

Supplementary material S3

Ro-vibrational energy values of the ground state of $^{16}\text{O}^{35}\text{Cl}^{16}\text{O}$

Electronic supplementary materials to:

High resolution ro-vibrational analysis of molecules in doublet electronic states: The ν_1 fundamental of chlorine dioxide ($^{16}\text{O}^{35}\text{Cl}^{16}\text{O}$) in the X^2B_1 electronic ground state

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^{a)} Quantum number J of the ground vibrational state
($J = N + 1/2$ is denoted as "+", $J = N - 1/2$ is denoted as "-").

^{b)} Energy value, $E/(hc)$ (in cm^{-1}).

Table.

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
1			2	
1	0	1	+	0.608229
1	0	1	−	0.613511
1	1	0	+	2.055505
1	1	0	−	2.095941
2	1	2	+	3.172207
2	1	2	−	3.194707
2	2	1	+	7.525439
2	2	1	−	7.606065
3	0	3	+	3.647231
3	0	3	−	3.659014
3	1	2	+	5.239538
3	1	2	−	5.271147
3	2	1	+	9.368208
3	2	1	−	9.432065
3	3	0	+	16.491961
3	3	0	−	16.617343
4	1	4	+	7.250602
4	1	4	−	7.267873
4	2	3	+	11.802258
4	2	3	−	11.857571
4	3	2	+	18.942731
4	3	2	−	19.046955
4	4	1	+	28.924545
4	4	1	−	29.095269
5	0	5	+	9.088916
5	0	5	−	9.105931
5	1	4	+	10.958742
5	1	4	−	10.995902
5	2	3	+	14.901888
5	2	3	−	14.955705
5	3	2	+	22.003159
5	3	2	−	22.095212
5	4	1	+	31.987677
5	4	1	−	32.134626
5	5	0	+	44.818865
5	5	0	−	45.035260
6	1	6	+	13.645369
6	1	6	−	13.662308
6	2	5	+	18.503520
6	2	5	−	18.553247
6	3	4	+	25.672946
6	3	4	−	25.757626
6	4	3	+	35.659524
6	4	3	−	35.790911
6	5	2	+	48.494047
6	5	2	−	48.684817

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
6	6	1	+	64.168129
6	6	1	−	64.430383
7	0	7	+	16.882613
7	0	7	−	16.903053
7	1	6	+	19.200125
7	1	6	−	19.244821
7	2	5	+	22.945130
7	2	5	−	23.000380
7	3	4	+	29.961094
7	3	4	−	30.041689
7	4	3	+	39.941810
7	4	3	−	40.062696
7	5	2	+	52.777897
7	5	2	−	52.950549
7	6	1	+	68.455301
7	6	1	−	68.690556
7	7	0	+	86.964010
7	7	0	−	87.272238
8	1	8	+	22.343644
8	1	8	−	22.361256
8	2	7	+	27.622193
8	2	7	−	27.671613
8	3	6	+	34.851325
8	3	6	−	34.929240
8	4	5	+	44.835608
8	4	5	−	44.949321
8	5	4	+	57.671738
8	5	4	−	57.831265
8	6	3	+	73.351202
8	6	3	−	73.566337
8	7	2	+	91.863219
8	7	2	−	92.143393
8	8	1	+	113.196695
8	8	1	−	113.550978
9	0	9	+	26.967891
9	0	9	−	26.989800
9	1	8	+	29.938984
9	1	8	−	29.991224
9	2	7	+	33.546450
9	2	7	−	33.608166
9	3	6	+	40.384904
9	3	6	−	40.462650
9	4	5	+	50.342701
9	4	5	−	50.451588
9	5	4	+	63.176604
9	5	4	−	63.326491

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
9	6	3	+	78.856916
9	6	3	−	79.056763
9	7	2	+	97.371275
9	7	2	−	97.629720
9	8	1	+	118.708076
9	8	1	−	119.033467
9	9	0	+	142.854946
9	9	0	−	143.255340
10	1	10	+	33.329635
10	1	10	−	33.348040
10	2	9	+	39.142825
10	2	9	−	39.195131
10	3	8	+	46.484464
10	3	8	−	46.561166
10	4	7	+	56.462563
10	4	7	−	56.568261
10	5	6	+	69.293361
10	5	6	−	69.436140
10	6	5	+	84.973288
10	6	5	−	85.161373
10	7	4	+	103.489075
10	7	4	−	103.730428
10	8	3	+	124.828447
10	8	3	−	125.130790
10	9	2	+	148.978702
10	9	2	−	149.349525
10	10	1	+	175.926144
10	10	1	−	176.372693
11	0	11	+	39.292906
11	0	11	−	39.316154
11	1	10	+	43.138194
11	1	10	−	43.197102
11	2	9	+	46.739622
11	2	9	−	46.810303
11	3	8	+	53.299494
11	3	8	−	53.379127
11	4	7	+	63.200117
11	4	7	−	63.304017
11	5	6	+	76.022881
11	5	6	−	76.160453
11	6	5	+	91.701039
11	6	5	−	91.880008
11	7	4	+	110.217329
11	7	4	−	110.445088
11	8	3	+	131.558558
11	8	3	−	131.842285

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
11	9	2	+	155.711602
11	9	2	−	156.058280
11	10	1	+	182.662534
11	10	1	−	183.078950
11	11	0	+	212.396336
11	11	0	−	212.889074
12	1	12	+	46.587302
12	1	12	−	46.606340
12	2	11	+	53.050057
12	2	11	−	53.104134
12	3	10	+	60.574264
12	3	10	−	60.652566
12	4	9	+	70.548429
12	4	9	−	70.651311
12	5	8	+	83.365830
12	5	8	−	83.499657
12	6	7	+	99.040817
12	6	7	−	99.212713
12	7	6	+	117.556637
12	7	6	−	117.773504
12	8	5	+	138.899011
12	8	5	−	139.167555
12	9	4	+	163.054278
12	9	4	−	163.381036
12	10	3	+	190.008226
12	10	3	−	190.399570
12	11	2	+	219.745668
12	11	2	−	220.207803
12	12	1	+	252.250292
12	12	1	−	252.789248
13	0	13	+	53.827914
13	0	13	−	53.850043
13	1	12	+	58.746612
13	1	12	−	58.810674
13	2	11	+	62.530464
13	2	11	−	62.610968
13	3	10	+	68.739464
13	3	10	−	68.824333
13	4	9	+	78.525009
13	4	9	−	78.628068
13	5	8	+	91.323346
13	5	8	−	91.454599
13	6	7	+	106.993245
13	6	7	−	107.159675
13	7	6	+	125.507534
13	7	6	−	125.715639

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1	2	
13	8	5	+	146.850315
13	8	5	−	147.106390
13	9	4	+	171.007245
13	9	4	−	171.317433
13	10	3	+	197.963759
13	10	3	−	198.334060
13	11	2	+	227.704464
13	11	2	−	228.140734
13	12	1	+	260.212917
13	12	1	−	260.720870
13	13	0	+	295.471555
13	13	0	−	296.056752
14	1	14	+	62.102194
14	1	14	−	62.121642
14	2	13	+	69.320026
14	2	13	−	69.376547
14	3	12	+	77.117566
14	3	12	−	77.198643
14	4	11	+	87.100544
14	4	11	−	87.203768
14	5	10	+	99.895533
14	5	10	−	100.025128
14	6	9	+	115.558919
14	6	9	−	115.721177
14	7	8	+	134.070517
14	7	8	−	134.271571
14	8	7	+	155.412916
14	8	7	−	155.658704
14	9	6	+	179.570936
14	9	6	−	179.867252
14	10	5	+	206.529573
14	10	5	−	206.882083
14	11	4	+	236.273182
14	11	4	−	236.687430
14	12	3	+	268.785167
14	12	3	−	269.266572
14	13	2	+	304.047861
14	13	2	−	304.601713
14	14	1	+	342.042493
14	14	1	−	342.673952
15	0	15	+	70.564032
15	0	15	−	70.585471
15	1	14	+	76.700711
15	1	14	−	76.767712
15	2	13	+	80.897074
15	2	13	−	80.987165

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
15	3	12	+	86.747979
15	3	12	−	86.840801
15	4	11	+	96.331701
15	4	11	−	96.436759
15	5	10	+	109.084815
15	5	10	−	109.213566
15	6	9	+	124.738479
15	6	9	−	124.897623
15	7	8	+	143.246065
15	7	8	−	143.441464
15	8	7	+	164.587225
15	8	7	−	164.824506
15	9	6	+	188.745729
15	9	6	−	189.030379
15	10	5	+	215.706037
15	10	5	−	216.043422
15	11	4	+	245.452200
15	11	4	−	245.847579
15	12	3	+	277.967435
15	12	3	−	278.425959
15	13	2	+	313.233955
15	13	2	−	313.760662
15	14	1	+	351.232904
15	14	1	−	351.832723
15	15	0	+	391.944360
15	15	0	−	392.622102
16	1	16	+	79.862507
16	1	16	−	79.882157
16	2	15	+	87.929947
16	2	15	−	87.988711
16	3	14	+	96.103585
16	3	14	−	96.189207
16	4	13	+	106.125020
16	4	13	−	106.230643
16	5	12	+	118.889028
16	5	12	−	119.017510
16	6	11	+	134.532489
16	6	11	−	134.689396
16	7	10	+	153.034649
16	7	10	−	153.225548
16	8	9	+	174.373629
16	8	9	−	174.603877
16	9	8	+	198.531967
16	9	8	−	198.806776
16	10	7	+	225.493473
16	10	7	−	225.817942

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
16	11	6	+	255.241833
16	11	6	−	255.620963
16	12	5	+	287.760044
16	12	5	−	288.198738
16	13	4	+	323.030172
16	13	4	−	323.533239
16	14	3	+	361.033265
16	14	3	−	361.605416
16	15	2	+	401.749331
16	15	2	−	402.395174
16	16	1	+	445.157353
16	16	1	−	445.881394
17	0	17	+	89.503406
17	0	17	−	89.524242
17	1	16	+	96.933047
17	1	16	−	97.002137
17	2	15	+	101.797894
17	2	15	−	101.896630
17	3	14	+	107.368260
17	3	14	−	107.471145
17	4	13	+	116.640062
17	4	13	−	116.749372
17	5	12	+	129.315044
17	5	12	−	129.443946
17	6	11	+	144.941733
17	6	11	−	145.097146
17	7	10	+	163.436745
17	7	10	−	163.624114
17	8	9	+	184.772504
17	8	9	−	184.996952
17	9	8	+	208.929968
17	9	8	−	209.196465
17	10	7	+	235.892169
17	10	7	−	236.205573
17	11	6	+	265.642356
17	11	6	−	266.007434
17	12	5	+	298.163263
17	12	5	−	298.584695
17	13	4	+	333.436786
17	13	4	−	333.919167
17	14	3	+	371.443861
17	14	3	−	371.991698
17	15	2	+	412.164413
17	15	2	−	412.782127
17	16	1	+	455.577366
17	16	1	−	456.269284

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
17	17	0	+	501.660668
17	17	0	−	502.431025
18	1	18	+	99.859350
18	1	18	−	99.879041
18	2	17	+	108.856066
18	2	17	−	108.916692
18	3	16	+	117.518839
18	3	16	−	117.608479
18	4	15	+	127.625574
18	4	15	−	127.734964
18	5	14	+	140.353138
18	5	14	−	140.482716
18	6	13	+	155.966605
18	6	13	−	156.121150
18	7	12	+	174.452832
18	7	12	−	174.637492
18	8	11	+	195.784222
18	8	11	−	196.003913
18	9	10	+	219.940037
18	9	10	−	220.199514
18	10	9	+	246.902389
18	10	9	−	247.206295
18	11	8	+	276.654011
18	11	8	−	277.006900
18	12	7	+	309.177324
18	12	7	−	309.583671
18	13	6	+	344.454029
18	13	6	−	344.918232
18	14	5	+	382.464926
18	14	5	−	382.991305
18	15	4	+	423.189849
18	15	4	−	423.782647
18	16	3	+	466.607652
18	16	3	−	467.271030
18	17	2	+	512.696232
18	17	2	−	513.434269
18	18	1	+	561.432560
18	18	1	−	562.249250
19	0	19	+	110.651092
19	0	19	−	110.671434
19	1	18	+	119.386908
19	1	18	−	119.455897
19	2	17	+	125.177738
19	2	17	−	125.283658
19	3	16	+	130.628530
19	3	16	−	130.742706

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
19	4	15	+	139.477732
19	4	15	−	139.593344
19	5	14	+	152.023446
19	5	14	−	152.154493
19	6	13	+	167.608373
19	6	13	−	167.762610
19	7	12	+	186.083414
19	7	12	−	186.266071
19	8	11	+	207.409152
19	8	11	−	207.624979
19	9	10	+	231.562469
19	9	10	−	231.816031
19	10	9	+	258.524381
19	10	9	−	258.820127
19	11	8	+	288.277016
19	11	8	−	288.619307
19	12	7	+	320.802430
19	12	7	−	321.195555
19	13	6	+	356.082094
19	13	6	−	356.530268
19	14	5	+	394.096654
19	14	5	−	394.604024
19	15	4	+	434.825836
19	15	4	−	435.396479
19	16	3	+	478.248416
19	16	3	−	478.886337
19	17	2	+	524.342232
19	17	2	−	525.051362
19	18	1	+	573.084209
19	18	1	−	573.868405
19	19	0	+	624.450409
19	19	0	−	625.313448
20	1	20	+	122.086437
20	1	20	−	122.106053
20	2	19	+	132.075706
20	2	19	−	132.137762
20	3	18	+	141.342132
20	3	18	−	141.435744
20	4	17	+	151.602246
20	4	17	−	151.716155
20	5	16	+	164.294701
20	5	16	−	164.427013
20	6	15	+	179.866705
20	6	15	−	180.021088
20	7	14	+	198.328979
20	7	14	−	198.510245

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
20	8	13	+	219.647670
20	8	13	−	219.860405
20	9	12	+	243.797555
20	9	12	−	244.046153
20	10	11	+	270.758382
20	10	11	−	271.047121
20	11	10	+	300.511572
20	11	10	−	300.844638
20	12	9	+	333.038761
20	12	9	−	333.420269
20	13	8	+	368.321149
20	13	8	−	368.755148
20	14	7	+	406.339206
20	14	7	−	406.829683
20	15	6	+	447.072534
20	15	6	−	447.623411
20	16	5	+	490.499821
20	16	5	−	491.114956
20	17	4	+	536.598836
20	17	4	−	537.282021
20	18	3	+	585.346455
20	18	3	−	586.101415
20	19	2	+	636.718698
20	19	2	−	637.549088
20	20	1	+	690.690774
20	20	1	−	691.600176
21	0	21	+	134.011448
21	0	21	−	134.031383
21	1	20	+	144.028374
21	1	20	−	144.096584
21	2	19	+	150.970193
21	2	19	−	151.081302
21	3	18	+	156.529115
21	3	18	−	156.654780
21	4	17	+	164.881314
21	4	17	−	165.005249
21	5	16	+	177.222043
21	5	16	−	177.356879
21	6	15	+	192.744376
21	6	15	−	192.899371
21	7	14	+	211.190107
21	7	14	−	211.370517
21	8	13	+	232.500161
21	8	13	−	232.710473
21	9	12	+	256.645585
21	9	12	−	256.890046

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
21	10	11	+	283.604622
21	10	11	−	283.887353
21	11	10	+	313.357871
21	11	10	−	313.682900
21	12	9	+	345.886480
21	12	9	−	346.257765
21	13	8	+	381.171341
21	13	8	−	381.592777
21	14	7	+	419.192719
21	14	7	−	419.668144
21	15	6	+	459.930076
21	15	6	−	460.463267
21	16	5	+	503.361998
21	16	5	−	503.956675
21	17	4	+	549.466178
21	17	4	−	550.126003
21	18	3	+	598.219435
21	18	3	−	598.948009
21	19	2	+	649.597743
21	19	2	−	650.398602
21	20	1	+	703.576276
21	20	1	−	704.452894
21	21	0	+	760.129458
21	21	0	−	761.085241
22	1	22	+	146.539501
22	1	22	−	146.558968
22	2	21	+	157.568633
22	2	21	−	157.631707
22	3	20	+	167.549330
22	3	20	−	167.646577
22	4	19	+	178.049334
22	4	19	−	178.168706
22	5	18	+	190.719983
22	5	18	−	190.856279
22	6	17	+	206.238638
22	6	17	−	206.394553
22	7	16	+	224.667250
22	7	16	−	224.847274
22	8	15	+	245.967015
22	8	15	−	246.175492
22	9	14	+	270.106851
22	9	14	−	270.347899
22	10	13	+	297.063326
22	10	13	−	297.340924
22	11	12	+	326.816093
22	11	12	−	327.134125

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
22	12	11	+	359.345738
22	12	11	−	359.708018
22	13	10	+	394.632800
22	13	10	−	395.043081
22	14	9	+	432.657311
22	14	9	−	433.119292
22	15	8	+	473.398571
22	15	8	−	473.915897
22	16	7	+	516.835052
22	16	7	−	517.411313
22	17	6	+	562.944362
22	17	6	−	563.583097
22	18	5	+	611.703256
22	18	5	−	612.407946
22	19	4	+	663.087655
22	19	4	−	663.861727
22	20	3	+	717.072696
22	20	3	−	717.919516
22	21	2	+	773.632768
22	21	2	−	774.555645
22	22	1	+	832.741577
22	22	1	−	833.743755
23	0	23	+	159.587311
23	0	23	−	159.606902
23	1	22	+	170.846829
23	1	22	−	170.914087
23	2	21	+	179.100606
23	2	21	−	179.215250
23	3	20	+	185.040613
23	3	20	−	185.177070
23	4	19	+	192.894066
23	4	19	−	193.028280
23	5	18	+	204.926862
23	5	18	−	205.066974
23	6	17	+	220.356592
23	6	17	−	220.513887
23	7	16	+	238.761173
23	7	16	−	238.941236
23	8	15	+	260.048640
23	8	15	−	260.255803
23	9	14	+	284.181650
23	9	14	−	284.419922
23	10	13	+	311.134719
23	10	13	−	311.407953
23	11	12	+	340.886413
23	11	12	−	341.198362

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
23	12	11	+	373.416675
23	12	11	−	373.771021
23	13	10	+	408.705643
23	13	10	−	409.106008
23	14	9	+	446.733082
23	14	9	−	447.183036
23	15	8	+	487.478110
23	15	8	−	487.981173
23	16	7	+	530.919068
23	16	7	−	531.478711
23	17	6	+	577.033470
23	17	6	−	577.653114
23	18	5	+	625.797996
23	18	5	−	626.481013
23	19	4	+	677.188515
23	19	4	−	677.938224
23	20	3	+	731.180114
23	20	3	−	731.999782
23	21	2	+	787.747153
23	21	2	−	788.639991
23	22	1	+	846.863305
23	22	1	−	847.832470
23	23	0	+	908.501621
23	23	0	−	909.550210
24	1	24	+	173.215684
24	1	24	−	173.234959
24	2	23	+	185.317961
24	2	23	−	185.381706
24	3	22	+	196.113992
24	3	22	−	196.214388
24	4	21	+	206.956731
24	4	21	−	207.081389
24	5	20	+	219.633782
24	5	20	−	219.775014
24	6	19	+	235.088598
24	6	19	−	235.247397
24	7	18	+	253.472121
24	7	18	−	253.652594
24	8	17	+	274.745444
24	8	17	−	274.951758
24	9	16	+	298.870283
24	9	16	−	299.106345
24	10	15	+	325.819026
24	10	15	−	326.088576
24	11	14	+	355.569002
24	11	14	−	355.875676

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
24	12	13	+	388.099426
24	12	13	−	388.446783
24	13	12	+	423.389977
24	13	12	−	423.781520
24	14	11	+	461.420119
24	14	11	−	461.859299
24	15	10	+	502.168766
24	15	10	−	502.658986
24	16	9	+	545.614111
24	16	9	−	546.158729
24	17	8	+	591.733560
24	17	8	−	592.335888
24	18	7	+	640.503715
24	18	7	−	641.167019
24	19	6	+	691.900378
24	19	6	−	692.627877
24	20	5	+	745.898591
24	20	5	−	746.693456
24	21	4	+	802.472671
24	21	4	−	803.338022
24	22	3	+	861.596263
24	22	3	−	862.535171
24	23	2	+	923.242395
24	23	2	−	924.257876
24	24	1	+	987.383530
24	24	1	−	988.478546
25	0	25	+	187.380201
25	0	25	−	187.399493
25	1	24	+	199.846100
25	1	24	−	199.912520
25	2	23	+	209.494120
25	2	23	−	209.609946
25	3	22	+	216.110956
25	3	22	−	216.256865
25	4	21	+	223.557330
25	4	21	−	223.703440
25	5	20	+	235.159732
25	5	20	−	235.306604
25	6	19	+	250.453142
25	6	19	−	250.614032
25	7	18	+	268.801366
25	7	18	−	268.982604
25	8	17	+	290.057876
25	8	17	−	290.263756
25	9	16	+	314.173060
25	9	16	−	314.407416

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
25	10	15	+	341.116472
25	10	15	−	341.382945
25	11	14	+	370.864030
25	11	14	−	371.166146
25	12	13	+	403.394118
25	12	13	−	403.735328
25	13	12	+	438.685899
25	13	12	−	439.069594
25	14	11	+	476.718500
25	14	11	−	477.148020
25	15	10	+	517.470601
25	15	10	−	517.949239
25	16	9	+	560.920231
25	16	9	−	561.451241
25	17	8	+	607.044678
25	17	8	−	607.631268
25	18	7	+	655.820449
25	18	7	−	656.465787
25	19	6	+	707.223281
25	19	6	−	707.930491
25	20	5	+	761.228159
25	20	5	−	762.000319
25	21	4	+	817.809357
25	21	4	−	818.649502
25	22	3	+	876.940487
25	22	3	−	877.851603
25	23	2	+	938.594551
25	23	2	−	939.579576
25	24	1	+	1002.743995
25	24	1	−	1003.805819
25	25	0	+	1069.360772
25	25	0	−	1070.502231
26	1	26	+	202.113028
26	1	26	−	202.132090
26	2	25	+	215.310458
26	2	25	−	215.374606
26	3	24	+	227.009118
26	3	24	−	227.112110
26	4	23	+	238.307327
26	4	23	−	238.437198
26	5	22	+	251.038278
26	5	22	−	251.185133
26	6	21	+	266.422927
26	6	21	−	266.585722
26	7	20	+	284.748426
26	7	20	−	284.930718

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
26	8	19	+	305.986351
26	8	19	−	306.192172
26	9	18	+	330.090297
26	9	18	−	330.323400
26	10	17	+	357.027288
26	10	17	−	357.291225
26	11	16	+	386.771663
26	11	16	−	387.069865
26	12	15	+	419.300874
26	12	15	−	419.636689
26	13	14	+	454.593502
26	13	14	−	454.970217
26	14	13	+	492.628293
26	14	13	−	493.049145
26	15	12	+	533.383665
26	15	12	−	533.851849
26	16	11	+	576.837467
26	16	11	−	577.356134
26	17	10	+	622.966850
26	17	10	−	623.539114
26	18	9	+	671.748223
26	18	9	−	672.377157
26	19	8	+	723.157243
26	19	8	−	723.845881
26	20	7	+	777.168835
26	20	7	−	777.920169
26	21	6	+	833.757227
26	21	6	−	834.574208
26	22	5	+	892.895991
26	22	5	−	893.781527
26	23	4	+	954.558102
26	23	4	−	955.515055
26	24	3	+	1018.715988
26	24	3	−	1019.747176
26	25	2	+	1085.341591
26	25	2	−	1086.449783
26	26	1	+	1154.406424
26	26	1	−	1155.594343
27	0	27	+	217.390722
27	0	27	−	217.409748
27	1	26	+	231.034990
27	1	26	−	231.100766
27	2	25	+	242.088846
27	2	25	−	242.204372
27	3	24	+	249.673003
27	3	24	−	249.826566

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
27	4	23	+	256.896386
27	4	23	−	257.055288
27	5	22	+	267.950117
27	5	22	−	268.105333
27	6	21	+	283.044034
27	6	21	−	283.209675
27	7	20	+	301.315958
27	7	20	−	301.499629
27	8	19	+	322.531394
27	8	19	−	322.737498
27	9	18	+	346.622318
27	9	18	−	346.854578
27	10	17	+	373.551704
27	10	17	−	373.813596
27	11	16	+	403.292070
27	11	16	−	403.586934
27	12	15	+	435.819816
27	12	15	−	436.150909
27	13	14	+	471.112872
27	13	14	−	471.483386
27	14	13	+	509.149557
27	14	13	−	509.562634
27	15	12	+	549.908001
27	15	12	−	550.366740
27	16	11	+	593.365846
27	16	11	−	593.873306
27	17	10	+	639.500094
27	17	10	−	640.059298
27	18	9	+	688.287044
27	18	9	−	688.900977
27	19	8	+	739.702265
27	19	8	−	740.373876
27	20	7	+	793.720618
27	20	7	−	794.452816
27	21	6	+	850.316276
27	21	6	−	851.111933
27	22	5	+	909.462771
27	22	5	−	910.324719
27	23	4	+	971.133044
27	23	4	−	972.064073
27	24	3	+	1035.299502
27	24	3	−	1036.302360
27	25	2	+	1101.934076
27	25	2	−	1103.011468
27	26	1	+	1171.008282
27	26	1	−	1172.162868

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
28	1	28	+	233.230103
28	1	28	−	233.248949
28	2	27	+	247.536318
28	2	27	−	247.600679
28	3	26	+	260.208811
28	3	26	−	260.313843
28	4	25	+	272.079234
28	4	25	−	272.213994
28	5	24	+	284.931741
28	5	24	−	285.084702
28	6	23	+	300.247735
28	6	23	−	300.415449
28	7	22	+	318.501362
28	7	22	−	318.686619
28	8	21	+	339.693373
28	8	21	−	339.900071
28	9	20	+	363.769458
28	9	20	−	364.001246
28	10	19	+	390.689959
28	10	19	−	390.950246
28	11	18	+	420.425418
28	11	18	−	420.717466
28	12	17	+	452.951062
28	12	17	−	453.278041
28	13	16	+	488.244091
28	13	16	−	488.609106
28	14	15	+	526.282348
28	14	15	−	526.688452
28	15	14	+	567.043641
28	15	14	−	567.493844
28	16	13	+	610.505384
28	16	13	−	611.002660
28	17	12	+	656.644415
28	17	12	−	657.191700
28	18	11	+	705.436907
28	18	11	−	706.037104
28	19	10	+	756.858338
28	19	10	−	757.514314
28	20	9	+	810.883493
28	20	9	−	811.598079
28	21	8	+	867.486486
28	21	8	−	868.262479
28	22	7	+	926.640804
28	22	7	−	927.480963
28	23	6	+	988.319352
28	23	6	−	989.226399

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
28	24	5	+	1052.494511
28	24	5	−	1053.471127
28	25	4	+	1119.138199
28	25	4	−	1120.187024
28	26	3	+	1188.221931
28	26	3	−	1189.345566
29	0	29	+	249.618885
29	0	29	−	249.637673
29	1	28	+	264.421874
29	1	28	−	264.487189
29	2	27	+	276.847085
29	2	27	−	276.961520
29	3	26	+	285.649163
29	3	26	−	285.808290
29	4	25	+	292.907955
29	4	25	−	293.079593
29	5	24	+	303.335774
29	5	24	−	303.501050
29	6	23	+	318.142117
29	6	23	−	318.313619
29	7	22	+	336.310900
29	7	22	−	336.498083
29	8	21	+	357.472992
29	8	21	−	357.680575
29	9	20	+	381.532066
29	9	20	−	381.763722
29	10	19	+	408.442295
29	10	19	−	408.701378
29	11	18	+	438.171879
29	11	18	−	438.461582
29	12	17	+	470.694730
29	12	17	−	471.018145
29	13	16	+	505.987237
29	13	16	−	506.347387
29	14	15	+	544.026714
29	14	15	−	544.426570
29	15	14	+	584.790611
29	15	14	−	585.233102
29	16	13	+	628.256090
29	16	13	−	628.744107
29	17	12	+	674.399807
29	17	12	−	674.936206
29	18	11	+	723.197799
29	18	11	−	723.785403
29	19	10	+	774.625438
29	19	10	−	775.267038

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
29	20	9	+	828.657429
29	20	9	−	829.355783
29	21	8	+	885.267822
29	21	8	−	886.025655
29	22	7	+	944.430053
29	22	7	−	945.250055
29	23	6	+	1006.116986
29	23	6	−	1007.001811
29	24	5	+	1070.300974
29	24	5	−	1071.253240
29	25	4	+	1136.953915
29	25	4	−	1137.976203
29	26	3	+	1206.047321
29	26	3	−	1207.142173
30	1	30	+	266.565770
30	1	30	−	266.584408
30	2	29	+	281.988589
30	2	29	−	282.053043
30	3	28	+	295.689686
30	3	28	−	295.796254
30	4	27	+	308.246556
30	4	27	−	308.385712
30	5	26	+	321.307611
30	5	26	−	321.466837
30	6	25	+	336.568287
30	6	25	−	336.741683
30	7	24	+	354.736447
30	7	24	−	354.925648
30	8	23	+	375.870419
30	8	23	−	376.079145
30	9	22	+	399.910488
30	9	22	−	400.142322
30	10	21	+	426.808959
30	10	21	−	427.067204
30	11	20	+	456.531623
30	11	20	−	456.819410
30	12	19	+	489.050936
30	12	19	−	489.371286
30	13	18	+	524.342385
30	13	18	−	524.698246
30	14	17	+	562.382699
30	14	17	−	562.776966
30	15	16	+	603.148931
30	15	16	−	603.584455
30	16	15	+	646.617966
30	16	15	−	647.097561

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
1			2	
30	17	14	+	692.766258
30	17	14	−	693.292705
30	18	13	+	741.569693
30	18	13	−	742.145742
30	19	12	+	793.003531
30	19	12	−	793.631900
30	20	11	+	847.042386
30	20	11	−	847.725761
30	21	10	+	903.660238
30	21	10	−	904.401277
30	22	9	+	962.830467
30	22	9	−	963.631793
30	23	8	+	1024.525892
30	23	8	−	1025.390097
30	24	7	+	1088.718832
30	24	7	−	1089.648472
30	25	6	+	1155.381163
30	25	6	−	1156.378760
30	26	5	+	1224.484390
30	26	5	−	1225.552429
31	0	31	+	284.064331
31	0	31	−	284.082909
31	1	30	+	300.012902
31	1	30	−	300.077899
31	2	29	+	313.756544
31	2	29	−	313.869715
31	3	28	+	323.955716
31	3	28	−	324.118070
31	4	27	+	331.557404
31	4	27	−	331.740834
31	5	26	+	341.360006
31	5	26	−	341.537074
31	6	25	+	355.764440
31	6	25	−	355.942947
31	7	24	+	373.793079
31	7	24	−	373.984737
31	8	23	+	394.886803
31	8	23	−	395.096930
31	9	22	+	418.905111
31	9	22	−	419.137411
31	10	21	+	445.790204
31	10	21	−	446.047949
31	11	20	+	475.504825
31	11	20	−	475.791089
31	12	19	+	508.019797
31	12	19	−	508.337538

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
31	13	18	+	543.309609
31	13	18	−	543.661706
31	14	17	+	581.350343
31	14	17	−	581.739620
31	15	16	+	622.118616
31	15	16	−	622.547852
31	16	15	+	665.591007
31	16	15	−	666.062944
31	17	14	+	711.743746
31	17	14	−	712.261094
31	18	13	+	760.552557
31	18	13	−	761.117995
31	19	12	+	811.992574
31	19	12	−	812.608751
31	20	11	+	866.038312
31	20	11	−	866.707850
31	21	10	+	922.663676
31	21	10	−	923.389165
31	22	9	+	981.841981
31	22	9	−	982.625983
31	23	8	+	1043.546001
31	23	8	−	1044.391045
31	24	7	+	1107.748013
31	24	7	−	1108.656598
31	25	6	+	1174.419867
31	25	6	−	1175.394459
31	26	5	+	1243.533054
31	26	5	−	1244.576085
32	1	32	+	302.119024
32	1	32	−	302.137473
32	2	31	+	318.662472
32	2	31	−	318.726953
32	3	30	+	333.431841
32	3	30	−	333.539520
32	4	29	+	346.780980
32	4	29	−	346.923940
32	5	28	+	360.153567
32	5	28	−	360.319036
32	6	27	+	375.388147
32	6	27	−	375.567830
32	7	26	+	393.459404
32	7	26	−	393.653401
32	8	25	+	414.521691
32	8	25	−	414.733433
32	9	24	+	438.516280
32	9	24	−	438.749311

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
32	10	23	+	465.386290
32	10	23	−	465.643843
32	11	22	+	495.091661
32	11	22	−	495.376763
32	12	21	+	527.601429
32	12	21	−	527.916978
32	13	20	+	562.888979
32	13	20	−	563.237793
32	14	19	+	600.929684
32	14	19	−	601.314518
32	15	18	+	641.699676
32	15	18	−	642.123244
32	16	17	+	685.175199
32	16	17	−	685.640175
32	17	16	+	731.332243
32	17	16	−	731.841268
32	18	15	+	780.146349
32	18	15	−	780.702037
32	19	14	+	831.592513
32	19	14	−	832.197450
32	20	13	+	885.645146
32	20	13	−	886.301888
32	21	12	+	942.278066
32	21	12	−	942.989142
32	22	11	+	1001.464522
32	22	11	−	1002.232434
32	23	10	+	1063.177232
32	23	10	−	1064.004451
32	24	9	+	1127.388430
32	24	9	−	1128.277400
32	25	8	+	1194.069935
32	25	8	−	1195.023066
32	26	7	+	1263.193219
32	26	7	−	1264.212891
32	27	6	+	1334.729488
33	0	33	+	320.726468
33	0	33	−	320.744863
33	1	32	+	337.811963
33	1	32	−	337.876749
33	2	31	+	352.822065
33	2	31	−	352.934153
33	3	30	+	364.510950
33	3	30	−	364.674393
33	4	29	+	372.785144
33	4	29	−	372.978765
33	5	28	+	382.063154

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
33	5	28	—	382.253457
33	6	27	+	395.933940
33	6	27	—	396.120711
33	7	26	+	413.770737
33	7	26	—	413.967766
33	8	25	+	434.777358
33	8	25	—	434.990962
33	9	24	+	458.744450
33	9	24	—	458.978460
33	10	23	+	485.597486
33	10	23	—	485.855133
33	11	22	+	515.292312
33	11	22	—	515.576582
33	12	21	+	547.795949
33	12	21	—	548.109689
33	13	20	+	583.080567
33	13	20	—	583.426536
33	14	19	+	621.120753
33	14	19	—	621.501646
33	15	18	+	661.892116
33	15	18	—	662.310582
33	16	17	+	705.370528
33	16	17	—	705.829179
33	17	16	+	751.531713
33	17	16	—	752.033128
33	18	15	+	800.351017
33	18	15	—	800.897747
33	19	14	+	851.803287
33	19	14	—	852.397854
33	20	13	+	905.862815
33	20	13	—	906.507716
33	21	12	+	962.503329
33	21	12	—	963.201034
33	22	11	+	1021.698003
33	22	11	—	1022.450956
33	23	10	+	1083.419493
33	23	10	—	1084.230112
33	24	9	+	1147.639988
33	24	9	—	1148.510660
33	25	8	+	1214.331266
33	25	8	—	1215.264351
33	26	7	+	1283.464776
33	26	7	—	1284.462603
34	1	34	+	339.888915
34	1	34	—	339.907197
34	2	33	+	357.554671

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
34	2	33	—	357.619152
34	3	32	+	373.419269
34	3	32	—	373.527726
34	4	31	+	387.653512
34	4	31	—	387.799639
34	5	30	+	401.451650
34	5	30	—	401.623114
34	6	29	+	416.705505
34	6	29	—	416.894536
34	7	28	+	434.675923
34	7	28	—	434.875466
34	8	27	+	455.651688
34	8	27	—	455.867314
34	9	26	+	479.589921
34	9	26	—	479.825140
34	10	25	+	506.424062
34	10	25	—	506.682069
34	11	24	+	536.106960
34	11	24	—	536.390706
34	12	23	+	568.603474
34	12	23	—	568.915759
34	13	22	+	603.884439
34	13	22	—	604.227968
34	14	21	+	641.923583
34	14	21	—	642.300996
34	15	20	+	682.695936
34	15	20	—	683.109823
34	16	19	+	726.176969
34	16	19	—	726.629881
34	17	18	+	772.342116
34	17	18	—	772.836574
34	18	17	+	821.166507
34	18	17	—	821.705002
34	19	16	+	872.624827
34	19	16	—	873.209822
34	20	15	+	926.691241
34	20	15	—	927.325177
34	21	14	+	983.339376
34	21	14	—	984.024667
34	22	13	+	1042.542327
34	22	13	—	1043.281361
34	23	12	+	1104.272682
34	23	12	—	1105.067824
34	24	11	+	1168.502576
34	24	11	—	1169.356162
34	25	10	+	1235.203744

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
34	25	10	—	1236.118085
34	26	9	+	1304.347602
34	26	9	—	1305.324979
35	0	35	+	359.604550
35	0	35	—	359.622793
35	1	34	+	377.821208
35	1	34	—	377.885865
35	2	33	+	394.055426
35	2	33	—	394.166723
35	3	32	+	407.247586
35	3	32	—	407.410497
35	4	31	+	416.515079
35	4	31	—	416.719460
35	5	30	+	425.469006
35	5	30	—	425.673308
35	6	29	+	438.681032
35	6	29	—	438.877501
35	7	28	+	456.254117
35	7	28	—	456.457397
35	8	27	+	477.149701
35	8	27	—	477.367616
35	9	26	+	501.053297
35	9	26	—	501.289945
35	10	25	+	527.866307
35	10	25	—	528.124920
35	11	24	+	557.535792
35	11	24	—	557.819297
35	12	23	+	590.024122
35	12	23	—	590.335279
35	13	22	+	625.300662
35	13	22	—	625.642127
35	14	21	+	663.338200
35	14	21	—	663.712558
35	15	20	+	704.111133
35	15	20	—	704.520921
35	16	19	+	747.594495
35	16	19	—	748.042208
35	17	18	+	793.763403
35	17	18	—	794.251505
35	18	17	+	842.592754
35	18	17	—	843.123681
35	19	16	+	894.057055
35	19	16	—	894.633215
35	20	15	+	948.130335
35	20	15	—	948.754113
35	21	14	+	1004.786111

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
35	21	14	—	1005.459868
35	22	13	+	1063.997389
35	22	13	—	1064.723462
35	23	12	+	1125.736686
35	23	12	—	1126.517387
35	24	11	+	1189.976074
35	24	11	—	1190.813693
35	25	10	+	1256.687242
35	25	10	—	1257.584039
35	26	9	+	1325.841564
35	26	9	—	1326.799775
36	1	36	+	379.874492
36	1	36	—	379.892636
36	2	35	+	398.662857
36	2	35	—	398.727338
36	3	34	+	415.639742
36	3	34	—	415.748739
36	4	33	+	430.836156
36	4	33	—	430.984825
36	5	32	+	445.178758
36	5	32	—	445.355788
36	6	31	+	460.525121
36	6	31	—	460.718563
36	7	30	+	478.391268
36	7	30	—	478.597009
36	8	29	+	499.265189
36	8	29	—	499.485475
36	9	28	+	523.134709
36	9	28	—	523.372985
36	10	27	+	549.924498
36	10	27	—	550.183950
36	11	26	+	579.578998
36	11	26	—	579.862528
36	12	25	+	612.058014
36	12	25	—	612.368344
36	13	24	+	647.329304
36	13	24	—	647.669048
36	14	23	+	685.364630
36	14	23	—	685.736326
36	15	22	+	726.137702
36	15	22	—	726.543834
36	16	21	+	769.623075
36	16	21	—	770.066086
36	17	20	+	815.795522
36	17	20	—	816.277824
36	18	19	+	864.629689

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
36	18	19	—	865.153662
36	19	18	+	916.099889
36	19	18	—	916.667891
36	20	17	+	970.180002
36	20	17	—	970.794366
36	21	16	+	1026.843428
36	21	16	—	1027.506463
36	22	15	+	1086.063074
36	22	15	—	1086.777069
36	23	14	+	1147.811381
36	23	14	—	1148.578599
36	24	13	+	1212.060354
36	24	13	—	1212.883035
36	25	12	+	1278.781622
36	25	12	—	1279.661984
36	26	11	+	1347.946516
36	26	11	—	1348.886748
37	0	37	+	400.697722
37	0	37	—	400.715843
37	1	36	+	420.041588
37	1	36	—	420.106179
37	2	35	+	437.468617
37	2	35	—	437.579401
37	3	34	+	452.123674
37	3	34	—	452.285180
37	4	33	+	462.660771
37	4	33	—	462.868363
37	5	32	+	471.572395
37	5	32	—	471.790514
37	6	31	+	484.043958
37	6	31	—	484.251727
37	7	30	+	501.256425
37	7	30	—	501.466871
37	8	29	+	522.009561
37	8	29	—	522.232554
37	9	28	+	545.835116
37	9	28	—	546.075222
37	10	27	+	572.598953
37	10	27	—	572.859461
37	11	26	+	602.236773
37	11	26	—	602.520574
37	12	25	+	634.705267
37	12	25	—	635.015054
37	13	24	+	669.970428
37	13	24	—	670.308774
37	14	23	+	708.002895

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
37	14	23	—	708.372293
37	15	22	+	748.775631
37	15	22	—	749.178518
37	16	21	+	792.262670
37	16	21	—	792.701440
37	17	20	+	838.438415
37	17	20	—	838.915429
37	18	19	+	887.277236
37	18	19	—	887.794825
37	19	18	+	938.753237
37	19	18	—	939.313709
37	20	17	+	992.840139
37	20	17	—	993.445777
37	21	16	+	1049.511211
37	21	16	—	1050.164277
37	22	15	+	1108.739260
37	22	15	—	1109.441993
37	23	14	+	1170.496637
37	23	14	—	1171.251255
37	24	13	+	1234.755274
37	24	13	—	1235.563973
37	25	12	+	1301.486738
37	25	12	—	1302.351690
37	26	11	+	1370.662302
37	26	11	—	1371.585655
38	1	38	+	422.074780
38	1	38	—	422.092814
38	2	37	+	441.985289
38	2	37	—	442.049786
38	3	36	+	460.084327
38	3	36	—	460.193702
38	4	35	+	476.303358
38	4	35	—	476.453999
38	5	34	+	491.307780
38	5	34	—	491.489803
38	6	33	+	506.831317
38	6	33	—	507.031816
38	7	32	+	524.609686
38	7	32	—	524.822170
38	8	31	+	545.367192
38	8	31	—	545.592836
38	9	30	+	569.154167
38	9	30	—	569.396274
38	10	29	+	595.889947
38	10	29	—	596.151714
38	11	28	+	625.509315

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
38	11	28	—	625.793618
38	12	27	+	657.966005
38	12	27	—	658.275511
38	13	26	+	693.224100
38	13	26	—	693.561346
38	14	25	+	731.253017
38	14	25	—	731.620455
38	15	24	+	772.024907
38	15	24	—	772.424930
38	16	23	+	815.513241
38	16	23	—	815.948196
38	17	22	+	861.692018
38	17	22	—	862.164220
38	18	21	+	910.535312
38	18	21	—	911.047044
38	19	20	+	962.017002
38	19	20	—	962.570525
38	20	19	+	1016.110634
38	20	19	—	1016.708184
38	21	18	+	1072.789341
38	21	18	—	1073.433133
38	22	17	+	1132.025814
38	22	17	—	1132.718043
38	23	16	+	1193.792312
38	23	16	—	1194.535151
38	24	15	+	1258.060685
38	24	15	—	1258.856287
38	25	14	+	1324.802430
38	25	14	—	1325.652924
38	26	13	+	1393.988754
38	26	13	—	1394.896248
39	0	39	+	444.005045
39	0	39	—	444.023075
39	1	38	+	464.473274
39	1	38	—	464.537849
39	2	37	+	483.071080
39	2	37	—	483.181567
39	3	36	+	499.124502
39	3	36	—	499.284405
39	4	35	+	511.130832
39	4	35	—	511.341738
39	5	34	+	520.335510
39	5	34	—	520.566349
39	6	33	+	532.065865
39	6	33	—	532.286573
39	7	32	+	548.795153

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
39	7	32	—	549.013774
39	8	31	+	569.363625
39	8	31	—	569.592428
39	9	30	+	593.093668
39	9	30	—	593.337973
39	10	29	+	619.797849
39	10	29	—	620.061070
39	11	28	+	649.396826
39	11	28	—	649.681849
39	12	27	+	681.840350
39	12	27	—	682.149820
39	13	26	+	717.090381
39	13	26	—	717.426806
39	14	25	+	755.115013
39	14	25	—	755.480806
39	15	24	+	795.885512
39	15	24	—	796.283025
39	16	23	+	839.374740
39	16	23	—	839.806278
39	17	22	+	885.556262
39	17	22	—	886.024094
39	18	21	+	934.403829
39	18	21	—	934.910194
39	19	20	+	985.891080
39	19	20	—	986.438193
39	20	19	+	1039.991371
39	20	19	—	1040.581425
39	21	18	+	1096.677686
39	21	18	—	1097.312852
39	22	17	+	1155.922596
39	22	17	—	1156.605025
39	23	16	+	1217.698256
39	23	16	—	1218.430079
39	24	15	+	1281.976429
39	24	15	—	1282.759757
39	25	14	+	1348.728530
39	25	14	—	1349.565452
39	26	13	+	1417.925695
39	26	13	—	1418.818279
40	1	40	+	466.488764
40	1	40	—	466.506718
40	2	39	+	487.520555
40	2	39	—	487.585085
40	3	38	+	506.746699
40	3	38	—	506.856348
40	4	37	+	524.033030

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
40	4	37	—	524.185155
40	5	36	+	539.809104
40	5	36	—	539.995458
40	6	35	+	555.613307
40	6	35	—	555.820732
40	7	34	+	573.333658
40	7	34	—	573.553244
40	8	33	+	593.962767
40	8	33	—	594.194406
40	9	32	+	617.652051
40	9	32	—	617.898691
40	10	31	+	644.322895
40	10	31	—	644.587751
40	11	30	+	673.899512
40	11	30	—	674.185458
40	12	29	+	706.328424
40	12	29	—	706.638090
40	13	28	+	741.569336
40	13	28	—	741.905200
40	14	27	+	779.588898
40	14	27	—	779.953341
40	15	26	+	820.357425
40	15	26	—	820.752759
40	16	25	+	863.847118
40	16	25	—	864.275608
40	17	24	+	910.031072
40	17	24	—	910.494946
40	18	23	+	958.882693
40	18	23	—	959.384147
40	19	22	+	1010.375359
40	19	22	—	1010.916566
40	20	21	+	1064.482224
40	20	21	—	1065.065333
40	21	20	+	1121.176110
40	21	20	—	1121.803252
40	22	19	+	1180.429458
40	22	19	—	1181.102742
40	23	18	+	1242.214312
40	23	18	—	1242.935828
40	24	17	+	1306.502338
40	24	17	—	1307.274157
40	25	16	+	1373.264862
40	25	16	—	1374.089036
40	26	15	+	1442.472937
40	26	15	—	1443.351494
41	0	41	+	489.525510

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
41	0	41	—	489.543478
41	1	40	+	511.115931
41	1	40	—	511.180527
41	2	39	+	530.869290
41	2	39	—	530.979631
41	3	38	+	548.255000
41	3	38	—	548.413509
41	4	37	+	561.837155
41	4	37	—	562.049075
41	5	36	+	571.693585
41	5	36	—	571.935273
41	6	35	+	582.786540
41	6	35	—	583.021561
41	7	34	+	598.893652
41	7	34	—	599.121614
41	8	33	+	619.219976
41	8	33	—	619.455311
41	9	32	+	642.833090
41	9	32	—	643.082274
41	10	31	+	669.465570
41	10	31	—	669.732238
41	11	30	+	699.017589
41	11	30	—	699.304651
41	12	29	+	731.430354
41	12	29	—	731.740432
41	13	28	+	766.661025
41	13	28	—	766.996572
41	14	27	+	804.674687
41	14	27	—	805.038054
41	15	26	+	845.440622
41	15	26	—	845.834085
41	16	25	+	888.930320
41	16	25	—	889.356108
41	17	24	+	935.116370
41	17	24	—	935.576669
41	18	23	+	983.971805
41	18	23	—	984.468773
41	19	22	+	1035.469723
41	19	22	—	1036.005492
41	20	21	+	1089.583061
41	20	21	—	1090.159740
41	21	20	+	1146.284469
41	21	20	—	1146.904147
41	22	19	+	1205.546244
41	22	19	—	1206.210993
41	23	18	+	1267.340313

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
41	23	18	—	1268.052183
41	24	17	+	1331.638235
41	24	17	—	1332.399260
41	25	16	+	1398.411239
41	25	16	—	1399.223432
41	26	15	+	1467.630281
41	26	15	—	1468.495638
42	1	42	+	513.115383
42	1	42	—	513.133282
42	2	41	+	535.267401
42	2	41	—	535.331982
42	3	40	+	555.622446
42	3	40	—	555.732301
42	4	39	+	574.007053
42	4	39	—	574.160268
42	5	38	+	590.652307
42	5	38	—	590.842288
42	6	37	+	606.852185
42	6	37	—	607.066206
42	7	36	+	624.562247
42	7	36	—	624.789708
42	8	35	+	645.056821
42	8	35	—	645.295028
42	9	34	+	668.632344
42	9	34	—	668.884158
42	10	33	+	695.225979
42	10	33	—	695.494620
42	11	32	+	724.751263
42	11	32	—	725.039625
42	12	31	+	757.146264
42	12	31	—	757.456959
42	13	30	+	792.365508
42	13	30	—	792.700969
42	14	29	+	830.372390
42	14	29	—	830.734939
42	15	28	+	871.135074
42	15	28	—	871.526956
42	16	27	+	914.624286
42	16	27	—	915.047694
42	17	26	+	960.812070
42	17	26	—	961.269153
42	18	25	+	1009.671058
42	18	25	—	1010.163937
42	19	24	+	1061.174048
42	19	24	—	1061.704816
42	20	23	+	1115.293743

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
42	20	23	—	1115.864472
42	21	22	+	1172.002609
42	21	22	—	1172.615348
42	22	21	+	1231.272790
42	22	21	—	1231.929574
42	23	20	+	1293.076083
42	23	20	—	1293.778926
42	24	19	+	1357.383933
42	24	19	—	1358.134832
42	25	18	+	1424.167462
42	25	18	—	1424.968395
42	26	17	+	1493.397521
42	26	17	—	1494.250447
43	0	43	+	537.258045
43	0	43	—	537.275965
43	1	42	+	559.968901
43	1	42	—	560.033542
43	2	41	+	580.867246
43	2	41	—	580.977537
43	3	40	+	599.529111
43	3	40	—	599.686577
43	4	39	+	614.706812
43	4	39	—	614.917971
43	5	38	+	625.563813
43	5	38	—	625.814555
43	6	37	+	636.229350
43	6	37	—	636.479399
43	7	36	+	651.582547
43	7	36	—	651.821212
43	8	35	+	671.588744
43	8	35	—	671.831361
43	9	34	+	695.058002
43	9	34	—	695.312704
43	10	33	+	721.604868
43	10	33	—	721.875647
43	11	32	+	751.100771
43	11	32	—	751.390606
43	12	31	+	783.476284
43	12	31	—	783.787787
43	13	30	+	818.682846
43	13	30	—	819.018436
43	14	29	+	856.682014
43	14	29	—	857.043987
43	15	28	+	897.440749
43	15	28	—	897.831321
43	16	27	+	940.928953

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
43	16	27	—	941.350283
43	17	26	+	987.118082
43	17	26	—	987.572286
43	18	25	+	1035.980341
43	18	25	—	1036.469503
43	19	24	+	1087.488204
43	19	24	—	1088.014381
43	20	23	+	1141.614125
43	20	23	—	1142.179352
43	21	22	+	1198.330370
43	21	22	—	1198.936662
43	22	21	+	1257.608922
43	22	21	—	1258.258276
43	23	20	+	1319.421438
43	23	20	—	1320.115833
43	24	19	+	1383.739239
43	24	19	—	1384.480637
43	25	18	+	1450.533328
43	25	18	—	1451.323673
43	26	17	+	1519.774437
43	26	17	—	1520.615656
44	1	44	+	561.953524
44	1	44	—	561.971407
44	2	43	+	585.224641
44	2	43	—	585.289281
44	3	42	+	606.708458
44	3	42	—	606.818472
44	4	41	+	626.211274
44	4	41	—	626.365271
44	5	40	+	643.807823
44	5	40	—	644.000737
44	6	39	+	660.523995
44	6	39	—	660.744111
44	7	38	+	678.292187
44	7	38	—	678.527198
44	8	37	+	698.653695
44	8	37	—	698.898973
44	9	36	+	722.099223
44	9	36	—	722.356803
44	10	35	+	748.601993
44	10	35	—	748.875053
44	11	34	+	778.066314
44	11	34	—	778.357785
44	12	33	+	810.420541
44	12	33	—	810.733034
44	13	32	+	845.613097

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
44	13	32	—	845.949018
44	14	31	+	883.603566
44	14	31	—	883.965190
44	15	30	+	924.357612
44	15	30	—	924.747128
44	16	29	+	967.844251
44	16	29	—	968.263786
44	17	28	+	1014.034310
44	17	28	—	1014.485949
44	18	27	+	1062.899535
44	18	27	—	1063.385328
44	19	26	+	1114.412054
44	19	26	—	1114.934023
44	20	25	+	1168.544053
44	20	25	—	1169.104199
44	21	24	+	1225.267586
44	21	24	—	1225.867890
44	22	23	+	1284.554462
44	22	23	—	1285.196886
44	23	22	+	1346.376186
44	23	22	—	1347.062676
44	24	21	+	1410.703947
44	24	21	—	1411.436431
44	25	20	+	1477.508619
44	25	20	—	1478.289009
44	26	19	+	1546.760802
44	26	19	—	1547.590992
45	0	45	+	587.201517
45	0	45	—	587.219409
45	1	44	+	611.031312
45	1	44	—	611.096004
45	2	43	+	633.067143
45	2	43	—	633.177433
45	3	42	+	652.961968
45	3	42	—	653.118721
45	4	41	+	669.692842
45	4	41	—	669.902228
45	5	40	+	681.852714
45	5	40	—	682.109474
45	6	39	+	692.388809
45	6	39	—	692.653652
45	7	38	+	706.899910
45	7	38	—	707.150822
45	8	37	+	726.483051
45	8	37	—	726.733766
45	9	36	+	749.773695

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
45	9	36	—	750.034524
45	10	35	+	776.218699
45	10	35	—	776.494199
45	11	34	+	805.648166
45	11	34	—	805.941430
45	12	33	+	837.979165
45	12	33	—	838.292821
45	13	32	+	873.156318
45	13	32	—	873.492762
45	14	31	+	911.137048
45	14	31	—	911.498537
45	15	30	+	951.885623
45	15	30	—	952.274321
45	16	29	+	995.370107
45	16	29	—	995.788114
45	17	28	+	1041.560653
45	17	28	—	1042.010023
45	18	27	+	1090.428516
45	18	27	—	1090.911266
45	19	26	+	1141.945453
45	19	26	—	1142.463575
45	20	25	+	1196.083366
45	20	25	—	1196.638827
45	21	24	+	1252.814081
45	21	24	—	1253.408828
45	22	23	+	1312.109219
45	22	23	—	1312.745183
45	23	22	+	1373.940127
45	23	22	—	1374.619220
45	24	21	+	1438.277845
45	24	21	—	1439.001966
45	25	20	+	1505.093110
45	25	20	—	1505.864138
45	26	19	+	1574.356376
45	26	19	—	1575.176176
46	1	46	+	613.002021
46	1	46	—	613.019895
46	2	45	+	637.391090
46	2	45	—	637.455782
46	3	44	+	660.002459
46	3	44	—	660.112587
46	4	43	+	680.635097
46	4	43	—	680.789635
46	5	42	+	699.248397
46	5	42	—	699.443593
46	6	41	+	716.600773

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
46	6	41	—	716.826341
46	7	40	+	734.513987
46	7	40	—	734.756623
46	8	39	+	754.756612
46	8	39	—	755.009358
46	9	38	+	778.056982
46	9	38	—	778.320876
46	10	37	+	804.453894
46	10	37	—	804.731954
46	11	36	+	833.846492
46	11	36	—	834.141698
46	12	35	+	866.152286
46	12	35	—	866.467267
46	13	34	+	901.312565
46	13	34	—	901.649712
46	14	33	+	939.282459
46	14	33	—	939.644015
46	15	32	+	980.024737
46	15	32	—	980.412843
46	16	31	+	1023.506441
46	16	31	—	1023.923170
46	17	30	+	1069.697003
46	17	30	—	1070.144381
46	18	29	+	1118.567152
46	18	29	—	1119.047168
46	19	28	+	1170.088251
46	19	28	—	1170.602864
46	20	27	+	1224.231896
46	20	27	—	1224.783043
46	21	26	+	1280.969671
46	21	26	—	1281.559267
46	22	25	+	1340.272997
46	22	25	—	1340.902942
46	23	24	+	1402.113049
46	23	24	—	1402.785226
46	24	23	+	1466.460711
46	24	23	—	1467.176987
46	25	22	+	1533.286567
46	25	22	—	1534.048793
46	26	21	+	1602.560912
46	26	21	—	1603.370923
47	0	47	+	639.354739
47	0	47	—	639.372617
47	1	46	+	664.302136
47	1	46	—	664.366867
47	2	45	+	687.469935

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
47	2	45	—	687.580233
47	3	44	+	708.566157
47	3	44	—	708.722440
47	4	43	+	726.777038
47	4	43	—	726.984353
47	5	42	+	740.462390
47	5	42	—	740.722591
47	6	41	+	751.225912
47	6	41	—	751.504341
47	7	40	+	764.888379
47	7	40	—	765.153135
47	8	39	+	783.920263
47	8	39	—	784.180007
47	9	38	+	806.986406
47	9	38	—	807.253963
47	10	37	+	833.310272
47	10	37	—	833.591058
47	11	36	+	862.661649
47	11	36	—	862.958939
47	12	35	+	894.940040
47	12	35	—	895.256501
47	13	34	+	930.081891
47	13	34	—	930.419913
47	14	33	+	968.039795
47	14	33	—	968.401607
47	15	32	+	1008.774906
47	15	32	—	1009.162630
47	16	31	+	1052.253169
47	16	31	—	1052.668856
47	17	30	+	1098.443247
47	17	30	—	1098.888895
47	18	29	+	1147.315307
47	18	29	—	1147.792876
47	19	28	+	1198.840290
47	19	28	—	1199.351712
47	20	27	+	1252.989468
47	20	27	—	1253.536649
47	21	26	+	1309.734165
47	21	26	—	1310.318992
47	22	25	+	1369.045590
47	22	25	—	1369.669933
47	23	24	+	1430.894734
47	23	24	—	1431.560446
47	24	23	+	1495.252312
47	24	23	—	1495.961232
47	25	22	+	1562.088743

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
47	25	22	—	1562.842695
47	26	21	+	1631.374149
47	26	21	—	1632.174939
48	1	48	+	666.259655
48	1	48	—	666.277523
48	2	47	+	691.765538
48	2	47	—	691.830257
48	3	46	+	715.502665
48	3	46	—	715.612851
48	4	45	+	737.270850
48	4	45	—	737.425736
48	5	44	+	756.950143
48	5	44	—	757.147040
48	6	43	+	775.051968
48	6	43	—	775.282248
48	7	42	+	793.213539
48	7	42	—	793.463595
48	8	41	+	813.367654
48	8	41	—	813.627385
48	9	40	+	836.509879
48	9	40	—	836.780590
48	10	39	+	862.784804
48	10	39	—	863.068399
48	11	38	+	892.093707
48	11	38	—	892.393215
48	12	37	+	924.342553
48	12	37	—	924.660640
48	13	36	+	959.464349
48	13	36	—	959.803407
48	14	35	+	997.409049
48	14	35	—	997.771297
48	15	34	+	1038.136075
48	15	34	—	1038.523617
48	16	33	+	1081.610201
48	16	33	—	1082.025066
48	17	32	+	1127.799265
48	17	32	—	1128.243428
48	18	31	+	1176.672835
48	18	31	—	1177.148230
48	19	30	+	1228.201404
48	19	30	—	1228.709934
48	20	29	+	1282.355897
48	20	29	—	1282.899441
48	21	28	+	1339.107363
48	21	28	—	1339.687780
48	22	27	+	1398.426784

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
48	22	27	—	1399.045916
48	23	26	+	1460.284953
48	23	26	—	1460.944627
48	24	25	+	1524.652407
48	24	25	—	1525.354433
48	25	24	+	1591.499385
48	25	24	—	1592.245559
48	26	23	+	1660.795818
48	26	23	—	1661.587923
49	0	49	+	693.716466
49	0	49	—	693.734332
49	1	48	+	719.780234
49	1	48	—	719.844968
49	2	47	+	744.075753
49	2	47	—	744.186029
49	3	46	+	766.350799
49	3	46	—	766.506755
49	4	45	+	785.963251
49	4	45	—	786.168651
49	5	44	+	801.298765
49	5	44	—	801.559901
49	6	43	+	812.672881
49	6	43	—	812.962148
49	7	42	+	825.587360
49	7	42	—	825.867311
49	8	41	+	843.923454
49	8	41	—	844.193326
49	9	40	+	866.703749
49	9	40	—	866.978648
49	10	39	+	892.883120
49	10	39	—	893.169721
49	11	38	+	922.143199
49	11	38	—	922.445058
49	12	37	+	954.359971
49	12	37	—	954.679823
49	13	36	+	989.459990
49	13	36	—	989.800236
49	14	35	+	1027.390210
49	14	35	—	1027.753062
49	15	34	+	1068.108187
49	15	34	—	1068.495734
49	16	33	+	1111.577441
49	16	33	—	1111.991693
49	17	32	+	1157.764930
49	17	32	—	1158.207840
49	18	31	+	1206.639585

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
49	18	31	—	1207.113060
49	19	30	+	1258.171419
49	19	30	—	1258.677339
49	20	29	+	1312.330991
49	20	29	—	1312.871208
49	21	28	+	1369.089056
49	21	28	—	1369.665403
49	22	27	+	1428.416354
49	22	27	—	1429.030646
49	23	26	+	1490.283469
49	23	26	—	1490.937506
49	24	25	+	1554.660744
49	24	25	—	1555.356311
49	25	24	+	1621.518225
49	25	24	—	1622.257094
49	26	23	+	1690.825637
49	26	23	—	1691.609566
50	1	50	+	721.725152
50	1	50	—	721.743007
50	2	49	+	748.346732
50	2	49	—	748.411425
50	3	48	+	773.207553
50	3	48	—	773.317724
50	4	47	+	796.113086
50	4	47	—	796.268147
50	5	46	+	816.893133
50	5	46	—	817.091221
50	6	45	+	835.846077
50	6	45	—	836.080272
50	7	44	+	854.371269
50	7	44	—	854.628335
50	8	43	+	874.482487
50	8	43	—	874.751441
50	9	42	+	897.461887
50	9	42	—	897.739868
50	10	41	+	923.597986
50	10	41	—	923.887612
50	11	40	+	952.809953
50	11	40	—	953.114280
50	12	39	+	984.992409
50	12	39	—	985.314157
50	13	38	+	1020.068860
50	13	38	—	1020.410438
50	14	37	+	1057.983262
50	14	37	—	1058.346876
50	15	36	+	1098.691177

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
50	15	36	—	1099.078906
50	16	35	+	1142.154786
50	16	35	—	1142.568621
50	17	34	+	1188.340109
50	17	34	—	1188.781982
50	18	33	+	1237.215396
50	18	33	—	1237.687193
50	19	32	+	1288.750154
50	19	32	—	1289.253729
50	20	31	+	1342.914549
50	20	31	—	1343.451731
50	21	30	+	1399.679027
50	21	30	—	1400.251622
50	22	29	+	1459.014068
50	22	29	—	1459.623868
50	23	28	+	1520.890034
50	23	28	—	1521.538814
50	24	27	+	1585.277060
50	24	27	—	1585.966581
50	25	26	+	1652.144987
50	25	26	—	1652.876997
50	26	25	+	1721.463314
50	26	25	—	1722.239548
51	0	51	+	750.285395
51	0	51	—	750.303240
51	1	50	+	777.464373
51	1	50	—	777.529047
51	2	49	+	802.884177
51	2	49	—	802.994367
51	3	48	+	826.321900
51	3	48	—	826.477579
51	4	47	+	847.266646
51	4	47	—	847.470456
51	5	46	+	864.282971
51	5	46	—	864.543030
51	6	45	+	876.642228
51	6	45	—	876.941911
51	7	44	+	889.020602
51	7	44	—	889.316463
51	8	43	+	906.522668
51	8	43	—	906.803968
51	9	42	+	928.935350
51	9	42	—	929.218242
51	10	41	+	954.941212
51	10	41	—	955.234128
51	11	40	+	984.094906

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
51	11	40	—	984.401828
51	12	39	+	1016.240034
51	12	39	—	1016.563804
51	13	38	+	1051.291008
51	13	38	—	1051.634053
51	14	37	+	1089.188185
51	14	37	—	1089.552711
51	15	36	+	1129.884975
51	15	36	—	1130.273051
51	16	35	+	1173.342127
51	16	35	—	1173.755729
51	17	34	+	1219.524660
51	17	34	—	1219.965701
51	18	33	+	1268.400102
51	18	33	—	1268.870446
51	19	32	+	1319.937419
51	19	32	—	1320.438899
51	20	31	+	1374.106363
51	20	31	—	1374.640784
51	21	30	+	1430.877048
51	21	30	—	1431.446194
51	22	29	+	1490.219683
51	22	29	—	1490.825321
51	23	28	+	1552.104390
51	23	28	—	1552.748273
51	24	27	+	1616.501084
51	24	27	—	1617.184950
51	25	26	+	1683.379383
51	25	26	—	1684.104957
51	26	25	+	1752.708544
51	26	25	—	1753.477540
52	1	52	+	779.397180
52	1	52	—	779.415006
52	2	51	+	807.133358
52	2	51	—	807.197951
52	3	50	+	833.115718
52	3	50	—	833.225774
52	4	49	+	857.157931
52	4	49	—	857.312997
52	5	48	+	879.061480
52	5	48	—	879.260311
52	6	47	+	898.952266
52	6	47	—	899.189565
52	7	46	+	917.962638
52	7	46	—	918.226120
52	8	45	+	938.099183

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
52	8	45	—	938.376160
52	9	44	+	960.916304
52	9	44	—	961.201941
52	10	43	+	986.896806
52	10	43	—	987.192915
52	11	42	+	1015.997315
52	11	42	—	1016.306929
52	12	41	+	1048.102934
52	12	41	—	1048.428840
52	13	40	+	1083.126474
52	13	40	—	1083.471112
52	14	39	+	1121.004955
52	14	39	—	1121.370532
52	15	38	+	1161.689506
52	15	38	—	1162.078084
52	16	37	+	1205.139347
52	16	37	—	1205.552889
52	17	36	+	1251.318435
52	17	36	—	1251.758835
52	18	35	+	1300.193526
52	18	35	—	1300.662630
52	19	34	+	1351.733015
52	19	34	—	1352.232635
52	20	33	+	1405.906213
52	20	33	—	1406.438132
52	21	32	+	1462.682884
52	21	32	—	1463.248864
52	22	31	+	1522.032946
52	22	31	—	1522.634733
52	23	30	+	1583.926269
52	23	30	—	1584.565594
52	24	29	+	1648.332532
52	24	29	—	1649.011111
52	25	28	+	1715.221113
52	25	28	—	1715.940654
52	26	27	+	1784.561010
52	26	27	—	1785.323204
53	0	53	+	809.060170
53	0	53	—	809.077971
53	1	52	+	837.353237
53	1	52	—	837.417762
53	2	51	+	863.894423
53	2	51	—	864.004422
53	3	50	+	888.483070
53	3	50	—	888.638438
53	4	49	+	910.704913

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
53	4	49	—	910.907435
53	5	48	+	929.362130
53	5	48	—	929.619845
53	6	47	+	943.035066
53	6	47	—	943.341129
53	7	46	+	955.183739
53	7	46	—	955.495281
53	8	45	+	971.755032
53	8	45	—	972.049241
53	9	44	+	993.693740
53	9	44	—	993.985345
53	10	43	+	1019.489132
53	10	43	—	1019.788842
53	11	42	+	1048.519001
53	11	42	—	1048.831434
53	12	41	+	1080.581324
53	12	41	—	1080.909479
53	13	40	+	1115.575302
53	13	40	—	1115.921652
53	14	39	+	1153.433541
53	14	39	—	1153.800301
53	15	38	+	1194.104687
53	15	38	—	1194.493912
53	16	37	+	1237.546324
53	16	37	—	1237.959966
53	17	36	+	1283.721276
53	17	36	—	1284.161215
53	18	35	+	1332.595483
53	18	35	—	1333.063547
53	19	34	+	1384.136734
53	19	34	—	1384.634714
53	20	33	+	1438.313870
53	20	33	—	1438.843531
53	21	32	+	1495.096286
53	21	32	—	1495.659370
53	22	31	+	1554.453593
53	22	31	—	1555.051823
53	23	30	+	1616.355391
53	23	30	—	1616.990480
53	24	29	+	1680.771107
53	24	29	—	1681.444753
53	25	28	+	1747.669866
53	25	28	—	1748.383755
53	26	27	+	1817.020382
53	26	27	—	1817.776190
54	1	54	+	839.274354

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
54	1	54	—	839.292121
54	2	53	+	868.124045
54	2	53	—	868.188432
54	3	52	+	895.225784
54	3	52	—	895.335592
54	4	51	+	920.402555
54	4	51	—	920.557442
54	5	50	+	943.443026
54	5	50	—	943.642195
54	6	49	+	964.341822
54	6	49	—	964.581425
54	7	48	+	983.959100
54	7	48	—	984.228243
54	8	47	+	1004.206677
54	8	47	—	1004.491602
54	9	46	+	1026.875221
54	9	46	—	1027.168805
54	10	45	+	1052.684633
54	10	45	—	1052.987635
54	11	44	+	1081.657959
54	11	44	—	1081.973279
54	12	43	+	1113.675220
54	12	43	—	1114.005722
54	13	42	+	1148.637522
54	13	42	—	1148.985694
54	14	41	+	1186.473909
54	14	41	—	1186.841972
54	15	40	+	1227.130429
54	15	40	—	1227.520435
54	16	39	+	1270.562926
54	16	39	—	1270.976818
54	17	38	+	1316.733018
54	17	38	—	1317.172663
54	18	37	+	1365.605780
54	18	37	—	1366.072990
54	19	36	+	1417.148357
54	19	36	—	1417.644905
54	20	35	+	1471.329096
54	20	35	—	1471.856728
54	21	34	+	1528.116999
54	21	34	—	1528.677437
54	22	33	+	1587.481349
54	22	33	—	1588.076301
54	23	32	+	1649.391465
54	23	32	—	1650.022622
54	24	31	+	1713.816504

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
54	24	31	—	1714.485547
54	25	30	+	1780.725318
54	25	30	—	1781.433918
54	26	29	+	1850.086318
54	26	29	—	1850.836135
55	0	55	+	870.039374
55	0	55	—	870.057098
55	1	54	+	899.445435
55	1	54	—	899.509693
55	2	53	+	927.105443
55	2	53	—	927.215110
55	3	52	+	952.836205
55	3	52	—	952.991155
55	4	51	+	976.293538
55	4	51	—	976.494957
55	5	50	+	996.513196
55	5	50	—	996.768033
55	6	49	+	1011.748080
55	6	49	—	1012.057642
55	7	48	+	1024.038540
55	7	48	—	1024.364518
55	8	47	+	1039.662101
55	8	47	—	1039.970754
55	9	46	+	1060.995512
55	9	46	—	1061.296661
55	10	45	+	1086.532343
55	10	45	—	1086.839313
55	11	44	+	1115.417894
55	11	44	—	1115.736241
55	12	43	+	1147.384950
55	12	43	—	1147.717899
55	13	42	+	1182.313173
55	13	42	—	1182.663272
55	14	41	+	1220.126018
55	14	41	—	1220.495496
55	15	40	+	1260.766634
55	15	40	—	1261.157547
55	16	39	+	1304.189011
55	16	39	—	1304.603294
55	17	38	+	1350.353485
55	17	38	—	1350.792992
55	18	37	+	1399.224213
55	18	37	—	1399.690742
55	19	36	+	1450.767657
55	19	36	—	1451.262966
55	20	35	+	1504.951641

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
55	20	35	—	1505.477459
55	21	34	+	1561.744752
55	21	34	—	1562.302784
55	22	33	+	1621.115930
55	22	33	—	1621.707865
55	23	32	+	1683.034188
55	23	32	—	1683.661702
55	24	31	+	1747.468401
55	24	31	—	1748.133159
55	25	30	+	1814.387131
55	25	30	—	1815.090788
55	26	29	+	1883.758462
55	26	29	—	1884.502665
56	1	56	+	901.355227
56	1	56	—	901.372897
56	2	55	+	931.317351
56	2	55	—	931.381402
56	3	54	+	959.536348
56	3	54	—	959.645742
56	4	53	+	985.844768
56	4	53	—	985.999264
56	5	52	+	1010.028767
56	5	52	—	1010.227891
56	6	51	+	1031.989242
56	6	51	—	1032.230377
56	7	50	+	1052.329426
56	7	50	—	1052.603343
56	8	49	+	1072.790167
56	8	49	—	1073.082707
56	9	48	+	1095.338487
56	9	48	—	1095.640501
56	10	47	+	1120.964689
56	10	47	—	1121.274938
56	11	46	+	1149.794121
56	11	46	—	1150.115515
56	12	45	+	1181.710362
56	12	45	—	1182.045839
56	13	44	+	1216.602288
56	13	44	—	1216.954393
56	14	43	+	1254.389819
56	14	43	—	1254.760814
56	15	42	+	1295.013199
56	15	42	—	1295.405132
56	16	41	+	1338.424432
56	16	41	—	1338.839232
56	17	40	+	1384.582494

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
56	17	40	—	1385.022006
56	18	39	+	1433.450568
56	18	39	—	1433.916578
56	19	38	+	1484.994394
56	19	38	—	1485.488644
56	20	37	+	1539.181244
56	20	37	—	1539.705448
56	21	36	+	1595.979266
56	21	36	—	1596.535114
56	22	35	+	1655.357035
56	22	35	—	1655.946200
56	23	34	+	1717.283244
56	23	34	—	1717.907387
56	24	33	+	1781.726467
56	24	33	—	1782.387239
56	25	32	+	1848.654954
56	25	32	—	1849.353998
56	26	31	+	1918.036443
56	26	31	—	1918.775392
57	0	57	+	933.221532
57	0	57	—	933.239136
57	1	56	+	963.739498
57	1	56	—	963.803349
57	2	55	+	992.515999
57	2	55	—	992.625157
57	3	54	+	1019.382015
57	3	54	—	1019.536375
57	4	53	+	1044.044249
57	4	53	—	1044.244611
57	5	52	+	1065.737489
57	5	52	—	1065.989414
57	6	51	+	1082.681691
57	6	51	—	1082.991929
57	7	50	+	1095.516398
57	7	50	—	1095.855033
57	8	49	+	1110.282738
57	8	49	—	1110.607146
57	9	48	+	1130.862655
57	9	48	—	1131.174328
57	10	47	+	1156.077593
57	10	47	—	1156.392288
57	11	46	+	1184.794239
57	11	46	—	1185.118854
57	12	45	+	1216.652039
57	12	45	—	1216.990131
57	13	44	+	1251.504883

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
57	13	44	—	1251.859095
57	14	43	+	1289.265259
57	14	43	—	1289.637863
57	15	42	+	1329.870009
57	15	42	—	1330.263065
57	16	41	+	1373.269029
57	16	41	—	1373.684464
57	17	40	+	1419.419848
57	17	40	—	1419.859498
57	18	39	+	1468.284619
57	18	39	—	1468.750258
57	19	38	+	1519.828318
57	19	38	—	1520.321676
57	20	37	+	1574.017634
57	20	37	—	1574.540411
57	21	36	+	1630.820249
57	21	36	—	1631.374121
57	22	35	+	1690.204354
57	22	35	—	1690.790981
57	23	34	+	1752.138305
57	23	34	—	1752.759334
57	24	33	+	1816.590354
57	24	33	—	1817.247425
57	25	32	+	1883.528422
57	25	32	—	1884.223165
57	26	31	+	1952.919874
57	26	31	—	1953.653916
58	1	58	+	965.638295
58	1	58	—	965.655822
58	2	57	+	996.711767
58	2	57	—	996.775342
58	3	56	+	1026.045949
58	3	56	—	1026.154731
58	4	55	+	1053.482733
58	4	55	—	1053.636592
58	5	54	+	1078.812163
58	5	54	—	1079.010865
58	6	53	+	1101.872886
58	6	53	—	1102.114809
58	7	52	+	1123.041253
58	7	52	—	1123.318957
58	8	51	+	1143.829587
58	8	51	—	1144.129181
58	9	50	+	1166.304248
58	9	50	—	1166.614292
58	10	49	+	1191.739795

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
58	10	49	—	1192.057570
58	11	48	+	1220.408075
58	11	48	—	1220.735850
58	12	47	+	1252.209454
58	12	47	—	1252.550220
58	13	46	+	1287.020967
58	13	46	—	1287.377353
58	14	45	+	1324.752273
58	14	45	—	1325.126568
58	15	44	+	1365.336942
58	15	44	—	1365.731215
58	16	43	+	1408.722633
58	16	43	—	1409.138808
58	17	42	+	1454.865343
58	17	42	—	1455.305250
58	18	41	+	1503.726130
58	18	41	—	1504.191535
58	19	40	+	1555.269167
58	19	40	—	1555.761787
58	20	39	+	1609.460524
58	20	39	—	1609.982047
58	21	38	+	1666.267395
58	21	38	—	1666.819485
58	22	37	+	1725.657564
58	22	37	—	1726.241869
58	23	36	+	1787.599029
58	23	36	—	1788.217185
58	24	35	+	1852.059703
58	24	35	—	1852.713340
58	25	34	+	1919.007155
58	25	34	—	1919.697895
58	26	33	+	1988.408355
58	26	33	—	1989.137818
59	0	59	+	998.605109
59	0	59	—	998.622546
59	1	58	+	1030.233881
59	1	58	—	1030.297168
59	2	57	+	1060.124703
59	2	57	—	1060.233140
59	3	56	+	1088.120398
59	3	56	—	1088.273938
59	4	55	+	1113.965118
59	4	55	—	1114.164335
59	5	54	+	1137.050198
59	5	54	—	1137.299376
59	6	53	+	1155.750856

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
59	6	53	—	1156.059367
59	7	52	+	1169.527193
59	7	52	—	1169.875358
59	8	51	+	1183.641531
59	8	51	—	1183.982399
59	9	50	+	1203.323692
59	9	50	—	1203.647042
59	10	49	+	1228.133504
59	10	49	—	1228.456399
59	11	48	+	1256.651033
59	11	48	—	1256.982220
59	12	47	+	1288.383743
59	12	47	—	1288.727257
59	13	46	+	1323.150602
59	13	46	—	1323.509226
59	14	45	+	1360.850794
59	14	45	—	1361.226851
59	15	44	+	1401.413866
59	15	44	—	1401.809435
59	16	43	+	1444.785065
59	16	43	—	1445.202073
59	17	42	+	1490.918760
59	17	42	—	1491.359031
59	18	41	+	1539.774853
59	18	41	—	1540.240146
59	19	40	+	1591.316665
59	19	40	—	1591.808687
59	20	39	+	1645.509617
59	20	39	—	1646.030045
59	21	38	+	1702.320385
59	21	38	—	1702.870873
59	22	37	+	1761.716325
59	22	37	—	1762.298511
59	23	36	+	1823.665058
59	23	36	—	1824.280568
59	24	35	+	1888.134136
59	24	35	—	1888.784593
59	25	34	+	1955.090758
59	25	34	—	1955.777778
59	26	33	+	2024.501468
59	26	33	—	2025.226667
60	1	60	+	1032.121993
60	1	60	—	1032.139330
60	2	59	+	1064.305704
60	2	59	—	1064.368643
60	3	58	+	1094.753049

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
60	3	58	—	1094.860993
60	4	57	+	1123.314779
60	4	57	—	1123.467717
60	5	56	+	1149.788481
60	5	56	—	1149.986368
60	6	55	+	1173.975155
60	6	55	—	1174.217148
60	7	54	+	1196.062657
60	7	54	—	1196.343086
60	8	53	+	1217.300009
60	8	53	—	1217.605866
60	9	52	+	1239.765686
60	9	52	—	1240.083798
60	10	51	+	1265.012007
60	10	51	—	1265.337480
60	11	50	+	1293.502077
60	11	50	—	1293.836466
60	12	49	+	1325.173576
60	12	49	—	1325.519868
60	13	48	+	1359.893714
60	13	48	—	1360.254627
60	14	47	+	1397.560739
60	14	47	—	1397.938617
60	15	46	+	1438.100639
60	15	46	—	1438.497573
60	16	45	+	1481.456134
60	16	45	—	1481.874054
60	17	44	+	1527.579870
60	17	44	—	1528.020599
60	18	43	+	1576.430526
60	18	43	—	1576.895816
60	19	42	+	1627.970525
60	19	42	—	1628.462075
60	20	41	+	1682.164600
60	20	41	—	1682.684079
60	21	40	+	1738.978886
60	21	40	—	1739.527937
60	22	39	+	1798.380286
60	22	39	—	1798.960540
60	23	38	+	1860.336020
60	23	38	—	1860.949097
60	24	37	+	1924.813264
60	24	37	—	1925.460780
60	25	36	+	1991.778817
60	25	36	—	1992.462386
60	26	35	+	2061.198776

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
60	26	35	—	2061.920013
61	0	61	+	1066.188511
61	0	61	—	1066.205737
61	1	60	+	1098.926961
61	1	60	—	1098.989529
61	2	59	+	1129.930033
61	2	59	—	1130.037513
61	3	58	+	1159.050691
61	3	58	—	1159.203125
61	4	57	+	1186.061255
61	4	57	—	1186.259121
61	5	56	+	1210.470801
61	5	56	—	1210.717378
61	6	55	+	1230.895800
61	6	55	—	1231.200876
61	7	54	+	1245.968285
61	7	54	—	1246.323060
61	8	53	+	1259.736459
61	8	53	—	1260.093539
61	9	52	+	1278.413791
61	9	52	—	1278.750125
61	10	51	+	1302.711377
61	10	51	—	1303.042975
61	11	50	+	1330.991776
61	11	50	—	1331.329777
61	12	49	+	1362.581252
61	12	49	—	1362.930390
61	13	48	+	1397.250434
61	13	48	—	1397.613678
61	14	47	+	1434.882027
61	14	47	—	1435.261772
61	15	46	+	1475.397105
61	15	46	—	1475.795461
61	16	45	+	1518.735635
61	16	45	—	1519.154536
61	17	44	+	1564.848429
61	17	44	—	1565.289696
61	18	43	+	1613.692874
61	18	43	—	1614.158255
61	19	42	+	1665.230443
61	19	42	—	1665.721633
61	20	41	+	1719.425149
61	20	41	—	1719.943807
61	21	40	+	1776.242551
61	21	40	—	1776.790316
61	22	39	+	1835.649077

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
61	22	39	—	1836.227572
61	23	38	+	1897.611528
61	23	38	—	1898.222368
61	24	37	+	1962.096676
61	24	37	—	1962.741476
61	25	36	+	2029.070904
61	25	36	—	2029.751276
61	26	35	+	2098.499828
61	26	35	—	2099.217390
62	1	62	+	1100.804693
62	1	62	—	1100.821802
62	2	61	+	1134.097494
62	2	61	—	1134.159647
62	3	60	+	1165.656022
62	3	60	—	1165.762882
62	4	59	+	1195.339277
62	4	59	—	1195.490971
62	5	58	+	1222.954214
62	5	58	—	1223.150865
62	6	57	+	1248.282264
62	6	57	—	1248.523628
62	7	56	+	1271.363579
62	7	56	—	1271.645613
62	8	55	+	1293.172485
62	8	55	—	1293.483592
62	9	54	+	1315.712403
62	9	54	—	1316.038229
62	10	53	+	1340.782232
62	10	53	—	1341.115292
62	11	52	+	1369.078262
62	11	52	—	1369.419400
62	12	51	+	1400.603778
62	12	51	—	1400.955743
62	13	50	+	1435.220567
62	13	50	—	1435.586166
62	14	49	+	1472.814548
62	14	49	—	1473.196194
62	15	48	+	1513.303100
62	15	48	—	1513.702918
62	16	47	+	1556.623353
62	16	47	—	1557.043286
62	17	46	+	1602.724181
62	17	46	—	1603.166052
62	18	45	+	1651.561607
62	18	45	—	1652.027161
62	19	44	+	1703.096103

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
62	19	44	—	1703.587029
62	20	43	+	1757.290920
62	20	43	—	1757.808873
62	21	42	+	1814.111015
62	21	42	—	1814.657628
62	22	41	+	1873.522315
62	22	41	—	1874.099207
62	23	40	+	1935.491177
62	23	40	—	1936.099962
62	24	39	+	1999.983949
62	24	39	—	2000.626241
62	25	38	+	2066.966570
62	25	38	—	2067.643985
62	26	37	+	2136.404151
62	26	37	—	2137.118312
63	0	63	+	1135.970076
63	0	63	—	1135.987063
63	1	62	+	1169.817025
63	1	62	—	1169.878739
63	2	61	+	1201.930347
63	2	61	—	1202.036621
63	3	60	+	1232.171826
63	3	60	—	1232.322829
63	4	59	+	1260.335563
63	4	59	—	1260.531767
63	5	58	+	1286.017292
63	5	58	—	1286.261275
63	6	57	+	1298.501587
63	6	57	—	1308.387701
63	7	56	+	1309.860257
63	7	56	—	1325.090188
63	8	55	+	1338.531991
63	8	55	—	1338.903817
63	9	54	+	1356.172483
63	9	54	—	1356.523146
63	10	53	+	1379.826237
63	10	53	—	1380.167081
63	11	52	+	1407.820709
63	11	52	—	1408.165698
63	12	51	+	1439.245823
63	12	51	—	1439.600688
63	13	50	+	1473.804389
63	13	50	—	1474.172360
63	14	49	+	1511.358211
63	14	49	—	1511.741774
63	15	48	+	1551.818446

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
63	15	48	—	1552.219752
63	16	47	+	1595.119056
63	16	47	—	1595.540059
63	17	46	+	1641.206855
63	17	46	—	1641.649379
63	18	45	+	1690.036421
63	18	45	—	1690.502210
63	19	44	+	1741.567170
63	19	44	—	1742.057913
63	20	43	+	1795.761555
63	20	43	—	1796.278902
63	21	42	+	1852.583898
63	21	42	—	1853.129478
63	22	41	+	1911.999597
63	22	41	—	1912.575029
63	23	40	+	1973.974544
63	23	40	—	1974.581441
63	24	39	+	2038.474638
63	24	39	—	2039.114617
63	25	38	+	2105.465350
63	25	38	—	2106.140033
63	26	37	+	2174.911253
63	26	37	—	2175.622274
64	1	64	+	1171.684702
64	1	64	—	1171.701568
64	2	63	+	1206.085380
64	2	63	—	1206.146629
64	3	62	+	1238.753144
64	3	62	—	1238.858671
64	4	61	+	1269.554559
64	4	61	—	1269.704656
64	5	60	+	1298.306627
64	5	60	—	1324.732124
64	6	59	+	1324.783739
64	6	59	—	1325.023780
64	7	58	+	1347.448280
64	7	58	—	1349.199424
64	8	57	+	1371.415271
64	8	57	—	1371.730394
64	9	56	+	1388.813091
64	9	56	—	1394.461863
64	10	55	+	1419.047839
64	10	55	—	1419.389653
64	11	54	+	1447.138497
64	11	54	—	1447.486376
64	12	53	+	1478.501050

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
64	12	53	—	1478.858721
64	13	52	+	1513.001459
64	13	52	—	1513.371791
64	14	51	+	1550.512870
64	14	51	—	1550.898353
64	15	50	+	1590.942949
64	15	50	—	1591.345754
64	16	49	+	1634.222500
64	16	49	—	1634.644592
64	17	48	+	1680.296162
64	17	48	—	1680.739373
64	18	47	+	1729.116993
64	18	47	—	1729.583067
64	19	46	+	1780.643296
64	19	46	—	1781.133919
64	20	45	+	1834.836681
64	20	45	—	1835.353503
64	21	44	+	1891.660802
64	21	44	—	1892.205452
64	22	43	+	1951.080505
64	22	43	—	1951.654601
64	23	42	+	2013.061187
64	23	42	—	2013.666346
64	24	41	+	2077.568280
64	24	41	—	2078.206125
64	25	40	+	2144.566757
64	25	40	—	2145.238920
64	26	39	+	2214.020620
64	26	39	—	2214.728749
65	0	65	+	1207.948079
65	0	65	—	1207.964827
65	3	62	+	1242.902269
65	1	64	—	1242.963043
65	4	61	+	1276.123887
65	2	63	—	1276.228713
65	5	60	+	1307.482434
65	3	62	—	1307.631649
65	6	59	+	1336.789361
65	4	61	—	1336.983511
65	7	58	+	1363.703857
65	5	60	—	1364.093954
65	8	57	+	1387.321519
65	6	59	—	1387.617344
65	7	58	—	1396.064655
65	2	63	+	1403.709782
65	9	56	+	1405.714258

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
65	8	57	—	1420.346596
65	1	64	+	1428.981113
65	9	56	—	1437.003545
65	10	55	+	1459.498003
65	10	55	—	1459.848696
65	11	54	+	1487.143178
65	11	54	—	1487.495239
65	12	53	+	1518.378824
65	12	53	—	1518.739402
65	13	52	+	1552.812376
65	13	52	—	1553.185055
65	14	51	+	1590.278429
65	14	51	—	1590.665814
65	15	50	+	1630.676404
65	15	50	—	1631.080700
65	16	49	+	1673.933423
65	16	49	—	1674.356608
65	17	48	+	1719.991801
65	17	48	—	1720.435713
65	18	47	+	1768.802986
65	18	47	—	1769.269373
65	19	46	+	1820.324112
65	19	46	—	1820.814662
65	20	45	+	1874.515902
65	20	45	—	1875.032264
65	21	44	+	1931.341310
65	21	44	—	1931.885114
65	22	43	+	1990.764598
65	22	43	—	1991.337466
65	23	42	+	2052.750648
65	23	42	—	2053.354202
65	24	41	+	2117.264393
65	24	41	—	2117.900265
65	25	40	+	2184.270283
65	25	40	—	2184.940121
65	26	39	+	2253.731717
65	26	39	—	2254.437188
66	1	66	+	1244.760261
66	1	66	—	1244.776907
66	2	65	+	1280.267507
66	2	65	—	1280.327801
66	3	64	+	1314.042585
66	3	64	—	1314.146555
66	4	63	+	1345.958875
66	4	63	—	1346.107005
66	5	62	+	1375.843425

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
66	6	61	+	1403.471763
66	5	62	—	1403.592703
66	6	61	—	1419.961006
66	7	60	+	1427.708880
66	7	60	—	1434.257199
66	8	59	+	1443.870590
66	8	59	—	1452.312967
66	9	58	+	1469.701187
66	9	58	—	1475.333894
66	10	57	+	1499.807598
66	10	57	—	1500.156470
66	11	56	+	1527.684179
66	11	56	—	1528.038541
66	12	55	+	1558.866282
66	12	55	—	1559.229544
66	13	54	+	1593.236194
66	13	54	—	1593.611164
66	14	53	+	1630.654689
66	14	53	—	1631.043940
66	15	52	+	1671.018588
66	15	52	—	1671.424346
66	16	51	+	1714.251546
66	16	51	—	1714.675807
66	17	50	+	1760.293448
66	17	50	—	1760.738058
66	18	49	+	1809.094042
66	18	49	—	1809.560754
66	19	48	+	1860.609232
66	19	48	—	1861.099735
66	20	47	+	1914.798808
66	20	47	—	1915.314754
66	21	46	+	1971.624986
66	21	46	—	1972.168011
66	22	45	+	2031.051419
66	22	45	—	2031.623148
66	23	44	+	2093.042444
66	23	44	—	2093.644509
66	24	43	+	2157.562471
66	24	43	—	2158.196517
66	25	42	+	2224.575398
66	25	42	—	2225.243091
66	26	41	+	2294.043987
66	26	41	—	2294.747020
67	0	67	+	1282.120726
67	0	67	—	1282.137289
67	1	66	+	1318.180790

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
67	1	66	—	1318.240621
67	2	65	+	1352.508777
67	2	65	—	1352.611929
67	3	64	+	1384.980903
67	3	64	—	1385.127963
67	4	63	+	1415.422848
67	4	63	—	1415.621801
67	5	62	+	1443.540601
67	5	62	—	1451.995274
67	6	61	+	1455.747009
67	6	61	—	1468.903664
67	7	60	+	1469.420193
67	7	60	—	1477.893471
67	8	59	+	1488.823406
67	8	59	—	1504.327945
67	9	58	+	1516.338550
67	9	58	—	1520.216022
67	10	57	—	1542.113692
67	10	57	+	1547.238745
67	11	56	+	1568.966147
67	11	56	—	1569.325251
67	12	55	+	1599.981820
67	12	55	—	1600.347944
67	13	54	+	1634.274192
67	13	54	—	1634.651408
67	14	53	+	1671.641569
67	14	53	—	1672.032628
67	15	52	+	1711.969266
67	15	52	—	1712.376437
67	16	51	+	1755.176576
67	16	51	—	1755.601873
67	17	50	+	1801.200764
67	17	50	—	1801.646046
67	18	49	+	1849.989788
67	18	49	—	1850.456812
67	19	48	+	1901.498251
67	19	48	—	1901.988712
67	20	47	+	1955.684964
67	20	47	—	1956.200520
67	21	46	+	2012.511374
67	21	46	—	2013.053664
67	22	45	+	2071.940487
67	22	45	—	2072.511147
67	23	44	+	2133.936072
67	23	44	—	2134.536745
67	24	43	+	2198.461987

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
67	24	43	—	2199.094336
67	25	42	+	2265.481549
67	25	42	—	2266.147262
67	26	41	+	2334.956846
67	26	41	—	2335.657646
68	1	68	+	1320.029541
68	1	68	—	1320.046056
68	2	67	+	1356.641917
68	2	67	—	1356.701316
68	3	66	+	1391.522400
68	3	66	—	1391.624636
68	4	65	+	1424.550358
68	4	65	—	1424.696154
68	5	64	+	1455.562512
68	6	63	+	1484.340511
68	5	64	—	1484.503893
68	6	63	—	1503.932971
68	7	62	+	1510.036124
68	7	62	—	1519.833946
68	8	61	+	1525.768704
68	9	60	+	1531.153338
68	8	61	—	1541.119948
68	9	60	—	1558.628715
68	10	59	+	1577.494303
68	10	59	—	1583.408119
68	11	58	+	1601.175529
68	11	58	—	1611.076103
68	12	57	+	1641.700201
68	12	57	—	1642.068732
68	13	56	+	1675.924416
68	13	56	—	1676.303757
68	14	55	+	1713.238778
68	14	55	—	1713.631560
68	15	54	+	1753.528175
68	15	54	—	1753.936686
68	16	53	+	1796.708195
68	16	53	—	1797.134468
68	17	52	+	1842.713390
68	17	52	—	1843.159295
68	18	51	+	1891.489825
68	18	51	—	1891.957128
68	19	50	+	1942.990740
68	19	50	—	1943.481144
68	20	49	+	1997.173918
68	20	49	—	1997.689086
68	21	48	+	2053.999994

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
68	21	48	—	2054.541574
68	22	47	+	2113.431301
68	22	47	—	2114.000940
68	23	46	+	2175.431007
68	23	46	—	2176.030364
68	24	45	+	2239.962392
68	24	45	—	2240.593152
68	25	44	+	2306.988159
68	25	44	—	2307.652039
68	26	43	+	2376.469686
68	26	43	—	2377.168445
69	0	69	+	1358.486151
69	0	69	—	1358.502662
69	1	68	+	1395.650569
69	1	68	—	1395.709593
69	2	67	+	1431.083016
69	2	67	—	1431.184357
69	3	66	+	1464.665412
69	3	66	—	1464.809962
69	4	65	+	1496.235424
69	4	65	—	1496.424052
69	5	64	+	1505.470133
69	6	63	+	1525.591228
69	5	64	—	1552.266823
69	7	62	+	1552.510899
69	6	63	—	1558.284794
69	8	61	+	1567.617343
69	7	62	—	1574.341376
69	9	60	+	1577.175890
69	8	61	—	1590.744529
69	9	60	—	1610.818106
69	10	59	—	1626.993961
69	10	59	+	1634.831321
69	11	58	+	1653.298900
69	11	58	—	1653.664864
69	12	57	+	1684.056700
69	12	57	—	1684.428003
69	13	56	+	1718.189525
69	13	56	—	1718.570912
69	14	55	+	1755.446300
69	14	55	—	1755.840697
69	15	54	+	1795.695051
69	15	54	—	1796.104801
69	16	53	+	1838.846071
69	16	53	—	1839.273231
69	17	52	+	1884.830943

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
69	17	52	—	1885.277398
69	18	51	+	1933.593735
69	18	51	—	1934.061260
69	19	50	+	1985.086252
69	19	50	—	1985.576556
69	20	49	+	2039.265194
69	20	49	—	2039.779952
69	21	48	+	2096.090346
69	21	48	—	2096.631216
69	22	47	+	2155.523335
69	22	47	—	2156.091979
69	23	46	+	2217.526698
69	23	46	—	2218.124796
69	24	45	+	2282.063109
69	24	45	—	2282.692370
69	25	44	+	2349.094624
69	25	44	—	2349.756799
69	26	43	+	2418.581871
69	26	43	—	2419.278763
70	1	70	+	1397.490639
70	1	70	—	1397.507209
70	2	69	+	1435.206531
70	2	69	—	1435.265263
70	3	68	+	1471.190520
70	3	68	—	1471.290926
70	4	67	+	1505.327007
70	5	66	+	1537.461835
70	4	67	—	1537.645447
70	6	65	+	1567.340984
70	7	64	+	1579.413447
70	5	66	—	1590.343353
70	8	63	+	1594.877289
70	6	65	—	1595.154240
70	7	64	—	1605.763179
70	9	62	+	1617.335557
70	8	63	—	1620.354456
70	9	62	—	1644.316649
70	10	61	—	1669.132727
70	10	61	+	1670.047646
70	11	60	+	1696.237984
70	11	60	—	1696.597838
70	12	59	+	1727.003283
70	12	59	—	1727.376460
70	13	58	+	1761.065583
70	13	58	—	1761.448799
70	14	57	+	1798.263671

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
70	14	57	—	1798.659537
70	15	56	+	1838.469585
70	15	56	—	1838.880445
70	16	55	+	1881.589846
70	16	55	—	1882.017777
70	17	54	+	1927.553022
70	17	54	—	1927.999924
70	18	53	+	1976.301080
70	18	53	—	1976.768739
70	19	52	+	2027.784313
70	19	52	—	2028.274451
70	20	51	+	2081.958290
70	20	51	—	2082.472591
70	21	50	+	2138.781903
70	21	50	—	2139.322040
70	22	49	+	2198.216037
70	22	49	—	2198.783690
70	23	48	+	2260.222570
70	23	48	—	2260.819442
70	24	47	+	2324.763536
70	24	47	—	2325.391367
70	25	46	+	2391.800313
70	25	46	—	2392.460894
70	26	45	+	2461.292738
70	26	45	—	2461.987922
71	0	71	+	1437.042414
71	0	71	—	1437.059121
71	1	70	+	1475.309465
71	1	70	—	1475.368021
71	2	69	+	1511.844471
71	2	69	—	1511.943978
71	3	68	+	1546.533947
71	3	68	—	1546.675683
71	4	67	+	1579.225900
71	5	66	+	1609.688317
71	4	67	—	1609.952810
71	6	65	+	1621.722355
71	5	66	—	1637.726543
71	7	64	+	1637.789069
71	6	65	—	1643.969560
71	8	63	+	1661.182193
71	7	64	—	1661.524351
71	8	63	—	1668.771014
71	9	62	+	1679.081777
71	9	62	—	1694.799793
71	10	61	—	1714.525483

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
71	10	61	+	1724.692934
71	11	60	+	1740.153929
71	11	60	−	1740.526364
71	12	59	+	1770.605879
71	12	59	−	1770.981730
71	13	58	+	1804.557959
71	13	58	−	1804.942904
71	14	57	+	1841.691040
71	14	57	−	1842.088206
71	15	56	+	1881.851484
71	15	56	−	1882.263293
71	16	55	+	1924.939143
71	16	55	−	1925.367698
71	17	54	+	1970.879200
71	17	54	−	1971.326417
71	18	53	+	2019.611392
71	18	53	−	2020.079072
71	19	52	+	2071.084426
71	19	52	−	2071.574301
71	20	51	+	2125.252681
71	20	51	−	2125.766450
71	21	50	+	2182.074114
71	21	50	−	2182.613466
71	22	49	+	2241.508832
71	22	49	−	2242.075469
71	23	48	+	2303.518022
71	23	48	−	2304.113675
71	24	47	+	2368.063045
71	24	47	−	2368.689491
71	25	46	+	2435.104567
71	25	46	−	2435.763642
71	26	45	+	2504.601594
71	26	45	−	2505.295209
72	1	72	+	1477.141575
72	1	72	−	1477.158522
72	2	71	+	1515.959142
72	2	71	−	1516.017676
72	3	70	+	1553.044739
72	3	70	−	1553.143366
72	4	69	+	1588.286664
72	4	69	−	1588.426856
72	5	68	+	1621.539279
72	6	67	+	1652.603305
72	5	68	−	1652.830872
72	7	66	+	1680.970713
72	6	67	−	1681.517855

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
72	7	66	—	1694.394093
72	8	65	+	1696.230653
72	9	64	+	1707.437986
72	8	65	—	1712.553144
72	9	64	—	1732.365032
72	10	63	+	1752.285165
72	10	63	—	1757.313661
72	11	62	+	1784.532317
72	11	62	—	1784.600492
72	12	61	+	1814.775672
72	12	61	—	1815.152370
72	13	60	+	1848.658924
72	13	60	—	1849.045225
72	14	59	+	1885.727624
72	14	59	—	1886.125865
72	15	58	+	1925.840376
72	15	58	—	1926.252936
72	16	57	+	1968.893556
72	16	57	—	1969.322553
72	17	56	+	2014.809023
72	17	56	—	2015.256390
72	18	55	+	2063.524182
72	18	55	—	2063.991734
72	19	54	+	2114.986069
72	19	54	—	2115.475553
72	20	53	+	2169.147816
72	20	53	—	2169.660947
72	21	52	+	2225.966400
72	21	52	—	2226.504888
72	22	51	+	2285.401115
72	22	51	—	2285.966685
72	23	50	+	2347.412422
72	23	50	—	2348.006838
72	24	49	+	2411.960977
72	24	49	—	2412.586058
72	25	48	+	2479.006696
72	25	48	—	2479.664331
72	26	47	+	2548.507712
72	26	47	—	2549.199879
73	0	73	+	1517.787496
73	0	73	—	1517.804808
73	1	72	+	1557.155201
73	1	72	—	1557.213911
73	2	71	+	1594.790868
73	2	71	—	1594.888690
73	3	70	+	1630.584306

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
73	3	70	—	1630.723019
73	4	69	+	1664.392631
73	4	69	—	1664.573718
73	5	68	+	1696.005019
73	6	67	+	1707.971440
73	7	66	+	1725.243942
73	5	68	—	1725.298965
73	6	67	—	1732.016924
73	8	65	+	1750.384377
73	7	66	—	1750.718140
73	9	64	+	1769.881290
73	8	65	—	1770.441567
73	9	64	—	1784.218446
73	10	63	+	1797.368697
73	10	63	—	1804.742988
73	11	62	+	1829.547897
73	11	62	—	1829.926157
73	12	61	+	1859.632608
73	12	61	—	1860.012012
73	13	60	+	1893.379005
73	13	60	—	1893.766571
73	14	59	+	1930.373934
73	14	59	—	1930.773008
73	15	58	+	1970.435950
73	15	58	—	1970.849024
73	16	57	+	2013.452660
73	16	57	—	2013.881879
73	17	56	+	2059.342015
73	17	56	—	2059.789330
73	18	55	+	2108.038931
73	18	55	—	2108.506173
73	19	54	+	2159.488690
73	19	54	—	2159.977622
73	20	53	+	2213.643114
73	20	53	—	2214.155469
73	21	52	+	2270.458155
73	21	52	—	2270.995665
73	22	51	+	2329.892254
73	22	51	—	2330.456673
73	23	50	+	2391.905110
73	23	50	—	2392.498241
73	24	49	+	2456.456643
73	24	49	—	2457.080352
73	25	48	+	2523.505980
73	25	48	—	2524.162217
73	26	47	+	2593.010334

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
		1		2
73	26	47	—	2593.701153
74	1	74	+	1558.980291
74	1	74	—	1558.998124
74	2	73	+	1598.897397
74	2	73	—	1598.956532
74	3	72	+	1637.082707
74	3	72	—	1637.179814
74	4	71	+	1673.427010
74	4	71	—	1673.564125
74	5	70	+	1707.792596
74	6	69	+	1739.990754
74	5	70	—	1740.213327
74	7	68	+	1769.610518
74	6	69	—	1776.916043
74	8	67	+	1784.704759
74	7	68	—	1796.071801
74	9	66	+	1797.058061
74	8	67	—	1804.346000
74	10	65	+	1816.320181
74	9	66	—	1822.739562
74	10	65	—	1847.929325
74	11	64	+	1874.696072
74	11	64	—	1875.078081
74	12	63	+	1897.670523
74	12	63	—	1905.395312
74	13	62	+	1938.703397
74	13	62	—	1939.091586
74	14	61	+	1975.628580
74	14	61	—	1976.028157
74	15	60	+	2015.637748
74	15	60	—	2016.051051
74	16	59	+	2058.615996
74	16	59	—	2059.045175
74	17	58	+	2104.477669
74	17	58	—	2104.924690
74	18	57	+	2153.155094
74	18	57	—	2153.621804
74	19	56	+	2204.591710
74	19	56	—	2205.079889
74	20	55	+	2258.737967
74	20	55	—	2259.249369
74	21	54	+	2315.548742
74	21	54	—	2316.085125
74	22	53	+	2374.981583
74	22	53	—	2375.544737
74	23	52	+	2436.995395

Table (cont.)

N	K_a	K_c	$J^a)$	$E/(hc)^b)$
1			2	
74	23	52	—	2437.587162
74	24	51	+	2501.549322
74	24	51	—	2502.171624
74	25	50	+	2568.601663
74	25	50	—	2569.256519
74	26	49	+	2638.108667
74	26	49	—	2638.798217