.250	-0.246	-0.242	-0.239	-0.236
	I	F''	3.554	3.616	3.677	3.739	3.802	3.865	3.928	3.991	4.055	4.120
1.1	I	F'	-0.234	-0.232	-0.231	-0.230	-0.233	-0.234	-0.235	-0.237	-0.239	-0.242
	I	F''	4.185	4.250	4.315	4.381	4.447	4.514	4.581	4.648	4.715	4.783
1.2	I	F'	-0.245	-0.249	-0.259	-0.264	-0.270	-0.276	-0.284	-0.291	-0.300	-0.309
	I	F''	4.852	4.920	4.989	5.058	5.128	5.197	5.268	5.338	5.409	5.480
1.3	I	F'	-0.325	-0.335	-0.346	-0.358	-0.371	-0.384	-0.398	-0.413	-0.428	-0.444
	I	F''	5.551	5.623	5.694	5.767	5.839	5.912	5.985	6.058	6.132	6.206
1.4	I	F'	-0.461	-0.479	-0.497	-0.517	-0.537	-0.557	-0.579	-0.601	-0.625	-0.649
	I	F''	6.280	6.354	6.429	6.503	6.578	6.654	6.729	6.805	6.881	6.957
1.5	I	F'	-0.673	-0.699	-0.726	-0.753	-0.781	-0.810	-0.840	-0.871	-0.903	-0.936
	I	F''	7.034	7.111	7.188	7.265	7.343	7.421	7.499	7.577	7.656	7.735
1.6	I	F'	-0.970	-1.005	-1.040	-1.077	-1.115	-1.154	-1.194	-1.235	-1.277	-1.320
	I	F''	7.814	7.893	7.973	8.053	8.133	8.213	8.293	8.374	8.455	8.536
1.7	I	F'	-1.364	-1.410	-1.456	-1.504	-1.554	-1.605	-1.657	-1.710	-1.764	-1.820
	I	F''	8.618	8.699	8.781	8.863	8.946	9.028	9.111	9.194	9.277	9.360
1.8	I	F'	-1.877	-1.936	-1.996	-2.058	-2.121	-2.186	-2.252	-2.325	-2.395	-2.466
	I	F''	9.444	9.527	9.611	9.696	9.780	9.864	9.949	10.034	10.119	10.204
1.9	I	F'	-2.540	-2.615	-2.693	-2.772	-2.854	-2.938	-3.024	-3.112	-3.203	-3.296
	I	F''	10.289	10.375	10.461	10.546	10.633	10.719	10.805	10.892	10.978	11.065
2.0	I	F'	-3.398	-3.497	-3.598	-3.703	-3.811	-3.921	-4.036	-4.154	-4.276	-4.402
	I	F''	11.152	11.239	11.326	11.413	11.501	11.588	11.676	11.764	11.852	11.940
2.1	I	F'	-4.532	-4.667	-4.808	-4.953	-5.105	-5.264	-5.429	-5.604	-5.787	-5.982
	I	F''	12.028	12.117	12.205	12.294	12.383	12.472	12.561	12.650	12.740	12.829
2.2	I	F'	-6.189	-6.412	-6.654	-6.922	-7.228	-7.593	-8.081	-9.025	-8.885	-8.531
	I	F''	12.919	13.009	13.098	13.188	13.279	13.369	13.459	13.550	11.817	11.903
2.3	I	F'	-8.457	-8.482	-8.482	-8.606	-8.766	-8.961	-9.190	-9.460	-9.777	-10.159
	I	F''	11.988	12.074	12.165	12.261	12.358	12.455	12.553	12.651	12.750	12.850
2.4	I	F'	-10.635	-11.275	-12.311	-15.303	-12.481	-11.902	-11.642	-11.527	-11.328	-11.369
	I	F''	12.950	13.052	13.153	9.520	9.585	9.650	9.716	9.781	9.863	9.947
2.5	I	F'	-11.468	-11.621	-11.831	-12.105	-12.457	-12.912	-13.518	-14.378	-15.783	-19.690
	I	F''	10.033	10.119	10.206	10.295	10.384	10.475	10.567	10.659	10.753	10.848
2.6	I	F'	-17.038	-15.047	-13.984	-13.256	-12.700	-12.252	-11.875	-11.550	-11.265	-11.011
	I	F''	3.381	3.402	3.423	3.444	3.464	3.485	3.506	3.527	3.549	3.570
2.7	I	F'	-10.782	-10.573	-10.382	-10.205	-10.041	-9.888	-9.745	-9.610	-9.483	-9.363
	I	F''	3.591	3.612	3.633	3.653	3.673	3.697	3.719	3.740	3.762	3.783
2.8	I	F'	-9.249	-9.140	-9.037	-8.939	-8.844	-8.754	-8.668	-8.584	-8.504	-8.428
	I	F''	3.805	3.827	3.848	3.870	3.892	3.913	3.935	3.957	3.979	4.001

ATOMIC SYMBOL = CS

ATOMIC NUMBER = 55

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.405	-0.375	-0.348	-0.325	-0.307	-0.295	-0.290	-0.289	-0.296	-0.309
	I	F''	0.399	0.476	0.559	0.648	0.743	0.843	0.948	1.057	1.169	1.285
0.2	I	F'	-0.330	-0.361	-0.401	-0.452	-0.516	-0.594	-0.689	-0.804	-0.944	-1.115
	I	F''	1.406	1.529	1.657	1.788	1.922	2.060	2.200	2.343	2.489	2.638
0.3	I	F'	-1.327	-1.600	-1.968	-2.528	-3.716	-3.710	-2.855	-2.473	-2.232	-2.057
	I	F''	2.790	2.944	3.100	3.259	3.418	0.593	0.625	0.657	0.690	0.724
0.4	I	F'	-1.921	-1.810	-1.716	-1.635	-1.563	-1.499	-1.442	-1.388	-1.338	-1.291
	I	F''	0.758	0.793	0.829	0.866	0.903	0.941	0.980	1.019	1.058	1.098
0.5	I	F'	-1.247	-1.206	-1.167	-1.129	-1.094	-1.060	-1.027	-0.995	-0.966	-0.936
	I	F''	1.138	1.180	1.221	1.264	1.307	1.350	1.394	1.439	1.484	1.530
0.6	I	F'	-0.908	-0.880	-0.853	-0.827	-0.802	-0.778	-0.754	-0.731	-0.709	-0.687
	I	F''	1.576	1.623	1.670	1.718	1.767	1.816	1.865	1.915	1.966	2.017
0.7	I	F'	-0.666	-0.645	-0.625	-0.605	-0.586	-0.568	-0.550	-0.532	-0.515	-0.499
	I	F''	2.068	2.120	2.173	2.226	2.280	2.334	2.388	2.443	2.499	2.555
0.8	I	F'	-0.483	-0.468	-0.453	-0.438	-0.425	-0.411	-0.398	-0.386	-0.374	-0.363
	I	F''	2.611	2.668	2.726	2.784	2.842	2.901	2.960	3.020	3.081	3.141
0.9	I	F'	-0.352	-0.341	-0.333	-0.323	-0.315	-0.307	-0.299	-0.292	-0.285	-0.279
	I	F''	3.202	3.264	3.326	3.389	3.451	3.515	3.579	3.643	3.708	3.773
1.0	I	F'	-0.274	-0.269	-0.265	-0.261	-0.258	-0.255	-0.253	-0.252	-0.251	-0.254
	I	F''	3.838	3.904	3.970	4.037	4.104	4.172	4.240	4.309	4.377	4.447
1.1	I	F'	-0.255	-0.256	-0.257	-0.260	-0.263	-0.266	-0.275	-0.280	-0.286	-0.292
	I	F''	4.516	4.586	4.656	4.727	4.798	4.869	4.941	5.013	5.085	5.158
1.2	I	F'	-0.299	-0.307	-0.315	-0.324	-0.340	-0.351	-0.362	-0.374	-0.387	-0.401
	I	F''	5.231	5.305	5.378	5.453	5.527	5.602	5.677	5.752	5.827	5.903
1.3	I	F'	-0.415	-0.430	-0.446	-0.463	-0.480	-0.499	-0.518	-0.538	-0.559	-0.581
	I	F''	5.980	6.056	6.133	6.211	6.288	6.366	6.445	6.523	6.602	6.681
1.4	I	F'	-0.603	-0.627	-0.651	-0.677	-0.703	-0.730	-0.759	-0.788	-0.818	-0.849
	I	F''	6.761	6.840	6.920	7.000	7.080	7.161	7.241	7.322	7.404	7.485
1.5	I	F'	-0.881	-0.914	-0.948	-0.983	-1.020	-1.057	-1.095	-1.135	-1.176	-1.218
	I	F''	7.567	7.650	7.732	7.815	7.898	7.981	8.065	8.148	8.232	8.317
1.6	I	F'	-1.261	-1.305	-1.351	-1.397	-1.446	-1.495	-1.546	-1.599	-1.653	-1.708
	I	F''	8.401	8.486	8.571	8.656	8.742	8.828	8.914	9.000	9.086	9.173
1.7	I	F'	-1.764	-1.822	-1.882	-1.943	-2.006	-2.071	-2.137	-2.205	-2.278	-2.350
	I	F''	9.260	9.347	9.435	9.522	9.610	9.698	9.786	9.875	9.964	10.052
1.8	I	F'	-2.424	-2.499	-2.577	-2.657	-2.739	-2.824	-2.910	-3.000	-3.091	-3.186
	I	F''	10.141	10.230	10.320	10.409	10.499	10.589	10.679	10.770	10.860	10.950
1.9	I	F'	-3.283	-3.387	-3.490	-3.596	-3.706	-3.819	-3.936	-4.056	-4.181	-4.310
	I	F''	11.042	11.133	11.224	11.315	11.407	11.498	11.590	11.682	11.774	11.867
2.0	I	F'	-4.444	-4.583	-4.727	-4.878	-5.034	-5.198	-5.370	-5.553	-5.744	-5.947
	I	F''	11.959	12.052	12.144	12.237	12.331	12.424	12.517	12.611	12.704	12.798
2.1	I	F'	-6.164	-6.399	-6.655	-6.942	-7.274	-7.683	-8.274	-10.266	-8.616	-8.436
	I	F''	12.892	12.986	13.080	13.174	13.269	13.363	13.458	11.741	11.831	11.921
2.2	I	F'	-8.424	-8.403	-8.522	-8.683	-8.884	-9.126	-9.413	-9.759	-10.185	-10.739
	I	F''	12.012	12.108	12.209	12.311	12.414	12.517	12.622	12.727	12.833	12.939
2.3	I	F'	-11.552	-13.382	-12.711	-11.836	-11.487	-11.328	-11.108	-11.129	-11.211	-11.349
	I	F''	13.047	13.155	9.531	9.600	9.668	9.737	9.810	9.898	9.987	10.076
2.4	I	F'	-11.546	-11.805	-12.141	-12.576	-13.154	-13.966	-15.263	-18.412	-17.127	-14.919
	I	F''	10.167	10.259	10.352	10.447	10.542	10.639	10.736	10.835	3.450	3.473
2.5	I	F'	-13.808	-13.060	-12.495	-12.041	-11.661	-11.335	-11.049	-10.795	-10.566	-10.357
	I	F''	3.495	3.517	3.540	3.562	3.584	3.607	3.629	3.652	3.675	3.697
2.6	I	F'	-10.167	-9.991	-9.827	-9.675	-9.533	-9.399	-9.273	-9.153	-9.040	-8.940
	I	F''	3.720	3.743	3.766	3.789	3.812	3.835	3.858	3.881	3.904	3.927
2.7	I	F'	-8.837	-8.740	-8.646	-8.557	-8.472	-8.389	-8.310	-8.234	-8.161	-8.090
	I	F''	3.950	3.973	3.996	4.019	4.043	4.066	4.089	4.113	4.136	4.160
2.8	I	F'	-8.022	-7.956	-7.892	-7.830	-7.770	-7.712	-7.656	-7.600	-7.547	-7.495
	I	F''	4.183	4.207	4.230	4.254	4.278	4.301	4.325	4.349	4.373	4.397

ATOMIC SYMBOL = BA

ATOMIC NUMBER = 56

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.426	-0.396	-0.370	-0.348	-0.332	-0.323	-0.322	-0.326	-0.338	-0.358
	I	F''	0.428	0.510	0.599	0.694	0.795	0.903	1.015	1.130	1.249	1.373
0.2	I	F'	-0.387	-0.427	-0.478	-0.543	-0.623	-0.721	-0.841	-0.987	-1.168	-1.396
	I	F''	1.500	1.632	1.767	1.906	2.048	2.193	2.342	2.494	2.648	2.805
0.3	I	F'	-1.693	-2.107	-2.783	-5.024	-3.285	-2.687	-2.371	-2.159	-2.001	-1.875
	I	F''	2.965	3.128	3.292	3.457	0.608	0.641	0.675	0.710	0.746	0.782
0.4	I	F'	-1.771	-1.683	-1.605	-1.536	-1.474	-1.418	-1.367	-1.319	-1.274	-1.230
	I	F''	0.819	0.857	0.895	0.935	0.975	1.016	1.057	1.099	1.142	1.184
0.5	I	F'	-1.190	-1.151	-1.114	-1.079	-1.045	-1.013	-0.982	-0.952	-0.923	-0.894
	I	F''	1.228	1.272	1.317	1.363	1.409	1.456	1.503	1.551	1.599	1.649
0.6	I	F'	-0.867	-0.840	-0.815	-0.790	-0.765	-0.742	-0.719	-0.697	-0.675	-0.654
	I	F''	1.698	1.749	1.799	1.851	1.903	1.956	2.009	2.062	2.117	2.171
0.7	I	F'	-0.633	-0.614	-0.594	-0.576	-0.558	-0.540	-0.523	-0.507	-0.491	-0.476
	I	F''	2.227	2.283	2.339	2.396	2.454	2.512	2.570	2.629	2.689	2.749
0.8	I	F'	-0.461	-0.447	-0.433	-0.420	-0.408	-0.396	-0.385	-0.374	-0.364	-0.354
	I	F''	2.810	2.871	2.932	2.993	3.057	3.120	3.184	3.248	3.313	3.378
0.9	I	F'	-0.345	-0.337	-0.329	-0.321	-0.315	-0.309	-0.303	-0.298	-0.294	-0.290
	I	F''	3.443	3.509	3.576	3.643	3.710	3.778	3.846	3.915	3.984	4.054
1.0	I	F'	-0.287	-0.285	-0.283	-0.282	-0.285	-0.285	-0.286	-0.288	-0.290	-0.293
	I	F''	4.124	4.195	4.266	4.338	4.410	4.482	4.554	4.627	4.701	4.775
1.1	I	F'	-0.296	-0.306	-0.311	-0.317	-0.324	-0.331	-0.339	-0.348	-0.358	-0.374
	I	F''	4.849	4.924	4.999	5.074	5.150	5.226	5.303	5.380	5.457	5.534
1.2	I	F'	-0.386	-0.398	-0.411	-0.425	-0.439	-0.455	-0.471	-0.488	-0.506	-0.525
	I	F''	5.612	5.690	5.769	5.848	5.927	6.007	6.087	6.167	6.248	6.329
1.3	I	F'	-0.545	-0.566	-0.587	-0.610	-0.633	-0.658	-0.684	-0.710	-0.738	-0.766
	I	F''	6.410	6.492	6.574	6.657	6.740	6.823	6.906	6.990	7.074	7.159
1.4	I	F'	-0.796	-0.827	-0.858	-0.891	-0.925	-0.960	-0.997	-1.034	-1.073	-1.113
	I	F''	7.243	7.328	7.413	7.498	7.583	7.669	7.755	7.842	7.928	8.015
1.5	I	F'	-1.154	-1.196	-1.239	-1.284	-1.331	-1.378	-1.427	-1.478	-1.529	-1.583
	I	F''	8.103	8.190	8.278	8.366	8.454	8.543	8.632	8.721	8.811	8.900
1.6	I	F'	-1.638	-1.695	-1.753	-1.813	-1.874	-1.937	-2.002	-2.069	-2.137	-2.208
	I	F''	8.990	9.080	9.171	9.262	9.353	9.444	9.535	9.627	9.719	9.811
1.7	I	F'	-2.283	-2.357	-2.434	-2.513	-2.594	-2.678	-2.764	-2.852	-2.943	-3.037
	I	F''	9.904	9.996	10.089	10.182	10.275	10.369	10.462	10.556	10.650	10.745
1.8	I	F'	-3.134	-3.234	-3.340	-3.446	-3.556	-3.669	-3.786	-3.907	-4.032	-4.162
	I	F''	10.839	10.934	11.029	11.124	11.219	11.315	11.410	11.506	11.602	11.698
1.9	I	F'	-4.296	-4.436	-4.581	-4.732	-4.890	-5.056	-5.229	-5.412	-5.609	-5.814
	I	F''	11.795	11.891	11.988	12.085	12.182	12.280	12.377	12.475	12.572	12.670
2.0	I	F'	-6.034	-6.271	-6.529	-6.818	-7.151	-7.559	-8.137	-10.799	-8.557	-8.373
	I	F''	12.767	12.865	12.963	13.061	13.159	13.257	13.355	13.453	11.749	11.843
2.1	I	F'	-8.369	-8.366	-8.500	-8.680	-8.903	-9.175	-9.503	-9.909	-10.434	-11.108
	I	F''	11.938	12.041	12.146	12.252	12.359	12.466	12.574	12.683	12.793	12.904
2.2	I	F'	-12.707	-12.697	-11.675	-11.294	-11.122	-11.061	-10.916	-10.995	-11.131	-11.326
	I	F''	13.015	9.441	9.512	9.584	9.656	9.727	9.814	9.906	9.998	10.092
2.3	I	F'	-10.585	-11.921	-12.359	-12.944	-13.773	-15.121	-18.700	-16.535	-14.525	-13.471
	I	F''	10.187	10.283	10.381	10.479	10.579	10.680	10.782	3.480	3.504	3.527
2.4	I	F'	-12.752	-12.206	-11.765	-11.396	-11.078	-10.799	-10.551	-10.327	-10.123	-9.937
	I	F''	3.551	3.574	3.598	3.622	3.646	3.670	3.693	3.717	3.741	3.766
2.5	I	F'	-9.765	-9.605	-9.462	-9.323	-9.192	-9.068	-8.951	-8.840	-8.735	-8.635
	I	F''	3.790	3.814	3.838	3.862	3.886	3.911	3.935	3.959	3.984	4.008
2.6	I	F'	-8.540	-8.447	-8.360	-8.276	-8.196	-8.118	-8.044	-7.972	-7.903	-7.836
	I	F''	4.033	4.058	4.082	4.107	4.132	4.156	4.181	4.206	4.231	4.256
2.7	I	F'	-7.781	-7.719	-7.658	-7.600	-7.543	-7.488	-7.434	-7.382	-7.332	-7.283
	I	F''	4.281	4.306	4.331	4.356	4.381	4.406	4.431	4.456	4.481	4.507
2.8	I	F'	-7.235	-7.188	-7.143	-7.099	-7.055	-7.013	-6.972	-6.932	-6.893	-6.855
	I	F''	4.532	4.557	4.583	4.608	4.634	4.659	4.685	4.710	4.736	4.762

ATOMIC SYMBOL = LA ATOMIC NUMBER = 57

	I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F"	-0.448	-0.418	-0.393	-0.372	-0.358	-0.352	-0.358	-0.367	-0.385	-0.412
	I	F"	0.459	0.546	0.641	0.742	0.850	0.965	1.084	1.206	1.332	1.463
0.2	I	F"	-0.451	-0.501	-0.566	-0.646	-0.746	-0.870	-1.021	-1.210	-1.451	-1.770
	I	F"	1.599	1.738	1.881	2.028	2.178	2.332	2.489	2.649	2.812	2.978
0.3	I	F"	-2.228	-3.034	-4.792	-3.060	-2.578	-2.300	-2.107	-1.960	-1.842	-1.743
	I	F"	3.146	3.317	0.587	0.621	0.656	0.692	0.728	0.766	0.804	0.843
0.4	I	F"	-1.658	-1.583	-1.516	-1.455	-1.399	-1.348	-1.306	-1.261	-1.219	-1.178
	I	F"	0.883	0.924	0.965	1.008	1.051	1.095	1.139	1.184	1.230	1.276
0.5	I	F"	-1.140	-1.104	-1.069	-1.035	-1.003	-0.972	-0.942	-0.913	-0.885	-0.858
	I	F"	1.322	1.370	1.418	1.467	1.516	1.567	1.617	1.669	1.721	1.774
0.6	I	F"	-0.831	-0.806	-0.781	-0.757	-0.733	-0.711	-0.689	-0.668	-0.647	-0.627
	I	F"	1.827	1.881	1.935	1.990	2.046	2.103	2.160	2.217	2.275	2.334
0.7	I	F"	-0.608	-0.589	-0.571	-0.553	-0.536	-0.520	-0.504	-0.489	-0.475	-0.461
	I	F"	2.393	2.453	2.514	2.575	2.636	2.698	2.761	2.824	2.888	2.952
0.8	I	F"	-0.448	-0.435	-0.423	-0.412	-0.401	-0.391	-0.381	-0.372	-0.364	-0.356
	I	F"	3.017	3.083	3.149	3.215	3.282	3.350	3.418	3.486	3.555	3.625
0.9	I	F"	-0.349	-0.343	-0.337	-0.332	-0.327	-0.324	-0.321	-0.318	-0.317	-0.319
	I	F"	3.695	3.766	3.837	3.908	3.980	4.053	4.126	4.200	4.274	4.348
1.0	I	F"	-0.319	-0.319	-0.321	-0.323	-0.325	-0.329	-0.338	-0.343	-0.349	-0.356
	I	F"	4.423	4.498	4.574	4.650	4.727	4.804	4.881	4.959	5.037	5.116
1.1	I	F"	-0.364	-0.372	-0.381	-0.391	-0.408	-0.420	-0.433	-0.446	-0.461	-0.476
	I	F"	5.195	5.275	5.355	5.435	5.515	5.596	5.678	5.759	5.841	5.924
1.2	I	F"	-0.492	-0.510	-0.528	-0.547	-0.567	-0.588	-0.610	-0.633	-0.657	-0.682
	I	F"	6.007	6.090	6.174	6.258	6.342	6.427	6.512	6.598	6.684	6.770
1.3	I	F"	-0.709	-0.736	-0.764	-0.794	-0.825	-0.856	-0.890	-0.924	-0.959	-0.996
	I	F"	6.857	6.944	7.031	7.119	7.207	7.296	7.384	7.474	7.563	7.653
1.4	I	F"	-1.034	-1.073	-1.114	-1.156	-1.199	-1.244	-1.290	-1.337	-1.386	-1.436
	I	F"	7.743	7.833	7.923	8.014	8.104	8.196	8.287	8.379	8.471	8.563
1.5	I	F"	-1.488	-1.542	-1.597	-1.654	-1.712	-1.772	-1.834	-1.898	-1.964	-2.032
	I	F"	8.656	8.749	8.842	8.936	9.029	9.124	9.218	9.313	9.408	9.503
1.6	I	F"	-2.101	-2.173	-2.249	-2.325	-2.403	-2.484	-2.567	-2.653	-2.742	-2.833
	I	F"	9.598	9.694	9.790	9.886	9.983	10.079	10.176	10.274	10.371	10.469
1.7	I	F"	-2.927	-3.023	-3.123	-3.226	-3.336	-3.446	-3.560	-3.678	-3.800	-3.926
	I	F"	10.567	10.665	10.763	10.862	10.961	11.060	11.159	11.259	11.358	11.458
1.8	I	F"	-4.058	-4.194	-4.335	-4.483	-4.637	-4.797	-4.966	-5.143	-5.329	-5.537
	I	F"	11.558	11.658	11.759	11.860	11.960	12.062	12.163	12.264	12.366	12.467
1.9	I	F"	-5.748	-5.973	-6.216	-6.483	-6.781	-7.127	-7.557	-8.195	-9.369	-8.441
	I	F"	12.568	12.669	12.770	12.871	12.972	13.073	13.175	13.276	11.590	11.687
2.0	I	F"	-8.314	-8.316	-8.419	-8.577	-8.784	-9.040	-9.354	-9.743	-10.247	-10.971
	I	F"	11.785	11.885	11.986	12.087	12.188	12.293	12.396	12.499	12.603	12.707
2.1	I	F"	-12.422	-12.443	-12.444	-11.075	-10.909	-10.854	-10.833	-10.915	-11.053	-11.248
	I	F"	12.812	9.361	9.435	9.510	9.584	9.659	9.736	9.817	9.897	9.978
2.2	I	F"	-11.507	-11.862	-12.280	-12.868	-13.714	-15.141	-20.147	-15.737	-14.036	-13.081
	I	F"	10.060	10.161	10.224	10.306	10.389	10.473	10.557	3.509	3.534	3.559
2.3	I	F"	-12.413	-11.898	-11.479	-11.126	-10.821	-10.552	-10.312	-10.095	-9.904	-9.723
	I	F"	3.584	3.609	3.634	3.659	3.684	3.709	3.734	3.759	3.785	3.810
2.4	I	F"	-9.556	-9.400	-9.255	-9.120	-8.992	-8.871	-8.757	-8.649	-8.546	-8.448
	I	F"	3.835	3.861	3.886	3.912	3.937	3.963	3.989	4.014	4.040	4.066
2.5	I	F"	-8.355	-8.266	-8.181	-8.099	-8.020	-7.954	-7.881	-7.811	-7.743	-7.678
	I	F"	4.092	4.118	4.144	4.170	4.196	4.222	4.248	4.274	4.300	4.327
2.6	I	F"	-7.615	-7.554	-7.495	-7.438	-7.382	-7.329	-7.276	-7.226	-7.176	-7.128
	I	F"	4.353	4.379	4.406	4.432	4.458	4.485	4.512	4.538	4.565	4.592
2.7	I	F"	-7.082	-7.036	-6.992	-6.949	-6.907	-6.866	-6.826	-6.786	-6.748	-6.711
	I	F"	4.618	4.645	4.672	4.699	4.726	4.753	4.780	4.807	4.834	4.861
2.8	I	F"	-6.674	-6.639	-6.604	-6.570	-6.536	-6.504	-6.472	-6.441	-6.410	-6.380
	I	F"	4.888	4.916	4.943	4.970	4.998	5.025	5.053	5.080	5.108	5.135

ATOMIC SYMBOL = CE ATOMIC NUMBER = 58

	I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F"	-0.470	-0.441	-0.417	-0.398	-0.385	-0.380	-0.396	-0.411	-0.436	-0.472
	I	F"	0.491	0.584	0.685	0.793	0.908	1.030	1.156	1.285	1.420	1.559
0.2	I	F"	-0.521	-0.585	-0.665	-0.766	-0.891	-1.045	-1.240	-1.491	-1.829	-2.327
	I	F"	1.702	1.849	2.001	2.156	2.315	2.477	2.643	2.812	2.985	3.160
0.3	I	F"	-3.279	-4.040	-2.924	-2.505	-2.251	-2.071	-1.932	-1.818	-1.723	-1.640
	I	F"	3.334	0.397	0.633	0.670	0.707	0.746	0.785	0.825	0.866	0.908
0.4	I	F"	-1.567	-1.501	-1.441	-1.386	-1.340	-1.292	-1.248	-1.209	-1.169	-1.130
	I	F"	0.951	0.995	1.039	1.085	1.131	1.178	1.226	1.274	1.323	1.372
0.5	I	F"	-1.024	-1.059	-1.026	-0.993	-0.962	-0.932	-0.903	-0.875	-0.848	-0.821
	I	F"	1.422	1.473	1.525	1.577	1.630	1.684	1.738	1.794	1.849	1.906
0.6	I	F"	-0.796	-0.771	-0.747	-0.724	-0.701	-0.680	-0.658	-0.638	-0.618	-0.599
	I	F"	1.963	2.021	2.079	2.138	2.198	2.258	2.319	2.381	2.443	2.506
0.7	I	F"	-0.581	-0.563	-0.546	-0.529	-0.514	-0.499	-0.484	-0.471	-0.458	-0.445
	I	F"	2.570	2.634	2.699	2.764	2.830	2.896	2.964	3.031	3.100	3.168
0.8	I	F"	-0.433	-0.422	-0.412	-0.402	-0.393	-0.384	-0.377	-0.370	-0.363	-0.358
	I	F"	3.238	3.308	3.378	3.450	3.521	3.594	3.666	3.740	3.814	3.888
0.9	I	F"	-0.353	-0.349	-0.345	-0.343	-0.341	-0.343	-0.343	-0.343	-0.345	-0.347
	I	F"	3.963	4.039	4.115	4.191	4.268	4.346	4.424	4.502	4.581	4.661
1.0	I	F"	-0.350	-0.358	-0.363	-0.369	-0.375	-0.382	-0.390	-0.399	-0.409	-0.426
	I	F"	4.741	4.821	4.902	4.983	5.065	5.147	5.230	5.313	5.396	5.480
1.1	I	F"	-0.438	-0.451	-0.465	-0.479	-0.495	-0.512	-0.529	-0.548	-0.568	-0.589
	I	F"	5.564	5.649	5.734	5.819	5.905	5.991	6.078	6.165	6.253	6.341
1.2	I	F"	-0.611	-0.634	-0.658	-0.683	-0.709	-0.737	-0.765	-0.795	-0.826	-0.859
	I	F"	6.429	6.518	6.607	6.697	6.787	6.877	6.968	7.059	7.151	7.243
1.3	I	F"	-0.892	-0.927	-0.964	-1.001	-1.041	-1.081	-1.123	-1.167	-1.213	-1.260
	I	F"	7.335	7.428	7.521	7.615	7.709	7.803	7.898	7.993	8.088	8.184
1.4	I	F"	-1.308	-1.357	-1.408	-1.461	-1.515	-1.572	-1.629	-1.689	-1.750	-1.814
	I	F"	8.279	8.375	8.471	8.568	8.664	8.761	8.858	8.956	9.054	9.152
1.5	I	F"	-1.880	-1.947	-2.017	-2.088	-2.163	-2.240	-2.319	-2.400	-2.484	-2.571
	I	F"	9.251	9.350	9.449	9.549	9.648	9.748	9.849	9.949	10.050	10.151
1.6	I	F"	-2.660	-2.752	-2.847	-2.946	-3.047	-3.152	-3.261	-3.375	-3.491	-3.612
	I	F"	10.253	10.355	10.457	10.559	10.661	10.764	10.867	10.970	11.074	11.178
1.7	I	F"	-3.737	-3.867	-4.001	-4.141	-4.287	-4.440	-4.599	-4.766	-4.941	-5.125
	I	F"	11.282	11.386	11.490	11.595	11.700	11.805	11.910	12.016	12.122	12.228
1.8	I	F"	-5.320	-5.540	-5.761	-5.999	-6.258	-6.545	-6.871	-7.261	-7.778	-8.329
	I	F"	12.334	12.440	12.544	12.649	12.754	12.860	12.965	13.070	13.176	13.282
1.9	I	F"	-8.572	-8.297	-8.266	-8.354	-8.507	-8.715	-8.979	-9.306	-9.721	-10.274
	I	F"	11.606	11.708	11.811	11.916	12.021	12.127	12.232	12.339	12.445	12.552
2.0	I	F"	-11.127	-13.761	-11.751	-11.090	-10.813	-10.695	-10.672	-10.572	-10.679	-10.844
	I	F"	12.660	12.767	9.341	9.419	9.497	9.575	9.654	9.732	9.810	9.888
2.1	I	F"	-11.072	-11.373	-11.764	-12.283	-13.001	-14.102	-16.344	-17.446	-14.549	-13.323
	I	F"	10.039	10.141	10.243	10.348	10.453	10.560	10.668	3.521	3.547	3.573

ATOMIC SYMBOL = PR ATOMIC NUMBER = 59

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.493	-0.465	-0.442	-0.425	-0.416	-0.427	-0.438	-0.460	-0.494	-0.540
	I	F''	-0.525	-0.624	-0.732	-0.847	-0.970	-1.099	-1.231	-1.368	-1.510	-1.657
0.2	I	F'	-0.602	-0.681	-0.780	-0.905	-1.062	-1.260	-1.517	-1.868	-2.396	-3.475
	I	F''	-1.809	-1.964	-2.124	-2.288	-2.455	-2.627	-2.801	-2.979	-3.161	-3.342
0.3	I	F'	-3.751	-2.843	-2.460	-2.221	-2.048	-1.914	-1.805	-1.711	-1.630	-1.558
	I	F''	-0.606	-0.643	-0.681	-0.721	-0.761	-0.802	-0.844	-0.888	-0.932	-0.977
0.4	I	F'	-1.493	-1.434	-1.384	-1.333	-1.285	-1.244	-1.203	-1.163	-1.125	-1.089
	I	F''	-1.023	-1.070	-1.118	-1.166	-1.215	-1.265	-1.316	-1.368	-1.420	-1.473
0.5	I	F'	-1.054	-1.020	-0.988	-0.957	-0.927	-0.898	-0.870	-0.842	-0.816	-0.791
	I	F''	-1.527	-1.581	-1.637	-1.693	-1.749	-1.807	-1.865	-1.924	-1.984	-2.044
0.6	I	F'	-0.766	-0.742	-0.719	-0.697	-0.676	-0.655	-0.635	-0.615	-0.597	-0.579
	I	F''	-2.105	-2.167	-2.229	-2.293	-2.356	-2.421	-2.486	-2.552	-2.619	-2.686
0.7	I	F'	-0.562	-0.546	-0.530	-0.515	-0.500	-0.487	-0.474	-0.462	-0.450	-0.439
	I	F''	-2.754	-2.822	-2.891	-2.961	-3.031	-3.102	-3.174	-3.246	-3.319	-3.393
0.8	I	F'	-0.430	-0.420	-0.412	-0.404	-0.397	-0.391	-0.385	-0.381	-0.377	-0.374
	I	F''	-3.467	-3.542	-3.617	-3.693	-3.769	-3.847	-3.924	-4.003	-4.081	-4.161
0.9	I	F'	-0.372	-0.374	-0.373	-0.374	-0.375	-0.377	-0.380	-0.389	-0.394	-0.400
	I	F''	-4.241	-4.321	-4.402	-4.484	-4.566	-4.648	-4.731	-4.815	-4.899	-4.983
1.0	I	F'	-0.406	-0.414	-0.423	-0.432	-0.449	-0.460	-0.473	-0.487	-0.502	-0.517
	I	F''	-5.068	-5.153	-5.239	-5.326	-5.413	-5.500	-5.587	-5.675	-5.764	-5.853
1.1	I	F'	-0.534	-0.552	-0.571	-0.591	-0.613	-0.635	-0.659	-0.683	-0.709	-0.737
	I	F''	-5.942	-6.032	-6.123	-6.213	-6.305	-6.396	-6.489	-6.581	-6.674	-6.768
1.2	I	F'	-0.765	-0.795	-0.826	-0.859	-0.893	-0.928	-0.965	-1.003	-1.042	-1.083
	I	F''	-6.862	-6.956	-7.051	-7.146	-7.241	-7.337	-7.434	-7.531	-7.628	-7.726
1.3	I	F'	-1.126	-1.170	-1.215	-1.263	-1.312	-1.363	-1.415	-1.470	-1.526	-1.585
	I	F''	-7.824	-7.922	-8.021	-8.120	-8.220	-8.320	-8.421	-8.521	-8.623	-8.724
1.4	I	F'	-1.646	-1.708	-1.772	-1.838	-1.906	-1.977	-2.050	-2.125	-2.203	-2.284
	I	F''	-8.826	-8.927	-9.029	-9.131	-9.234	-9.337	-9.440	-9.544	-9.647	-9.752
1.5	I	F'	-2.367	-2.453	-2.541	-2.633	-2.727	-2.825	-2.926	-3.031	-3.139	-3.251
	I	F''	-9.856	-9.961	-10.066	-10.171	-10.276	-10.382	-10.488	-10.595	-10.702	-10.808
1.6	I	F'	-3.370	-3.490	-3.615	-3.745	-3.880	-4.021	-4.168	-4.320	-4.480	-4.648
	I	F''	-10.916	-11.023	-11.131	-11.239	-11.347	-11.455	-11.564	-11.672	-11.781	-11.891
1.7	I	F'	-4.824	-5.010	-5.206	-5.421	-5.644	-5.884	-6.145	-6.434	-6.762	-7.151
	I	F''	-12.000	-12.110	-12.220	-12.330	-12.440	-12.549	-12.659	-12.769	-12.879	-12.989
1.8	I	F'	-7.659	-8.594	-8.570	-8.264	-8.223	-8.319	-8.487	-8.715	-9.008	-9.379
	I	F''	-13.100	-13.210	-11.539	-11.645	-11.753	-11.863	-11.974	-12.086	-12.197	-12.310
1.9	I	F'	-9.866	-10.567	-11.949	-12.119	-11.086	-10.714	-10.549	-10.496	-10.520	-10.457
	I	F''	-12.423	-12.536	-12.650	-9.248	-9.329	-9.410	-9.491	-9.572	-9.653	-9.752
2.0	I	F'	-10.603	-10.811	-11.088	-11.451	-11.929	-12.583	-13.553	-15.321	-19.584	-14.785
	I	F''	-9.855	-9.959	-10.065	-10.172	-10.280	-10.390	-10.501	-10.614	-10.727	-10.840
2.1	I	F'	-13.370	-12.513	-11.896	-11.414	-11.024	-10.688	-10.397	-10.140	-9.910	-9.702
	I	F''	-3.592	-3.619	-3.647	-3.675	-3.702	-3.730	-3.758	-3.786	-3.814	-3.842
2.2	I	F'	-9.512	-9.338	-9.177	-9.027	-8.887	-8.756	-8.633	-8.516	-8.406	-8.302
	I	F''	-3.870	-3.898	-3.926	-3.954	-3.983	-4.011	-4.039	-4.068	-4.097	-4.125
2.3	I	F'	-8.203	-8.116	-8.026	-7.940	-7.857	-7.778	-7.702	-7.629	-7.558	-7.490
	I	F''	-4.154	-4.183	-4.211	-4.240	-4.269	-4.298	-4.327	-4.356	-4.385	-4.414
2.4	I	F'	-7.425	-7.362	-7.301	-7.241	-7.184	-7.129	-7.075	-7.023	-6.972	-6.923
	I	F''	-4.443	-4.473	-4.502	-4.531	-4.561	-4.590	-4.620	-4.649	-4.679	-4.709
2.5	I	F'	-6.875	-6.829	-6.783	-6.739	-6.696	-6.654	-6.614	-6.574	-6.535	-6.497
	I	F''	-4.739	-4.768	-4.798	-4.828	-4.858	-4.888	-4.919	-4.949	-4.979	-5.009
2.6	I	F'	-6.460	-6.424	-6.388	-6.354	-6.320	-6.287	-6.254	-6.223	-6.192	-6.161
	I	F''	-5.040	-5.070	-5.100	-5.131	-5.162	-5.192	-5.223	-5.254	-5.284	-5.315
2.7	I	F'	-6.132	-6.103	-6.074	-6.046	-6.019	-5.992	-5.965	-5.939	-5.914	-5.889
	I	F''	-5.346	-5.377	-5.408	-5.439	-5.470	-5.502	-5.533	-5.564	-5.595	-5.627
2.8	I	F'	-5.866	-5.842	-5.818	-5.795	-5.772	-5.750	-5.728	-5.707	-5.685	-5.665
	I	F''	-5.658	-5.690	-5.721	-5.753	-5.784	-5.816	-5.848	-5.880	-5.911	-5.943

ATOMIC SYMBOL = ND ATOMIC NUMBER = 60

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.519	-0.492	-0.470	-0.456	-0.451	-0.469	-0.486	-0.516	-0.559	-0.618
	I	F''	-0.560	-0.667	-0.781	-0.904	-1.035	-1.170	-1.309	-1.454	-1.604	-1.759
0.2	I	F'	-0.694	-0.791	-0.915	-1.070	-1.269	-1.529	-1.885	-2.430	-3.599	-3.626
	I	F''	-1.919	-2.083	-2.252	-2.425	-2.601	-2.782	-2.966	-3.154	-3.339	-3.527
0.3	I	F'	-2.803	-2.438	-2.207	-2.039	-1.908	-1.800	-1.708	-1.628	-1.557	-1.492
	I	F''	-0.651	-0.691	-0.732	-0.774	-0.818	-0.862	-0.907	-0.953	-1.001	-1.049
0.4	I	F'	-1.433	-1.383	-1.332	-1.288	-1.243	-1.201	-1.160	-1.125	-1.089	-1.054
	I	F''	-1.098	-1.148	-1.199	-1.251	-1.304	-1.357	-1.412	-1.467	-1.522	-1.579
0.5	I	F'	-1.020	-0.988	-0.957	-0.927	-0.898	-0.870	-0.842	-0.816	-0.791	-0.766
	I	F''	-1.636	-1.695	-1.754	-1.814	-1.874	-1.936	-1.998	-2.061	-2.124	-2.189
0.6	I	F'	-0.743	-0.720	-0.698	-0.677	-0.656	-0.637	-0.618	-0.600	-0.583	-0.566
	I	F''	-2.254	-2.320	-2.387	-2.454	-2.522	-2.591	-2.661	-2.731	-2.802	-2.873
0.7	I	F'	-0.551	-0.536	-0.521	-0.508	-0.495	-0.483	-0.472	-0.462	-0.452	-0.443
	I	F''	-2.946	-3.019	-3.092	-3.167	-3.242	-3.318	-3.394	-3.471	-3.549	-3.627
0.8	I	F'	-0.436	-0.429	-0.422	-0.417	-0.412	-0.409	-0.406	-0.407	-0.406	-0.406
	I	F''	-3.706	-3.786	-3.866	-3.947	-4.028	-4.110	-4.193	-4.276	-4.360	-4.445
0.9	I	F'	-0.407	-0.409	-0.412	-0.421	-0.426	-0.431	-0.438	-0.446	-0.455	-0.465
	I	F''	-4.529	-4.615	-4.701	-4.788	-4.875	-4.962	-5.050	-5.139	-5.228	-5.318
1.0	I	F'	-0.481	-0.494	-0.507	-0.521	-0.537	-0.553	-0.571	-0.590	-0.610	-0.632
	I	F''	-5.408	-5.498	-5.589	-5.681	-5.773	-5.865	-5.958	-6.052	-6.146	-6.240
1.1	I	F'	-0.654	-0.678	-0.703	-0.729	-0.757	-0.786	-0.817	-0.848	-0.882	-0.916
	I	F''	-6.335	-6.431	-6.526	-6.623	-6.720	-6.817	-6.915	-7.013	-7.112	-7.211
1.2	I	F'	-0.953	-0.990	-1.030	-1.070	-1.113	-1.157	-1.203	-1.251	-1.300	-1.351
	I	F''	-7.310	-7.410	-7.511	-7.612	-7.713	-7.815	-7.917	-8.020	-8.123	-8.227
1.3	I	F'	-1.405	-1.460	-1.517	-1.577	-1.638	-1.702	-1.768	-1.836	-1.906	-1.980
	I	F''	-8.331	-8.435	-8.540	-8.645	-8.751	-8.856	-8.963	-9.070	-9.177	-9.284
1.4	I	F'	-2.055	-2.133	-2.213	-2.297	-2.382	-2.471	-2.563	-2.659	-2.757	-2.859
	I	F''	-9.392	-9.499	-9.607	-9.715	-9.824	-9.932	-10.042	-10.151	-10.261	-10.371
1.5	I	F'	-2.965	-3.075	-3.188	-3.306	-3.430	-3.557	-3.690	-3.828	-3.972	-4.122
	I	F''	-10.481	-10.592	-10.703	-10.814	-10.926	-11.037	-11.149	-11.262	-11.374	-11.487
1.6	I	F'	-4.279	-4.443	-4.615	-4.797	-4.989	-5.192	-5.418	-5.650	-5.902	-6.177
	I	F''	-11.600	-11.714	-11.827	-11.941	-12.055	-12.170	-12.284	-12.398	-12.511	-12.625
1.7	I	F'	-6.485	-6.838	-7.270	-7.882	-8.330	-8.730	-9.129	-9.528	-9.927	-10.326
	I	F''	-12.739	-12.853	-12.967	-13.082	-13.196	-13.310	-13.424	-13.538	-13.652	-13.766
1.8	I	F'	-8.840	-9.214	-9.713	-10.442	-11.336	-12.386	-13.598	-14.970	-16.502	-18.206
	I	F''	-12.141	-12.268	-12.395	-12.523	-12.651	-12.779	-12.907	-13.035	-13.163	-13.291
1.9	I	F'	-10.367	-10.326	-10.477	-10.690	-10.975	-11.348	-11.843	-12.526	-13.560	-15.568
	I	F''	-9.613	-9.710	-9.813	-9.919	-10.025	-10.133	-10.243	-10.353	-10.466	-10.579
2.0	I	F'	-17.611	-14.295	-13.025	-12.225	-11.644	-11.183	-10.802	-10.478	-10.196	-9.946
	I	F''	-3.562	-3.591	-3.620	-3.649	-3.678	-3.707	-3.736	-3.765	-3.794	-3.823
2.1	I	F'	-9.722	-9.519	-9.334	-9.163	-9.006	-8.859	-8.722	-8.594	-8.473	-8.359
	I	F''	-3.852	-3.882	-3.911	-3.941	-3.970	-4.000	-4.030	-4.059	-4.089	-4.119
2.2	I	F'	-8.251	-8.156	-8.058	-7.965	-7.877	-7.792	-7.711	-7.633	-7.559	-7.487
	I	F''	-4.149	-4.179	-4.209	-4.239	-4.270	-4.300	-4.330	-4.361	-4.391	-4.422
2.3	I	F'	-7.417	-7.351	-7.286	-7.224	-7.164	-7.106	-7.050	-6.995	-6.942	-6.891
	I	F''	-4.452	-4.483	-4.513	-4.544	-4.575	-4.606	-4.637	-4.668	-4.699	-4.730
2.4	I	F'	-6.841	-6.793	-6.746	-6.700	-6.656	-6.612	-6.570	-6.529	-6.489	-6.449
	I	F''	-4.761	-4.793	-4.824	-4.855	-4.887	-4.918	-4.950	-4.982	-5.013	-5.045
2.5	I	F'	-6.411	-6.374	-6.337	-6.302	-6.267	-6.233	-6.200	-6.167	-6.136	-6.104
	I	F''	-5.077	-5.109	-5.141	-5.173	-5.205	-5.237	-5.269	-5.301	-5.334	-5.366
2.6	I	F'	-6.074	-6.044	-6.015	-5.986	-5.958	-5.931	-5.904	-5.877	-5.851	-5.826
	I	F''	-5.399	-5.431	-5.464	-5.496	-5.528	-5.560	-5.592	-5.624	-5.656	-5.693
2.7	I	F'	-5.801	-5.776	-5.754	-5.730	-5.707	-5.684	-5.662	-5.640	-5.619	-5.597
	I	F''	-5.726	-5.759	-5.792	-5.825	-5.858	-5.892	-5.925	-5.959	-5.992	-6.026
2.8	I	F'	-5.577	-5.556	-5.536	-5.517	-5.497	-5.478	-5.460	-5.441	-5.423	-5.405
	I	F''	-6.059	-6.093	-6.127	-6.160	-6.194	-6.228	-6.262	-6.296	-6.330	-6.364

ATOMIC SYMBOL = PM ATOMIC NUMBER = 61

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.545	-0.519	-0.500	-0.489	-0.502	-0.514	-0.539	-0.578	-0.632	-0.705
	I	F''	-0.598	-0.711	-0.833	-0.963	-1.101	-1.243	-1.391	-1.544	-1.702	-1.866
0.2	I	F'	-0.799	-0.919	-1.072	-1.268	-1.527	-1.883	-2.430	-3.618	-3.588	-2.789
	I	F''	-2.034	-2.207	-2.384	-2.566	-2.752	-2.942	-3.135	-3.327	-3.520	-3.713
0.3	I	F'	-2.431	-2.203	-2.038	-1.908	-1.801	-1.710	-1.631	-1.559	-1.495	-1.441
	I	F''	-0.699	-0.742	-0.786	-0.832	-0.878	-0.925	-0.974	-1.023	-1.074	-1.126
0.4	I	F'	-1.386	-1.338	-1.291	-1.246	-1.203	-1.166	-1.127	-1.091	-1.056	-1.022
	I	F''	-1.178	-1.231	-1.286	-1.341	-1.397	-1.454	-1.512	-1.571	-1.630	-1.691
0.5	I	F'	-0.989	-0.958	-0.928	-0.899	-0.871	-0.844	-0.818	-0.793	-0.769	-0.745
	I	F''	-1.752	-1.814	-1.877	-1.941	-2.006	-2.071	-2.138	-2.205	-2.273	-2.341
0.6	I	F'	-0.723	-0.701	-0.680	-0.660	-0.641	-0.623	-0.605	-0.589	-0.573	-0.558
	I	F''	-2.411	-2.481	-2.552	-2.624	-2.697	-2.770	-2.844	-2.919	-2.995	-3.071
0.7	I	F'	-0.544	-0.530	-0.518	-0.506	-0.495	-0.485	-0.476	-0.468	-0.461	-0.454
	I	F''	-3.148	-3.226	-3.304	-3.384	-3.463	-3.544	-3.625	-3.707	-3.790	-3.874
0.8	I	F'	-0.449	-0.445	-0.441	-0.438	-0.440	-0.439	-0.440	-0.441	-0.443	-0.451
	I	F''	-3.958	-4.042	-4.128	-4.214	-4.300	-4.388	-4.475	-4.564	-4.653	-4.743
0.9	I	F'	-0.456	-0.462	-0.468	-0.476	-0.485	-0.495	-0.512	-0.524	-0.538	-0.553
	I	F''	-4.833	-4.923	-5.014	-5.106	-5.199	-5.292	-5.385	-5.479	-5.574	-5.668
1.0	I	F'	-0.569	-0.586	-0.605	-0.624	-0.645	-0.668	-0.691	-0.717	-0.743	-0.771
	I	F''	-5.764	-5.860	-5.957	-6.054	-6.151	-6.249	-6.348	-6.447	-6.547	-6.647
1.1	I	F'	-0.800	-0.831	-0.863	-0.897	-0.932	-0.969	-1.008	-1.048	-1.090	-1.134
	I	F''	-6.748	-6.849	-6.951	-7.053	-7.156	-7.259	-7.363	-7.467	-7.571	-7.676
1.2	I	F'	-1.179	-1.227	-1.276	-1.327	-1.380	-1.435	-1.492	-1.552	-1.613	-1.678
	I	F''	-7.782	-7.888	-7.995	-8.102	-8.209	-8.317	-8.425	-8.534	-8.643	-8.753
1.3	I	F'	-1.745	-1.814	-1.885	-1.959	-2.036	-2.115	-2.198	-2.283	-2.371	-2.463
	I	F''	-8.863	-8.974	-9.084	-9.196	-9.308	-9.420	-9.533	-9.646	-9.759	-9.873
1.4	I	F'	-2.558	-2.657	-2.759	-2.865	-2.974	-3.088	-3.207	-3.330	-3.458	-3.591
	I	F''	-9.987	-10.100	-10.214	-10.329	-10.443	-10.558	-10.673	-10.789	-10.904	-11.021
1.5	I	F'	-3.730	-3.875	-4.026	-4.185	-4.351	-4.526	-4.710	-4.904	-5.110	-5.331
	I	F''	-11.137	-11.254	-11.370	-11.488	-11.605	-11.723	-11.841	-11.959	-12.078	-12.196
1.6	I	F'	-5.573	-5.830	-6.111	-6.425	-6.788	-7.233	-7.874	-9.388	-8.263	-8.090
	I	F''	-12.314	-12.433	-12.551	-12.669	-12.788	-12.907	-13.026	-13.145	-13.264	-13.383
1.7	I	F'	-8.168	-8.340	-8.590	-8.923	-9.365	-9.988	-11.065	-12.715	-10.950	-10.471
	I	F''	-11.739	-11.868	-11.998	-12.130	-12.262	-12.396	-12.532	-12.668	-12.804	-12.940
1.8	I	F'	-10.261	-10.183	-10.190	-10.147	-10.280	-10.476	-10.740	-11.088	-11.547	-12.173
	I	F''	-9.370	-9.458	-9.546	-9.636	-9.741	-9.848	-9.956	-10.066	-10.177	-10.289
1.9	I	F'	-13.095	-14.738	-20.743	-14.535	-13.078	-12.217	-11.599	-11.119	-10.726	-10.393
	I	F''	-10.403	-10.518	-10.633	-10.748	-10.863	-10.978	-11.093	-11.208	-11.323	-11.438
2.0	I	F'	-10.105	-9.850	-9.623	-9.418	-9.231	-9.059	-8.900	-8.753	-8.615	-8.486
	I	F''	-3.818	-3.849	-3.879	-3.910	-3.941	-3.972	-4.003	-4.034	-4.065	-4.096
2.1	I	F'	-8.365	-8.257	-8.149	-8.046	-7.949	-7.856	-7.768	-7.683	-7.602	-7.524
	I	F''	-4.128	-4.159	-4.191	-4.222	-4.254	-4.285	-4.317	-4.349	-4.381	-4.412
2.2	I	F'	-7.450	-7.378	-7.309	-7.243	-7.178	-7.117	-7.057	-6.999	-6.943	-6.889
	I	F''	-4.444	-4.476	-4.509	-4.541	-4.573	-4.605	-4.638	-4.670	-4.703	-4.735
2.3	I	F'	-6.836	-6.785	-6.736	-6.687	-6.641	-6.595	-6.551	-6.508	-6.466	-6.425
	I	F''	-4.768	-4.801	-4.834	-4.867	-4.899	-4.933	-4.966	-5.000	-5.032	-5.065
2.4	I	F'	-6.385	-6.346	-6.308	-6.271	-6.235	-6.200	-6.166	-6.132	-6.099	-6.067
	I	F''	-5.099	-5.132	-5.166	-5.199	-5.233	-5.267	-5.300	-5.334	-5.368	-5.402
2.5	I	F'	-6.035	-6.006	-5.974	-5.945	-5.916	-5.887	-5.860	-5.832	-5.806	-5.780
	I	F''	-5.436	-5.470	-5.504	-5.538	-5.573	-5.607	-5.642	-5.676	-5.711	-5.745
2.6	I	F'	-5.755	-5.730	-5.705	-5.681	-5.658	-5.634	-5.612	-5.589	-5.567	-5.545
	I	F''	-5.780	-5.815	-5.849	-5.884	-5.919	-5.954	-5.989	-6.024	-6.059	-6.095
2.7	I	F'	-5.525	-5.504	-5.483	-5.461	-5.439	-5.418	-5.394	-5.374	-5.353	-5.333
	I	F''	-6.130	-6.165	-6.201	-6.236	-6.271	-6.307	-6.343	-6.378	-6.414	-6.450
2.8	I	F'	-5.347	-5.329	-5.312	-5.296	-5.279	-5.263	-5.248	-5.232	-5.217	-5.202
	I	F''	-6.485	-6.521	-6.557	-6.593	-6.629	-6.665	-6.701	-6.737	-6.773	-6.809

ATOMIC SYMBOL = SM ATOMIC NUMBER = 62

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.573	-0.549	-0.532	-0.526	-0.545	-0.564	-0.597	-0.647	-0.714	-0.803
	I	F''	-0.637	-0.757	-0.887	-1.026	-1.170	-1.319	-1.475	-1.636	-1.803	-1.975
0.2	I	F'	-0.919	-1.067	-1.258	-1.511	-1.861	-2.396	-3.535	-3.629	-2.803	-2.441
	I	F''	-2.153	-2.335	-2.522	-2.713	-2.909	-3.109	-3.306	-3.506	-3.706	-3.906
0.3	I	F'	-2.212	-2.047	-1.917	-1.810	-1.719	-1.639	-1.568	-1.508	-1.449	-1.394
	I	F''	-0.750	-0.796	-0.843	-0.891	-0.941	-0.992	-1.044	-1.097	-1.151	-1.206
0.4	I	F'	-1.346	-1.298	-1.253	-1.213	-1.173	-1.134	-1.097	-1.061	-1.028	-0.995
	I	F''	-1.262	-1.318	-1.376	-1.435	-1.495	-1.556	-1.618	-1.680	-1.744	-1.808
0.5	I	F'	-0.964	-0.933	-0.904	-0.876	-0.849	-0.823	-0.798	-0.774	-0.751	-0.729
	I	F''	-1.874	-1.940	-2.007	-2.075	-2.144	-2.214	-2.284	-2.356	-2.428	-2.501
0.6	I	F'	-0.708	-0.687	-0.668	-0.649	-0.631	-0.615	-0.599	-0.584	-0.569	-0.556
	I	F''	-2.575	-2.650	-2.726	-2.803	-2.880	-2.958	-3.037	-3.117	-3.197	-3.278
0.7	I	F'	-0.544	-0.533	-0.522	-0.512	-0.504	-0.496	-0.490	-0.484	-0.480	-0.476
	I	F''	-3.360	-3.443	-3.527	-3.611	-3.696	-3.782	-3.868	-3.955	-4.043	-4.132
0.8	I	F'	-0.473	-0.475	-0.474	-0.475	-0.477	-0.484	-0.488	-0.493	-0.500	-0.507
	I	F''	-4.221	-4.311	-4.402	-4.493	-4.585	-4.678	-4.771	-4.864	-4.959	-5.054
0.9	I	F'	-0.516	-0.526	-0.537	-0.555	-0.568	-0.584	-0.600	-0.618	-0.637	-0.657
	I	F''	-5.149	-5.245	-5.342	-5.440	-5.537	-5.636	-5.735	-5.834	-5.934	-6.035
1.0	I	F'	-0.679	-0.702	-0.727	-0.753	-0.780	-0.809	-0.840	-0.872	-0.906	-0.942
	I	F''	-6.136	-6.238	-6.340	-6.443	-6.547	-6.651	-6.756	-6.860	-6.966	-7.072
1.1	I	F'	-0.979	-1.018	-1.059	-1.101	-1.146	-1.192	-1.240	-1.291	-1.343	-1.398
	I	F''	-7.179	-7.286	-7.394	-7.502	-7.611	-7.720	-7.830	-7.940	-8.051	-8.162
1.2	I	F'	-1.454	-1.513	-1.575	-1.638	-1.707	-1.776	-1.847	-1.921	-1.998	-2.079
	I	F''	-8.274	-8.386	-8.499	-8.612	-8.726	-8.840	-8.954	-9.069	-9.184	-9.300
1.3	I	F'	-2.162	-2.248	-2.337	-2.430	-2.526	-2.626	-2.730	-2.838	-2.950	-3.068
	I	F''	-9.416	-9.533	-9.650	-9.767	-9.885	-10.004	-10.122	-10.242	-10.361	-10.481
1.4	I	F'	-3.190	-3.316	-3.448	-3.585	-3.728	-3.878	-4.035	-4.200	-4.373	-4.555
	I	F''	-10.601	-10.721	-10.841	-10.961	-11.082	-11.203	-11.324	-11.446	-11.568	-11.690
1.5	I	F'	-4.748	-4.952	-5.170	-5.409	-5.662	-5.938	-6.244	-6.593	-7.010	-7.565
	I	F''	-11.812	-11.935	-12.058	-12.181	-12.303	-12.426	-12.548	-12.671	-12.794	-12.917
1.6	I	F'	-8.722	-8.344	-8.070	-8.121	-8.284	-8.535	-8.878	-9.343	-10.023	-11.332
	I	F''	-13.040	-11.397	-11.520	-11.652	-11.785	-11.920	-12.056	-12.194	-12.334	-12.475
1.7	I	F'	-11.776	-10.643	-10.253	-10.083	-10.029	-10.054	-9.992	-10.142	-10.357	-10.645
	I	F''	-9.062	-9.153	-9.243	-9.334	-9.425	-9.516	-9.609	-9.704	-9.800	-9.958
1.8	I	F'	-11.026	-11.534	-12.243	-13.334	-15.580	-16.488	-13.753	-12.578	-11.821	-11.262
	I	F''	-10.078	-10.200	-10.324	-10.450	-10.577	-10.703	-10.830	-10.957	-11.084	-11.211
1.9	I	F'	-10.819	-10.452	-10.139	-9.865	-9.623	-9.406	-9.210	-9.030	-8.864	-8.711
	I	F''	-3.765	-3.797	-3.829	-3.861	-3.893	-3.925	-3.957	-3.990	-4.022	-4.055
2.0	I	F'	-8.569	-8.436	-8.317	-8.199	-8.088	-7.984	-7.884	-7.789	-7.699	-7.613
	I	F''	-4.087	-4.120	-4.153	-4.186	-4.219	-4.252	-4.285	-4.318	-4.351	-4.384
2.1	I	F'	-7.531	-7.452	-7.376	-7.303	-7.234	-7.166	-7.101	-7.039	-6.979	-6.920
	I	F''	-4.418	-4.451	-4.485	-4.518	-4.552	-4.586	-4.619	-4.653	-4.687	-4.721
2.2	I	F'	-6.864	-6.809	-6.756	-6.705	-6.655	-6.606	-6.559	-6.514	-6.469	-6.426
	I	F''	-4.756	-4.790	-4.824	-4.859	-4.893	-4.928	-4.962	-4.997	-5.032	-5.066
2.3	I	F'	-6.384	-6.343	-6.303	-6.264	-6.226	-6.189	-6.153	-6.117	-6.083	-6.049
	I	F''	-5.101	-5.136	-5.171	-5.206	-5.242	-5.277	-5.312	-5.348	-5.383	-5.419
2.4	I	F'	-6.016	-5.984	-5.953	-5.922	-5.892	-5.862	-5.833	-5.805	-5.777	-5.751
	I	F''	-5.454	-5.490	-5.526	-5.562	-5.598	-5.634	-5.670	-5.706	-5.742	-5.778
2.5	I	F'	-5.725	-5.699	-5.673	-5.648	-5.624	-5.600	-5.576	-5.553	-5.531	-5.515
	I	F''	-5.815	-5.851	-5.888	-5.924	-5.961	-5.997	-6.034	-6.071	-6.108	-6.145
2.6	I	F'	-5.493	-5.472	-5.451	-5.430	-5.410	-5.395	-5.376	-5.358	-5.339	-5.321
	I	F''	-6.182	-6.219	-6.256	-6.293	-6.330	-6.367	-6.405	-6.442	-6.479	-6.517
2.7	I	F'	-5.303	-5.285	-5.268	-5.251	-5.234	-5.218	-5.202	-5.186	-5.171	-5.155
	I	F''	-6.554	-6.592	-6.629	-6.667	-6.704	-6.743	-6.781	-6.819	-6.857	-6.895
2.8	I	F'	-5.140	-5.126	-5.111	-5.097	-5.083	-5.070	-5.056	-5.043	-5.030	-5.018
	I	F''	-6.933	-6.971	-7.009	-7.047	-7.086	-7.124	-7.163	-7.201	-7.240	-7.278

ATOMIC SYMBOL = EU

ATOMIC NUMBER = 63

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F ⁺	-0.603	-0.581	-0.568	-0.579	-0.592	-0.619	-0.662	-0.724	-0.807	-0.916
	I	F ⁺	0.678	0.805	0.943	1.090	1.240	1.398	1.562	1.732	1.908	2.089
0.2	I	F ⁺	-1.057	-1.241	-1.485	-1.822	-2.333	-3.369	-5.755	-2.841	-2.445	-2.231
	I	F ⁺	2.276	2.467	2.663	2.864	3.070	3.274	3.479	3.683	3.887	4.091
0.3	I	F ⁺	-2.063	-1.932	-1.824	-1.732	-1.652	-1.580	-1.520	-1.460	-1.408	-1.357
	I	F ⁺	0.803	0.852	0.903	0.955	1.008	1.062	1.117	1.174	1.231	1.290
0.4	I	F ⁺	-1.309	-1.263	-1.223	-1.182	-1.143	-1.106	-1.070	-1.036	-1.003	-0.971
	I	F ⁺	1.349	1.410	1.471	1.534	1.598	1.662	1.728	1.795	1.863	1.931
0.5	I	F ⁺	-0.941	-0.912	-0.884	-0.857	-0.831	-0.806	-0.782	-0.759	-0.737	-0.716
	I	F ⁺	2.001	2.071	2.143	2.215	2.289	2.362	2.438	2.514	2.591	2.669
0.6	I	F ⁺	-0.696	-0.677	-0.659	-0.642	-0.626	-0.611	-0.597	-0.584	-0.571	-0.560
	I	F ⁺	2.748	2.827	2.909	2.989	3.071	3.154	3.238	3.323	3.408	3.495
0.7	I	F ⁺	-0.550	-0.541	-0.533	-0.526	-0.520	-0.515	-0.511	-0.511	-0.509	-0.509
	I	F ⁺	3.582	3.670	3.758	3.848	3.938	4.029	4.121	4.214	4.307	4.401
0.8	I	F ⁺	-0.509	-0.511	-0.519	-0.523	-0.529	-0.536	-0.544	-0.553	-0.564	-0.581
	I	F ⁺	4.496	4.591	4.687	4.784	4.881	4.979	5.077	5.177	5.277	5.377
0.9	I	F ⁺	-0.594	-0.609	-0.625	-0.643	-0.662	-0.683	-0.705	-0.729	-0.754	-0.780
	I	F ⁺	5.578	5.580	5.682	5.785	5.889	5.993	6.098	6.203	6.309	6.416
1.0	I	F ⁺	-0.809	-0.839	-0.870	-0.904	-0.939	-0.976	-1.014	-1.055	-1.098	-1.142
	I	F ⁺	6.523	6.631	6.739	6.848	6.957	7.067	7.178	7.289	7.401	7.513
1.1	I	F ⁺	-1.189	-1.237	-1.288	-1.341	-1.396	-1.454	-1.514	-1.576	-1.641	-1.711
	I	F ⁺	7.626	7.739	7.853	7.968	8.083	8.198	8.315	8.431	8.548	8.666
1.2	I	F ⁺	-1.781	-1.854	-1.930	-2.009	-2.091	-2.177	-2.269	-2.361	-2.457	-2.557
	I	F ⁺	8.784	8.902	9.021	9.140	9.260	9.381	9.501	9.622	9.744	9.866
1.3	I	F ⁺	-2.661	-2.769	-2.881	-2.998	-3.120	-3.247	-3.380	-3.518	-3.663	-3.815
	I	F ⁺	9.988	10.111	10.235	10.358	10.483	10.607	10.732	10.858	10.984	11.110
1.4	I	F ⁺	-3.974	-4.142	-4.319	-4.505	-4.702	-4.912	-5.137	-5.386	-5.648	-5.935
	I	F ⁺	11.237	11.363	11.490	11.617	11.745	11.873	12.001	12.129	12.256	12.383
1.5	I	F ⁺	-6.256	-6.626	-7.075	-7.707	-8.204	-8.656	-9.056	-9.460	-9.871	-10.280
	I	F ⁺	12.510	12.637	12.764	12.891	13.018	13.145	13.272	13.400	13.527	13.654
1.6	I	F ⁺	-9.105	-9.717	-10.797	-12.269	-10.626	-10.163	-9.962	-9.890	-9.903	-9.982
	I	F ⁺	12.073	12.217	12.362	12.507	12.652	12.797	12.942	13.087	13.232	13.377
1.7	I	F ⁺	-9.957	-10.160	-10.437	-10.804	-11.294	-11.974	-13.007	-15.028	-16.945	-13.744
	I	F ⁺	9.656	9.777	9.901	10.027	10.155	10.286	10.418	10.554	10.690	10.826
1.8	I	F ⁺	-12.506	-11.726	-11.156	-10.707	-10.336	-10.020	-9.746	-9.503	-9.286	-9.089
	I	F ⁺	3.688	3.721	3.754	3.788	3.821	3.854	3.888	3.921	3.955	3.989
1.9	I	F ⁺	-8.909	-8.744	-8.591	-8.449	-8.322	-8.197	-8.080	-7.970	-7.865	-7.764
	I	F ⁺	4.023	4.057	4.091	4.125	4.159	4.193	4.228	4.262	4.297	4.331
2.0	I	F ⁺	-7.672	-7.582	-7.496	-7.415	-7.336	-7.261	-7.189	-7.119	-7.052	-6.988
	I	F ⁺	4.366	4.401	4.436	4.471	4.506	4.541	4.576	4.611	4.647	4.682
2.1	I	F ⁺	-6.926	-6.866	-6.808	-6.752	-6.697	-6.645	-6.594	-6.544	-6.496	-6.449
	I	F ⁺	4.718	4.753	4.789	4.825	4.861	4.897	4.933	4.969	5.005	5.042
2.2	I	F ⁺	-6.404	-6.360	-6.317	-6.275	-6.234	-6.195	-6.156	-6.118	-6.082	-6.046
	I	F ⁺	5.078	5.114	5.151	5.188	5.224	5.261	5.298	5.335	5.372	5.409
2.3	I	F ⁺	-6.011	-5.976	-5.943	-5.911	-5.879	-5.848	-5.818	-5.788	-5.758	-5.730
	I	F ⁺	5.446	5.483	5.521	5.558	5.596	5.633	5.671	5.709	5.746	5.784
2.4	I	F ⁺	-5.702	-5.674	-5.648	-5.621	-5.596	-5.570	-5.546	-5.522	-5.504	-5.480
	I	F ⁺	5.822	5.860	5.898	5.936	5.975	6.013	6.051	6.090	6.128	6.167
2.5	I	F ⁺	-5.458	-5.435	-5.413	-5.396	-5.375	-5.355	-5.335	-5.315	-5.296	-5.277
	I	F ⁺	6.205	6.244	6.283	6.322	6.360	6.399	6.438	6.477	6.517	6.556
2.6	I	F ⁺	-5.258	-5.240	-5.222	-5.204	-5.187	-5.170	-5.153	-5.137	-5.121	-5.105
	I	F ⁺	6.595	6.634	6.674	6.713	6.753	6.792	6.832	6.871	6.911	6.951
2.7	I	F ⁺	-5.089	-5.074	-5.059	-5.044	-5.030	-5.016	-5.002	-4.988	-4.975	-4.962
	I	F ⁺	6.991	7.031	7.071	7.111	7.151	7.191	7.232	7.272	7.313	7.353
2.8	I	F ⁺	-4.949	-4.937	-4.924	-4.912	-4.900	-4.889	-4.877	-4.866	-4.855	-4.844
	I	F ⁺	7.394	7.434	7.475	7.516	7.556	7.597	7.638	7.679	7.720	7.761

ATOMIC SYMBOL = GD

ATOMIC NUMBER = 64

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F ⁺	-0.635	-0.615	-0.606	-0.624	-0.644	-0.680	-0.734	-0.810	-0.912	-1.045
	I	F ⁺	0.721	0.856	1.003	1.155	1.314	1.480	1.653	1.832	2.016	2.206
0.2	I	F ⁺	-1.220	-1.452	-1.771	-2.248	-3.160	-4.014	-2.907	-2.505	-2.261	-2.089
	I	F ⁺	2.402	2.603	2.809	3.019	3.231	3.448	3.670	3.897	4.129	4.366
0.3	I	F ⁺	-1.955	-1.845	-1.752	-1.671	-1.598	-1.537	-1.477	-1.424	-1.372	-1.324
	I	F ⁺	0.859	0.912	0.966	1.021	1.077	1.135	1.194	1.254	1.315	1.377
0.4	I	F ⁺	-1.281	-1.237	-1.196	-1.157	-1.119	-1.083	-1.048	-1.016	-0.984	-0.954
	I	F ⁺	1.440	1.505	1.570	1.637	1.705	1.774	1.844	1.915	1.987	2.060
0.5	I	F ⁺	-0.925	-0.897	-0.870	-0.844	-0.820	-0.796	-0.774	-0.752	-0.732	-0.712
	I	F ⁺	2.134	2.209	2.285	2.362	2.440	2.519	2.599	2.679	2.761	2.844
0.6	I	F ⁺	-0.694	-0.677	-0.661	-0.645	-0.631	-0.618	-0.606	-0.595	-0.586	-0.577
	I	F ⁺	2.927	3.012	3.097	3.184	3.271	3.359	3.448	3.538	3.629	3.720
0.7	I	F ⁺	-0.569	-0.563	-0.558	-0.554	-0.551	-0.551	-0.551	-0.552	-0.554	-0.561
	I	F ⁺	3.812	3.906	4.000	4.095	4.190	4.287	4.384	4.482	4.581	4.680
0.8	I	F ⁺	-0.566	-0.572	-0.579	-0.588	-0.598	-0.610	-0.627	-0.642	-0.658	-0.676
	I	F ⁺	4.780	4.881	4.982	5.084	5.187	5.291	5.395	5.500	5.605	5.712
0.9	I	F ⁺	-0.695	-0.715	-0.738	-0.762	-0.787	-0.814	-0.843	-0.874	-0.906	-0.940
	I	F ⁺	5.818	5.926	6.034	6.143	6.252	6.362	6.473	6.584	6.696	6.809
1.0	I	F ⁺	-0.977	-1.015	-1.055	-1.097	-1.141	-1.187	-1.236	-1.286	-1.339	-1.395
	I	F ⁺	6.922	7.036	7.150	7.265	7.381	7.497	7.614	7.731	7.849	7.968
1.1	I	F ⁺	-1.453	-1.513	-1.576	-1.641	-1.710	-1.781	-1.856	-1.933	-2.013	-2.097
	I	F ⁺	8.087	8.206	8.326	8.447	8.569	8.690	8.813	8.936	9.059	9.183
1.2	I	F ⁺	-2.184	-2.279	-2.374	-2.472	-2.575	-2.682	-2.793	-2.910	-3.031	-3.158
	I	F ⁺	9.308	9.432	9.558	9.683	9.809	9.936	10.063	10.191	10.319	10.448
1.3	I	F ⁺	-3.290	-3.429	-3.573	-3.725	-3.885	-4.055	-4.233	-4.421	-4.621	-4.836
	I	F ⁺	10.577	10.706	10.836	10.967	11.098	11.229	11.361	11.494	11.626	11.760
1.4	I	F ⁺	-5.064	-5.306	-5.569	-5.857	-6.179	-6.548	-6.966	-7.417	-7.910	-8.439
	I	F ⁺	11.891	12.021	12.152	12.283	12.414	12.545	12.677	12.809	12.941	13.073
1.5	I	F ⁺	-8.090	-8.206	-8.434	-8.768	-9.239	-9.958	-11.605	-11.029	-10.224	-9.912
	I	F ⁺	11.453	11.584	11.715	11.847	11.980	12.114	12.249	12.384	12.519	12.654
1.6	I	F ⁺	-9.781	-9.753	-9.799	-9.909	-9.934	-10.170	-10.487	-10.908	-11.481	-12.306
	I	F ⁺	9.256	9.354	9.451	9.549	9.647	9.745	9.843	9.941	10.039	10.137
1.7	I	F ⁺	-13.688	-18.005	-14.578	-12.863	-11.925	-11.278	-10.783	-10.382	-10.046	-9.757
	I	F ⁺	10.448	10.587	3.660	3.694	3.728	3.763	3.797	3.832	3.867	3.902
1.8	I	F ⁺	-9.503	-9.276	-9.073	-8.887	-8.717	-8.561	-8.420	-8.285	-8.158	-8.039
	I	F ⁺	3.937	3.972	4.007	4.043	4.078	4.114	4.149	4.185	4.221	4.257
1.9	I	F ⁺	-7.927	-7.821	-7.721	-7.626	-7.535	-7.449	-7.367	-7.285	-7.202	-7.140

ATOMIC SYMBOL = TB ATOMIC NUMBER = 65

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.668	-0.651	-0.660	-0.673	-0.700	-0.746	-0.814	-0.906	-1.030	-1.192
	I	F"	0.765	0.909	1.064	1.223	1.390	1.565	1.747	1.935	2.129	2.328
0.2	I	F'	-1.410	-1.708	-2.148	-2.940	-4.609	-3.008	-2.561	-2.302	-2.122	-1.984
	I	F"	2.534	2.745	2.961	3.180	0.613	0.660	0.709	0.759	0.811	0.864
0.3	I	F'	-1.871	-1.776	-1.693	-1.623	-1.557	-1.498	-1.442	-1.390	-1.340	-1.297
	I	F"	0.919	0.975	1.032	1.091	1.151	1.212	1.275	1.339	1.404	1.470
0.4	I	F'	-1.253	-1.211	-1.171	-1.133	-1.096	-1.061	-1.028	-0.996	-0.966	-0.936
	I	F"	1.537	1.606	1.676	1.747	1.819	1.892	1.967	2.042	2.119	2.196
0.5	I	F'	-0.908	-0.881	-0.856	-0.831	-0.808	-0.786	-0.765	-0.745	-0.726	-0.708
	I	F"	2.275	2.355	2.435	2.517	2.600	2.684	2.769	2.855	2.941	3.029
0.6	I	F'	-0.691	-0.676	-0.661	-0.648	-0.636	-0.625	-0.615	-0.607	-0.600	-0.593
	I	F"	3.118	3.208	3.298	3.390	3.483	3.576	3.671	3.766	3.862	3.960
0.7	I	F'	-0.588	-0.585	-0.585	-0.584	-0.584	-0.586	-0.593	-0.598	-0.604	-0.611
	I	F"	4.058	4.157	4.256	4.357	4.458	4.560	4.663	4.767	4.871	4.976
0.8	I	F'	-0.620	-0.631	-0.643	-0.661	-0.676	-0.693	-0.711	-0.732	-0.753	-0.777
	I	F"	5.082	5.189	5.297	5.405	5.514	5.623	5.733	5.844	5.956	6.068
0.9	I	F'	-0.802	-0.829	-0.858	-0.889	-0.921	-0.956	-0.993	-1.031	-1.072	-1.115
	I	F"	6.181	6.295	6.409	6.525	6.640	6.757	6.874	6.992	7.110	7.229
1.0	I	F'	-1.160	-1.207	-1.257	-1.309	-1.364	-1.421	-1.481	-1.544	-1.610	-1.678
	I	F"	7.349	7.469	7.590	7.712	7.834	7.957	8.081	8.205	8.329	8.455
1.1	I	F'	-1.750	-1.825	-1.902	-1.983	-2.068	-2.156	-2.249	-2.345	-2.445	-2.550
	I	F"	8.581	8.707	8.834	8.961	9.090	9.218	9.347	9.477	9.607	9.738
1.2	I	F'	-2.658	-2.772	-2.891	-3.015	-3.145	-3.281	-3.424	-3.575	-3.732	-3.898
	I	F"	9.869	10.001	10.133	10.266	10.400	10.534	10.668	10.803	10.938	11.074
1.3	I	F'	-4.072	-4.257	-4.453	-4.661	-4.884	-5.124	-5.418	-5.701	-6.016	-6.373
	I	F"	11.210	11.347	11.484	11.622	11.760	11.899	12.036	12.169	12.302	12.435
1.4	I	F'	-6.788	-7.327	-8.311	-8.308	-8.043	-8.118	-8.329	-8.660	-9.142	-9.908
	I	F"	12.571	12.710	12.852	11.245	11.381	11.522	11.667	11.817	11.971	12.129
1.5	I	F'	-11.865	-10.810	-10.069	-9.774	-9.651	-9.630	-9.682	-9.799	-9.831	-10.075
	I	F"	12.292	8.926	9.026	9.126	9.227	9.327	9.428	9.530	9.649	9.778
1.6	I	F'	-10.404	-10.843	-11.448	-12.336	-13.894	-25.184	-13.999	-12.515	-11.651	-11.042
	I	F"	9.909	10.044	10.182	10.324	10.469	3.656	3.692	3.728	3.764	3.800
1.7	I	F'	-10.570	-10.185	-9.861	-9.580	-9.334	-9.113	-8.914	-8.733	-8.571	-8.418
	I	F"	3.836	3.873	3.909	3.946	3.982	4.019	4.056	4.093	4.131	4.168
1.8	I	F'	-8.276	-8.143	-8.019	-7.902	-7.792	-7.688	-7.590	-7.496	-7.407	-7.322
	I	F"	4.205	4.242	4.280	4.318	4.355	4.393	4.431	4.469	4.507	4.546
1.9	I	F'	-7.241	-7.164	-7.089	-7.018	-6.949	-6.883	-6.820	-6.758	-6.699	-6.642
	I	F"	4.584	4.623	4.661	4.700	4.739	4.777	4.816	4.856	4.895	4.934
2.0	I	F'	-6.587	-6.533	-6.481	-6.431	-6.383	-6.335	-6.290	-6.245	-6.202	-6.160
	I	F"	4.973	5.013	5.052	5.092	5.132	5.172	5.212	5.252	5.292	5.332
2.1	I	F'	-6.119	-6.079	-6.040	-6.003	-5.966	-5.930	-5.895	-5.861	-5.828	-5.795
	I	F"	5.372	5.413	5.453	5.494	5.535	5.575	5.616	5.657	5.698	5.740
2.2	I	F'	-5.763	-5.732	-5.702	-5.672	-5.643	-5.620	-5.592	-5.565	-5.539	-5.513
	I	F"	5.781	5.822	5.864	5.905	5.947	5.989	6.030	6.072	6.114	6.156
2.3	I	F'	-5.488	-5.467	-5.443	-5.419	-5.396	-5.373	-5.351	-5.329	-5.308	-5.287
	I	F"	6.198	6.240	6.282	6.325	6.367	6.410	6.452	6.495	6.537	6.580
2.4	I	F'	-5.267	-5.247	-5.227	-5.208	-5.189	-5.170	-5.152	-5.134	-5.117	-5.100
	I	F"	6.623	6.666	6.709	6.752	6.795	6.839	6.882	6.925	6.969	7.012
2.5	I	F'	-5.083	-5.067	-5.051	-5.035	-5.020	-5.005	-4.990	-4.976	-4.961	-4.947
	I	F"	7.056	7.100	7.144	7.187	7.231	7.276	7.320	7.364	7.408	7.452
2.6	I	F'	-4.934	-4.921	-4.908	-4.895	-4.882	-4.870	-4.858	-4.847	-4.835	-4.824
	I	F"	7.497	7.541	7.586	7.631	7.675	7.720	7.765	7.810	7.855	7.900
2.7	I	F'	-4.813	-4.802	-4.792	-4.782	-4.772	-4.762	-4.752	-4.743	-4.734	-4.725
	I	F"	7.945	7.990	8.036	8.081	8.127	8.172	8.218	8.263	8.309	8.355
2.8	I	F'	-4.717	-4.708	-4.700	-4.692	-4.685	-4.677	-4.670	-4.663	-4.656	-4.649
	I	F"	8.401	8.447	8.493	8.539	8.585	8.631	8.677	8.724	8.770	8.817

ATOMIC SYMBOL = DY ATOMIC NUMBER = 66

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.704	-0.691	-0.706	-0.725	-0.762	-0.819	-0.902	-1.014	-1.164	-1.365
	I	F"	0.812	0.965	1.126	1.293	1.469	1.653	1.844	2.041	2.244	2.454
0.2	I	F'	-1.640	-2.040	-2.718	-3.558	-3.155	-2.635	-2.354	-2.164	-2.019	-1.903
	I	F"	2.669	2.890	3.116	3.339	0.654	0.705	0.757	0.810	0.865	0.922
0.3	I	F'	-1.805	-1.720	-1.649	-1.581	-1.521	-1.464	-1.411	-1.363	-1.316	-1.271
	I	F"	0.980	1.040	1.101	1.164	1.228	1.293	1.359	1.427	1.496	1.566
0.4	I	F'	-1.229	-1.189	-1.150	-1.113	-1.078	-1.044	-1.012	-0.981	-0.952	-0.923
	I	F"	1.637	1.710	1.784	1.860	1.937	2.014	2.094	2.174	2.255	2.337
0.5	I	F'	-0.897	-0.871	-0.847	-0.823	-0.801	-0.781	-0.761	-0.743	-0.725	-0.710
	I	F"	2.420	2.505	2.591	2.677	2.765	2.854	2.944	3.035	3.127	3.220
0.6	I	F'	-0.695	-0.681	-0.669	-0.658	-0.648	-0.640	-0.633	-0.627	-0.622	-0.621
	I	F"	3.314	3.409	3.505	3.602	3.700	3.799	3.899	4.000	4.102	4.205
0.7	I	F'	-0.620	-0.619	-0.621	-0.627	-0.631	-0.637	-0.644	-0.653	-0.664	-0.676
	I	F"	4.309	4.413	4.519	4.625	4.732	4.839	4.948	5.058	5.168	5.279
0.8	I	F'	-0.694	-0.709	-0.727	-0.746	-0.766	-0.789	-0.814	-0.840	-0.868	-0.898
	I	F"	5.391	5.503	5.617	5.731	5.846	5.961	6.078	6.195	6.313	6.431
0.9	I	F'	-0.931	-0.965	-1.001	-1.040	-1.081	-1.124	-1.170	-1.217	-1.268	-1.321
	I	F"	6.550	6.670	6.791	6.913	7.035	7.158	7.281	7.406	7.530	7.656
1.0	I	F'	-1.376	-1.435	-1.496	-1.560	-1.628	-1.698	-1.772	-1.849	-1.929	-2.013
	I	F"	7.782	7.909	8.037	8.165	8.294	8.424	8.554	8.684	8.816	8.947
1.1	I	F'	-2.101	-2.192	-2.293	-2.393	-2.498	-2.607	-2.721	-2.841	-2.966	-3.097
	I	F"	9.080	9.213	9.346	9.480	9.615	9.750	9.885	10.021	10.158	10.295
1.2	I	F'	-3.234	-3.378	-3.529	-3.694	-3.862	-4.040	-4.228	-4.428	-4.640	-4.868
	I	F"	10.432	10.571	10.709	10.848	10.988	11.127	11.267	11.408	11.549	11.691
1.3	I	F'	-5.114	-5.391	-5.684	-6.012	-6.388	-6.843	-7.467	-9.385	-8.167	-8.105
	I	F"	11.833	11.975	12.116	12.257	12.397	12.541	12.683	12.826	11.227	11.354
1.4	I	F'	-8.234	-8.490	-8.894	-9.539	-10.905	-11.026	-10.027	-9.668	-9.514	-9.473
	I	F"	11.490	11.639	11.801	11.975	12.162	8.840	8.944	9.049	9.154	9.259
1.5	I	F'	-9.511	-9.615	-9.664	-9.892	-10.202	-10.617	-11.185	-12.010	-13.402	-18.000
	I	F"	9.365	9.472	9.585	9.713	9.846	9.983	10.123	10.268	10.417	10.569
1.6	I	F'	-14.182	-12.522	-11.607	-10.973	-10.487	-10.094	-9.764	-9.480	-9.230	-9.007
	I	F"	3.701	3.738	3.776	3.813	3.851	3.889	3.927	3.965	4.003	4.042
1.7	I	F'	-8.807	-8.627	-8.460	-8.306	-8.163	-8.030	-7.906	-7.789	-7.678	-7.574
	I	F"	4.080	4.119	4.158	4.197	4.235	4.274	4.314	4.353	4.392	4.432
1.8	I	F'	-7.475	-7.382	-7.293	-7.207	-7.126	-7.048	-6.974	-6.902	-6.834	-6.768
	I	F"	4.471	4.511	4.551	4.591	4.631	4.671	4.711	4.752	4.792	4.833
1.9	I	F'	-6.704	-6.643	-6.583	-6.526	-6.471	-6.417	-6.365	-6.315	-6.266	-6.220
	I	F"	4.874	4.914	4.955	4.996	5.038	5.079	5.120	5.162	5.203	5.245
2.0	I	F'	-6.174	-6.129	-6.086	-6.044	-6.003	-5.963	-5.924	-5.886	-5.849	-5.813
	I	F"	5.287	5.329	5.370	5.413	5.455	5.497	5.539	5.582	5.624	5.667
2.1	I	F'	-5.778	-5.744	-5.710	-5.678	-5.646	-5.619	-5.589	-5.559	-5.530	-5.502
	I	F"	5.710	5.753	5.796	5.839	5.882	5.925	5.969	6.012	6.056	6.099
2.2	I	F'	-5.474	-5.450	-5.423	-5.397	-5.372	-5.347	-5.324	-5.300	-5.277	-5.254
	I	F"	6.143	6.187	6.231	6.275	6.319	6.363	6.407	6.451	6.496	6.540
2.3	I	F'	-5.231	-5.210	-5.188	-5.167	-5.147	-5.126	-5.107	-5.087	-5.068	-5.050
	I	F"	6.585	6.629	6.674	6.719	6.764	6.809	6.854	6.899	6.944	6.990
2.4	I	F'	-5.032	-5.014	-4.996	-4.979	-4.962	-4.946	-4.930	-4.914	-4.899	-4.883
	I	F"	7.035	7.080	7.126	7.172	7.218	7.263	7.309	7.355	7.401	7.448
2.5	I	F'	-4.869	-4.854	-4.840	-4.826	-4.812	-4.799	-4.786	-4.773	-4.761	-4.748
	I	F"	7.494	7.540	7.587	7.633	7.680	7.726	7.773	7.820	7.867	7.914
2.6	I	F'	-4.736	-4.725	-4.713	-4.702	-4.691	-4.681	-4.670	-4.660	-4.650	-4.640
	I	F"	7.961	8.008	8.055	8.103	8.150	8.198	8.245	8.293	8.340	8.388
2.7	I	F'	-4.631	-4.622	-4.613	-4.604	-4.595	-4.587	-4.579	-4.571	-4.563	-4.556
	I	F"	8.436	8.484	8.532	8.580	8.628	8.676	8.725	8.773	8.822	8.870
2.8	I	F'	-4.549	-4.542	-4.535	-4.528	-4.522	-4.516	-4.510	-4.504	-4.499	-4.493
	I	F"	8.919	8.967	9.016	9.065	9.114	9.163	9.212	9.261	9.310	9.359

ATOMIC SYMBOL = HO ATOMIC NUMBER = 67

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.741	-0.732	-0.755	-0.782	-0.828	-0.899	-1.000	-1.136	-1.319	-1.569
	I	F''	0.861	1.022	1.190	1.366	1.550	1.743	1.944	2.150	2.364	2.584
0.2	I	F'	-1.928	-2.503	-3.941	-3.379	-2.735	-2.420	-2.215	-2.063	-1.941	-1.840
	I	F''	2.809	3.041	3.270	0.647	0.698	0.752	0.807	0.864	0.923	0.984
0.3	I	F'	-1.752	-1.679	-1.609	-1.548	-1.490	-1.435	-1.387	-1.339	-1.294	-1.251
	I	F''	1.046	1.109	1.174	1.240	1.308	1.377	1.447	1.519	1.592	1.667
0.4	I	F'	-1.210	-1.171	-1.135	-1.097	-1.063	-1.031	-1.000	-0.970	-0.942	-0.915
	I	F''	1.743	1.820	1.899	1.979	2.060	2.143	2.227	2.312	2.398	2.485
0.5	I	F'	-0.890	-0.865	-0.842	-0.821	-0.800	-0.781	-0.764	-0.747	-0.732	-0.718
	I	F''	2.573	2.663	2.754	2.845	2.938	3.033	3.128	3.224	3.322	3.420
0.6	I	F'	-0.706	-0.694	-0.685	-0.676	-0.669	-0.664	-0.661	-0.659	-0.658	-0.658
	I	F''	3.520	3.620	3.722	3.825	3.929	4.033	4.139	4.246	4.353	4.462
0.7	I	F'	-0.664	-0.667	-0.673	-0.680	-0.689	-0.699	-0.711	-0.729	-0.744	-0.762
	I	F''	4.571	4.682	4.793	4.905	5.018	5.132	5.247	5.362	5.479	5.596
0.8	I	F'	-0.782	-0.803	-0.826	-0.851	-0.879	-0.908	-0.940	-0.973	-1.009	-1.048
	I	F''	5.714	5.832	5.952	6.072	6.193	6.315	6.438	6.562	6.686	6.811
0.9	I	F'	-1.088	-1.131	-1.177	-1.225	-1.275	-1.329	-1.385	-1.444	-1.506	-1.571
	I	F''	6.937	7.063	7.191	7.319	7.447	7.577	7.707	7.838	7.970	8.102
1.0	I	F'	-1.639	-1.711	-1.787	-1.866	-1.948	-2.034	-2.124	-2.224	-2.323	-2.426
	I	F''	8.235	8.369	8.503	8.638	8.774	8.910	9.047	9.184	9.322	9.460
1.1	I	F'	-2.535	-2.648	-2.767	-2.892	-3.022	-3.160	-3.304	-3.455	-3.615	-3.787
	I	F''	9.599	9.739	9.879	10.019	10.161	10.302	10.445	10.588	10.731	10.875
1.2	I	F'	-3.965	-4.154	-4.356	-4.571	-4.801	-5.050	-5.328	-5.627	-5.961	-6.347
	I	F''	11.019	11.164	11.309	11.455	11.602	11.749	11.896	12.042	12.189	12.336
1.3	I	F'	-6.816	-7.470	-9.694	-7.968	-7.952	-8.146	-8.485	-9.003	-9.873	-14.310
	I	F''	12.484	12.632	11.051	11.201	11.361	11.522	11.686	11.852	12.020	12.190
1.4	I	F'	-10.279	-9.699	-9.457	-9.363	-9.363	-9.434	-9.569	-9.652	-9.913	-10.267
	I	F''	8.838	8.945	9.052	9.159	9.266	9.374	9.482	9.602	9.736	9.875
1.5	I	F'	-10.749	-11.429	-12.486	-14.462	-15.688	-12.978	-11.833	-11.100	-10.560	-10.132
	I	F''	10.020	10.171	10.329	10.493	3.701	3.740	3.779	3.818	3.858	3.897
1.6	I	F'	-9.778	-9.477	-9.215	-8.982	-8.774	-8.588	-8.415	-8.257	-8.110	-7.974
	I	F''	3.937	3.976	4.016	4.056	4.096	4.137	4.177	4.217	4.258	4.299
1.7	I	F'	-7.847	-7.727	-7.615	-7.509	-7.409	-7.313	-7.223	-7.137	-7.054	-6.976
	I	F''	4.339	4.380	4.421	4.463	4.504	4.545	4.587	4.629	4.670	4.712
1.8	I	F'	-6.900	-6.828	-6.759	-6.692	-6.628	-6.566	-6.506	-6.448	-6.393	-6.339
	I	F''	4.754	4.796	4.839	4.881	4.924	4.966	5.009	5.052	5.095	5.138
1.9	I	F'	-6.286	-6.236	-6.187	-6.140	-6.094	-6.049	-6.005	-5.963	-5.921	-5.881
	I	F''	5.181	5.224	5.268	5.311	5.355	5.399	5.443	5.487	5.531	5.575
2.0	I	F'	-5.842	-5.804	-5.767	-5.731	-5.696	-5.661	-5.632	-5.599	-5.567	-5.536
	I	F''	5.619	5.664	5.708	5.753	5.797	5.842	5.887	5.932	5.977	6.023
2.1	I	F'	-5.505	-5.476	-5.449	-5.421	-5.393	-5.366	-5.340	-5.314	-5.289	-5.264
	I	F''	6.068	6.113	6.159	6.204	6.250	6.296	6.342	6.388	6.434	6.480
2.2	I	F'	-5.240	-5.216	-5.193	-5.170	-5.147	-5.125	-5.104	-5.083	-5.063	-5.042
	I	F''	6.526	6.573	6.619	6.666	6.712	6.759	6.806	6.853	6.900	6.947
2.3	I	F'	-5.023	-5.003	-4.984	-4.966	-4.948	-4.930	-4.913	-4.896	-4.879	-4.862
	I	F''	6.994	7.042	7.089	7.136	7.184	7.232	7.280	7.327	7.375	7.423
2.4	I	F'	-4.846	-4.831	-4.815	-4.800	-4.786	-4.771	-4.757	-4.743	-4.730	-4.717
	I	F''	7.472	7.520	7.568	7.617	7.665	7.714	7.762	7.811	7.860	7.909
2.5	I	F'	-4.704	-4.691	-4.679	-4.667	-4.655	-4.643	-4.632	-4.621	-4.610	-4.600
	I	F''	7.958	8.007	8.056	8.105	8.155	8.204	8.254	8.303	8.353	8.403
2.6	I	F'	-4.590	-4.580	-4.570	-4.561	-4.551	-4.542	-4.534	-4.525	-4.517	-4.509
	I	F''	8.453	8.503	8.553	8.603	8.653	8.703	8.754	8.804	8.855	8.905
2.7	I	F'	-4.501	-4.494	-4.486	-4.479	-4.472	-4.466	-4.459	-4.453	-4.447	-4.441
	I	F''	8.956	9.007	9.058	9.109	9.160	9.211	9.262	9.313	9.364	9.416
2.8	I	F'	-4.435	-4.430	-4.425	-4.420	-4.415	-4.411	-4.406	-4.402	-4.398	-4.395
	I	F''	9.467	9.519	9.570	9.622	9.674	9.726	9.778	9.830	9.882	9.934

ATOMIC SYMBOL = ER ATOMIC NUMBER = 68

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.781	-0.792	-0.808	-0.844	-0.902	-0.989	-1.111	-1.275	-1.500	-1.819
	I	F''	0.912	1.081	1.256	1.441	1.635	1.837	2.047	2.263	2.487	2.716
0.2	I	F'	-2.311	-3.311	-3.762	-2.865	-2.502	-2.276	-2.114	-1.986	-1.880	-1.789
	I	F''	2.953	3.191	0.636	0.690	0.745	0.802	0.861	0.922	0.984	1.048
0.3	I	F'	-1.714	-1.644	-1.579	-1.520	-1.464	-1.415	-1.366	-1.320	-1.276	-1.234
	I	F''	1.114	1.181	1.250	1.320	1.392	1.465	1.540	1.616	1.694	1.773
0.4	I	F'	-1.194	-1.156	-1.120	-1.086	-1.053	-1.022	-0.992	-0.964	-0.937	-0.911
	I	F''	1.853	1.935	2.019	2.103	2.190	2.277	2.366	2.456	2.547	2.640
0.5	I	F'	-0.887	-0.865	-0.844	-0.824	-0.805	-0.788	-0.772	-0.758	-0.745	-0.734
	I	F''	2.733	2.828	2.924	3.021	3.119	3.219	3.320	3.422	3.525	3.629
0.6	I	F'	-0.724	-0.716	-0.709	-0.703	-0.701	-0.699	-0.699	-0.703	-0.706	-0.710
	I	F''	3.734	3.841	3.948	4.057	4.166	4.277	4.389	4.501	4.615	4.729
0.7	I	F'	-0.717	-0.725	-0.735	-0.746	-0.760	-0.779	-0.797	-0.817	-0.838	-0.862
	I	F''	4.845	4.961	5.078	5.197	5.316	5.436	5.557	5.678	5.801	5.925
0.8	I	F'	-0.888	-0.916	-0.946	-0.979	-1.013	-1.051	-1.090	-1.133	-1.177	-1.225
	I	F''	6.049	6.174	6.300	6.427	6.555	6.683	6.813	6.943	7.074	7.206
0.9	I	F'	-1.275	-1.328	-1.384	-1.444	-1.506	-1.571	-1.640	-1.712	-1.789	-1.869
	I	F''	7.358	7.471	7.606	7.740	7.876	8.012	8.150	8.287	8.426	8.565
1.0	I	F'	-1.953	-2.040	-2.132	-2.233	-2.334	-2.441	-2.552	-2.669	-2.791	-2.920
	I	F''	8.705	8.846	8.987	9.129	9.271	9.414	9.558	9.702	9.847	9.992
1.1	I	F'	-3.055	-3.198	-3.348	-3.506	-3.673	-3.850	-4.037	-4.237	-4.451	-4.680
	I	F''	10.139	10.285	10.433	10.581	10.729	10.878	11.028	11.179	11.329	11.481
1.2	I	F'	-4.927	-5.197	-5.503	-5.834	-6.213	-6.669	-7.282	-8.730	-7.978	-7.928
	I	F''	11.633	11.786	11.937	12.089	12.241	12.393	12.546	12.699	11.135	11.299
1.3	I	F'	-8.114	-8.466	-9.021	-10.015	-11.862	-9.987	-9.513	-9.315	-9.254	-9.287
	I	F''	11.466	11.635	11.806	11.979	8.700	8.812	8.925	9.039	9.153	9.267
1.4	I	F'	-9.382	-9.533	-9.671	-9.737	-10.302	-10.809	-11.548	-12.763	-15.837	-14.422
	I	F''	9.376	9.481	9.594	9.721	9.859	10.007	10.166	10.336	10.518	3.730
1.5	I	F'	-12.474	-11.487	-10.822	-10.322	-9.920	-9.584	-9.297	-9.045	-8.823	-8.622
	I	F''	3.771	3.811	3.852	3.893	3.934	3.976	4.017	4.059	4.100	4.142
1.6	I	F'	-8.440	-8.273	-8.119	-7.976	-7.843	-7.719	-7.603	-7.493	-7.390	-7.292
	I	F''	4.184	4.226	4.269	4.311	4.353	4.396	4.439	4.482	4.525	4.568
1.7	I	F'	-7.199	-7.110	-7.026	-6.945	-6.868	-6.794	-6.723	-6.655	-6.590	-6.527
	I	F''	4.611	4.655	4.698	4.742	4.786	4.829	4.874	4.918	4.962	5.007
1.8	I	F'	-6.466	-6.408	-6.351	-6.296	-6.244	-6.192	-6.143	-6.094	-6.048	-6.002
	I	F''	5.051	5.096	5.141	5.186	5.231	5.276	5.321	5.367	5.412	5.458
1.9	I	F'	-5.958	-5.915	-5.874	-5.833	-5.794	-5.755	-5.718	-5.685	-5.650	-5.615
	I	F''	5.504	5.549	5.596	5.642	5.688	5.734	5.781	5.827	5.874	5.921
2.0	I	F'	-5.581	-5.549	-5.516	-5.485	-5.457	-5.427	-5.398	-5.370	-5.342	-5.315
	I	F''	5.968	6.015	6.062	6.109	6.157	6.204	6.252	6.299	6.347	6.395
2.1	I	F'	-5.289	-5.263	-5.237	-5.212	-5.187	-5.164	-5.141	-5.118	-5.096	-5.074
	I	F''	6.443	6.491	6.539	6.587	6.636	6.684	6.733	6.782	6.831	6.879
2.2	I	F'	-5.053	-5.032	-5.011	-4.991	-4.972	-4.952	-4.934	-4.915	-4.897	-4.880
	I	F''	6.928	6.978	7.027	7.076	7.126	7.175	7.225	7.275	7.324	7.374
2.3	I	F'	-4.862	-4.845	-4.829	-4.813	-4.797	-4.781	-4.766	-4.752	-4.737	-4.723
	I	F''	7.424	7.474	7.525	7.575	7.625	7.676	7.727	7.777	7.828	7.879
2.4	I	F'	-4.709	-4.696	-4.682	-4.669	-4.657	-4.644	-4.632	-4.621	-4.609	-4.598
	I	F''	7.930	7.981	8.032	8.084	8.135	8.186	8.238	8.290	8.341	8.393
2.5	I	F'	-4.587	-4.577	-4.566	-4.556	-4.546	-4.537	-4.527	-4.518	-4.510	-4.501
	I	F''	8.445	8.497	8.549	8.601	8.654	8.706	8.759	8.811	8.864	8.916
2.6	I	F'	-4.493	-4.485	-4.477	-4.469	-4.462	-4.455	-4.448	-4.442	-4.435	-4.429
	I	F''	8.969	9.022	9.075	9.128	9.181	9.235	9.288	9.341	9.395	9.449
2.7	I	F'	-4.423	-4.418	-4.412	-4.407	-4.402	-4.397	-4.393	-4.388	-4.384	-4.380
	I	F''	9.502	9.556	9.610	9.664	9.718	9.772	9.826	9.880	9.935	9.989
2.8	I	F'	-4.377	-4.378	-4.375	-4.372	-4.369	-4.366	-4.364	-4.362	-4.360	-4.358
	I	F''	10.044	10.098	10.153	10.207	10.262	10.317	10.372	10.427	10.482	10.537

ATOMIC SYMBOL = TM ATOMIC NUMBER = 69

			I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'		-0.824	-0.842	-0.866	-0.911	-0.983	-1.088	-1.235	-1.435	-1.716	-2.136
	I	F''		0.965	1.141	1.324	1.518	1.722	1.934	2.154	2.380	2.613	2.854
0.2	I	F'		-2.896	-4.767	-3.048	-2.605	-2.352	-2.175	-2.038	-1.927	-1.832	-1.754
	I	F''		3.101	0.623	0.678	0.735	0.795	0.854	0.917	0.981	1.047	1.115
0.3	I	F'		-1.683	-1.616	-1.554	-1.497	-1.447	-1.397	-1.350	-1.305	-1.262	-1.222
	I	F''		1.185	1.256	1.329	1.403	1.479	1.557	1.636	1.717	1.799	1.883
0.4	I	F'		-1.184	-1.147	-1.112	-1.079	-1.047	-1.017	-0.989	-0.962	-0.937	-0.913
	I	F''		1.968	2.055	2.143	2.233	2.324	2.417	2.511	2.607	2.703	2.801
0.5	I	F'		-0.891	-0.870	-0.851	-0.833	-0.816	-0.800	-0.789	-0.777	-0.767	-0.758
	I	F''		2.900	3.000	3.101	3.204	3.308	3.413	3.520	3.628	3.737	3.847
0.6	I	F'		-0.751	-0.746	-0.744	-0.742	-0.742	-0.747	-0.751	-0.756	-0.763	-0.773
	I	F''		3.958	4.070	4.184	4.298	4.414	4.531	4.648	4.767	4.887	5.007
0.7	I	F'		-0.784	-0.797	-0.816	-0.833	-0.853	-0.874	-0.898	-0.924	-0.953	-0.984
	I	F''		5.129	5.252	5.375	5.500	5.625	5.752	5.879	6.007	6.136	6.267
0.8	I	F'		-1.017	-1.053	-1.091	-1.132	-1.176	-1.222	-1.272	-1.324	-1.379	-1.438
	I	F''		6.397	6.529	6.662	6.796	6.930	7.065	7.202	7.339	7.476	7.615
0.9	I	F'		-1.499	-1.565	-1.633	-1.706	-1.782	-1.863	-1.947	-2.035	-2.128	-2.226
	I	F''		7.754	7.895	8.036	8.178	8.320	8.464	8.608	8.753	8.898	9.044
1.0	I	F'		-2.334	-2.441	-2.555	-2.674	-2.799	-2.931	-3.069	-3.215	-3.370	-3.533
	I	F''		9.191	9.338	9.486	9.635	9.784	9.934	10.085	10.236	10.388	10.540
1.1	I	F'		-3.705	-3.893	-4.088	-4.297	-4.520	-4.760	-5.022	-5.316	-5.633	-5.993
	I	F''		10.693	10.847	11.001	11.155	11.311	11.466	11.623	11.779	11.935	12.091
1.2	I	F'		-6.415	-6.949	-7.798	-8.168	-7.884	-8.015	-8.331	-8.848	-9.764	-12.521
	I	F''		12.247	12.404	12.561	11.005	11.173	11.344	11.517	11.693	11.871	8.615
1.3	I	F'		-9.932	-9.412	-9.192	-9.112	-9.123	-9.204	-9.350	-9.691	-9.974	-10.345
	I	F''		8.730	8.846	8.961	9.078	9.195	9.312	9.430	9.549	9.634	9.728
1.4	I	F'		-10.795	-11.459	-12.601	-15.531	-14.366	-12.381	-11.389	-10.724	-10.224	-9.824
	I	F''		9.858	10.034	10.243	10.488	3.749	3.791	3.834	3.876	3.919	3.962
1.5	I	F'		-9.490	-9.203	-8.954	-8.732	-8.532	-8.351	-8.185	-8.033	-7.891	-7.760
	I	F''		4.005	4.048	4.091	4.135	4.178	4.222	4.266	4.310	4.354	4.398
1.6	I	F'		-7.637	-7.521	-7.412	-7.310	-7.213	-7.120	-7.033	-6.949	-6.869	-6.793
	I	F''		4.443	4.487	4.532	4.577	4.622	4.667	4.712	4.758	4.803	4.849
1.7	I	F'		-6.720	-6.650	-6.583	-6.518	-6.455	-6.395	-6.337	-6.281	-6.227	-6.175
	I	F''		4.895	4.941	4.987	5.033	5.080	5.126	5.173	5.220	5.267	5.314
1.8	I	F'		-6.124	-6.075	-6.027	-5.981	-5.936	-5.893	-5.851	-5.809	-5.769	-5.734
	I	F''		5.361	5.408	5.456	5.503	5.551	5.599	5.647	5.695	5.743	5.792
1.9	I	F'		-5.696	-5.659	-5.623	-5.588	-5.554	-5.523	-5.491	-5.460	-5.429	-5.399
	I	F''		5.840	5.889	5.938	5.986	6.035	6.084	6.134	6.183	6.232	6.282
2.0	I	F'		-5.370	-5.341	-5.313	-5.286	-5.259	-5.233	-5.207	-5.182	-5.158	-5.134
	I	F''		6.331	6.381	6.431	6.481	6.531	6.581	6.632	6.682	6.733	6.783
2.1	I	F'		-5.111	-5.088	-5.066	-5.044	-5.023	-5.002	-4.981	-4.962	-4.942	-4.923
	I	F''		6.834	6.885	6.936	6.987	7.038	7.090	7.141	7.193	7.244	7.296
2.2	I	F'		-4.904	-4.886	-4.868	-4.851	-4.834	-4.817	-4.801	-4.785	-4.769	-4.754
	I	F''		7.348	7.400	7.452	7.504	7.556	7.609	7.661	7.714	7.767	7.820
2.3	I	F'		-4.739	-4.725	-4.710	-4.697	-4.683	-4.670	-4.657	-4.644	-4.632	-4.620
	I	F''		7.873	7.926	7.979	8.032	8.085	8.139	8.192	8.246	8.300	8.354
2.4	I	F'		-4.609	-4.597	-4.586	-4.575	-4.565	-4.555	-4.545	-4.535	-4.526	-4.517
	I	F''		8.408	8.462	8.516	8.570	8.624	8.679	8.733	8.788	8.843	8.898
2.5	I	F'		-4.508	-4.500	-4.491	-4.483	-4.476	-4.468	-4.461	-4.454	-4.447	-4.441
	I	F''		8.952	9.007	9.063	9.118	9.173	9.229	9.284	9.340	9.395	9.451
2.6	I	F'		-4.435	-4.429	-4.423	-4.417	-4.412	-4.407	-4.402	-4.398	-4.394	-4.394
	I	F''		9.507	9.563	9.619	9.675	9.731	9.788	9.844	9.900	9.957	10.014
2.7	I	F'		-4.391	-4.387	-4.384	-4.381	-4.378	-4.375	-4.373	-4.371	-4.369	-4.367
	I	F''		10.070	10.127	10.184	10.241	10.298	10.355	10.412	10.469	10.527	10.584
2.8	I	F'		-4.366	-4.364	-4.363	-4.362	-4.362	-4.361	-4.361	-4.361	-4.361	-4.362
	I	F''		10.642	10.699	10.757	10.815	10.873	10.930	10.988	11.047	11.105	11.163

ATOMIC SYMBOL = YB ATOMIC NUMBER = 70

			I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.870	-0.896	-0.928	-0.985	-1.071	-1.196	-1.376	-1.621	-1.980	-2.571	
	I	F''	1.020	1.203	1.395	1.598	1.811	2.033	2.263	2.499	2.743	2.996	
0.2	I	F'	-4.209	-3.317	-2.735	-2.441	-2.245	-2.098	-1.980	-1.881	-1.799	-1.725	
	I	F''	3.246	0.663	0.722	0.782	0.844	0.909	0.975	1.044	1.114	1.186	
0.3	I	F'	-1.656	-1.593	-1.537	-1.483	-1.432	-1.384	-1.338	-1.295	-1.254	-1.215	
	I	F''	1.259	1.335	1.412	1.491	1.571	1.653	1.737	1.822	1.909	1.998	
0.4	I	F'	-1.178	-1.143	-1.109	-1.077	-1.047	-1.019	-0.992	-0.967	-0.944	-0.922	
	I	F''	2.088	2.180	2.274	2.369	2.465	2.563	2.663	2.765	2.865	2.968	
0.5	I	F'	-0.901	-0.885	-0.866	-0.850	-0.836	-0.824	-0.813	-0.805	-0.798	-0.792	
	I	F''	3.073	3.179	3.286	3.394	3.504	3.615	3.728	3.841	3.956	4.072	
0.6	I	F'	-0.790	-0.789	-0.789	-0.794	-0.798	-0.804	-0.812	-0.823	-0.835	-0.849	
	I	F''	4.190	4.308	4.428	4.548	4.670	4.793	4.917	5.042	5.168	5.295	
0.7	I	F'	-0.869	-0.888	-0.910	-0.933	-0.959	-0.988	-1.019	-1.052	-1.089	-1.127	
	I	F''	5.423	5.552	5.682	5.813	5.945	6.078	6.212	6.347	6.483	6.620	
0.8	I	F'	-1.169	-1.214	-1.261	-1.312	-1.366	-1.423	-1.483	-1.547	-1.615	-1.686	
	I	F''	6.757	6.896	7.036	7.176	7.318	7.460	7.603	7.747	7.892	8.038	
0.9	I	F'	-1.761	-1.841	-1.925	-2.013	-2.106	-2.203	-2.310	-2.418	-2.532	-2.652	
	I	F''	8.184	8.332	8.480	8.629	8.778	8.929	9.080	9.232	9.384	9.537	
1.0	I	F'	-2.779	-2.912	-3.052	-3.200	-3.357	-3.523	-3.699	-3.890	-4.090	-4.304	
	I	F''	9.601	9.846	10.001	10.157	10.314	10.471	10.630	10.788	10.947	11.107	
1.1	I	F'	-4.534	-4.782	-5.054	-5.357	-5.696	-6.078	-6.534	-7.137	-8.362	-9.966	
	I	F''	11.268	11.439	11.591	11.752	11.913	12.073	12.235	12.398	12.558	11.021	
1.2	I	F'	-7.912	-8.139	-8.564	-9.289	-11.188	-10.163	-9.432	-9.143	-9.026	-9.011	
	I	F''	11.196	11.733	11.552	11.734	11.918	12.102	12.286	12.470	12.654	12.838	
1.3	I	F'	-9.071	-9.198	-9.399	-9.511	-9.648	-9.808	-10.352	-11.029	-12.076	-15.362	
	I	F''	9.239	9.361	9.483	9.632	9.788	9.947	10.110	10.276	10.446	10.616	
1.4	I	F'	-12.637	-11.504	-10.781	-10.250	-9.831	-9.484	-9.189	-8.932	-8.705	-8.501	
	I	F''	3.798	3.842	3.886	3.931	3.975	4.020	4.065	4.110	4.155	4.200	
1.5	I	F'	-8.317	-8.149	-7.994	-7.851	-7.718	-7.594	-7.478	-7.368	-7.265	-7.167	
	I	F''	4.245	4.291	4.337	4.383	4.429	4.475	4.521	4.568	4.615	4.661	
1.6	I	F'	-7.074	-6.986	-6.902	-6.822	-6.746	-6.672	-6.602	-6.535	-6.470	-6.408	
	I	F''	4.708	4.756	4.803	4.850	4.898	4.946	4.994	5.042	5.090	5.138	
1.7	I	F'	-6.348	-6.290	-6.234	-6.180	-6.127	-6.077	-6.028	-5.980	-5.934	-5.889	
	I	F''	5.187	5.235	5.284	5.333	5.382	5.431	5.481	5.530	5.580	5.630	
1.8	I	F'	-5.846	-5.804	-5.766	-5.726	-5.687	-5.650	-5.613	-5.577	-5.545	-5.511	
	I	F''	5.679	5.730	5.780	5.830	5.880	5.931	5.982	6.032	6.083	6.134	
1.9	I	F'	-5.478	-5.446	-5.414	-5.384	-5.355	-5.326	-5.297	-5.269	-5.242	-5.216	
	I	F''	6.186	6.237	6.288	6.340	6.392	6.443	6.495	6.547	6.600	6.652	
2.0	I	F'	-5.190	-5.165	-5.140	-5.116	-5.093	-5.070	-5.047	-5.025	-5.004	-4.983	
	I	F''	6.704	6.757	6.810	6.862	6.915	6.968	7.022	7.075	7.128	7.182	
2.1	I	F'	-4.962	-4.942	-4.923	-4.904	-4.885	-4.867	-4.849	-4.831	-4.814	-4.798	
	I	F''	7.235	7.289	7.343	7.397	7.451	7.505	7.560	7.614	7.669	7.724	
2.2	I	F'	-4.781	-4.766	-4.750	-4.735	-4.720	-4.706	-4.692	-4.678	-4.665	-4.652	
	I	F''	7.778	7.833	7.888	7.943	7.999	8.054	8.110	8.165	8.221	8.277	
2.3	I	F'	-4.639	-4.627	-4.615	-4.603	-4.592	-4.581	-4.570	-4.559	-4.549	-4.539	
	I	F''	8.333	8.389	8.445	8.501	8.557	8.614	8.670	8.727	8.784	8.841	
2.4	I	F'	-4.530	-4.520	-4.511	-4.503	-4.494	-4.486	-4.478	-4.471	-4.463	-4.456	
	I	F''	8.898	8.955	9.012	9.069	9.127	9.184	9.242	9.299	9.357	9.415	
2.5	I	F'	-4.450	-4.443	-4.437	-4.431	-4.425	-4.420	-4.415	-4.410	-4.405	-4.405	
	I	F''	9.473	9.531	9.589	9.648	9.706	9.765	9.823	9.882	9.941	10.000	
2.6	I	F'	-4.401	-4.397	-4.394	-4.390	-4.387	-4.384	-4.382	-4.379	-4.377	-4.375	
	I	F''	10.059	10.118	10.177	10.236	10.295	10.354	10.414	10.473	10.533	10.593	
2.7	I	F'	-4.374	-4.372	-4.371	-4.370	-4.369	-4.369	-4.369	-4.368	-4.369	-4.369	
	I	F''	10.653	10.712	10.772	10.833	10.893	10.953	11.013	11.074	11.134	11.195	
2.8	I	F'	-4.370	-4.371	-4.372	-4.373	-4.375	-4.377	-4.379	-4.394	-4.396	-4.399	
	I	F''	11.256	11.317	11.377	11.438	11.499	11.561	11.622	11.683	11.744	11.805	

ATOMIC SYMBOL = LU

ATOMIC NUMBER = 71

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.934	-0.953	-0.994	-1.064	-1.168	-1.318	-1.536	-1.842	-2.318	-3.293
	I	F''	1.076	1.266	1.468	1.681	1.904	2.137	2.375	2.623	2.879	3.138
0.2	I	F'	-3.800	-2.906	-2.549	-2.327	-2.167	-2.040	-1.935	-1.849	-1.772	-1.700
	I	F''	0.646	0.706	0.767	0.831	0.898	0.966	1.037	1.109	1.183	1.259
0.3	I	F'	-1.635	-1.577	-1.522	-1.469	-1.420	-1.374	-1.330	-1.288	-1.248	-1.211
	I	F''	1.337	1.417	1.498	1.581	1.667	1.753	1.842	1.932	2.024	2.118
0.4	I	F'	-1.175	-1.141	-1.109	-1.079	-1.050	-1.024	-0.999	-0.976	-0.954	-0.935
	I	F''	2.213	2.310	2.409	2.509	2.611	2.715	2.820	2.926	3.034	3.142
0.5	I	F'	-0.917	-0.900	-0.886	-0.873	-0.862	-0.853	-0.846	-0.840	-0.838	-0.836
	I	F''	3.253	3.364	3.477	3.592	3.707	3.825	3.943	4.063	4.184	4.306
0.6	I	F'	-0.839	-0.842	-0.847	-0.853	-0.863	-0.874	-0.887	-0.903	-0.924	-0.945
	I	F''	4.429	4.554	4.679	4.806	4.934	5.064	5.194	5.325	5.458	5.591
0.7	I	F'	-0.968	-0.993	-1.022	-1.052	-1.086	-1.122	-1.162	-1.204	-1.249	-1.297
	I	F''	5.726	5.861	5.998	6.136	6.274	6.414	6.555	6.696	6.839	6.983
0.8	I	F'	-1.349	-1.404	-1.462	-1.524	-1.590	-1.660	-1.733	-1.811	-1.894	-1.981
	I	F''	7.127	7.273	7.419	7.567	7.715	7.864	8.015	8.166	8.318	8.470
0.9	I	F'	-2.073	-2.169	-2.271	-2.384	-2.497	-2.617	-2.743	-2.876	-3.017	-3.166
	I	F''	8.624	8.778	8.933	9.089	9.246	9.403	9.561	9.719	9.879	10.039
1.0	I	F'	-3.324	-3.420	-3.526	-3.638	-3.758	-3.884	-4.014	-4.147	-4.284	-4.424
	I	F''	10.200	10.362	10.524	10.687	10.851	11.015	11.180	11.346	11.512	11.678
1.1	I	F'	-5.701	-5.096	-4.573	-4.134	-3.772	-3.486	-3.274	-3.135	-3.067	-3.014
	I	F''	11.843	12.009	12.175	12.342	12.509	12.676	12.843	13.010	13.177	13.344
1.2	I	F'	-11.383	-9.627	-8.163	-6.966	-6.000	-5.318	-4.884	-4.561	-4.328	-4.161
	I	F''	8.505	8.627	8.750	8.873	8.997	9.121	9.244	9.367	9.490	9.613
1.3	I	F'	-9.955	-10.522	-11.351	-12.461	-13.775	-15.284	-16.984	-18.874	-20.944	-23.184
	I	F''	9.830	9.999	10.172	10.349	10.531	10.717	10.907	11.100	11.296	11.494
1.4	I	F'	-9.550	-9.234	-8.962	-8.724	-8.511	-8.320	-8.146	-7.986	-7.839	-7.703
	I	F''	4.023	4.070	4.116	4.163	4.210	4.257	4.305	4.352	4.400	4.448
1.5	I	F'	-7.576	-7.457	-7.346	-7.241	-7.141	-7.047	-6.958	-6.873	-6.792	-6.715
	I	F''	4.496	4.544	4.592	4.640	4.689	4.738	4.787	4.836	4.885	4.935
1.6	I	F'	-6.641	-6.571	-6.503	-6.437	-6.375	-6.314	-6.256	-6.200	-6.145	-6.093
	I	F''	4.984	5.034	5.084	5.134	5.184	5.235	5.285	5.336	5.387	5.438
1.7	I	F'	-6.042	-5.993	-5.946	-5.900	-5.855	-5.814	-5.772	-5.731	-5.691	-5.653
	I	F''	5.489	5.540	5.592	5.643	5.695	5.747	5.799	5.851	5.903	5.956
1.8	I	F'	-5.615	-5.580	-5.545	-5.511	-5.477	-5.445	-5.413	-5.382	-5.351	-5.322
	I	F''	6.008	6.061	6.114	6.167	6.220	6.273	6.327	6.380	6.434	6.488
1.9	I	F'	-5.293	-5.265	-5.238	-5.211	-5.185	-5.159	-5.134	-5.110	-5.086	-5.063
	I	F''	6.541	6.596	6.650	6.704	6.759	6.813	6.868	6.923	6.978	7.033
2.0	I	F'	-5.040	-5.018	-4.997	-4.976	-4.955	-4.935	-4.916	-4.896	-4.878	-4.859
	I	F''	7.088	7.143	7.199	7.255	7.310	7.366	7.422	7.478	7.535	7.591
2.1	I	F'	-4.842	-4.824	-4.807	-4.791	-4.775	-4.759	-4.744	-4.729	-4.714	-4.700
	I	F''	7.648	7.704	7.761	7.818	7.875	7.932	7.989	8.047	8.104	8.162
2.2	I	F'	-4.686	-4.673	-4.660	-4.647	-4.635	-4.622	-4.611	-4.599	-4.588	-4.578
	I	F''	8.219	8.277	8.335	8.393	8.451	8.510	8.568	8.627	8.685	8.744
2.3	I	F'	-4.567	-4.557	-4.547	-4.538	-4.529	-4.520	-4.512	-4.503	-4.495	-4.488
	I	F''	8.803	8.862	8.921	8.980	9.039	9.099	9.158	9.218	9.278	9.338
2.4	I	F'	-4.480	-4.473	-4.467	-4.460	-4.454	-4.448	-4.442	-4.437	-4.432	-4.427
	I	F''	9.398	9.458	9.518	9.578	9.639	9.699	9.760	9.820	9.881	9.942
2.5	I	F'	-4.427	-4.423	-4.419	-4.416	-4.412	-4.409	-4.406	-4.403	-4.401	-4.399
	I	F''	10.003	10.064	10.125	10.187	10.248	10.309	10.371	10.433	10.494	10.556
2.6	I	F'	-4.397	-4.396	-4.394	-4.393	-4.392	-4.392	-4.392	-4.392	-4.392	-4.392
	I	F''	10.618	10.680	10.742	10.805	10.867	10.929	10.992	11.054	11.117	11.180
2.7	I	F'	-4.393	-4.394	-4.395	-4.396	-4.411	-4.413	-4.415	-4.418	-4.420	-4.423
	I	F''	11.243	11.306	11.369	11.432	11.495	11.558	11.622	11.685	11.748	11.812
2.8	I	F'	-4.427	-4.430	-4.434	-4.438	-4.442	-4.446	-4.451	-4.456	-4.461	-4.467
	I	F''	11.875	11.939	12.003	12.067	12.130	12.194	12.259	12.323	12.387	12.451

ATOMIC SYMBOL = HF

ATOMIC NUMBER = 72

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-0.986	-1.012	-1.065	-1.150	-1.275	-1.461	-1.721	-2.113	-2.800	-5.956
	I	F''	1.133	1.332	1.544	1.767	2.000	2.243	2.493	2.751	3.018	0.627
0.2	I	F'	-3.142	-2.679	-2.421	-2.242	-2.106	-1.994	-1.903	-1.822	-1.747	-1.680
	I	F''	0.687	0.750	0.816	0.884	0.954	1.027	1.101	1.178	1.256	1.337
0.3	I	F'	-1.620	-1.563	-1.509	-1.459	-1.412	-1.367	-1.324	-1.284	-1.246	-1.210
	I	F''	1.419	1.503	1.590	1.678	1.768	1.859	1.953	2.048	2.146	2.245
0.4	I	F'	-1.176	-1.144	-1.114	-1.085	-1.059	-1.034	-1.012	-0.991	-0.972	-0.955
	I	F''	2.345	2.448	2.552	2.658	2.766	2.875	2.986	3.098	3.211	3.326
0.5	I	F'	-0.940	-0.926	-0.915	-0.905	-0.897	-0.893	-0.889	-0.888	-0.891	-0.894
	I	F''	3.442	3.560	3.679	3.800	3.922	4.045	4.170	4.296	4.424	4.552
0.6	I	F'	-0.899	-0.906	-0.916	-0.929	-0.943	-0.963	-0.983	-1.005	-1.030	-1.058
	I	F''	4.682	4.813	4.945	5.079	5.214	5.350	5.487	5.625	5.764	5.904
0.7	I	F'	-1.088	-1.121	-1.158	-1.197	-1.240	-1.285	-1.334	-1.387	-1.443	-1.503
	I	F''	6.046	6.188	6.332	6.477	6.623	6.769	6.917	7.066	7.216	7.367
0.8	I	F'	-1.566	-1.634	-1.705	-1.781	-1.862	-1.947	-2.037	-2.132	-2.233	-2.344
	I	F''	7.519	7.672	7.826	7.981	8.136	8.293	8.451	8.609	8.769	8.929
0.9	I	F'	-2.456	-2.575	-2.700	-2.833	-2.973	-3.122	-3.280	-3.447	-3.626	-3.816
	I	F''	9.090	9.251	9.414	9.577	9.741	9.906	10.072	10.238	10.405	10.573
1.0	I	F'	-4.021	-4.239	-4.475	-4.731	-5.011	-5.332	-5.681	-6.063	-6.571	-7.242
	I	F''	10.742	10.911	11.082	11.252	11.424	11.596	11.766	11.936	12.107	12.279
1.1	I	F'	-11.188	-7.877	-7.954	-8.296	-8.920	-10.318	-10.241	-9.319	-8.982	-8.842
	I	F''	10.764	10.950	11.138	11.330	11.524	11.722	8.490	8.616	8.743	8.871
1.2	I	F'	-8.812	-8.871	-8.990	-9.172	-9.272	-9.617	-10.088	-10.748	-11.760	-13.763
	I	F''	9.000	9.129	9.258	9.388	9.532	9.698	9.868	10.042	10.220	10.403
1.3	I	F'	-15.421	-12.491	-11.338	-10.612	-10.083	-9.666	-9.333	-9.041	-8.788	-8.565
	I	F''	3.782	3.830	3.878	3.926	3.974	4.023	4.072	4.121	4.170	4.219
1.4	I	F'	-8.364	-8.183	-8.018	-7.866	-7.725	-7.595	-7.473	-7.359	-7.252	-7.151
	I	F''	4.268	4.317	4.367	4.416	4.466	4.516	4.566	4.616	4.666	4.717
1.5	I	F'	-7.056	-6.965	-6.880	-6.798	-6.720	-6.645	-6.574	-6.506	-6.440	-6.377
	I	F''	4.768	4.819	4.870	4.921	4.973	5.024	5.076	5.128	5.180	5.233
1.6	I	F'	-6.317	-6.258	-6.202	-6.148	-6.096	-6.045	-5.996	-5.951	-5.905	-5.860
	I	F''	5.285	5.338	5.391	5.444	5.497	5.550	5.603	5.657	5.711	5.765
1.7	I	F'	-5.818	-5.776	-5.735	-5.698	-5.660	-5.623	-5.587	-5.552	-5.518	-5.485
	I	F''	5.819	5.873	5.928	5.982	6.037	6.092	6.147	6.202	6.257	6.313
1.8	I	F'	-5.453	-5.422	-5.391	-5.362	-5.333	-5.304	-5.277	-5.250	-5.224	-5.199
	I	F''	6.368	6.424	6.480	6.536	6.592	6.648	6.705	6.761	6.818	6.875
1.9	I	F'	-5.174	-5.150	-5.127	-5.104	-5.081	-5.059	-5.038	-5.018	-4.997	-4.978
	I	F''	6.932	6.989	7.047	7.104	7.162	7.220	7.277	7.335	7.394	7.452
2.0	I	F'	-4.959	-4.940	-4.922	-4.904	-4.887	-4.870	-4.854	-4.838	-4.822	-4.807
	I	F''	7.510	7.569	7.628	7.687	7.746	7.805	7.864	7.923	7.983	8.042
2.1	I	F'	-4.792	-4.778	-4.764	-4.751	-4.738	-4.725	-4.713	-4.701	-4.689	-4.678
	I	F''	8.102	8.162	8.222	8.282	8.343	8.403	8.464	8.524	8.585	8.646
2.2	I	F'	-4.667	-4.657	-4.647	-4.637	-4.628	-4.618	-4.610	-4.601	-4.593	-4.585
	I	F''	8.707	8.768	8.829	8.891	8.952	9.014	9.076	9.138	9.200	9.262
2.3	I	F'	-4.578	-4.571	-4.564	-4.558	-4.551	-4.546	-4.540	-4.535	-4.530	-4.529
	I	F''	9.324	9.387	9.449	9.512	9.574	9.637	9.700	9.763	9.827	9.890
2.4	I	F'	-4.525	-4.521	-4.517	-4.514	-4.511	-4.508	-4.505	-4.503	-4.501	-4.500
	I	F''	9.953	10.017	10.080	10.144	10.208	10.271	10.335	10.400	10.464	10.528
2.5	I	F'	-4.498	-4.497	-4.496	-4.496	-4.495	-4.495	-4.496	-4.496	-4.497	-4.498
	I	F''	10.593	10.657	10.722	10.787	10.851	10.916	10.981	11.046	11.112	11.177
2.6	I	F'	-4.499	-4.501	-4.503	-4.517	-4.520	-4.523	-4.526	-4.529	-4.533	-4.537
	I	F''	11.243	11.308	11.374	11.440	11.505	11.571	11.637	11.703	11.769	11.835
2.7	I	F'	-4.541	-4.545	-4.550	-4.555	-4.560	-4.565	-4.571	-4.577	-4.583	-4.590
	I	F''	11.901	11.968	12.034	12.101	12.167	12.234	12.301	12.368	12.435	12.502
2.8	I	F'	-4.597	-4.604	-4.611	-4.618	-4.626	-4.634	-4.643	-4.651	-4.660	-4.669
	I	F''	12.569	12.636	12.703	12.771	12.838	12.906	12.974	13.042	13.110	13.177

ATOMIC SYMBOL = TA ATOMIC NUMBER = 73

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-1.042	-1.078	-1.143	-1.244	-1.395	-1.618	-1.941	-2.463	-3.671	-3.532
	I	F''	1.192	1.401	1.622	1.855	2.100	2.352	2.613	2.883	3.155	0.666
0.2	I	F'	-2.849	-2.535	-2.331	-2.181	-2.060	-1.963	-1.877	-1.800	-1.729	-1.668
	I	F''	0.730	0.797	0.866	0.938	1.013	1.089	1.168	1.249	1.332	1.417
0.3	I	F'	-1.608	-1.553	-1.501	-1.453	-1.407	-1.363	-1.322	-1.283	-1.247	-1.212
	I	F''	1.504	1.593	1.684	1.777	1.872	1.969	2.068	2.168	2.271	2.376
0.4	I	F'	-1.180	-1.149	-1.121	-1.094	-1.070	-1.047	-1.027	-1.009	-0.993	-0.978
	I	F''	2.482	2.590	2.700	2.812	2.926	3.041	3.158	3.276	3.396	3.517
0.5	I	F'	-0.966	-0.955	-0.947	-0.941	-0.938	-0.936	-0.938	-0.941	-0.947	-0.954
	I	F''	3.639	3.763	3.889	4.016	4.144	4.274	4.405	4.538	4.672	4.807
0.6	I	F'	-0.965	-0.978	-0.993	-1.013	-1.034	-1.058	-1.084	-1.114	-1.146	-1.182
	I	F''	4.944	5.081	5.221	5.361	5.502	5.645	5.789	5.934	6.080	6.228
0.7	I	F'	-1.220	-1.262	-1.308	-1.357	-1.409	-1.465	-1.525	-1.589	-1.658	-1.730
	I	F''	6.376	6.526	6.677	6.829	6.982	7.136	7.291	7.448	7.605	7.763
0.8	I	F'	-1.808	-1.890	-1.977	-2.069	-2.167	-2.270	-2.383	-2.499	-2.622	-2.752
	I	F''	7.925	8.083	8.245	8.407	8.570	8.735	8.900	9.066	9.232	9.400
0.9	I	F'	-2.890	-3.056	-3.192	-3.357	-3.533	-3.721	-3.922	-4.141	-4.374	-4.628
	I	F''	9.568	9.758	9.908	10.079	10.251	10.424	10.597	10.772	10.947	11.123
1.0	I	F'	-4.906	-5.213	-5.571	-5.967	-6.444	-7.083	-8.573	-9.745	-9.988	-8.322
	I	F''	11.299	11.477	11.652	11.827	12.003	12.179	12.356	10.854	11.027	11.201
1.1	I	F'	-8.952	-10.508	-9.926	-9.150	-8.851	-8.730	-8.721	-8.781	-8.910	-9.105
	I	F''	11.376	11.552	8.442	8.572	8.703	8.835	8.967	9.100	9.233	9.367
1.2	I	F'	-9.214	-9.579	-10.077	-10.787	-11.911	-14.415	-14.258	-12.070	-11.049	-10.379
	I	F''	9.516	9.689	9.865	10.046	10.231	10.421	3.809	3.859	3.909	3.959
1.3	I	F'	-9.881	-9.496	-9.167	-8.886	-8.642	-8.425	-8.231	-8.055	-7.895	-7.749
	I	F''	4.009	4.059	4.110	4.161	4.212	4.263	4.314	4.366	4.418	4.470
1.4	I	F'	-7.612	-7.485	-7.366	-7.255	-7.150	-7.051	-6.958	-6.869	-6.785	-6.705
	I	F''	4.522	4.574	4.626	4.678	4.731	4.783	4.836	4.889	4.943	4.996
1.5	I	F'	-6.628	-6.555	-6.485	-6.418	-6.354	-6.292	-6.233	-6.176	-6.120	-6.067
	I	F''	5.050	5.104	5.158	5.212	5.266	5.321	5.376	5.431	5.486	5.541
1.6	I	F'	-6.017	-5.967	-5.920	-5.873	-5.829	-5.786	-5.744	-5.703	-5.664	-5.625
	I	F''	5.597	5.652	5.708	5.764	5.820	5.876	5.933	5.989	6.046	6.103
1.7	I	F'	-5.588	-5.552	-5.516	-5.482	-5.449	-5.416	-5.385	-5.354	-5.324	-5.295
	I	F''	6.160	6.218	6.275	6.333	6.390	6.448	6.506	6.565	6.623	6.682
1.8	I	F'	-5.267	-5.240	-5.213	-5.187	-5.161	-5.137	-5.113	-5.089	-5.066	-5.044
	I	F''	6.740	6.799	6.858	6.917	6.977	7.036	7.096	7.156	7.216	7.276
1.9	I	F'	-5.022	-5.001	-4.981	-4.960	-4.941	-4.922	-4.904	-4.886	-4.868	-4.851
	I	F''	7.336	7.396	7.457	7.518	7.579	7.640	7.701	7.762	7.823	7.885
2.0	I	F'	-4.834	-4.818	-4.803	-4.787	-4.773	-4.758	-4.744	-4.731	-4.718	-4.705
	I	F''	7.947	8.009	8.071	8.133	8.195	8.257	8.320	8.383	8.445	8.508
2.1	I	F'	-4.693	-4.681	-4.669	-4.658	-4.648	-4.637	-4.627	-4.618	-4.608	-4.599
	I	F''	8.572	8.635	8.698	8.762	8.825	8.889	8.953	9.017	9.081	9.146
2.2	I	F'	-4.591	-4.583	-4.575	-4.567	-4.560	-4.553	-4.547	-4.541	-4.535	-4.533
	I	F''	9.210	9.275	9.339	9.404	9.469	9.534	9.600	9.665	9.730	9.796
2.3	I	F'	-4.528	-4.524	-4.519	-4.515	-4.511	-4.507	-4.504	-4.501	-4.499	-4.496
	I	F''	9.862	9.927	9.993	10.059	10.125	10.192	10.258	10.325	10.391	10.458
2.4	I	F'	-4.495	-4.493	-4.491	-4.490	-4.490	-4.489	-4.489	-4.489	-4.490	-4.490
	I	F''	10.525	10.592	10.659	10.726	10.793	10.861	10.928	10.996	11.064	11.132
2.5	I	F'	-4.491	-4.493	-4.506	-4.508	-4.510	-4.513	-4.516	-4.519	-4.522	-4.526
	I	F''	11.200	11.268	11.336	11.404	11.472	11.540	11.609	11.677	11.746	11.815
2.6	I	F'	-4.530	-4.534	-4.539	-4.544	-4.549	-4.554	-4.560	-4.566	-4.572	-4.579
	I	F''	11.884	11.952	12.021	12.091	12.160	12.229	12.299	12.368	12.438	12.508
2.7	I	F'	-4.586	-4.593	-4.600	-4.608	-4.626	-4.635	-4.643	-4.652	-4.661	-4.671
	I	F''	12.578	12.648	12.718	12.788	12.858	12.928	12.999	13.069	13.140	13.211
2.8	I	F'	-4.681	-4.691	-4.701	-4.728	-4.739	-4.750	-4.762	-4.773	-4.797	-4.809
	I	F''	13.281	13.352	13.423	13.494	13.565	13.636	13.707	13.778	13.849	13.921

ATOMIC SYMBOL = W ATOMIC NUMBER = 74

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-1.101	-1.147	-1.226	-1.348	-1.535	-1.800	-2.209	-2.972	-4.526	-3.083
	I	F''	1.252	1.471	1.703	1.947	2.201	2.463	2.734	3.017	0.641	0.707
0.2	I	F'	-2.673	-2.434	-2.265	-2.134	-2.029	-1.938	-1.856	-1.783	-1.716	-1.657
	I	F''	0.775	0.846	0.919	0.996	1.074	1.155	1.238	1.323	1.411	1.501
0.3	I	F'	-1.600	-1.546	-1.496	-1.449	-1.405	-1.363	-1.323	-1.286	-1.251	-1.218
	I	F''	1.592	1.686	1.782	1.881	1.981	2.083	2.188	2.294	2.402	2.513
0.4	I	F'	-1.187	-1.158	-1.132	-1.107	-1.085	-1.065	-1.048	-1.033	-1.019	-1.007
	I	F''	2.625	2.739	2.855	2.973	3.092	3.214	3.337	3.462	3.588	3.715
0.5	I	F'	-0.998	-0.991	-0.987	-0.985	-0.986	-0.989	-0.995	-1.002	-1.013	-1.026
	I	F''	3.844	3.974	4.106	4.240	4.375	4.512	4.649	4.789	4.929	5.072
0.6	I	F'	-1.042	-1.063	-1.084	-1.109	-1.137	-1.168	-1.202	-1.239	-1.280	-1.325
	I	F''	5.215	5.360	5.506	5.653	5.802	5.951	6.102	6.255	6.408	6.563
0.7	I	F'	-1.373	-1.425	-1.480	-1.540	-1.604	-1.673	-1.746	-1.823	-1.906	-1.995
	I	F''	6.719	6.876	7.034	7.194	7.354	7.516	7.679	7.842	8.007	8.173
0.8	I	F'	-2.088	-2.188	-2.293	-2.409	-2.528	-2.654	-2.788	-2.930	-3.081	-3.242
	I	F''	8.340	8.509	8.678	8.848	9.018	9.190	9.362	9.536	9.710	9.885
0.9	I	F'	-3.413	-3.597	-3.793	-4.004	-4.232	-4.479	-4.749	-5.047	-5.390	-5.770
	I	F''	10.061	10.238	10.416	10.595	10.775	10.956	11.137	11.319	11.501	11.682
1.0	I	F'	-6.220	-6.794	-7.740	-8.030	-7.919	-8.205	-8.795	-10.198	-9.912	-9.072
	I	F''	11.864	12.046	12.229	10.742	10.922	11.103	11.285	11.468	8.375	8.510
1.1	I	F'	-8.756	-8.627	-8.614	-8.671	-8.797	-8.991	-9.105	-9.467	-9.964	-10.671
	I	F''	8.645	8.781	8.917	9.054	9.192	9.331	9.478	9.654	9.834	10.019
1.2	I	F'	-11.792	-14.297	-14.113	-11.948	-10.936	-10.271	-9.788	-9.395	-9.069	-8.790
	I	F''	10.209	10.403	3.827	3.879	3.930	3.982	4.034	4.086	4.139	4.191
1.3	I	F'	-8.547	-8.332	-8.139	-7.964	-7.805	-7.663	-7.527	-7.401	-7.284	-7.174
	I	F''	4.244	4.297	4.351	4.404	4.458	4.512	4.567	4.621	4.676	4.731
1.4	I	F'	-7.071	-6.973	-6.880	-6.792	-6.709	-6.630	-6.554	-6.481	-6.412	-6.346
	I	F''	4.786	4.840	4.895	4.951	5.006	5.062	5.118	5.174	5.230	5.287
1.5	I	F'	-6.282	-6.221	-6.162	-6.106	-6.051	-5.999	-5.948	-5.899	-5.852	-5.806
	I	F''	5.343	5.400	5.457	5.514	5.572	5.629	5.687	5.745	5.803	5.861
1.6	I	F'	-5.762	-5.719	-5.677	-5.637	-5.598	-5.560	-5.523	-5.487	-5.452	-5.419
	I	F''	5.920	5.979	6.038	6.097	6.156	6.215	6.275	6.334	6.394	6.454
1.7	I	F'	-5.386	-5.354	-5.323	-5.292	-5.263	-5.235	-5.207	-5.180	-5.153	-5.128
	I	F''	6.515	6.575	6.636	6.697	6.758	6.819	6.880	6.941	7.003	7.065
1.8	I	F'	-5.103	-5.075	-5.055	-5.032	-5.009	-4.988	-4.966	-4.946	-4.926	-4.906
	I	F''	7.127	7.189	7.251	7.314	7.376	7.439	7.502	7.565	7.628	7.692
1.9	I	F'	-4.887	-4.869	-4.851	-4.833	-4.816	-4.800	-4.784	-4.768	-4.753	-4.739
	I	F''	7.755	7.819	7.883	7.947	8.011	8.075	8.140	8.204	8.269	8.334
2.0	I	F'	-4.724	-4.711	-4.697	-4.685	-4.672	-4.660	-4.649	-4.637	-4.626	-4.616
	I	F''	8.399	8.464	8.530	8.595	8.661	8.727	8.793	8.859	8.925	8.992
2.1	I	F'	-4.606	-4.596	-4.587	-4.578	-4.570	-4.562	-4.554	-4.547	-4.540	-4.533
	I	F''	9.058	9.125	9.192	9.259	9.326	9.393	9.461	9.528	9.596	9.664
2.2	I	F'	-4.530	-4.524	-4.519	-4.514	-4.509	-4.504	-4.500	-4.496	-4.493	-4.490
	I	F''	9.732	9.800	9.868	9.936	10.004	10.073	10.142	10.211	10.279	10.349
2.3	I	F'	-4.487	-4.484	-4.482	-4.480	-4.479	-4.477	-4.477	-4.476	-4.476	-4.476
	I	F''	10.418	10.487	10.556	10.626	10.696	10.766	10.836	10.906	10.976	11.046
2.4	I	F'	-4.476	-4.488	-4.489	-4.490	-4.492	-4.494	-4.497	-4.499	-4.502	-4.506
	I	F''	11.117	11.187	11.258	11.328	11.399	11.470	11.541	11.612	11.683	11.754
2.5	I	F'	-4.509	-4.513	-4.518	-4.522	-4.527	-4.532	-4.547	-4.552	-4.559	-4.565
	I	F''	11.826	11.897	11.969	12.041	12.112	12.184	12.256	12.329	12.401	12.473
2.6	I	F'	-4.572	-4.579	-4.586	-4.594	-4.602	-4.611	-4.619	-4.628	-4.637	-4.647
	I	F''	12.546	12.618	12.691	12.764	12.837	12.910	12.983	13.056	13.129	13.203
2.7	I	F'	-4.666	-4.677	-4.703	-4.714	-4.725	-4.737	-4.749	-4.761	-4.773	-4.784
	I	F''	13.276	13.350	13.423	13.497	13.571	13.644	13.718	13.792	13.866	13.940
2.8	I	F'	-4.799	-4.813	-4.826	-4.840	-4.855	-4.869	-4.884	-4.900	-4.915	-4.931
	I	F''	14.014	14.088	14.163	14.237	14.312	14.386	14.461	14.536	14.611	14.686

ATOMIC SYMBOL = RE ATOMIC NUMBER = 75

	I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-1.165	-1.222	-1.317	-1.443	-1.687	-2.013	-2.551	-3.929	-3.455	-2.849
	I	F''	1.315	1.544	1.786	2.041	2.304	2.576	2.860	3.149	3.681	0.750
0.2	I	F'	-2.555	-2.361	-2.215	-2.101	-2.004	-1.918	-1.841	-1.771	-1.710	-1.651
	I	F''	0.822	0.897	0.975	1.056	1.138	1.224	1.311	1.401	1.494	1.588
0.3	I	F'	-1.596	-1.544	-1.496	-1.450	-1.407	-1.367	-1.329	-1.293	-1.260	-1.229
	I	F''	1.685	1.784	1.886	1.989	2.095	2.203	2.313	2.425	2.539	2.655
0.4	I	F'	-1.200	-1.173	-1.149	-1.127	-1.107	-1.090	-1.076	-1.064	-1.053	-1.045
	I	F''	2.773	2.893	3.015	3.139	3.265	3.393	3.523	3.654	3.786	3.920
0.5	I	F'	-1.040	-1.037	-1.038	-1.040	-1.045	-1.053	-1.063	-1.076	-1.092	-1.113
	I	F''	4.055	4.193	4.331	4.471	4.613	4.756	4.901	5.047	5.195	5.344
0.6	I	F'	-1.136	-1.161	-1.190	-1.222	-1.258	-1.297	-1.340	-1.387	-1.437	-1.492
	I	F''	5.495	5.646	5.799	5.954	6.110	6.267	6.425	6.585	6.746	6.908
0.7	I	F'	-1.551	-1.614	-1.682	-1.754	-1.832	-1.914	-2.003	-2.097	-2.197	-2.303
	I	F''	7.071	7.236	7.402	7.569	7.737	7.906	8.076	8.248	8.421	8.594
0.8	I	F'	-2.419	-2.540	-2.668	-2.804	-2.949	-3.104	-3.269	-3.445	-3.634	-3.837
	I	F''	8.769	8.945	9.121	9.299	9.477	9.657	9.838	10.019	10.202	10.385
0.9	I	F'	-4.056	-4.294	-4.553	-4.837	-5.153	-5.522	-5.935	-6.439	-7.135	-9.321
	I	F''	10.570	10.755	10.941	11.128	11.316	11.503	11.689	11.876	12.063	10.593
1.0	I	F'	-7.889	-8.046	-8.519	-9.531	-10.401	-9.128	-8.728	-8.568	-8.522	-8.560
	I	F''	10.776	10.960	11.146	11.332	8.273	8.411	8.550	8.689	8.829	8.970
1.1	I	F'	-8.669	-8.844	-9.093	-9.426	-9.876	-10.502	-11.457	-13.334	-14.918	-12.100
	I	F''	9.111	9.253	9.396	9.540	9.685	9.831	9.977	10.124	3.834	3.887
1.2	I	F'	-10.988	-10.296	-9.782	-9.377	-9.042	-8.758	-8.511	-8.293	-8.102	-7.925
	I	F''	3.941	3.995	4.048	4.102	4.157	4.211	4.266	4.321	4.376	4.432
1.3	I	F'	-7.764	-7.616	-7.480	-7.353	-7.235	-7.125	-7.021	-6.923	-6.831	-6.745
	I	F''	4.487	4.543	4.600	4.656	4.713	4.770	4.827	4.884	4.942	5.000
1.4	I	F'	-6.661	-6.582	-6.506	-6.434	-6.365	-6.298	-6.235	-6.174	-6.116	-6.059
	I	F''	5.058	5.115	5.173	5.232	5.290	5.349	5.408	5.467	5.526	5.586
1.5	I	F'	-6.005	-5.953	-5.902	-5.854	-5.807	-5.761	-5.717	-5.674	-5.633	-5.593
	I	F''	5.645	5.705	5.765	5.826	5.886	5.947	6.008	6.069	6.130	6.191
1.6	I	F'	-5.554	-5.516	-5.480	-5.444	-5.410	-5.376	-5.344	-5.312	-5.281	-5.252
	I	F''	6.879	6.943	7.007	7.071	7.135	7.199	7.264	7.329	7.394	7.459
1.7	I	F'	-5.223	-5.194	-5.167	-5.140	-5.114	-5.089	-5.065	-5.041	-5.018	-4.995
	I	F''	7.524	7.589	7.655	7.721	7.787	7.853	7.919	7.985	8.052	8.119
1.8	I	F'	-4.973	-4.952	-4.931	-4.911	-4.891	-4.872	-4.854	-4.836	-4.819	-4.802
	I	F''	8.186	8.253	8.320	8.387	8.455	8.523	8.590	8.658	8.727	8.795
1.9	I	F'	-4.785	-4.770	-4.754	-4.739	-4.725	-4.711	-4.697	-4.684	-4.672	-4.660
	I	F''	8.864	8.932	9.001	9.070	9.139	9.208	9.278	9.348	9.417	9.487
2.0	I	F'	-4.648	-4.637	-4.626	-4.615	-4.605	-4.596	-4.586	-4.578	-4.569	-4.561
	I	F''	9.557	9.627	9.698	9.768	9.839	9.909	9.980	10.051	10.122	10.194
2.1	I	F'	-4.554	-4.546	-4.543	-4.536	-4.530	-4.525	-4.519	-4.514	-4.509	-4.506
	I	F''	10.265	10.337	10.408	10.480	10.552	10.624	10.696	10.769	10.841	10.914
2.2	I	F'	-4.502	-4.498	-4.495	-4.492	-4.490	-4.488	-4.486	-4.485	-4.484	-4.483
	I	F''	10.987	11.060	11.133	11.206	11.279	11.352	11.425	11.499	11.572	11.646
2.3	I	F'	-4.483	-4.483	-4.493	-4.494	-4.495	-4.495	-4.497	-4.499	-4.501	-4.503
	I	F''	11.720	11.794	11.868	11.942	12.016	12.091	12.165	12.240	12.315	12.389
2.4	I	F'	-4.509	-4.513	-4.525	-4.529	-4.534	-4.538	-4.544	-4.549	-4.555	-4.561
	I	F''	12.464	12.540	12.615	12.690	12.766	12.841	12.917	12.993	13.069	13.145
2.5	I	F'	-4.568	-4.575	-4.582	-4.590	-4.596	-4.604	-4.614	-4.623	-4.632	-4.641
	I	F''	13.821	13.897	13.973	14.049	14.125	14.201	14.277	14.353	14.429	14.505
2.6	I	F'	-4.661	-4.671	-4.696	-4.728	-4.768	-4.811	-4.858	-4.909	-4.964	-5.021
	I	F''	14.727	14.803	14.879	14.955	15.031	15.107	15.183	15.259	15.335	15.411
2.7	I	F'	-4.794	-4.808	-4.837	-4.873	-4.914	-4.960	-5.010	-5.064	-5.121	-5.180
	I	F''	15.485	15.561	15.637	15.713	15.789	15.865	15.941	16.017	16.093	16.169
2.8	I	F'	-4.946	-4.965	-4.980	-4.997	-5.015	-5.034	-5.052	-5.071	-5.091	-5.110
	I	F''	16.759	16.835	16.911	16.987	17.063	17.139	17.215	17.291	17.367	17.443

ATOMIC SYMBOL = OS ATOMIC NUMBER = 76

	I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-1.232	-1.302	-1.416	-1.595	-1.857	-2.268	-3.048	-4.341	-3.092	-2.702
	I	F''	1.380	1.619	1.872	2.138	2.412	2.696	2.993	3.051	0.722	0.795
0.2	I	F'	-2.471	-2.307	-2.178	-2.075	-1.984	-1.903	-1.830	-1.766	-1.705	-1.648
	I	F''	0.871	0.931	1.033	1.118	1.205	1.295	1.388	1.483	1.580	1.680
0.3	I	F'	-1.595	-1.545	-1.498	-1.454	-1.413	-1.374	-1.338	-1.304	-1.272	-1.243
	I	F''	1.782	1.886	1.993	2.102	2.213	2.327	2.443	2.561	2.681	2.803
0.4	I	F'	-1.216	-1.192	-1.170	-1.150	-1.134	-1.120	-1.109	-1.101	-1.094	-1.090
	I	F''	2.927	3.054	3.182	3.313	3.445	3.580	3.716	3.854	3.993	4.133
0.5	I	F'	-1.089	-1.091	-1.095	-1.102	-1.113	-1.126	-1.142	-1.161	-1.186	-1.212
	I	F''	4.275	4.419	4.565	4.712	4.861	5.011	5.163	5.316	5.471	5.627
0.6	I	F'	-1.242	-1.275	-1.312	-1.352	-1.397	-1.445	-1.498	-1.555	-1.617	-1.684
	I	F''	5.785	5.944	6.104	6.266	6.430	6.594	6.760	6.927	7.096	7.266
0.7	I	F'	-1.755	-1.832	-1.914	-2.001	-2.095	-2.195	-2.302	-2.415	-2.539	-2.668
	I	F''	7.437	7.609	7.782	7.957	8.133	8.310	8.489	8.668	8.848	9.030
0.8	I	F'	-2.806	-2.953	-3.110	-3.278	-3.457	-3.650	-3.858	-4.083	-4.328	-4.595
	I	F''	9.212	9.395	9.580	9.765	9.952	10.140	10.328	10.518	10.709	10.900
0.9	I	F'	-4.891	-5.222	-5.609	-6.053	-6.612	-7.249	-8.076	-7.887	-8.198	-8.890
	I	F''	11.093	11.286	11.478	11.670	11.863	12.056	10.599	10.788	10.979	11.170
1.0	I	F'	-11.434	-9.362	-8.764	-8.528	-8.437	-8.442	-8.523	-8.672	-8.891	-9.147
	I	F''	11.363	8.295	8.437	8.581	8.725	8.869	9.015	9.161	9.309	9.457
1.1	I	F'	-9.596	-10.145	-10.947	-12.328	-18.806	-12.640	-11.230	-10.432	-9.866	-9.430
	I	F''	9.604	9.753	9.902	10.052	10.203	3.887	3.942	3.997	4.053	4.109
1.2	I	F'	-9.075	-8.780	-8.522	-8.296	-8.094	-7.913	-7.747	-7.596	-7.457	-7.327
	I	F''	4.165	4.221	4.278	4.335	4.392	4.450	4.507	4.565	4.624	4.682
1.3	I	F'	-7.207	-7.094	-6.989	-6.889	-6.796	-6.707	-6.623	-6.544	-6.469	-6.399
	I	F''	4.741	4.800	4.859	4.919	4.978	5.038	5.099	5.159	5.220	5.281
1.4	I	F'	-6.331	-6.265	-6.201	-6.140	-6.081	-6.024	-5.970	-5.918	-5.867	-5.818
	I	F''	5.342	5.403	5.464	5.526	5.587	5.649	5.711	5.773	5.836	5.898
1.5	I	F'	-5.771	-5.726	-5.682	-5.639	-5.598	-5.558	-5.519	-5.481	-5.445	-5.410
	I	F''	5.961	6.024	6.088	6.151	6.215	6.279	6.343	6.407	6.471	6.536
1.6	I	F'	-5.375	-5.342	-5.310	-5.278	-5.248	-5.218	-5.190	-5.162	-5.135	-5.108
	I	F''	6.601	6.666	6.731	6.797	6.863	6.928	6.995	7.061	7.127	7.194
1.7	I	F'	-5.083	-5.058	-5.034	-5.010	-4.987	-4.965	-4.944	-4.923	-4.902	-4.883
	I	F''	7.261	7.328	7.395	7.462	7.530	7.598	7.666	7.734	7.802	7.871
1.8	I	F'	-4.864	-4.845	-4.827	-4.810	-4.793	-4.776	-4.761	-4.745	-4.731	-4.716
	I	F''	7.939	8.008	8.077	8.146	8.216	8.285	8.355	8.425	8.495	8.565
1.9	I	F'	-4.702	-4.689	-4.676	-4.664	-4.652	-4.640	-4.629	-4.619	-4.609	-4.599
	I	F''	8.636	8.706	8.777	8.848	8.919	8.990	9.062	9.133	9.205	9.277
2.0	I	F'	-4.590	-4.581	-4.572	-4.565	-4.560	-4.553	-4.546	-4.540	-4.534	-4.529
	I	F''	9.349	9.422	9.494	9.567	9.639	9.712	9.785	9.858	9.932	10.005
2.1	I	F'	-4.523	-4.519	-4.514	-4.510	-4.507	-4.504	-4.501	-4.498	-4.496	-4.495
	I	F''	10.079	10.152	10.226	10.300	10.375	10.449	10.523	10.598	10.673	10.748
2.2	I	F'	-4.494	-4.493	-4.492	-4.491	-4.492	-4.490	-4.493	-4.495	-4.496	-4.496
	I	F''	10.823	10.898	10.974	11.049	11.125	11.200	11.276	11.352	11.428	11.504
2.3	I	F'	-4.518	-4.521	-4.525	-4.528	-4.532	-4.537	-4.541	-4.547	-4.552	-4.558
	I	F''	11.580	11.657	11.733	11.810	11.887	11.963	12.040	12.118	12.195	12.272
2.4	I	F'	-4.564	-4.570	-4.577	-4.593	-4.600	-4.608	-4.617	-4.625	-4.634	-4.644
	I	F''	12.350	12.428	12.505	12.583	12.661	12.740	12.818	12.896	12.975	13.053
2.5	I	F'	-4.654	-4.664	-4.674	-4.699	-4.710	-4.722	-4.734	-4.746	-4.759	-4.772
	I	F''	13.132	13.211	13.290	13.369	13.448	13.527	13.606	13.686	13.765	13.845
2.6	I	F'	-4.785	-4.799	-4.813	-4.828	-4.843	-4.858	-4.873	-4.889	-4.906	-4.922
	I	F''	13.924	14.004	14.084	14.164	14.244	14.324	14.404	14.484	14.565	14.646
2.7	I	F'	-4.939	-4.956	-4.974	-4.992	-5.011	-5.029	-5.049	-5.068	-5.088	-5.108
	I	F''	14.727	14.807	14.888	14.969	15.051	15.132	15.213	15.295	15.376	15.458
2.8	I	F'	-5.129	-5.150	-5.171	-5.193	-5.215	-5.237	-5.260	-5.284	-5.307	-5.331
	I	F''	15.540	15.622	15.704	15.786	15.868	15.950	16.033	16.115	16.198	16.281

ATOMIC SYMBOL = IR ATOMIC NUMBER = 77

I			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-1.303	-1.388	-1.523	-1.736	-2.056	-2.593	-3.969	-3.479	-2.890	-2.601
	I	F''	1.446	1.696	1.960	2.236	2.523	2.820	3.119	0.690	0.765	0.842
0.2	I	F'	-2.410	-2.266	-2.153	-2.056	-1.970	-1.893	-1.826	-1.762	-1.703	-1.648
	I	F''	0.923	1.007	1.094	1.183	1.275	1.370	1.468	1.568	1.670	1.775
0.3	I	F'	-1.596	-1.548	-1.503	-1.460	-1.421	-1.384	-1.349	-1.317	-1.287	-1.260
	I	F''	1.883	1.993	2.105	2.220	2.337	2.457	2.579	2.703	2.829	2.958
0.4	I	F'	-1.236	-1.214	-1.194	-1.178	-1.164	-1.153	-1.145	-1.143	-1.141	-1.142
	I	F''	3.088	3.221	3.356	3.493	3.632	3.774	3.917	4.061	4.207	4.355
0.5	I	F'	-1.145	-1.151	-1.161	-1.174	-1.189	-1.209	-1.233	-1.259	-1.289	-1.323
	I	F''	4.504	4.655	4.808	4.962	5.118	5.275	5.435	5.595	5.757	5.921
0.6	I	F'	-1.361	-1.403	-1.449	-1.499	-1.554	-1.613	-1.678	-1.747	-1.822	-1.902
	I	F''	6.086	6.253	6.421	6.590	6.761	6.934	7.107	7.282	7.459	7.636
0.7	I	F'	-1.988	-2.080	-2.179	-2.285	-2.398	-2.520	-2.649	-2.787	-2.934	-3.092
	I	F''	7.815	7.996	8.177	8.360	8.544	8.729	8.916	9.103	9.291	9.481
0.8	I	F'	-3.261	-3.442	-3.638	-3.849	-4.078	-4.327	-4.600	-4.904	-5.245	-5.648
	I	F''	9.672	9.864	10.057	10.251	10.446	10.642	10.840	11.038	11.238	11.435
0.9	I	F'	-6.114	-6.715	-7.738	-7.932	-7.937	-8.365	-9.345	-10.219	-8.944	-8.554
	I	F''	11.632	11.831	12.030	10.585	10.779	10.974	11.170	8.151	8.297	8.444
1.0	I	F'	-8.387	-8.342	-8.383	-8.495	-8.675	-8.930	-9.276	-9.741	-10.394	-11.409
	I	F''	8.591	8.740	8.889	9.040	9.191	9.343	9.495	9.648	9.802	9.957
1.1	I	F'	-13.555	-13.989	-11.703	-10.694	-10.033	-9.547	-9.159	-8.837	-8.563	-8.324
	I	F''	10.112	3.877	3.935	3.992	4.049	4.107	4.165	4.223	4.282	4.341
1.2	I	F'	-8.112	-7.922	-7.751	-7.594	-7.450	-7.317	-7.193	-7.077	-6.969	-6.867
	I	F''	4.400	4.459	4.519	4.579	4.639	4.700	4.761	4.822	4.883	4.945
1.3	I	F'	-6.771	-6.680	-6.594	-6.512	-6.437	-6.363	-6.299	-6.232	-6.168	-6.107
	I	F''	5.007	5.069	5.132	5.195	5.258	5.321	5.384	5.448	5.512	5.576
1.4	I	F'	-6.049	-5.991	-5.937	-5.884	-5.833	-5.783	-5.736	-5.690	-5.646	-5.603
	I	F''	5.640	5.704	5.769	5.833	5.898	5.963	6.029	6.094	6.160	6.226
1.5	I	F'	-5.561	-5.521	-5.482	-5.445	-5.408	-5.373	-5.338	-5.305	-5.273	-5.241
	I	F''	6.292	6.359	6.425	6.492	6.559	6.626	6.694	6.762	6.830	6.898
1.6	I	F'	-5.211	-5.181	-5.153	-5.125	-5.098	-5.072	-5.046	-5.021	-4.997	-4.974
	I	F''	6.966	7.035	7.103	7.172	7.241	7.311	7.380	7.450	7.520	7.590
1.7	I	F'	-4.951	-4.930	-4.908	-4.888	-4.868	-4.848	-4.829	-4.811	-4.794	-4.777
	I	F''	7.661	7.731	7.802	7.873	7.944	8.015	8.087	8.159	8.231	8.303
1.8	I	F'	-4.760	-4.744	-4.729	-4.714	-4.699	-4.686	-4.672	-4.659	-4.647	-4.635
	I	F''	8.375	8.447	8.520	8.593	8.666	8.739	8.813	8.886	8.960	9.034
1.9	I	F'	-4.624	-4.613	-4.603	-4.593	-4.583	-4.574	-4.568	-4.560	-4.553	-4.545
	I	F''	9.108	9.182	9.257	9.332	9.407	9.482	9.557	9.632	9.707	9.783
2.0	I	F'	-4.539	-4.532	-4.526	-4.521	-4.516	-4.511	-4.507	-4.503	-4.499	-4.496
	I	F''	9.859	9.935	10.011	10.087	10.164	10.240	10.317	10.394	10.471	10.549
2.1	I	F'	-4.494	-4.492	-4.490	-4.494	-4.502	-4.502	-4.502	-4.502	-4.503	-4.504
	I	F''	10.626	10.704	10.782	10.859	10.937	11.015	11.093	11.172	11.250	11.329
2.2	I	F'	-4.506	-4.508	-4.510	-4.513	-4.522	-4.526	-4.530	-4.534	-4.539	-4.544
	I	F''	11.408	11.486	11.565	11.645	11.724	11.803	11.883	11.963	12.042	12.122
2.3	I	F'	-4.550	-4.556	-4.562	-4.568	-4.576	-4.583	-4.591	-4.599	-4.607	-4.616
	I	F''	12.203	12.283	12.363	12.444	12.525	12.605	12.686	12.767	12.849	12.930
2.4	I	F'	-4.626	-4.635	-4.646	-4.656	-4.666	-4.676	-4.686	-4.696	-4.707	-4.717
	I	F''	13.012	13.093	13.175	13.257	13.339	13.420	13.502	13.585	13.667	13.749
2.5	I	F'	-4.753	-4.757	-4.761	-4.765	-4.769	-4.773	-4.777	-4.781	-4.785	-4.789
	I	F''	13.852	13.914	13.977	14.040	14.103	14.166	14.229	14.292	14.355	14.418
2.6	I	F'	-4.907	-4.924	-4.942	-4.960	-4.979	-4.998	-5.017	-5.037	-5.057	-5.078
	I	F''	14.663	14.747	14.831	14.915	14.999	15.083	15.168	15.252	15.337	15.422
2.7	I	F'	-5.099	-5.120	-5.142	-5.164	-5.186	-5.209	-5.233	-5.257	-5.281	-5.305
	I	F''	15.506	15.591	15.676	15.762	15.847	15.932	16.018	16.103	16.189	16.275
2.8	I	F'	-5.330	-5.356	-5.382	-5.408	-5.435	-5.462	-5.489	-5.517	-5.545	-5.575
	I	F''	16.361	16.447	16.533	16.619	16.706	16.792	16.879	16.965	17.052	17.139

ATOMIC SYMBOL = PT ATOMIC NUMBER = 78

			0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	-1.382	-1.483	-1.644	-1.898	-2.294	-3.042	-4.485	-3.154	-2.763	-2.532
	I	F''	1.515	1.776	2.052	2.338	2.636	2.945	0.656	0.731	0.809	0.891
0.2	I	F'	-2.368	-2.243	-2.137	-2.045	-1.964	-1.893	-1.826	-1.764	-1.707	-1.653
	I	F''	0.976	1.065	1.156	1.250	1.347	1.447	1.549	1.655	1.763	1.873
0.3	I	F'	-1.603	-1.557	-1.513	-1.472	-1.434	-1.399	-1.366	-1.336	-1.308	-1.284
	I	F''	1.986	2.102	2.221	2.341	2.465	2.590	2.718	2.849	2.982	3.117
0.4	I	F'	-1.262	-1.242	-1.226	-1.212	-1.202	-1.197	-1.193	-1.195	-1.197	-1.202
	I	F''	3.254	3.394	3.536	3.680	3.827	3.975	4.125	4.277	4.430	4.585
0.5	I	F'	-1.211	-1.223	-1.238	-1.257	-1.281	-1.307	-1.337	-1.372	-1.410	-1.453
	I	F''	4.741	4.899	5.059	5.221	5.385	5.550	5.716	5.884	6.054	6.226
0.6	I	F'	-1.500	-1.552	-1.608	-1.670	-1.736	-1.809	-1.886	-1.970	-2.060	-2.157
	I	F''	6.399	6.573	6.749	6.926	7.105	7.285	7.467	7.650	7.834	8.020
0.7	I	F'	-2.260	-2.371	-2.492	-2.620	-2.756	-2.903	-3.060	-3.228	-3.409	-3.605
	I	F''	8.207	8.396	8.585	8.776	8.968	9.161	9.356	9.551	9.748	9.946
0.8	I	F'	-3.816	-4.046	-4.297	-4.571	-4.878	-5.223	-5.630	-6.107	-6.726	-7.837
	I	F''	10.145	10.345	10.547	10.749	10.953	11.158	11.362	11.566	11.771	11.976
0.9	I	F'	-7.881	-7.957	-8.468	-9.799	-9.563	-8.723	-8.408	-8.280	-8.261	-8.323
	I	F''	10.547	10.749	10.952	11.158	8.134	8.284	8.436	8.588	8.741	8.896
1.0	I	F'	-8.456	-8.658	-8.938	-9.317	-9.833	-10.576	-11.805	-15.375	-12.813	-11.226
	I	F''	9.051	9.207	9.364	9.522	9.681	9.841	10.002	10.163	3.916	3.975
1.1	I	F'	-10.368	-9.780	-9.332	-8.971	-8.669	-8.409	-8.181	-7.979	-7.797	-7.632
	I	F''	4.035	4.094	4.154	4.215	4.275	4.336	4.397	4.459	4.520	4.582
1.2	I	F'	-7.481	-7.341	-7.212	-7.092	-6.980	-6.875	-6.776	-6.682	-6.596	-6.512
	I	F''	4.645	4.708	4.771	4.834	4.897	4.961	5.025	5.090	5.155	5.220
1.3	I	F'	-6.439	-6.363	-6.291	-6.222	-6.156	-6.096	-6.036	-5.977	-5.922	-5.868
	I	F''	5.285	5.350	5.416	5.482	5.548	5.615	5.682	5.749	5.816	5.883
1.4	I	F'	-5.816	-5.766	-5.718	-5.671	-5.627	-5.583	-5.541	-5.501	-5.462	-5.424
	I	F''	5.951	6.019	6.086	6.154	6.223	6.291	6.360	6.429	6.498	6.568
1.5	I	F'	-5.387	-5.351	-5.317	-5.283	-5.251	-5.219	-5.189	-5.159	-5.130	-5.102
	I	F''	6.637	6.707	6.777	6.848	6.918	6.989	7.060	7.132	7.203	7.275
1.6	I	F'	-5.075	-5.049	-5.024	-4.999	-4.975	-4.952	-4.930	-4.908	-4.887	-4.866
	I	F''	7.347	7.419	7.491	7.564	7.637	7.710	7.783	7.856	7.930	8.004
1.7	I	F'	-4.847	-4.827	-4.809	-4.791	-4.774	-4.757	-4.741	-4.725	-4.710	-4.696
	I	F''	8.078	8.152	8.226	8.301	8.376	8.451	8.526	8.602	8.677	8.753
1.8	I	F'	-4.682	-4.668	-4.655	-4.643	-4.631	-4.620	-4.609	-4.599	-4.589	-4.582
	I	F''	8.829	8.906	8.982	9.059	9.136	9.213	9.290	9.368	9.445	9.523
1.9	I	F'	-4.573	-4.565	-4.557	-4.550	-4.543	-4.536	-4.530	-4.525	-4.520	-4.515
	I	F''	9.601	9.679	9.757	9.836	9.914	9.993	10.072	10.152	10.231	10.310
2.0	I	F'	-4.516	-4.512	-4.509	-4.506	-4.504	-4.510	-4.508	-4.507	-4.507	-4.507
	I	F''	10.390	10.470	10.550	10.630	10.711	10.791	10.872	10.953	11.033	11.115
2.1	I	F'	-4.507	-4.513	-4.514	-4.516	-4.518	-4.521	-4.524	-4.527	-4.531	-4.535
	I	F''	11.196	11.277	11.359	11.440	11.522	11.604	11.686	11.768	11.851	11.933
2.2	I	F'	-4.539	-4.544	-4.550	-4.555	-4.562	-4.568	-4.575	-4.583	-4.591	-4.599
	I	F''	12.016	12.099	12.182	12.265	12.348	12.432	12.516	12.599	12.683	12.767
2.3	I	F'	-4.607	-4.616	-4.626	-4.636	-4.646	-4.659	-4.680	-4.692	-4.704	-4.716
	I	F''	12.852	12.936	13.020	13.105	13.190	13.275	13.360	13.444	13.530	13.615
2.4	I	F'	-4.729	-4.742	-4.756	-4.770	-4.784	-4.799	-4.815	-4.830	-4.846	-4.863
	I	F''	13.700	13.786	13.871	13.957	14.043	14.129	14.215	14.301	14.388	14.474
2.5	I	F'	-4.880	-4.897	-4.915	-4.933	-4.952	-4.971	-4.990	-5.010	-5.030	-5.051
	I	F''	14.561	14.648	14.735	14.822	14.909	14.996	15.084	15.171	15.259	15.347
2.6	I	F'	-5.072	-5.094	-5.116	-5.138	-5.161	-5.185	-5.208	-5.233	-5.257	-5.282
	I	F''	15.434	15.523	15.611	15.699	15.787	15.876	15.965	16.053	16.142	16.231
2.7	I	F'	-5.308	-5.334	-5.360	-5.387	-5.414	-5.442	-5.470	-5.499	-5.528	-5.558
	I	F''	16.320	16.410	16.499	16.588	16.678	16.768	16.857	16.947	17.037	17.128
2.8	I	F'	-5.588	-5.619	-5.671	-5.703	-5.735	-5.768	-5.801	-5.834	-5.869	-5.903
	I	F''	17.218	17.308	17.399	17.489	17.579	17.669	17.760	17.850	17.941	18.031

ATOMIC SYMBOL = AU ATOMIC NUMBER = 79

I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I F"	1.588	1.860	2.144	2.440	2.745	3.058	-3.565	-2.950	-2.657	-2.464
0.2	I F"	-2.322	-2.204	-2.108	-2.021	-1.943	-1.875	-0.695	0.774	0.857	0.943
0.3	I F"	1.033	1.126	1.222	1.321	1.423	1.528	1.636	1.747	1.860	1.977
0.4	I F"	-1.594	-1.551	-1.509	-1.470	-1.434	-1.400	-1.370	-1.342	-1.317	-1.295
0.5	I F"	2.094	2.217	2.349	2.469	2.598	2.731	2.865	3.002	3.142	3.284
0.6	I F"	-1.276	-1.260	-1.247	-1.237	-1.234	-1.231	-1.235	-1.239	-1.247	-1.257
0.7	I F"	3.428	3.575	3.724	3.875	4.029	4.184	4.341	4.500	4.660	4.822
0.8	I F"	-1.272	-1.290	-1.312	-1.339	-1.369	-1.403	-1.442	-1.485	-1.533	-1.585
0.9	I F"	4.986	5.152	5.319	5.489	5.660	5.832	6.007	6.182	6.360	6.539
1.0	I F"	-1.643	-1.706	-1.775	-1.849	-1.930	-2.016	-2.110	-2.210	-2.318	-2.434
1.1	I F"	6.720	6.902	7.086	7.272	7.458	7.647	7.837	8.028	8.221	8.415
1.2	I F"	-2.560	-2.494	-2.438	-2.392	-2.359	-2.338	-2.332	-2.341	-2.370	-2.419
1.3	I F"	8.610	8.807	9.005	9.204	9.404	9.606	9.809	10.014	10.219	10.426
1.4	I F"	-4.494	-4.798	-5.143	-5.549	-6.024	-6.636	-7.386	-8.275	-9.294	-10.426
1.5	I F"	10.634	10.843	11.054	11.263	11.473	11.683	11.894	12.107	12.321	12.536
1.6	I F"	-10.131	-9.287	-8.570	-8.288	-8.178	-8.172	-8.244	-8.387	-8.601	-8.896
1.7	I F"	11.105	8.090	8.245	8.400	8.557	8.714	8.873	9.032	9.193	9.354
1.8	I F"	-9.281	-9.830	-10.635	-12.037	-20.187	-12.280	-10.920	-10.137	-9.586	-9.162
1.9	I F"	9.520	9.687	9.856	10.026	10.198	3.947	4.008	4.070	4.132	4.194
2.0	I F"	-8.816	-8.526	-8.275	-8.054	-7.858	-7.681	-7.520	-7.373	-7.237	-7.110
2.1	I F"	4.256	4.319	4.382	4.446	4.509	4.573	4.638	4.703	4.768	4.833
2.2	I F"	-6.993	-6.883	-6.782	-6.685	-6.594	-6.513	-6.431	-6.353	-6.278	-6.207
2.3	I F"	4.899	4.965	5.031	5.098	5.165	5.232	5.299	5.367	5.435	5.503
2.4	I F"	-6.143	-6.079	-6.016	-5.957	-5.900	-5.845	-5.792	-5.741	-5.692	-5.645
2.5	I F"	5.572	5.641	5.710	5.779	5.849	5.919	5.989	6.059	6.130	6.201
2.6	I F"	-5.599	-5.555	-5.512	-5.471	-5.432	-5.393	-5.356	-5.320	-5.285	-5.251
2.7	I F"	6.272	6.343	6.415	6.486	6.558	6.630	6.702	6.775	6.848	6.921
2.8	I F"	-5.218	-5.187	-5.156	-5.126	-5.097	-5.069	-5.042	-5.016	-4.991	-4.966
2.9	I F"	6.994	7.068	7.141	7.215	7.290	7.364	7.439	7.514	7.589	7.664
3.0	I F"	-4.942	-4.919	-4.896	-4.875	-4.854	-4.834	-4.814	-4.795	-4.777	-4.759
3.1	I F"	7.740	7.816	7.892	7.968	8.045	8.121	8.198	8.276	8.353	8.431
3.2	I F"	-4.742	-4.725	-4.710	-4.694	-4.680	-4.666	-4.652	-4.639	-4.627	-4.615
3.3	I F"	8.508	8.586	8.663	8.743	8.822	8.901	8.980	9.059	9.139	9.219
3.4	I F"	-4.603	-4.595	-4.585	-4.575	-4.566	-4.557	-4.549	-4.541	-4.538	-4.531
3.5	I F"	9.299	9.379	9.459	9.540	9.620	9.701	9.782	9.864	9.945	10.027
3.6	I F"	-4.525	-4.520	-4.515	-4.510	-4.506	-4.502	-4.499	-4.503	-4.505	-4.504
3.7	I F"	10.109	10.191	10.273	10.355	10.438	10.521	10.604	10.687	10.770	10.854
3.8	I F"	-4.503	-4.502	-4.502	-4.502	-4.502	-4.504	-4.505	-4.507	-4.510	-4.512
3.9	I F"	10.937	11.021	11.105	11.189	11.273	11.357	11.442	11.526	11.611	11.696
4.0	I F"	-4.516	-4.519	-4.524	-4.528	-4.533	-4.539	-4.545	-4.551	-4.558	-4.565
4.1	I F"	11.781	11.867	11.952	12.038	12.124	12.210	12.296	12.383	12.469	12.556
4.2	I F"	-4.573	-4.581	-4.590	-4.599	-4.608	-4.618	-4.639	-4.650	-4.662	-4.673
4.3	I F"	12.643	12.730	12.817	12.904	12.992	13.079	13.167	13.255	13.343	13.431
4.4	I F"	-4.686	-4.698	-4.711	-4.725	-4.739	-4.753	-4.768	-4.783	-4.799	-4.815
4.5	I F"	13.519	13.607	13.695	13.784	13.873	13.962	14.051	14.140	14.229	14.318
4.6	I F"	-4.832	-4.849	-4.866	-4.884	-4.903	-4.921	-4.941	-4.961	-4.981	-5.001
4.7	I F"	14.408	14.498	14.588	14.678	14.768	14.858	14.948	15.039	15.129	15.220
4.8	I F"	-5.022	-5.044	-5.066	-5.089	-5.112	-5.135	-5.159	-5.183	-5.208	-5.233
4.9	I F"	15.311	15.402	15.493	15.585	15.676	15.768	15.860	15.951	16.043	16.136
5.0	I F"	-5.259	-5.285	-5.312	-5.339	-5.367	-5.395	-5.424	-5.453	-5.483	-5.513
5.1	I F"	16.228	16.320	16.413	16.505	16.598	16.691	16.784	16.877	16.970	17.064
5.2	I F"	-5.544	-5.595	-5.627	-5.659	-5.692	-5.726	-5.760	-5.794	-5.829	-5.869
5.3	I F"	17.157	17.251	17.344	17.437	17.531	17.625	17.718	17.812	17.906	18.000
5.4	I F"	-5.905	-5.941	-6.000	-6.037	-6.076	-6.115	-6.154	-6.194	-6.235	-6.276
5.5	I F"	18.094	18.188	18.282	18.376	18.470	18.565	18.659	18.753	18.848	18.942

ATOMIC SYMBOL = HG ATOMIC NUMBER = 80

I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I F"	1.662	1.944	2.239	2.547	2.863	0.656	-3.245	-2.832	-2.596	-2.429
0.2	I F"	-2.301	-2.194	-2.101	-2.019	-1.947	-1.879	-0.735	0.819	0.906	0.997
0.3	I F"	1.091	1.189	1.289	1.394	1.501	1.611	1.725	1.841	1.961	2.083
0.4	I F"	-1.609	-1.565	-1.525	-1.488	-1.453	-1.422	-1.394	-1.369	-1.347	-1.328
0.5	I F"	2.208	2.336	2.467	2.600	2.736	2.875	3.017	3.161	3.308	3.457
0.6	I F"	-1.312	-1.299	-1.294	-1.289	-1.291	-1.293	-1.299	-1.309	-1.322	-1.339
0.7	I F"	3.609	3.763	3.919	4.078	4.238	4.401	4.566	4.732	4.900	5.069
0.8	I F"	-1.360	-1.386	-1.415	-1.449	-1.488	-1.531	-1.580	-1.633	-1.692	-1.756
0.9	I F"	5.241	5.414	5.590	5.767	5.945	6.126	6.308	6.492	6.678	6.865
1.0	I F"	-1.827	-1.903	-1.986	-2.075	-2.172	-2.276	-2.388	-2.509	-2.640	-2.780
1.1	I F"	7.054	7.244	7.436	7.630	7.825	8.022	8.220	8.420	8.621	8.823
1.2	I F"	-2.931	-3.094	-3.269	-3.459	-3.665	-3.890	-4.135	-4.406	-4.704	-5.042
1.3	I F"	9.027	9.232	9.439	9.646	9.856	10.066	10.278	10.491	10.705	10.921
1.4	I F"	-5.440	-5.903	-6.488	-7.101	-7.945	-10.066	-10.478	-10.913	-11.385	-11.885
1.5	I F"	11.137	11.352	11.568	11.785	12.003	12.222	12.442	12.662	12.883	13.104
1.6	I F"	-8.209	-8.103	-8.000	-7.895	-7.788	-7.681	-7.574	-7.467	-7.360	-7.253
1.7	I F"	8.354	8.515	8.677	8.840	9.005	9.170	9.337	9.502	9.667	9.832
1.8	I F"	-12.138	-12.271	-12.404	-12.537	-12.670	-12.803	-12.936	-13.069	-13.202	-13.335
1.9	I F"	10.024	3.910	3.973	4.036	4.100	4.164	4.228	4.293	4.358	4.423
2.0	I F"	-7.976	-7.783	-7.609	-7.451	-7.306	-7.172	-7.050	-6.934	-6.826	-6.725
2.1	I F"	4.489	4.555	4.622	4.688	4.755	4.823	4.891	4.959	5.027	5.096
2.2	I F"	-6.635	-6.545	-6.460	-6.379	-6.302	-6.232	-6.162	-6.096	-6.032	-5.971
2.3	I F"	5.165	5.235	5.304	5.374	5.445	5.515	5.586	5.657	5.728	5.800
2.4	I F"	-5.912	-5.856	-5.801	-5.749	-5.699	-5.651	-5.605	-5.560	-5.517	-5.475
2.5	I F"	5.872	5.945	6.017	6.090	6.164	6.237	6.311	6.385	6.460	6.534
2.6	I F"	-5.435	-5.396	-5.358	-5.322	-5.287	-5.252	-5.219	-5.187	-5.157	-5.127
2.7	I F"	6.609	6.684	6.759	6.834	6.909	6.985	7.061	7.137	7.214	7.291
2.8	I F"	-5.098	-5.070	-5.042	-5.016	-4.991	-4.966	-4.942	-4.919	-4.897	-4.875
2.9	I F"	7.368	7.445	7.522	7.600	7.678	7.756	7.835	7.914	7.993	8.072
3.0	I F"	-4.855	-4.835	-4.815	-4.797	-4.779	-4.761	-4.745	-4.728	-4.713	-4.698
3.1	I F"	8.151	8.231	8.311	8.391	8.472	8.552	8.633	8.714	8.795	8.877
3.2	I F"	-4.684	-4.670	-4.657	-4.645	-4.633	-4.627	-4.616	-4.606	-4.597	-4.588
3.3	I F"	8.959	9.041	9.123	9.206	9.288	9.371	9.454	9.537	9.621	9.705
3.4	I F"	-4.579	-4.572	-4.564	-4.557	-4.555	-4.549	-4.544	-4.539	-4.535	-4.531
3.5	I F"	9.788	9.873	9.957	10.041	10.126	10.211	10.296	10.381	10.467	10.553
3.6	I F"	-4.535	-4.532	-4.530	-4.529	-4.528	-4.527	-4.527	-4.528	-4.529	-4.530
3.7	I F"	10.638	10.724	10.810	10.897	10.983	11.070	11.157	11.244	11.331	11.419
3.8	I F"	-4.532	-4.534	-4.537	-4.541	-4.544	-4.549	-4.553	-4.559	-4.564	-4.571
3.9	I F"	11.506	11.594	11.682	11.770	11.858	11.947	12.036	12.125	12.214	12.303
4.0	I F"	-4.577	-4.584	-4.592	-4.600	-4.608	-4.617	-4.627	-4.637	-4.647	-4.657
4.1	I F"	12.392	12.482	12.572	12.662	12.752	12.842	12.932	13.023	13.114	13.204
4.2	I F"	-4.680	-4.692	-4.704	-4.717	-4.730	-4.744	-4.758	-4.773	-4.788	-4.804
4.3	I F"	13.295	13.386	13.477	13.569	13.660	13.752	13.844	13.936	14.028	14.120
4.4	I F"	-4.820	-4.837	-4.854	-4.872	-4.890	-4.908	-4.927	-4.947	-4.967	-4.987

ATOMIC SYMBOL = TL			ATOMIC NUMBER = 81									
	I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'	1.737	2.030	2.336	2.654	2.980	0.693	-3.061	-2.750	-2.551	-2.404
	I	F''	-2.286	-2.186	-2.097	-2.021	-1.949	-1.884	-0.777	0.865	0.957	1.053
0.2	I	F'	1.152	1.255	1.361	1.471	1.583	1.700	1.819	1.768	1.716	1.668
	I	F''	-1.623	-1.581	-1.543	-1.508	-1.476	-1.447	-1.422	-1.400	-1.381	-1.365
0.3	I	F'	2.327	2.461	2.598	2.738	2.881	3.027	3.176	3.327	3.481	3.637
	I	F''	-1.353	-1.349	-1.345	-1.349	-1.352	-1.359	-1.371	-1.387	-1.406	-1.431
0.4	I	F'	3.797	3.958	4.122	4.287	4.455	4.625	4.798	4.972	5.147	5.324
	I	F''	-1.459	-1.492	-1.530	-1.573	-1.622	-1.675	-1.734	-1.799	-1.870	-1.948
0.5	I	F'	5.504	5.685	5.868	6.053	6.240	6.429	6.619	6.811	7.005	7.201
	I	F''	-2.032	-2.124	-2.223	-2.330	-2.446	-2.572	-2.707	-2.853	-3.010	-3.180
0.6	I	F'	7.398	7.597	7.797	7.999	8.203	8.408	8.615	8.823	9.033	9.244
	I	F''	-3.365	-3.565	-3.784	-4.023	-4.286	-4.578	-4.905	-5.291	-5.735	-6.284
0.7	I	F'	9.457	9.671	9.887	10.104	10.322	10.542	10.763	10.985	11.206	11.427
	I	F''	-7.076	-8.175	-7.847	-8.307	-9.713	-9.225	-8.444	-8.146	-8.029	-8.018
0.8	I	F'	11.649	10.270	10.485	10.701	10.919	7.955	8.118	8.282	8.447	8.614
	I	F''	-8.088	-8.230	-8.447	-8.744	-9.148	-9.705	-10.527	-11.994	-17.783	-11.950
0.9	I	F'	8.782	8.950	9.120	9.291	9.463	9.636	9.810	9.985	3.924	3.989
	I	F''	-10.677	-9.928	-9.397	-8.986	-8.651	-8.368	-8.124	-7.909	-7.717	-7.546
1.0	I	F'	4.055	4.121	4.187	4.254	4.320	4.388	4.456	4.524	4.592	4.661
	I	F''	-7.389	-7.245	-7.112	-6.989	-6.874	-6.767	-6.671	-6.576	-6.487	-6.402
1.1	I	F'	4.730	4.800	4.869	4.940	5.010	5.081	5.152	5.224	5.296	5.368
	I	F''	-6.326	-6.249	-6.177	-6.107	-6.041	-5.978	-5.917	-5.859	-5.803	-5.749
1.2	I	F'	5.441	5.513	5.587	5.660	5.734	5.808	5.882	5.957	6.032	6.108
	I	F''	-6.183	-5.648	-5.600	-5.555	-5.510	-5.468	-5.427	-5.387	-5.349	-5.312
1.3	I	F'	6.183	6.260	6.336	6.413	6.490	6.567	6.645	6.723	6.801	6.880
	I	F''	-5.276	-5.242	-5.208	-5.176	-5.144	-5.114	-5.085	-5.056	-5.029	-5.002
1.4	I	F'	6.958	7.036	7.115	7.194	7.273	7.353	7.433	7.513	7.593	7.674
	I	F''	-4.977	-4.952	-4.928	-4.905	-4.882	-4.861	-4.840	-4.820	-4.801	-4.782
1.5	I	F'	7.755	7.836	7.917	7.999	8.081	8.163	8.246	8.328	8.411	8.495
	I	F''	-4.764	-4.747	-4.731	-4.717	-4.702	-4.687	-4.673	-4.660	-4.649	-4.637
1.6	I	F'	8.578	8.662	8.746	8.830	8.914	8.999	9.084	9.169	9.255	9.340
	I	F''	-4.626	-4.618	-4.608	-4.598	-4.589	-4.581	-4.574	-4.566	-4.560	-4.555
1.7	I	F'	9.426	9.512	9.598	9.685	9.772	9.858	9.946	10.033	10.121	10.208
	I	F''	-4.550	-4.545	-4.546	-4.542	-4.539	-4.537	-4.535	-4.533	-4.532	-4.532
1.8	I	F'	10.297	10.385	10.473	10.562	10.650	10.739	10.829	10.918	11.007	11.097
	I	F''	-4.532	-4.532	-4.533	-4.535	-4.537	-4.540	-4.543	-4.546	-4.551	-4.555
1.9	I	F'	11.187	11.277	11.368	11.458	11.549	11.640	11.731	11.823	11.914	12.006
	I	F''	-4.560	-4.566	-4.572	-4.579	-4.586	-4.594	-4.602	-4.611	-4.620	-4.632
2.0	I	F'	12.098	12.190	12.282	12.375	12.467	12.560	12.653	12.747	12.840	12.934
	I	F''	-4.651	-4.662	-4.674	-4.686	-4.698	-4.711	-4.724	-4.738	-4.753	-4.768
2.1	I	F'	13.027	13.121	13.215	13.309	13.403	13.498	13.592	13.687	13.782	13.877
	I	F''	-4.783	-4.799	-4.816	-4.833	-4.850	-4.868	-4.887	-4.906	-4.926	-4.946
2.2	I	F'	13.973	14.068	14.164	14.259	14.355	14.451	14.548	14.644	14.741	14.837
	I	F''	-4.966	-4.988	-5.009	-5.032	-5.054	-5.078	-5.101	-5.126	-5.151	-5.176
2.3	I	F'	14.934	15.031	15.129	15.226	15.324	15.421	15.519	15.617	15.715	15.814
	I	F''	-5.202	-5.229	-5.256	-5.284	-5.312	-5.341	-5.370	-5.400	-5.431	-5.462
2.4	I	F'	15.912	16.011	16.110	16.209	16.308	16.407	16.506	16.606	16.705	16.805
	I	F''	-5.510	-5.543	-5.576	-5.609	-5.644	-5.678	-5.714	-5.750	-5.790	-5.827
2.5	I	F'	16.905	17.005	17.105	17.205	17.305	17.405	17.505	17.606	17.707	17.807
	I	F''	-5.882	-5.921	-5.960	-6.000	-6.041	-6.082	-6.124	-6.166	-6.209	-6.253
2.6	I	F'	17.908	18.008	18.109	18.210	18.311	18.412	18.513	18.614	18.715	18.817
	I	F''	-6.297	-6.342	-6.388	-6.435	-6.482	-6.530	-6.578	-6.627	-6.677	-6.728
2.7	I	F'	18.918	19.020	19.122	19.224	19.326	19.428	19.530	19.632	19.735	19.837
	I	F''	-6.789	-6.841	-6.894	-6.948	-7.002	-7.057	-7.113	-7.170	-7.227	-7.286
2.8	I	F'	19.940	20.042	20.145	20.247	20.350	20.453	20.556	20.659	20.762	20.865

ATOMIC SYMBOL = PB		ATOMIC NUMBER = 82										
I		0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	
0.1	I F'	1.815	2.118	2.435	2.764	3.102	0.733	-2.946	-2.695	-2.522	-2.390	
	I F''	-2.280	-2.185	-2.102	-2.027	-1.958	-1.895	-1.837	-1.783	-1.732	-1.686	
0.2	I F'	1.215	1.323	1.435	1.550	1.668	1.790	1.916	2.044	2.176	2.311	
	I F''	-1.643	-1.603	-1.567	-1.535	-1.505	-1.479	-1.457	-1.438	-1.422	-1.411	
0.3	I F'	2.449	2.590	2.734	2.881	3.031	3.184	3.340	3.498	3.660	3.824	
	I F''	-1.407	-1.409	-1.410	-1.414	-1.423	-1.437	-1.455	-1.478	-1.505	-1.537	
0.4	I F'	3.990	4.159	4.330	4.503	4.679	4.857	5.037	5.219	5.402	5.588	
	I F''	-1.574	-1.616	-1.664	-1.717	-1.776	-1.842	-1.913	-1.992	-2.078	-2.171	
0.5	I F'	5.775	5.964	6.156	6.349	6.544	6.741	6.939	7.140	7.342	7.546	
	I F''	-2.272	-2.381	-2.500	-2.630	-2.769	-2.920	-3.083	-3.261	-3.453	-3.663	
0.6	I F'	7.752	7.959	8.169	8.379	8.592	8.806	9.021	9.238	9.457	9.677	
	I F''	-3.893	-4.146	-4.427	-4.741	-5.095	-5.521	-6.025	-6.697	-8.103	-7.807	
0.7	I F'	9.898	10.121	10.345	10.571	10.799	11.026	11.253	11.481	11.711	10.343	
	I F''	-8.109	-9.145	-9.518	-10.475	-11.571	-12.799	-14.163	-15.678	-18.426	-8.327	
0.8	I F'	10.567	10.792	7.856	8.023	8.191	8.361	8.532	8.704	8.878	9.052	
	I F''	-8.608	-8.999	-9.524	-10.286	-11.586	-13.231	-15.236	-17.566	-21.300	-9.407	
0.9	I F'	9.228	9.404	9.579	9.756	9.932	10.110	3.998	4.066	4.134	4.202	
	I F''	-8.983	-8.641	-8.353	-8.107	-7.890	-7.697	-7.523	-7.365	-7.220	-7.087	
1.0	I F'	4.271	4.340	4.410	4.480	4.550	4.621	4.692	4.764	4.836	4.908	
	I F''	-6.963	-6.853	-6.746	-6.645	-6.550	-6.461	-6.379	-6.299	-6.223	-6.150	
1.1	I F'	4.981	5.054	5.127	5.200	5.274	5.349	5.424	5.499	5.574	5.650	
	I F''	-6.081	-6.015	-5.952	-5.892	-5.834	-5.778	-5.726	-5.675	-5.626	-5.578	
1.2	I F'	5.726	5.802	5.879	5.956	6.034	6.112	6.190	6.268	6.347	6.426	
	I F''	-5.533	-5.489	-5.447	-5.406	-5.367	-5.330	-5.293	-5.259	-5.225	-5.193	
1.3	I F'	6.506	6.586	6.666	6.746	6.827	6.908	6.990	7.072	7.154	7.236	
	I F''	-5.162	-5.131	-5.101	-5.073	-5.045	-5.019	-4.993	-4.968	-4.944	-4.921	
1.4	I F'	7.319	7.401	7.484	7.567	7.650	7.733	7.817	7.901	7.985	8.070	
	I F''	-4.899	-4.877	-4.858	-4.838	-4.819	-4.801	-4.783	-4.766	-4.750	-4.735	
1.5	I F'	8.155	8.240	8.325	8.411	8.497	8.583	8.670	8.756	8.843	8.931	
	I F''	-4.722	-4.709	-4.696	-4.684	-4.672	-4.661	-4.650	-4.640	-4.631	-4.622	
1.6	I F'	9.018	9.106	9.194	9.282	9.371	9.459	9.548	9.638	9.727	9.817	
	I F''	-4.614	-4.607	-4.600	-4.594	-4.588	-4.583	-4.578	-4.574	-4.570	-4.566	
1.7	I F'	9.907	9.997	10.087	10.178	10.269	10.360	10.451	10.543	10.634	10.726	
	I F''	-4.579	-4.570	-4.569	-4.569	-4.569	-4.570	-4.571	-4.572	-4.573	-4.574	
1.8	I F'	10.818	10.911	11.003	11.096	11.189	11.282	11.375	11.469	11.563	11.657	
	I F''	-4.582	-4.584	-4.590	-4.595	-4.601	-4.607	-4.614	-4.621	-4.629	-4.638	
1.9	I F'	11.751	11.844	11.940	12.035	12.130	12.226	12.321	12.417	12.513	12.609	
	I F''	-4.647	-4.656	-4.666	-4.685	-4.696	-4.708	-4.720	-4.733	-4.746	-4.759	
2.0	I F'	12.705	12.802	12.898	12.995	13.092	13.189	13.286	13.383	13.481	13.579	
	I F''	-4.775	-4.790	-4.806	-4.822	-4.838	-4.856	-4.873	-4.892	-4.911	-4.930	
2.1	I F'	13.677	13.775	13.873	13.972	14.070	14.169	14.268	14.368	14.467	14.567	
	I F''	-4.950	-4.971	-4.992	-5.013	-5.036	-5.059	-5.082	-5.106	-5.130	-5.156	
2.2	I F'	14.666	14.766	14.866	14.967	15.067	15.168	15.269	15.369	15.471	15.572	
	I F''	-5.181	-5.208	-5.235	-5.262	-5.290	-5.319	-5.348	-5.378	-5.409	-5.440	
2.3	I F'	15.673	15.775	15.877	15.979	16.081	16.183	16.286	16.388	16.491	16.594	
	I F''	-5.487	-5.520	-5.553	-5.587	-5.621	-5.656	-5.692	-5.728	-5.768	-5.806	
2.4	I F'	16.697	16.800	16.903	17.006	17.109	17.213	17.316	17.420	17.524	17.628	
	I F''	-5.860	-5.899	-5.939	-5.980	-6.021	-6.063	-6.105	-6.148	-6.192	-6.237	
2.5	I F'	17.732	17.836	17.940	18.044	18.148	18.252	18.357	18.461	18.566	18.671	
	I F''	-6.282	-6.328	-6.375	-6.423	-6.471	-6.520	-6.570	-6.620	-6.671	-6.733	
2.6	I F'	18.776	18.881	18.986	19.092	19.197	19.303	19.408	19.514	19.620	19.726	
	I F''	-6.785	-6.839	-6.894	-6.949	-7.005	-7.062	-7.120	-7.178	-7.238	-7.298	
2.7	I F'	19.832	19.938	20.044	20.150	20.256	20.362	20.469	20.575	20.682	20.789	
	I F''	-7.360	-7.422	-7.485	-7.549	-7.614	-7.680	-7.747	-7.816	-7.885	-7.955	
2.8	I F'	20.896	21.003	21.110	21.217	21.324	21.431	21.539	21.646	21.754	21.862	

ATOMIC SYMBOL = BI

ATOMIC NUMBER = 83

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'										
	I	F''	1.893	2.207	2.537	2.875	0.685	0.774	-2.867	-2.656	-2.503	-2.381
0.2	I	F'	-2.278	-2.187	-2.109	-2.036	-1.970	-1.909	-1.853	-1.801	-1.752	-1.708
	I	F''	1.281	1.395	1.512	1.633	1.757	1.885	2.017	2.152	2.290	2.431
0.3	I	F'	-1.667	-1.630	-1.596	-1.566	-1.540	-1.517	-1.498	-1.483	-1.476	-1.469
	I	F''	2.576	2.724	2.875	3.029	3.187	3.347	3.510	3.676	3.845	4.017
0.4	I	F'	-1.473	-1.474	-1.480	-1.491	-1.506	-1.526	-1.551	-1.583	-1.619	-1.660
	I	F''	4.190	4.366	4.545	4.726	4.909	5.095	5.284	5.473	5.665	5.858
0.5	I	F'	-1.706	-1.759	-1.817	-1.882	-1.954	-2.033	-2.119	-2.213	-2.316	-2.427
	I	F''	6.054	6.251	6.451	6.652	6.856	7.061	7.268	7.477	7.688	7.901
0.6	I	F'	-2.548	-2.680	-2.823	-2.978	-3.146	-3.329	-3.529	-3.748	-3.988	-4.254
	I	F''	8.115	8.331	8.549	8.768	8.990	9.212	9.437	9.663	9.891	10.120
0.7	I	F'	-4.551	-4.886	-5.270	-5.737	-6.314	-7.176	-7.976	-7.914	-8.599	-10.974
	I	F''	10.350	10.583	10.817	11.049	11.282	11.516	10.169	10.395	10.623	7.729
0.8	I	F'	-8.637	-8.149	-7.948	-7.884	-7.913	-8.018	-8.195	-8.450	-8.798	-9.275
	I	F''	7.900	8.072	8.245	8.420	8.596	8.773	8.952	9.132	9.313	9.495
0.9	I	F'	-9.953	-11.041	-13.587	-12.882	-10.987	-10.085	-9.485	-9.035	-8.677	-8.379
	I	F''	9.677	9.861	10.046	3.996	4.065	4.135	4.206	4.277	4.348	4.420
1.0	I	F'	-8.123	-7.900	-7.703	-7.526	-7.365	-7.219	-7.084	-6.964	-6.848	-6.740
	I	F''	4.492	4.565	4.638	4.711	4.785	4.859	4.934	5.009	5.084	5.160
1.1	I	F'	-6.638	-6.546	-6.456	-6.371	-6.291	-6.215	-6.142	-6.073	-6.007	-5.944
	I	F''	5.236	5.313	5.390	5.467	5.544	5.622	5.701	5.779	5.858	5.938
1.2	I	F'	-5.883	-5.825	-5.770	-5.717	-5.666	-5.617	-5.570	-5.524	-5.481	-5.439
	I	F''	6.018	6.098	6.178	6.259	6.340	6.422	6.504	6.586	6.669	6.752
1.3	I	F'	-5.398	-5.359	-5.322	-5.286	-5.251	-5.218	-5.186	-5.156	-5.127	-5.100
	I	F''	6.835	6.919	7.003	7.088	7.172	7.257	7.343	7.429	7.515	7.601
1.4	I	F'	-5.073	-5.046	-5.020	-4.995	-4.971	-4.948	-4.926	-4.904	-4.884	-4.864
	I	F''	7.688	7.774	7.860	7.947	8.034	8.122	8.210	8.298	8.386	8.475
1.5	I	F'	-4.845	-4.828	-4.811	-4.794	-4.779	-4.764	-4.750	-4.737	-4.724	-4.712
	I	F''	8.563	8.653	8.742	8.832	8.922	9.012	9.103	9.193	9.284	9.376
1.6	I	F'	-4.701	-4.690	-4.680	-4.671	-4.662	-4.654	-4.646	-4.638	-4.630	-4.622
	I	F''	9.467	9.559	9.651	9.744	9.836	9.929	10.022	10.116	10.209	10.303
1.7	I	F'	-4.627	-4.623	-4.620	-4.617	-4.615	-4.613	-4.612	-4.611	-4.612	-4.612
	I	F''	10.397	10.491	10.586	10.680	10.775	10.871	10.966	11.062	11.158	11.254
1.8	I	F'	-4.614	-4.615	-4.618	-4.621	-4.625	-4.629	-4.634	-4.639	-4.645	-4.652
	I	F''	11.350	11.447	11.543	11.641	11.738	11.835	11.933	12.031	12.129	12.227
1.9	I	F'	-4.659	-4.667	-4.675	-4.684	-4.693	-4.704	-4.722	-4.733	-4.745	-4.757
	I	F''	12.326	12.425	12.524	12.623	12.723	12.822	12.922	13.022	13.122	13.222
2.0	I	F'	-4.771	-4.784	-4.798	-4.813	-4.829	-4.845	-4.861	-4.879	-4.896	-4.915
	I	F''	13.323	13.423	13.524	13.625	13.726	13.828	13.930	14.031	14.133	14.236
2.1	I	F'	-4.934	-4.953	-4.973	-4.994	-5.015	-5.037	-5.060	-5.083	-5.107	-5.131
	I	F''	14.338	14.441	14.544	14.647	14.750	14.853	14.957	15.060	15.164	15.268
2.2	I	F'	-5.156	-5.182	-5.208	-5.235	-5.263	-5.291	-5.320	-5.349	-5.379	-5.410
	I	F''	15.373	15.477	15.582	15.687	15.792	15.897	16.002	16.108	16.213	16.319
2.3	I	F'	-5.441	-5.487	-5.520	-5.554	-5.588	-5.623	-5.659	-5.695	-5.732	-5.772
	I	F''	16.425	16.531	16.637	16.744	16.850	16.956	17.063	17.170	17.277	17.384
2.4	I	F'	-5.810	-5.863	-5.903	-5.944	-5.985	-6.028	-6.070	-6.114	-6.158	-6.203
	I	F''	17.491	17.598	17.706	17.813	17.920	18.028	18.136	18.244	18.352	18.460
2.5	I	F'	-6.249	-6.296	-6.343	-6.391	-6.440	-6.490	-6.540	-6.592	-6.644	-6.706
	I	F''	18.568	18.676	18.785	18.894	19.002	19.111	19.220	19.330	19.439	19.548
2.6	I	F'	-6.760	-6.814	-6.870	-6.926	-6.983	-7.042	-7.101	-7.161	-7.222	-7.284
	I	F''	19.657	19.767	19.876	19.986	20.095	20.205	20.315	20.425	20.535	20.646
2.7	I	F'	-7.347	-7.410	-7.475	-7.541	-7.608	-7.676	-7.745	-7.816	-7.887	-7.960
	I	F''	20.756	20.866	20.977	21.088	21.199	21.310	21.421	21.532	21.643	21.754
2.8	I	F'	-8.033	-8.108	-8.185	-8.262	-8.341	-8.422	-8.504	-8.587	-8.672	-8.759
	I	F''	21.866	21.977	22.089	22.201	22.313	22.425	22.537	22.649	22.761	22.874

ATOMIC SYMBOL = U

ATOMIC NUMBER = 92

		I	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	I	F'										
	I	F''	2.679	0.720	0.837	0.961	1.092	1.229	-2.804	-2.705	-2.618	-2.541
0.2	I	F'	-2.472	-2.410	-2.355	-2.306	-2.263	-2.226	-2.195	-2.170	-2.151	-2.142
	I	F''	2.007	2.179	2.356	2.538	2.726	2.918	3.115	3.317	3.523	3.733
0.3	I	F'	-2.141	-2.142	-2.150	-2.165	-2.188	-2.218	-2.256	-2.308	-2.364	-2.430
	I	F''	3.947	4.165	4.386	4.612	4.841	5.074	5.311	5.550	5.794	6.040
0.4	I	F'	-2.506	-2.594	-2.693	-2.805	-2.932	-3.073	-3.238	-3.413	-3.608	-3.825
	I	F''	6.291	6.544	6.801	7.061	7.324	7.590	7.858	8.127	8.398	8.672
0.5	I	F'	-4.070	-4.347	-4.664	-5.032	-5.471	-6.027	-6.787	-9.201	-8.139	-9.832
	I	F''	8.949	9.228	9.510	9.795	10.082	10.369	10.656	9.474	9.745	10.017
0.6	I	F'	-8.510	-7.879	-7.627	-7.537	-7.551	-7.646	-7.817	-8.073	-8.424	-8.935
	I	F''	7.258	7.470	7.683	7.898	8.116	8.336	8.558	8.782	9.007	9.234
0.7	I	F'	-9.637	-10.791	-14.068	-11.846	-10.382	-9.606	-9.078	-8.681	-8.360	-8.093
	I	F''	9.454	9.674	9.895	4.153	4.244	4.336	4.429	4.522	4.616	4.711
0.8	I	F'	-7.864	-7.665	-7.488	-7.329	-7.185	-7.056	-6.936	-6.824	-6.721	-6.625
	I	F''	4.807	4.903	4.999	5.097	5.195	5.294	5.393	5.493	5.593	5.694
0.9	I	F'	-6.537	-6.452	-6.373	-6.298	-6.228	-6.161	-6.098	-6.038	-5.981	-5.927
	I	F''	5.796	5.899	6.002	6.105	6.209	6.314	6.420	6.526	6.632	6.739
1.0	I	F'	-5.875	-5.826	-5.780	-5.735	-5.693	-5.653	-5.615	-5.578	-5.543	-5.510
	I	F''	6.847	6.956	7.065	7.174	7.284	7.395	7.506	7.618	7.730	7.843
1.1	I	F'	-5.479	-5.449	-5.424	-5.398	-5.372	-5.349	-5.326	-5.305	-5.285	-5.267
	I	F''	7.957	8.071	8.185	8.300	8.416	8.532	8.648	8.766	8.883	9.001
1.2	I	F'	-5.260	-5.244	-5.229	-5.216	-5.204	-5.193	-5.183	-5.174	-5.166	-5.160
	I	F''	9.120	9.238	9.358	9.477	9.598	9.718	9.840	9.961	10.083	10.206
1.3	I	F'	-5.155	-5.150	-5.148	-5.146	-5.145	-5.146	-5.147	-5.150	-5.155	-5.161
	I	F''	10.329	10.453	10.577	10.702	10.827	10.952	11.078	11.205	11.332	11.459
1.4	I	F'	-5.167	-5.174	-5.182	-5.191	-5.201	-5.212	-5.224	-5.237	-5.252	-5.267
	I	F''	11.586	11.713	11.840	11.968	12.096	12.224	12.353	12.482	12.611	12.741
1.5	I	F'	-5.283	-5.300	-5.319	-5.338	-5.358	-5.380	-5.402	-5.426	-5.450	-5.476
	I	F''	12.871	13.002	13.133	13.264	13.396	13.528	13.660	13.793	13.926	14.059
1.6	I	F'	-5.503	-5.531	-5.560	-5.590	-5.621	-5.653	-5.687	-5.725	-5.761	-5.799
	I	F''	14.193	14.327	14.462	14.597	14.732	14.867	15.003	15.139	15.275	15.412
1.7	I	F'	-5.837	-5.876	-5.917	-5.959	-6.003	-6.051	-6.097	-6.144	-6.192	-6.241
	I	F''	15.549	15.686	15.824	15.962	16.100	16.238	16.377	16.516	16.655	16.794
1.8	I	F'	-6.292	-6.344	-6.398	-6.453	-6.509	-6.572	-6.631	-6.692	-6.754	-6.817
	I	F''	16.934	17.074	17.215	17.355	17.496	17.637	17.778	17.920	18.061	18.203
1.9	I	F'	-6.882	-6.949	-7.017	-7.087	-7.159	-7.232	-7.307	-7.384	-7.462	-7.545
	I	F''	18.345	18.488	18.630	18.773	18.917	19.060	19.204	19.348	19.492	19.636
2.0	I	F'	-7.627	-7.712	-7.799	-7.888	-7.979	-8.073	-8.169	-8.268	-8.370	-8.475
	I	F''	19.781	19.926	20.071	20.216	20.362	20.507	20.653	20.800	20.946	21.093
2.1	I	F'	-8.583	-8.695	-8.811	-8.937	-9.062	-9.193	-9.329	-9.474	-9.628	-9.795
	I	F''	21.240	21.387	21.534	21.682	21.829	21.976	22.123	22.271	22.418	22.566
2.2	I	F'	-9.980	-10.195	-10.472	-10.939	-11.013	-10.825	-10.800	-10.831	-10.892	-10.962
	I	F''	22.714	22.863	23.011	23.159	23.355	22.355	22.652	22.801	22.950	23.101
2.3	I	F'	-11.060	-11.172	-11.298	-11.439	-11.598	-11.779	-11.991	-12.254	-12.626	-13.501
	I	F''	23.252	23.403	23.554	23.706	23.858	24.010	24.162	24.315	24.468	24.621
2.4	I	F'	-13.051	-12.765	-12.662	-12.627	-12.630	-12.656	-12.700	-12.757	-12.824	-12.901
	I	F''	23.302	23.453	23.605	23.757	23.909	24.061	24.214	24.366	24.519	24.672
2.5	I	F'	-12.986	-13.078	-13.176	-13.281	-13.391	-13.507	-13.625	-13.751	-13.882	-14.019
	I	F''	24.826	24.979	25.133	25.287	25.441	25.595	25.750	25.905	26.060	26.215
2.6	I	F'	-14.160	-14.307	-14.459	-14.616	-14.779	-14.947	-15.121	-15.302	-15.488	-15.671
	I	F''	26.370	26.526	26.682	26.838	26.994	27.150	27.307	27.464	27.621	27.778
2.7	I	F'	-15.871	-16.079	-16.294	-16.519	-16.758	-17.024	-17.280	-17.549	-17.834	-18.135
	I	F''	27.936	28.093	28.251	28.410	28.568	28.726	28.882	29.039	29.196	29.353
2.8	I	F'	-18.458	-18.805	-19.185	-19.608	-20.090	-20.664	-21.398	-22.506	-26.235	-23.151
	I	F''	29.510	29.667	29.825	29.982	30.140	30.297	30.455	30.613	30.771	26.480