#Relativistic Prolapse-Free Gaussian Basis Set of Quadruple-Zeta Quality: (aug-)RPF-4Z. II. The d-Block Elements

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#

#Supporting Information

#

#aug-RPF-4z

a 21

# Sc (Scandium)

# s-type functions

f 22 0 0

1.361791008E+07

2.556275465E+06

5.551291390E+05

1.377531063E+05

3.857994491E+04

1.204499023E+04

4.140642817E+03

1.548022877E+03

6.216802785E+02

2.648919364E+02

1.182807687E+02

5.466824254E+01

2.583232416E+01

1.232625272E+01

5.866373238E+00

2.750496982E+00

1.254837055E+00

5.502119240E-01

2.290187203E-01

8.938036276E-02

3.230540627E-02

1.068075830E-02

# p-type functions

f 16 0 0

1.240018858E+04

3.010337959E+03

8.765356301E+02

2.979657625E+02

1.151014362E+02

4.917992071E+01

2.262365275E+01

1.090637849E+01

5.363106943E+00

2.618457438E+00

1.235500334E+00

5.483825387E-01

2.228655224E-01

8.072272112E-02

2.536398286E-02

6.729502787E-03

# d-type functions

f 12 0 0

2.071459179E+02

5.540004700E+01

1.829724487E+01

7.112337932E+00

3.100983718E+00

1.445294371E+00

6.862654930E-01

3.163853328E-01

1.349702816E-01

5.077698400E-02

1.605505832E-02

4.066140818E-03

# f-type functions

f 4 0 0

1.235500334E+00

5.483825387E-01

2.228655224E-01

8.072272112E-02

# g-type functions

f 3 0 0

3.163853328E-01

1.349702816E-01

5.077698400E-02

# h-type functions

f 2 0 0

5.483825387E-01

2.228655224E-01

a 22

# Ti (titanium)

# s-type functions

f 22 0 0

1.302524683E+07

2.525880018E+06

5.645888088E+05

1.436945932E+05

4.113703856E+04

1.308596865E+04

4.569353983E+03

1.730117619E+03

7.017205122E+02

3.011731514E+02

1.351225070E+02

6.260288035E+01

2.958774982E+01

1.409212160E+01

6.681646098E+00

3.115509066E+00

1.411265920E+00

6.135059712E-01

2.528451688E-01

9.759156274E-02

3.484876988E-02

1.137302572E-02

# p-type functions

f 16 0 0

1.535788547E+04

3.507922979E+03

9.810760917E+02

3.259387686E+02

1.247948607E+02

5.342338463E+01

2.480771611E+01

1.212298366E+01

6.048480364E+00

2.989122518E+00

1.419542861E+00

6.285029537E-01

2.516904992E-01

8.844507901E-02

2.645906822E-02

6.537566269E-03

# d-type functions

f 12 0 0

2.244215807E+02

6.640364786E+01

2.326283217E+01

9.271507192E+00

4.039512601E+00

1.848724702E+00

8.539922777E-01

3.826025312E-01

1.597451581E-01

5.972653374E-02

1.921500202E-02

5.111176139E-03

# f-type functions

f 4 0 0

1.419542861E+00

6.285029537E-01

2.516904992E-01

8.844507901E-02

# g-type functions

f 3 0 0

8.539922777E-01

3.826025312E-01

1.597451581E-01

# h-type functions

f 2 0 0

6.285029537E-01

2.516904992E-01

a 23

# V (Vanadium)

# s-type functions

f 22 0 0

1.402990488E+07

2.752073598E+06

6.196134971E+05

1.582486835E+05

4.531277461E+04

1.437690565E+04

4.995480969E+03

1.878707708E+03

7.558124667E+02

3.214731553E+02

1.428742968E+02

6.557603176E+01

3.071996354E+01

1.451722804E+01

6.839699859E+00

3.175291751E+00

1.435576612E+00

6.246951934E-01

2.585901086E-01

1.006376552E-01

3.639291726E-02

1.208603627E-02

# p-type functions

f 16 0 0

1.756100190E+04

4.007694684E+03

1.117964263E+03

3.700293487E+02

1.410608132E+02

6.012091214E+01

2.780870137E+01

1.355060948E+01

6.752225347E+00

3.339888805E+00

1.591846085E+00

7.096449700E-01

2.872362032E-01

1.024665758E-01

3.127211618E-02

7.925949916E-03

# d-type functions

f 12 0 0

2.406270350E+02

7.257124067E+01

2.640954068E+01

1.109004373E+01

5.139036698E+00

2.513079153E+00

1.240242310E+00

5.907215086E-01

2.596778040E-01

1.007540746E-01

3.299636427E-02

8.722584411E-03

# f-type functions

f 4 0 0

1.591846085E+00

7.096449700E-01

2.872362032E-01

1.024665758E-01

# g-type functions

f 3 0 0

1.240242310E+00

5.907215086E-01

2.596778040E-01

# h-type functions

f 2 0 0

7.096449700E-01

2.872362032E-01

a 24

# Cr (Chromium)

# s-type functions

f 22 0 0

1.802630064E+07

3.394959134E+06

7.393705842E+05

1.838857269E+05

5.157635753E+04

1.611122891E+04

5.535292580E+03

2.065594014E+03

8.267998368E+02

3.505624441E+02

1.554885964E+02

7.124565879E+01

3.330454751E+01

1.568528792E+01

7.349940748E+00

3.384044972E+00

1.511847262E+00

6.472287087E-01

2.622069808E-01

9.927180269E-02

3.468656607E-02

1.104610090E-02

# p-type functions

f 16 0 0

1.960747797E+04

4.598427188E+03

1.304135080E+03

4.348087610E+02

1.656811891E+02

7.014295992E+01

3.207507680E+01

1.540142174E+01

7.549186872E+00

3.672168102E+00

1.723315160E+00

7.585136517E-01

3.044075325E-01

1.082872811E-01

3.319451497E-02

8.524301255E-03

# d-type functions

f 12 0 0

2.075082306E+02

6.325426617E+01

2.308175730E+01

9.645567899E+00

4.415927640E+00

2.118881346E+00

1.019382562E+00

4.704017897E-01

1.991852906E-01

7.403846807E-02

2.311132141E-02

5.795816842E-03

# f-type functions

f 4 0 0

1.723315160E+00

7.585136517E-01

3.044075325E-01

1.082872811E-01

# g-type functions

f 3 0 0

1.019382562E+00

4.704017897E-01

1.991852906E-01

# h-type functions

f 2 0 0

7.585136517E-01

3.044075325E-01

a 25

# Mn (Manganese)

# s-type functions

f 22 0 0

1.890813226E+07

3.508658563E+06

7.558645040E+05

1.866366050E+05

5.214820905E+04

1.627838562E+04

5.604699003E+03

2.101367198E+03

8.470322798E+02

3.623981710E+02

1.624799293E+02

7.536692553E+01

3.570827708E+01

1.706096834E+01

8.115677995E+00

3.794651985E+00

1.721808219E+00

7.485192024E-01

3.077982356E-01

1.181990487E-01

4.184910526E-02

1.348721805E-02

# p-type functions

f 16 0 0

2.640361549E+04

5.979786067E+03

1.645393078E+03

5.347202165E+02

1.995113505E+02

8.308140382E+01

3.753586296E+01

1.788572265E+01

8.737661868E+00

4.254257562E+00

2.006796222E+00

8.915482823E-01

3.626266393E-01

1.312680200E-01

4.111058941E-02

1.082817233E-02

# d-type functions

f 12 0 0

2.444807265E+02

7.586102116E+01

2.814111223E+01

1.192503244E+01

5.515956573E+00

2.661167960E+00

1.279561406E+00

5.859149762E-01

2.441405426E-01

8.845538415E-02

2.662777765E-02

6.363837370E-03

# f-type functions

f 4 0 0

2.006796222E+00

8.915482823E-01

3.626266393E-01

1.312680200E-01

# g-type functions

f 3 0 0

1.279561406E+00

5.859149762E-01

2.441405426E-01

# h-type functions

f 2 0 0

8.915482823E-01

3.626266393E-01

a 26

# Fe (Iron)

# s-type functions

f 22 0 0

2.023710697E+07

3.765837627E+06

8.124714734E+05

2.006738490E+05

5.602892995E+04

1.746125782E+04

5.997677791E+03

2.242011863E+03

9.006221243E+02

3.838839961E+02

1.714402744E+02

7.921071080E+01

3.738659720E+01

1.779965969E+01

8.440612276E+00

3.936456492E+00

1.782826057E+00

7.742607841E-01

3.183780267E-01

1.223993761E-01

4.344085610E-02

1.405411041E-02

# p-type functions

f 16 0 0

2.828520028E+04

6.195586774E+03

1.674435613E+03

5.411784202E+02

2.027317113E+02

8.531694325E+01

3.909349157E+01

1.890394278E+01

9.349799015E+00

4.584344982E+00

2.159735819E+00

9.475354796E-01

3.752191784E-01

1.299847673E-01

3.818044334E-02

9.216239101E-03

# d-type functions

f 12 0 0

3.194775408E+02

9.778159372E+01

3.573014347E+01

1.493886511E+01

6.849359735E+00

3.300473109E+00

1.601919176E+00

7.505636161E-01

3.253578201E-01

1.250564662E-01

4.084759989E-02

1.086642659E-02

# f-type functions

f 4 0 0

2.159735819E+00

9.475354796E-01

3.752191784E-01

1.299847673E-01

# g-type functions

f 3 0 0

1.601919176E+00

7.505636161E-01

3.253578201E-01

# h-type functions

f 2 0 0

9.475354796E-01

3.752191784E-01

a 27

# Co (Cobalt)

# s-type functions

f 22 0 0

2.139520176E+07

4.072861967E+06

8.948812373E+05

2.241616308E+05

6.323173161E+04

1.983967504E+04

6.839234171E+03

2.558595268E+03

1.026040889E+03

4.356567632E+02

1.934589060E+02

8.874527273E+01

4.153954369E+01

1.959683634E+01

9.203769200E+00

4.250585356E+00

1.906701863E+00

8.205699827E-01

3.346532180E-01

1.277522883E-01

4.509043578E-02

1.453416203E-02

# p-type functions

f 16 0 0

3.203769680E+04

6.845355291E+03

1.822402477E+03

5.849759246E+02

2.190830997E+02

9.263790963E+01

4.279661287E+01

2.090271158E+01

1.044480251E+01

5.166947023E+00

2.448700965E+00

1.075814170E+00

4.240043663E-01

1.450663736E-01

4.169253806E-02

9.740401598E-03

# d-type functions

f 12 0 0

3.628838287E+02

1.083900092E+02

3.921064543E+01

1.640871582E+01

7.586890666E+00

3.701983265E+00

1.820745459E+00

8.621263972E-01

3.753724008E-01

1.435443773E-01

4.604741453E-02

1.183538247E-02

# f-type functions

f 4 0 0

2.448700965E+00

1.075814170E+00

4.240043663E-01

1.450663736E-01

# g-type functions

f 3 0 0

1.820745459E+00

8.621263972E-01

3.753724008E-01

# h-type functions

f 2 0 0

1.075814170E+00

4.240043663E-01

a 28

# Ni (Nickel)

# s-type functions

f 22 0 0

2.059279954E+07

3.939334363E+06

8.678259261E+05

2.175431144E+05

6.131427963E+04

1.919915468E+04

6.599444725E+03

2.460583550E+03

9.832747599E+02

4.161197628E+02

1.842761335E+02

8.437771492E+01

3.947253059E+01

1.864109172E+01

8.781273462E+00

4.077125383E+00

1.843578614E+00

8.021967646E-01

3.319039515E-01

1.290199395E-01

4.656019181E-02

1.541298747E-02

# p-type functions

f 16 0 0

3.571255933E+04

7.736220974E+03

2.071601623E+03

6.646523954E+02

2.476482890E+02

1.038651818E+02

4.752695668E+01

2.299783020E+01

1.140649010E+01

5.620526121E+00

2.666878078E+00

1.181060299E+00

4.731786813E-01

1.662279036E-01

4.963063319E-02

1.220686958E-02

# d-type functions

f 12 0 0

4.325647814E+02

1.295554220E+02

4.650796008E+01

1.917448069E+01

8.699652636E+00

4.162167525E+00

2.012027458E+00

9.416777586E-01

4.088670813E-01

1.578086348E-01

5.188066372E-02

1.392078700E-02

# f-type functions

f 4 0 0

2.666878078E+00

1.181060299E+00

4.731786813E-01

1.662279036E-01

# g-type functions

f 3 0 0

2.012027458E+00

9.416777586E-01

4.088670813E-01

# h-type functions

f 2 0 0

1.181060299E+00

4.731786813E-01

a 29

# Cu (Copper)

# s-type functions

f 22 0 0

2.181663277E+07

4.160661003E+06

9.158663753E+05

2.298271819E+05

6.493434833E+04

2.040120038E+04

7.039623302E+03

2.634874324E+03

1.056553518E+03

4.482791378E+02

1.987628938E+02

9.096119828E+01

4.243414308E+01

1.993046468E+01

9.308216164E+00

4.269400208E+00

1.899428574E+00

8.095414384E-01

3.264521557E-01

1.230179995E-01

4.278492406E-02

1.356407491E-02

# p-type functions

f 16 0 0

3.903931661E+04

8.698937845E+03

2.366106282E+03

7.630176900E+02

2.833320087E+02

1.176645633E+02

5.307782098E+01

2.525958274E+01

1.231723665E+01

5.977268485E+00

2.803644498E+00

1.234531470E+00

4.956427569E-01

1.762183290E-01

5.388618620E-02

1.376499974E-02

# d-type functions

f 12 0 0

3.994522561E+02

1.260461873E+02

4.662475556E+01

1.942274783E+01

8.753812800E+00

4.100733516E+00

1.918177447E+00

8.607245350E-01

3.559368766E-01

1.303168031E-01

4.058183774E-02

1.032647488E-02

# f-type functions

f 4 0 0

2.803644498E+00

1.234531470E+00

4.956427569E-01

1.762183290E-01

# g-type functions

f 3 0 0

1.918177447E+00

8.607245350E-01

3.559368766E-01

# h-type functions

f 2 0 0

1.234531470E+00

4.956427569E-01

a 30

# Zn (Zinc)

# s-type functions

f 22 0 0

2.459936417E+07

4.698958100E+06

1.036001816E+06

2.603893756E+05

7.369064339E+04

2.319264747E+04

8.017883484E+03

3.007205701E+03

1.208601303E+03

5.140934283E+02

2.285928615E+02

1.049463743E+02

4.913363816E+01

2.316966002E+01

1.086956588E+01

5.010477104E+00

2.241521225E+00

9.612272309E-01

3.902574992E-01

1.481634138E-01

5.195385376E-02

1.661897281E-02

# p-type functions

f 16 0 0

4.717383569E+04

1.002957946E+04

2.645049372E+03

8.383017278E+02

3.093345654E+02

1.287549830E+02

5.856702145E+01

2.820601415E+01

1.393399929E+01

6.840712277E+00

3.233436472E+00

1.425643053E+00

5.680502114E-01

1.981700851E-01

5.864228788E-02

1.426103834E-02

# d-type functions

f 12 0 0

4.896090922E+02

1.506536280E+02

5.524649362E+01

2.313584152E+01

1.060185332E+01

5.093949595E+00

2.459032731E+00

1.142802660E+00

4.899320994E-01

1.856601591E-01

5.959093042E-02

1.552317991E-02

# f-type functions

f 4 0 0

3.233436472E+00

1.425643053E+00

5.680502114E-01

1.981700851E-01

# g-type functions

f 3 0 0

2.459032731E+00

1.142802660E+00

4.899320994E-01

# h-type functions

f 2 0 0

1.425643053E+00

5.680502114E-01

a 39

# Y (Yttrium)

# s-type functions

f 26 0 0

1.767964500E+08

4.054630069E+07

1.023450253E+07

2.824109781E+06

8.461693332E+05

2.734358095E+05

9.465366441E+04

3.486301480E+04

1.357061243E+04

5.545011940E+03

2.362302923E+03

1.042222117E+03

4.729749186E+02

2.192959433E+02

1.031808919E+02

4.893343273E+01

2.323332386E+01

1.096927185E+01

5.115246609E+00

2.340125815E+00

1.043175134E+00

4.500721761E-01

1.866704422E-01

7.392629349E-02

2.776603233E-02

9.823851013E-03

# p-type functions

f 20 0 0

3.634425755E+05

8.310790650E+04

2.206397691E+04

6.694940128E+03

2.285691390E+03

8.643368312E+02

3.563932906E+02

1.577406524E+02

7.377545551E+01

3.589391755E+01

1.788368686E+01

8.982702740E+00

4.477723939E+00

2.180692642E+00

1.021421507E+00

4.529762950E-01

1.872373260E-01

7.101374286E-02

2.432830966E-02

7.411183494E-03

# d-type functions

f 15 0 0

1.227979574E+03

4.524991053E+02

1.829007818E+02

7.962857810E+01

3.666588971E+01

1.753394619E+01

8.550777236E+00

4.175652055E+00

2.005026458E+00

9.295597561E-01

4.085829371E-01

1.671910989E-01

6.254036317E-02

2.099937031E-02

6.214913355E-03

# f-type functions

f 4 0 0

1.021421507E+00

4.529762950E-01

1.872373260E-01

7.101374286E-02

# g-type functions

f 3 0 0

4.085829371E-01

1.671910989E-01

6.254036317E-02

# h-type functions

f 2 0 0

4.529762950E-01

1.872373260E-01

a 40

# Zr (Zirconium)

# s-type functions

f 26 0 0

1.832595584E+08

4.127169001E+07

1.027097858E+07

2.804610332E+06

8.343755202E+05

2.685382031E+05

9.283960544E+04

3.423500210E+04

1.337040243E+04

5.491396841E+03

2.355117568E+03

1.047275514E+03

4.794629841E+02

2.243996514E+02

1.066079062E+02

5.104861619E+01

2.446431390E+01

1.165101593E+01

5.475243309E+00

2.521036328E+00

1.129322604E+00

4.887056456E-01

2.028590056E-01

8.020215019E-02

2.998815154E-02

1.052961592E-02

# p-type functions

f 20 0 0

4.341718729E+05

9.600953402E+04

2.481462035E+04

7.375388799E+03

2.480216715E+03

9.284642403E+02

3.806755547E+02

1.681908897E+02

7.878635935E+01

3.849852565E+01

1.930745713E+01

9.777715382E+00

4.919539467E+00

2.419522512E+00

1.144449045E+00

5.122338159E-01

2.134462040E-01

8.147051203E-02

2.802513359E-02

8.548178597E-03

# d-type functions

f 15 0 0

1.526852285E+03

5.356762263E+02

2.084007678E+02

8.820535192E+01

3.984706396E+01

1.884996601E+01

9.161039549E+00

4.487515624E+00

2.173708510E+00

1.021498754E+00

4.569015881E-01

1.908371279E-01

7.302398706E-02

2.511526491E-02

7.617046819E-03

# f-type functions

f 4 0 0

1.144449045E+00

5.122338159E-01

2.134462040E-01

8.147051203E-02

# g-type functions

f 3 0 0

4.569015881E-01

1.908371279E-01

7.302398706E-02

# h-type functions

f 2 0 0

5.122338159E-01

2.134462040E-01

a 41

# Nb (Niobium)

# s-type functions

f 26 0 0

1.961617470E+08

4.346787392E+07

1.067858127E+07

2.887073744E+06

8.527258707E+05

2.731343519E+05

9.418171919E+04

3.470470748E+04

1.356593490E+04

5.584171091E+03

2.402832134E+03

1.072881991E+03

4.934604712E+02

2.320773483E+02

1.107901600E+02

5.329245883E+01

2.564097532E+01

1.224942258E+01

5.767891328E+00

2.657339099E+00

1.189086431E+00

5.130084128E-01

2.118303823E-01

8.310225204E-02

3.074724421E-02

1.065066055E-02

# p-type functions

f 20 0 0

5.103594434E+05

1.105082306E+05

2.807671187E+04

8.231881217E+03

2.739184313E+03

1.017374406E+03

4.148067670E+02

1.825931202E+02

8.534235464E+01

4.165379223E+01

2.087960444E+01

1.057148171E+01

5.316960267E+00

2.612600492E+00

1.233481702E+00

5.503140702E-01

2.281785423E-01

8.647555258E-02

2.946010774E-02

8.872905104E-03

# d-type functions

f 15 0 0

1.425508386E+03

5.170506326E+02

2.061657840E+02

8.871642796E+01

4.044633440E+01

1.917898745E+01

9.285970295E+00

4.506794294E+00

2.152438416E+00

9.931160685E-01

4.345695384E-01

1.770485086E-01

6.592994408E-02

2.202999035E-02

6.484414877E-03

# f-type functions

f 4 0 0

1.233481702E+00

5.503140702E-01

2.281785423E-01

8.647555258E-02

# g-type functions

f 3 0 0

9.931160685E-01

4.345695384E-01

1.770485086E-01

# h-type functions

f 2 0 0

5.503140702E-01

2.281785423E-01

a 42

# Mo (Molybdenum)

# s-type functions

f 26 0 0

1.702220962E+08

3.907235835E+07

9.900772778E+06

2.749974031E+06

8.313087973E+05

2.715718173E+05

9.519405189E+04

3.555101240E+04

1.404511930E+04

5.828334190E+03

2.522454063E+03

1.130514526E+03

5.209755513E+02

2.451100435E+02

1.169019333E+02

5.611944346E+01

2.692466741E+01

1.281878674E+01

6.013361805E+00

2.759788737E+00

1.230372698E+00

5.290712129E-01

2.178825404E-01

8.532490913E-02

3.154921795E-02

1.093641484E-02

# p-type functions

f 20 0 0

5.749058874E+05

1.221468969E+05

3.057504265E+04

8.864463139E+03

2.926444705E+03

1.081514900E+03

4.398765142E+02

1.935694916E+02

9.060511039E+01

4.434859967E+01

2.231620515E+01

1.134947515E+01

5.735192429E+00

2.830992871E+00

1.341991936E+00

6.005970146E-01

2.494826493E-01

9.456343164E-02

3.215389451E-02

9.642134961E-03

# d-type functions

f 15 0 0

1.488058285E+03

5.248991670E+02

2.056587928E+02

8.776172593E+01

3.999636478E+01

1.908817442E+01

9.354224636E+00

4.615531708E+00

2.248418983E+00

1.060340442E+00

4.746757042E-01

1.977895277E-01

7.522032630E-02

2.560140379E-02

7.646452765E-03

# f-type functions

f 4 0 0

1.341991936E+00

6.005970146E-01

2.494826493E-01

9.456343164E-02

# g-type functions

f 3 0 0

1.060340442E+00

4.746757042E-01

1.977895277E-01

# h-type functions

f 2 0 0

6.005970146E-01

2.494826493E-01

a 43

# Tc (Technetium)

# s-type functions

f 26 0 0

1.662857499E+08

3.749132868E+07

9.381492149E+06

2.585865339E+06

7.792205499E+05

2.547786347E+05

8.971009981E+04

3.376159906E+04

1.347831555E+04

5.665089613E+03

2.488078682E+03

1.133274735E+03

5.313096253E+02

2.544656405E+02

1.235683403E+02

6.038227683E+01

2.946887609E+01

1.425598028E+01

6.784809115E+00

3.152919084E+00

1.419875514E+00

6.150034839E-01

2.542859433E-01

9.961212644E-02

3.669228500E-02

1.261355786E-02

# p-type functions

f 20 0 0

6.977697206E+05

1.458916437E+05

3.601998107E+04

1.032278381E+04

3.375483548E+03

1.237959665E+03

5.005573612E+02

2.193429057E+02

1.023908711E+02

5.005094847E+01

2.518386242E+01

1.282144105E+01

6.492341272E+00

3.214114644E+00

1.529193460E+00

6.873058958E-01

2.868598712E-01

1.092866578E-01

3.735834505E-02

1.126358850E-02

# d-type functions

f 15 0 0

1.829435397E+03

6.377687147E+02

2.483872236E+02

1.059162483E+02

4.846303461E+01

2.331957801E+01

1.156485581E+01

5.793174308E+00

2.872745775E+00

1.382067976E+00

6.322089082E-01

2.694872367E-01

1.049082303E-01

3.655292004E-02

1.117179952E-02

# f-type functions

f 4 0 0

1.529193460E+00

6.873058958E-01

2.868598712E-01

1.092866578E-01

# g-type functions

f 3 0 0

1.382067976E+00

6.322089082E-01

2.694872367E-01

# h-type functions

f 2 0 0

6.873058958E-01

2.868598712E-01

a 44

# Ru (Ruthenium)

# s-type functions

f 26 0 0

1.614539079E+08

3.676151529E+07

9.274660363E+06

2.573515073E+06

7.795497434E+05

2.558666533E+05

9.032346863E+04

3.403838236E+04

1.359198632E+04

5.708302497E+03

2.502680379E+03

1.136952918E+03

5.312299827E+02

2.533903125E+02

1.224698229E+02

5.953387491E+01

2.889079638E+01

1.389247111E+01

6.570349030E+00

3.033546477E+00

1.357158163E+00

5.839722293E-01

2.398833868E-01

9.337244226E-02

3.418315610E-02

1.168274279E-02

# p-type functions

f 20 0 0

7.371120270E+05

1.548700830E+05

3.834875677E+04

1.100353659E+04

3.597145955E+03

1.317273979E+03

5.312928512E+02

2.320487095E+02

1.079093780E+02

5.253171600E+01

2.632169627E+01

1.334699711E+01

6.734078696E+00

3.323879388E+00

1.578091912E+00

7.085766232E-01

2.958396336E-01

1.129245636E-01

3.874632668E-02

1.174979314E-02

# d-type functions

f 15 0 0

1.914069549E+03

6.473621501E+02

2.469160509E+02

1.039034494E+02

4.719059217E+01

2.263038290E+01

1.120999929E+01

5.611289438E+00

2.776702514E+00

1.328837355E+00

6.016671342E-01

2.521441700E-01

9.567885039E-02

3.216055511E-02

9.367806014E-03

# f-type functions

f 4 0 0

1.578091912E+00

7.085766232E-01

2.958396336E-01

1.129245636E-01

# g-type functions

f 3 0 0

1.328837355E+00

6.016671342E-01

2.521441700E-01

# h-type functions

f 2 0 0

7.085766232E-01

2.958396336E-01

a 45

# Rh (Rhodium)

# s-type functions

f 26 0 0

1.530625979E+08

3.504866765E+07

8.897645976E+06

2.485441885E+06

7.581946107E+05

2.506859935E+05

8.916110633E+04

3.385638133E+04

1.362225617E+04

5.764009285E+03

2.545605676E+03

1.164587506E+03

5.477613257E+02

2.628890858E+02

1.277730917E+02

6.241882877E+01

3.041759674E+01

1.467543416E+01

6.957248303E+00

3.216534694E+00

1.439351534E+00

6.187242170E-01

2.535728001E-01

9.833479955E-02

3.581249121E-02

1.215649178E-02

# p-type functions

f 20 0 0

8.575302407E+05

1.785166813E+05

4.376991798E+04

1.243116741E+04

4.022157165E+03

1.458104946E+03

5.824690320E+02

2.521638888E+02

1.163564944E+02

5.628176787E+01

2.806634670E+01

1.419112349E+01

7.155370016E+00

3.538372278E+00

1.687729129E+00

7.636624720E-01

3.223823956E-01

1.248774550E-01

4.365271880E-02

1.354330875E-02

# d-type functions

f 15 0 0

1.974411246E+03

6.692546256E+02

2.562224176E+02

1.083700640E+02

4.952933321E+01

2.392605319E+01

1.194894499E+01

6.034377274E+00

3.014215098E+00

1.456630473E+00

6.661198797E-01

2.819536598E-01

1.080487879E-01

3.666683033E-02

1.077786227E-02

# f-type functions

f 4 0 0

1.687729129E+00

7.636624720E-01

3.223823956E-01

1.248774550E-01

# g-type functions

f 3 0 0

1.456630473E+00

6.661198797E-01

2.819536598E-01

# h-type functions

f 2 0 0

7.636624720E-01

3.223823956E-01

a 46

# Pd (Palladium)

# s-type functions

f 27 0 0

1.718569821E+08

3.869939731E+07

9.756676216E+06

2.732309697E+06

8.432531311E+05

2.845480924E+05

1.041580259E+05

4.103352404E+04

1.726090556E+04

7.691954179E+03

3.602697694E+03

1.759570387E+03

8.890840636E+02

4.611115861E+02

2.435375539E+02

1.299547654E+02

6.951115636E+01

3.697622064E+01

1.940733476E+01

9.971358139E+00

4.975737283E+00

2.392461436E+00

1.099731075E+00

4.794593181E-01

1.967027419E-01

7.534112782E-02

2.672923579E-02

# p-type functions

f 20 0 0

9.959637868E+05

1.977549193E+05

4.685017601E+04

1.300314843E+04

4.151378712E+03

1.496910750E+03

5.985664330E+02

2.606122863E+02

1.213100187E+02

5.927490775E+01

2.985181329E+01

1.521420760E+01

7.704774438E+00

3.806761504E+00

1.801730108E+00

8.020756075E-01

3.297505788E-01

1.229288128E-01

4.080119193E-02

1.183848788E-02

# d-type functions

f 15 0 0

1.859683876E+03

6.372664379E+02

2.458257609E+02

1.043875042E+02

4.771717948E+01

2.296130126E+01

1.137376005E+01

5.671367785E+00

2.783800444E+00

1.315361957E+00

5.850590431E-01

2.395475371E-01

8.829003108E-02

2.864507264E-02

8.000126178E-03

# f-type functions

f 4 0 0

1.801730108E+00

8.020756075E-01

3.297505788E-01

1.229288128E-01

# g-type functions

f 3 0 0

1.315361957E+00

5.850590431E-01

2.395475371E-01

# h-type functions

f 2 0 0

8.020756075E-01

3.297505788E-01

a 47

# Ag (Silver)

# s-type functions

f 26 0 0

1.559462084E+08

3.582872462E+07

9.133497564E+06

2.563655536E+06

7.862606781E+05

2.614720790E+05

9.356286402E+04

3.574939241E+04

1.447399236E+04

6.162118925E+03

2.737545972E+03

1.259360077E+03

5.953373404E+02

2.869911945E+02

1.400018628E+02

6.858456622E+01

3.348219058E+01

1.616455540E+01

7.658498685E+00

3.533629767E+00

1.575663656E+00

6.738117933E-01

2.742293036E-01

1.054039346E-01

3.796951417E-02

1.272084788E-02

# p-type functions

f 20 0 0

1.048135411E+06

2.099389035E+05

5.005810437E+04

1.395666187E+04

4.469244718E+03

1.614551395E+03

6.463302926E+02

2.816188921E+02

1.311877960E+02

6.417549111E+01

3.238238405E+01

1.655510842E+01

8.422840376E+00

4.188978975E+00

2.000325166E+00

9.008563911E-01

3.758311859E-01

1.426698120E-01

4.840532342E-02

1.441768939E-02

# d-type functions

f 15 0 0

2.346979016E+03

7.895659183E+02

3.002116891E+02

1.262181656E+02

5.740718302E+01

2.763476398E+01

1.377480561E+01

6.955853675E+00

3.481333914E+00

1.689531345E+00

7.778703174E-01

3.324019509E-01

1.289823814E-01

4.446340579E-02

1.332218965E-02

# f-type functions

f 4 0 0

2.000325166E+00

9.008563911E-01

3.758311859E-01

1.426698120E-01

# g-type functions

f 3 0 0

1.689531345E+00

7.778703174E-01

3.324019509E-01

# h-type functions

f 2 0 0

9.008563911E-01

3.758311859E-01

a 48

# Cd (Cadmium)

# s-type functions

f 26 0 0

1.439742140E+08

3.348673768E+07

8.625844795E+06

2.442528635E+06

7.546671786E+05

2.525326780E+05

9.084365075E+04

3.487024475E+04

1.417644651E+04

6.058990788E+03

2.702229748E+03

1.248250844E+03

5.927992346E+02

2.872818032E+02

1.410171291E+02

6.959330087E+01

3.427388764E+01

1.671968982E+01

8.019190456E+00

3.753521029E+00

1.701851812E+00

7.419040491E-01

3.086635897E-01

1.216475242E-01

4.507854673E-02

1.559027757E-02

# p-type functions

f 20 0 0

1.244931229E+06

2.447399633E+05

5.738086639E+04

1.576049463E+04

4.981394840E+03

1.779706229E+03

7.059919591E+02

3.054521027E+02

1.415846800E+02

6.906484437E+01

3.482597556E+01

1.783170510E+01

9.106754616E+00

4.556731345E+00

2.194320661E+00

9.989447951E-01

4.222945359E-01

1.628395386E-01

5.626165996E-02

1.710847686E-02

# d-type functions

f 15 0 0

2.912502614E+03

9.458028609E+02

3.518585675E+02

1.464439958E+02

6.659071375E+01

3.230703890E+01

1.633145019E+01

8.400384867E+00

4.293615799E+00

2.129607002E+00

1.000992370E+00

4.354314656E-01

1.711864236E-01

5.939939497E-02

1.776481312E-02

# f-type functions

f 4 0 0

2.194320661E+00

9.989447951E-01

4.222945359E-01

1.628395386E-01

# g-type functions

f 3 0 0

2.129607002E+00

1.000992370E+00

4.354314656E-01

# h-type functions

f 2 0 0

9.989447951E-01

4.222945359E-01

a 71

# Lu (Lutetium)

# s-type functions

f 31 0 0

4.085370609E+08

9.995341697E+07

2.715733446E+07

8.138323089E+06

2.671627988E+06

9.542129206E+05

3.682797442E+05

1.525487258E+05

6.735541682E+04

3.148506861E+04

1.547532977E+04

7.943525860E+03

4.229215625E+03

2.319607133E+03

1.301703633E+03

7.423143428E+02

4.272446382E+02

2.464980027E+02

1.415901960E+02

8.042127165E+01

4.486024534E+01

2.440845487E+01

1.286594965E+01

6.525312318E+00

3.162668220E+00

1.454902274E+00

6.309237089E-01

2.561637602E-01

9.671444162E-02

3.372350807E-02

1.078640990E-02

# p-type functions

f 25 0 0

2.029389073E+07

4.122821908E+06

9.668915279E+05

2.588291998E+05

7.819869987E+04

2.636543593E+04

9.808846862E+03

3.981502008E+03

1.743493464E+03

8.143976677E+02

4.012305051E+02

2.061536396E+02

1.092260228E+02

5.900620702E+01

3.213691282E+01

1.744792963E+01

9.337171830E+00

4.869864950E+00

2.447637022E+00

1.172206302E+00

5.289156840E-01

2.223272045E-01

8.608370498E-02

3.035777150E-02

9.641349630E-03

# d-type functions

f 19 0 0

1.464842357E+04

5.343492749E+03

2.130929377E+03

9.175548485E+02

4.213313805E+02

2.037764634E+02

1.025256015E+02

5.299908481E+01

2.780172878E+01

1.461679885E+01

7.607105210E+00

3.870641138E+00

1.901745400E+00

8.911226256E-01

3.933216429E-01

1.615076675E-01

6.093727369E-02

2.086541940E-02

6.403760609E-03

# f-type functions

f 13 0 0

6.250352087E+02

2.477873290E+02

1.069567716E+02

4.936006082E+01

2.391469939E+01

1.194427065E+01

6.038699865E+00

3.034589732E+00

1.488376770E+00

6.996257291E-01

3.094869081E-01

1.265103457E-01

4.692461125E-02

# g-type functions

f 3 0 0

8.911226256E-01

3.933216429E-01

1.615076675E-01

# h-type functions

f 2 0 0

3.094869081E-01

1.265103457E-01

a 72

# Hf (Hafnium)

# s-type functions

f 31 0 0

4.035098028E+08

1.005172537E+08

2.776336215E+07

8.445229483E+06

2.810100424E+06

1.015935763E+06

3.963763322E+05

1.657712732E+05

7.381318722E+04

3.475720182E+04

1.719114682E+04

8.871092838E+03

4.743781370E+03

2.611021853E+03

1.469256713E+03

8.395551510E+02

4.838694269E+02

2.793814542E+02

1.605167799E+02

9.115065910E+01

5.081345571E+01

2.762105277E+01

1.454143737E+01

7.364497078E+00

3.563777108E+00

1.636713598E+00

7.085860520E-01

2.872323124E-01

1.082823846E-01

3.770762539E-02

1.204787484E-02

# p-type functions

f 25 0 0

2.389384188E+07

4.933321907E+06

1.172481266E+06

3.172067955E+05

9.660648734E+04

3.275325476E+04

1.222486646E+04

4.967437347E+03

2.173083486E+03

1.012122987E+03

4.963181475E+02

2.534043910E+02

1.332147630E+02

7.130696327E+01

3.843350715E+01

2.062736279E+01

1.090159735E+01

5.610562865E+00

2.780671715E+00

1.312432938E+00

5.833722465E-01

2.414975744E-01

9.207363161E-02

3.197204309E-02

9.999430075E-03

# d-type functions

f 19 0 0

1.544031849E+04

5.670906560E+03

2.266611012E+03

9.746514615E+02

4.457476872E+02

2.143462301E+02

1.071393895E+02

5.503115478E+01

2.871532934E+01

1.504819009E+01

7.829600488E+00

3.998520969E+00

1.981450240E+00

9.419124877E-01

4.246206456E-01

1.794627837E-01

7.029913983E-02

2.523175822E-02

8.203260168E-03

# f-type functions

f 13 0 0

8.060066282E+02

3.095669662E+02

1.325338695E+02

6.171960444E+01

3.050781470E+01

1.561918956E+01

8.082264177E+00

4.124795846E+00

2.025976790E+00

9.345376106E-01

3.950546102E-01

1.493424377E-01

4.926549034E-02

# g-type functions

f 3 0 0

9.419124877E-01

4.246206456E-01

1.794627837E-01

# h-type functions

f 2 0 0

3.950546102E-01

1.493424377E-01

a 73

# Ta (Tantalum)

# s-type functions

f 31 0 0

4.029653741E+08

9.938239359E+07

2.719682560E+07

8.202873159E+06

2.708474590E+06

9.724482495E+05

3.771057637E+05

1.568869260E+05

6.955193604E+04

3.263642301E+04

1.610047609E+04

8.294490067E+03

4.432282645E+03

2.440191782E+03

1.374836976E+03

7.873741509E+02

4.552875570E+02

2.640201435E+02

1.525130379E+02

8.717008760E+01

4.896554231E+01

2.685024205E+01

1.427619151E+01

7.310633692E+00

3.581361447E+00

1.667107983E+00

7.324428239E-01

3.016825014E-01

1.157083981E-01

4.104780935E-02

1.337819140E-02

# p-type functions

f 25 0 0

2.543187682E+07

5.384181130E+06

1.307452284E+06

3.601873342E+05

1.113419683E+05

3.819870912E+04

1.438564305E+04

5.882096434E+03

2.582787845E+03

1.204565796E+03

5.901861123E+02

3.004661668E+02

1.572105783E+02

8.361400346E+01

4.471145484E+01

2.377565998E+01

1.243517277E+01

6.327148027E+00

3.097651541E+00

1.443301256E+00

6.330131688E-01

2.584825883E-01

9.719503994E-02

3.328761174E-02

1.027018730E-02

# d-type functions

f 19 0 0

1.976028565E+04

6.791827243E+03

2.577011130E+03

1.065516102E+03

4.739097095E+02

2.238210202E+02

1.108035354E+02

5.675859739E+01

2.969701441E+01

1.566660272E+01

8.226130309E+00

4.243779988E+00

2.123364076E+00

1.017157503E+00

4.604917922E-01

1.944927122E-01

7.565024380E-02

2.674980986E-02

8.488134302E-03

# f-type functions

f 13 0 0

9.868407748E+02

3.859490338E+02

1.662537720E+02

7.718107692E+01

3.778218218E+01

1.908267347E+01

9.729857447E+00

4.900359179E+00

2.385297907E+00

1.097968090E+00

4.676363776E-01

1.803173162E-01

6.159085884E-02

# g-type functions

f 3 0 0

1.017157503E+00

4.604917922E-01

1.944927122E-01

# h-type functions

f 2 0 0

4.676363776E-01

1.803173162E-01

a 74

# W (Tungsten)

# s-type functions

f 31 0 0

4.030568474E+08

1.009191594E+08

2.802465760E+07

8.572617053E+06

2.869062423E+06

1.043439044E+06

4.095828172E+05

1.723498784E+05

7.721859371E+04

3.658655316E+04

1.820777397E+04

9.453116428E+03

5.085375235E+03

2.815450469E+03

1.593296922E+03

9.154118468E+02

5.303399858E+02

3.077211146E+02

1.776120179E+02

1.012853363E+02

5.667963214E+01

3.091439421E+01

1.632280434E+01

8.286596137E+00

4.017463898E+00

1.847435357E+00

8.003409255E-01

3.244265233E-01

1.222194375E-01

4.250048208E-02

1.354952677E-02

# p-type functions

f 25 0 0

2.364696750E+07

4.850572999E+06

1.147948769E+06

3.099260157E+05

9.438300882E+04

3.205708691E+04

1.200723296E+04

4.903934459E+03

2.159351835E+03

1.013615840E+03

5.015206119E+02

2.586210063E+02

1.374335023E+02

7.441653262E+01

4.059648573E+01

2.206194698E+01

1.180945384E+01

6.156594684E+00

3.090795564E+00

1.477451244E+00

6.649108044E-01

2.785577010E-01

1.074144453E-01

3.769642328E-02

1.190478972E-02

# d-type functions

f 19 0 0

2.067899977E+04

7.127031836E+03

2.722426016E+03

1.136755749E+03

5.117258856E+02

2.449414224E+02

1.229524466E+02

6.383482529E+01

3.380797825E+01

1.801429301E+01

9.524610147E+00

4.928385002E+00

2.461415589E+00

1.170263435E+00

5.223915727E-01

2.159324910E-01

8.151632680E-02

2.771861022E-02

8.373249117E-03

# f-type functions

f 13 0 0

8.966095057E+02

3.633872962E+02

1.616795926E+02

7.733277626E+01

3.894025525E+01

2.021457660E+01

1.059412357E+01

5.489133782E+00

2.753498596E+00

1.309519688E+00

5.782147957E-01

2.321240989E-01

8.296768833E-02

# g-type functions

f 3 0 0

1.170263435E+00

5.223915727E-01

2.159324910E-01

# h-type functions

f 2 0 0

5.782147957E-01

2.321240989E-01

a 75

# Re (Rhenium)

# s-type functions

f 31 0 0

4.069415178E+08

1.043096748E+08

2.958259343E+07

9.220427258E+06

3.137278546E+06

1.157514475E+06

4.599971955E+05

1.955795417E+05

8.837211241E+04

4.215166220E+04

2.108171392E+04

1.098178539E+04

5.918339855E+03

3.277712404E+03

1.852976322E+03

1.062138278E+03

6.131807356E+02

3.541410569E+02

2.032490275E+02

1.151407830E+02

6.395322813E+01

3.459492856E+01

1.810352579E+01

9.103297509E+00

4.369213199E+00

1.988203124E+00

8.520309401E-01

3.415632707E-01

1.272307918E-01

4.374240427E-02

1.378753121E-02

# p-type functions

f 25 0 0

2.512951096E+07

5.195680795E+06

1.237379184E+06

3.356686553E+05

1.025680576E+05

3.491021737E+04

1.308813524E+04

5.344825296E+03

2.351069642E+03

1.101588599E+03

5.436771125E+02

2.794963032E+02

1.480028930E+02

7.983056089E+01

4.337292546E+01

2.347278012E+01

1.251273781E+01

6.497224565E+00

3.249651960E+00

1.548192582E+00

6.947650982E-01

2.904167118E-01

1.118205268E-01

3.921782490E-02

1.238948436E-02

# d-type functions

f 19 0 0

1.907989292E+04

6.303795739E+03

2.342123823E+03

9.636372504E+02

4.323423773E+02

2.082893287E+02

1.061074093E+02

5.628314635E+01

3.061113828E+01

1.680983828E+01

9.177936003E+00

4.906123063E+00

2.528472662E+00

1.237140397E+00

5.658940202E-01

2.382983861E-01

9.096859063E-02

3.099992832E-02

9.286311778E-03

# f-type functions

f 13 0 0

1.033779018E+03

4.089086405E+02

1.788546262E+02

8.463618080E+01

4.239362951E+01

2.199077213E+01

1.155799138E+01

6.021891640E+00

3.042978350E+00

1.459105914E+00

6.495363727E-01

2.626367583E-01

9.437339787E-02

# g-type functions

f 3 0 0

1.237140397E+00

5.658940202E-01

2.382983861E-01

# h-type functions

f 2 0 0

6.495363727E-01

2.626367583E-01

a 76

# Os (Osmium)

# s-type functions

f 31 0 0

4.086310495E+08

1.011921401E+08

2.783375253E+07

8.445672772E+06

2.807774293E+06

1.015742293E+06

3.971240807E+05

1.666549431E+05

7.455682618E+04

3.531521105E+04

1.759014123E+04

9.150354480E+03

4.937368348E+03

2.744543391E+03

1.560952123E+03

9.021565730E+02

5.262293321E+02

3.076783453E+02

1.790917172E+02

1.030715260E+02

5.825248974E+01

3.210929757E+01

1.714413548E+01

8.806367243E+00

4.322175109E+00

2.013076282E+00

8.836867838E-01

3.631154159E-01

1.387161923E-01

4.892983167E-02

1.582749991E-02

# p-type functions

f 25 0 0

2.779355678E+07

5.713911184E+06

1.355101552E+06

3.665684720E+05

1.118353739E+05

3.804871617E+04

1.427359791E+04

5.837883945E+03

2.573960706E+03

1.209675083E+03

5.991724462E+02

3.092766395E+02

1.644941652E+02

8.913697318E+01

4.865922440E+01

2.645868806E+01

1.416978184E+01

7.390020876E+00

3.711177441E+00

1.774423321E+00

7.986897779E-01

3.346341793E-01

1.290415765E-01

4.528476560E-02

1.429991970E-02

# d-type functions

f 19 0 0

2.949572348E+04

9.060376450E+03

3.164681096E+03

1.236689001E+03

5.319712894E+02

2.478354083E+02

1.230371588E+02

6.404088535E+01

3.438561287E+01

1.873893629E+01

1.019793261E+01

5.452914563E+00

2.818674430E+00

1.385833706E+00

6.376430357E-01

2.701436306E-01

1.036842450E-01

3.547170362E-02

1.064272595E-02

# f-type functions

f 13 0 0

1.080012686E+03

4.039400774E+02

1.702401381E+02

7.888949721E+01

3.922327892E+01

2.041697340E+01

1.085717565E+01

5.755402161E+00

2.967721023E+00

1.452493953E+00

6.584226020E-01

2.697426018E-01

9.745498151E-02

# g-type functions

f 3 0 0

1.385833706E+00

6.376430357E-01

2.701436306E-01

# h-type functions

f 2 0 0

1.452493953E+00

6.584226020E-01

a 77

# Ir (Iridium)

# s-type functions

f 31 0 0

4.073057026E+08

1.000535733E+08

2.732287892E+07

8.237862313E+06

2.723386582E+06

9.804449794E+05

3.817409989E+05

1.596461704E+05

7.122046447E+04

3.366046964E+04

1.673852130E+04

8.697772262E+03

4.690352422E+03

2.606885137E+03

1.483097726E+03

8.577516661E+02

5.008524196E+02

2.932424656E+02

1.709721233E+02

9.858652983E+01

5.583623974E+01

3.084846301E+01

1.651133383E+01

8.503045869E+00

4.184302727E+00

1.954071097E+00

8.600798808E-01

3.543487100E-01

1.357153713E-01

4.798945460E-02

1.555942906E-02

# p-type functions

f 25 0 0

2.897100048E+07

5.809391499E+06

1.347405577E+06

3.573677231E+05

1.071594170E+05

3.591634516E+04

1.330299574E+04

5.383330373E+03

2.353128393E+03

1.098454239E+03

5.413882335E+02

2.785318724E+02

1.478866502E+02

8.011609555E+01

4.378204625E+01

2.386198425E+01

1.282330636E+01

6.717770911E+00

3.391804511E+00

1.631795136E+00

7.395684842E-01

3.121891771E-01

1.213480270E-01

4.294096203E-02

1.367677614E-02

# d-type functions

f 19 0 0

2.622620477E+04

8.065785105E+03

2.830235468E+03

1.114478071E+03

4.843974358E+02

2.285713570E+02

1.151701028E+02

6.094863617E+01

3.331983430E+01

1.850821734E+01

1.027442624E+01

5.606477849E+00

2.957811543E+00

1.483908282E+00

6.963187698E-01

3.005951317E-01

1.174185990E-01

4.082077727E-02

1.242291127E-02

# f-type functions

f 13 0 0

9.586109805E+02

3.683769739E+02

1.591151033E+02

7.535830800E+01

3.817540295E+01

2.017905530E+01

1.085712138E+01

5.800389666E+00

3.001651125E+00

1.467762463E+00

6.615700121E-01

2.681342361E-01

9.532725864E-02

# g-type functions

f 3 0 0

1.483908282E+00

6.963187698E-01

3.005951317E-01

# h-type functions

f 2 0 0

1.467762463E+00

6.615700121E-01

a 78

# Pt (Platinum)

# s-type functions

f 31 0 0

4.025108442E+08

1.003914263E+08

2.778631465E+07

8.476734815E+06

2.830985240E+06

1.028030527E+06

4.031640990E+05

1.695950475E+05

7.600601970E+04

3.604411457E+04

1.796471443E+04

9.346605170E+03

5.041771234E+03

2.800632165E+03

1.591185247E+03

9.183858563E+02

5.348320685E+02

3.121372068E+02

1.813249324E+02

1.041361292E+02

5.872530711E+01

3.229811373E+01

1.720699595E+01

8.819765237E+00

4.319973704E+00

2.008284923E+00

8.801115824E-01

3.611323272E-01

1.378031850E-01

4.856959039E-02

1.570471141E-02

# p-type functions

f 25 0 0

2.521709505E+07

5.257627178E+06

1.261105378E+06

3.441717265E+05

1.056955215E+05

3.612359174E+04

1.358856421E+04

5.564163505E+03

2.452817436E+03

1.151237576E+03

5.689766444E+02

2.928525676E+02

1.552473183E+02

8.383300122E+01

4.560548923E+01

2.471870888E+01

1.320189782E+01

6.871384221E+00

3.447027459E+00

1.648288611E+00

7.430279300E-01

3.122883248E-01

1.210264923E-01

4.277348102E-02

1.363432234E-02

# d-type functions

f 19 0 0

2.983846478E+04

8.927434537E+03

3.061904062E+03

1.183435768E+03

5.067100459E+02

2.362705279E+02

1.179419504E+02

6.195969614E+01

3.367487371E+01

1.861366519E+01

1.028633227E+01

5.586829682E+00

2.931703526E+00

1.461160438E+00

6.799429902E-01

2.904138609E-01

1.119195428E-01

3.825707511E-02

1.140271718E-02

# f-type functions

f 13 0 0

1.006934451E+03

3.841434327E+02

1.645807917E+02

7.724147202E+01

3.873465887E+01

2.024505065E+01

1.075722064E+01

5.668073872E+00

2.888798712E+00

1.389112936E+00

6.147357389E-01

2.442092674E-01

8.494752498E-02

# g-type functions

f 3 0 0

1.461160438E+00

6.799429902E-01

2.904138609E-01

# h-type functions

f 2 0 0

1.389112936E+00

6.147357389E-01

a 79

# Au (Gold)

# s-type functions

f 31 0 0

4.077830191E+08

1.010482232E+08

2.781034561E+07

8.442953849E+06

2.808179948E+06

1.016319144E+06

3.975045430E+05

1.668756881E+05

7.468187101E+04

3.538674543E+04

1.763199807E+04

9.175507159E+03

4.952887142E+03

2.754347650E+03

1.567267807E+03

9.062832823E+02

5.289482541E+02

3.094731921E+02

1.802709192E+02

1.038372716E+02

5.874054675E+01

3.241245944E+01

1.732636416E+01

8.911616811E+00

4.380173861E+00

2.043356472E+00

8.985599018E-01

3.699407760E-01

1.416223541E-01

5.007004900E-02

1.623689528E-02

# p-type functions

f 25 0 0

2.655938944E+07

5.538783723E+06

1.328954856E+06

3.628284947E+05

1.114766015E+05

3.812001514E+04

1.434845885E+04

5.879442313E+03

2.593830137E+03

1.218476867E+03

6.027805629E+02

3.105726607E+02

1.648257552E+02

8.911291103E+01

4.854066586E+01

2.634609216E+01

1.409184636E+01

7.346096758E+00

3.691290951E+00

1.768188809E+00

7.985526578E-01

3.362783289E-01

1.305901551E-01

4.625237812E-02

1.477629683E-02

# d-type functions

f 19 0 0

2.945225745E+04

9.011200977E+03

3.152846805E+03

1.240026481E+03

5.389130971E+02

2.544005214E+02

1.282273087E+02

6.783567019E+01

3.702563940E+01

2.049583707E+01

1.131095280E+01

6.117231963E+00

3.187019553E+00

1.572317754E+00

7.220603740E-01

3.034143382E-01

1.146779376E-01

3.832274640E-02

1.113058897E-02

# f-type functions

f 13 0 0

8.572354967E+02

3.339664579E+02

1.459968492E+02

6.984674979E+01

3.566441980E+01

1.895546858E+01

1.022747540E+01

5.463375835E+00

2.817971411E+00

1.368734195E+00

6.105663114E-01

2.439506065E-01

8.514329774E-02

# g-type functions

f 3 0 0

1.572317754E+00

7.220603740E-01

3.034143382E-01

# h-type functions

f 2 0 0

1.368734195E+00

6.105663114E-01

a 80

# Hg (Mercury)

# s-type functions

f 31 0 0

4.082595892E+08

1.020218335E+08

2.830329863E+07

8.657800273E+06

2.900307411E+06

1.056783060E+06

4.159799276E+05

1.756883683E+05

7.907462234E+04

3.766986873E+04

1.886484891E+04

9.864025359E+03

5.348549680E+03

2.987020986E+03

1.706476374E+03

9.905158581E+02

5.801778088E+02

3.405953403E+02

1.990368910E+02

1.149966333E+02

6.524281967E+01

3.610071047E+01

1.934967108E+01

9.978048635E+00

4.916671790E+00

2.299268941E+00

1.013539458E+00

4.182763049E-01

1.605081020E-01

5.688282163E-02

1.849077690E-02

# p-type functions

f 25 0 0

2.519545305E+07

5.216082410E+06

1.245938840E+06

3.395209340E+05

1.043617821E+05

3.577742321E+04

1.352560863E+04

5.575352189E+03

2.477667776E+03

1.173698798E+03

5.860040434E+02

3.049035466E+02

1.634668880E+02

8.928738704E+01

4.912821414E+01

2.692402162E+01

1.453130165E+01

7.636815263E+00

3.864121519E+00

1.861262104E+00

8.438594296E-01

3.560623375E-01

1.382492782E-01

4.883915644E-02

1.552134771E-02

# d-type functions

f 19 0 0

3.096414137E+04

9.372516661E+03

3.255952821E+03

1.275788592E+03

5.541305326E+02

2.621997227E+02

1.328290857E+02

7.080256192E+01

3.902596240E+01

2.186055368E+01

1.222997603E+01

6.715850084E+00

3.557470810E+00

1.786490409E+00

8.358590525E-01

3.580902163E-01

1.380488938E-01

4.706613135E-02

1.394675580E-02

# f-type functions

f 13 0 0

1.206283892E+03

4.627868654E+02

1.971486389E+02

9.116005461E+01

4.472292273E+01

2.275555116E+01

1.173796723E+01

6.000169944E+00

2.971092049E+00

1.393052016E+00

6.045524717E-01

2.373738557E-01

8.242913725E-02

# g-type functions

f 3 0 0

1.786490409E+00

8.358590525E-01

3.580902163E-01

# h-type functions

f 2 0 0

1.393052016E+00

6.045524717E-01

a 103

# Lr (Lawrencium)

# s-type functions

f 34 0 0

1.325799482E+10

2.580350632E+09

5.656982258E+08

1.387696641E+08

3.783609439E+07

1.138986354E+07

3.760361639E+06

1.352502241E+06

5.264317501E+05

2.202623518E+05

9.840813485E+04

4.663507450E+04

2.328540037E+04

1.216865335E+04

6.611309967E+03

3.709514932E+03

2.135156669E+03

1.252344477E+03

7.435286561E+02

4.438639574E+02

2.646541624E+02

1.565606695E+02

9.127673946E+01

5.209661296E+01

2.891539946E+01

1.550306814E+01

7.975782121E+00

3.911060090E+00

1.815848833E+00

7.929162251E-01

3.234712921E-01

1.224625849E-01

4.273943291E-02

1.365872491E-02

# p-type functions

f 30 0 0

1.346328742E+08

3.842057254E+07

1.181363927E+07

3.895851506E+06

1.371549733E+06

5.131009971E+05

2.030336163E+05

8.458600090E+04

3.693058143E+04

1.681986735E+04

7.954253262E+03

3.887839689E+03

1.954974189E+03

1.006674598E+03

5.283774246E+02

2.813831701E+02

1.513360386E+02

8.182172725E+01

4.426583095E+01

2.385250273E+01

1.274254867E+01

6.717803876E+00

3.478873773E+00

1.761497420E+00

8.680585126E-01

4.144110206E-01

1.907746028E-01

8.429628670E-02

3.558660955E-02

1.428718684E-02

# d-type functions

f 21 0 0

7.819014942E+04

2.547992694E+04

9.222760928E+03

3.662621243E+03

1.576314986E+03

7.262156160E+02

3.537621757E+02

1.799832509E+02

9.446682508E+01

5.052481455E+01

2.719944028E+01

1.455783140E+01

7.651851484E+00

3.901406080E+00

1.905953091E+00

8.812341818E-01

3.808993103E-01

1.520268904E-01

5.534439719E-02

1.815187879E-02

5.298047234E-03

# f-type functions

f 16 0 0

2.965306560E+03

1.133458131E+03

4.839926121E+02

2.265434742E+02

1.140581078E+02

6.061006621E+01

3.335719720E+01

1.865704042E+01

1.040606577E+01

5.679409752E+00

2.976287423E+00

1.469547992E+00

6.708294561E-01

2.778063247E-01

1.024132141E-01

3.297888233E-02

# g-type functions

f 3 0 0

3.808993103E-01

1.520268904E-01

5.534439719E-02

# h-type functions

f 2 0 0

2.778063247E-01

1.024132141E-01

a 104

# Rf (Rutherfordium)

# s-type functions

f 34 0 0

1.362639632E+10

2.637518181E+09

5.752286467E+08

1.404184997E+08

3.811141814E+07

1.142460067E+07

3.757424538E+06

1.346824489E+06

5.226505605E+05

2.181221128E+05

9.724874604E+04

4.601215179E+04

2.294951315E+04

1.198657176E+04

6.512462895E+03

3.656221297E+03

2.107001311E+03

1.238084931E+03

7.368813244E+02

4.412800789E+02

2.641246501E+02

1.569602088E+02

9.199503760E+01

5.282525662E+01

2.952088619E+01

1.594908991E+01

8.275025548E+00

4.095791886E+00

1.921098799E+00

8.482287357E-01

3.502159352E-01

1.343156588E-01

4.753279936E-02

1.541857789E-02

# p-type functions

f 30 0 0

1.749274458E+08

4.800501149E+07

1.426756277E+07

4.569741162E+06

1.569480815E+06

5.751578157E+05

2.237838028E+05

9.198666791E+04

3.974840845E+04

1.796624111E+04

8.452425109E+03

4.118471564E+03

2.068071021E+03

1.064911381E+03

5.595309755E+02

2.984980172E+02

1.608827285E+02

8.717100554E+01

4.724690379E+01

2.548926547E+01

1.361971319E+01

7.172148650E+00

3.703780884E+00

1.866379595E+00

9.131820415E-01

4.316795189E-01

1.961806765E-01

8.528756556E-02

3.529343425E-02

1.383326948E-02

# d-type functions

f 21 0 0

7.766295674E+04

2.541593413E+04

9.247874686E+03

3.694791757E+03

1.600732017E+03

7.426708838E+02

3.644112122E+02

1.867553689E+02

9.872086654E+01

5.315789621E+01

2.879506343E+01

1.549630618E+01

8.182136068E+00

4.186027063E+00

2.049286395E+00

9.480626524E-01

4.093300628E-01

1.628849404E-01

5.899665347E-02

1.920796874E-02

5.551515890E-03

# f-type functions

f 16 0 0

3.799916845E+03

1.387504980E+03

5.725809703E+02

2.617428295E+02

1.299097720E+02

6.861698238E+01

3.780400371E+01

2.129384011E+01

1.201915156E+01

6.663323330E+00

3.556303665E+00

1.790982256E+00

8.341839824E-01

3.522120002E-01

1.321331570E-01

4.316964294E-02

# g-type functions

f 3 0 0

4.093300628E-01

1.628849404E-01

5.899665347E-02

# h-type functions

f 2 0 0

3.522120002E-01

1.321331570E-01

a 105

# Db (Dubnium)

# s-type functions

f 34 0 0

1.340591113E+10

2.609262762E+09

5.720505320E+08

1.403326305E+08

3.826513327E+07

1.152074819E+07

3.804552886E+06

1.368940750E+06

5.331339750E+05

2.232396576E+05

9.983945763E+04

4.737416335E+04

2.369201319E+04

1.240497942E+04

6.755171789E+03

3.800455158E+03

2.194351974E+03

1.291698118E+03

7.700384682E+02

4.618203552E+02

2.767932997E+02

1.646920082E+02

9.663546146E+01

5.554694388E+01

3.107105910E+01

1.680106394E+01

8.723985793E+00

4.321187886E+00

2.028214966E+00

8.961073638E-01

3.702149369E-01

1.420719212E-01

5.030783088E-02

1.632858501E-02

# p-type functions

f 30 0 0

5.293526854E+08

1.296571402E+08

3.474892036E+07

1.013428610E+07

3.198640135E+06

1.086604223E+06

3.951159740E+05

1.529460936E+05

6.267959768E+04

2.704589951E+04

1.222017673E+04

5.749999130E+03

2.802113453E+03

1.406516086E+03

7.231995593E+02

3.788257322E+02

2.010490695E+02

1.075125963E+02

5.761356199E+01

3.076887422E+01

1.628671129E+01

8.497741368E+00

4.346456612E+00

2.167416250E+00

1.047943448E+00

4.885795915E-01

2.184480436E-01

9.315148178E-02

3.767676053E-02

1.437516802E-02

# d-type functions

f 21 0 0

8.723217171E+04

2.785527018E+04

9.927208531E+03

3.898735342E+03

1.666038248E+03

7.648892261E+02

3.725222742E+02

1.900351047E+02

1.002607785E+02

5.401715671E+01

2.934428560E+01

1.587063468E+01

8.437848903E+00

4.354353168E+00

2.153563963E+00

1.007910293E+00

4.407615759E-01

1.778242876E-01

6.535392766E-02

2.160395855E-02

6.342548048E-03

# f-type functions

f 16 0 0

3.674992474E+03

1.368272058E+03

5.784056975E+02

2.717512549E+02

1.389070342E+02

7.561803650E+01

4.291506977E+01

2.485491666E+01

1.438029031E+01

8.135994431E+00

4.406320372E+00

2.236138657E+00

1.040910554E+00

4.350657656E-01

1.598298965E-01

5.051932348E-02

# g-type functions

f 3 0 0

4.407615759E-01

1.778242876E-01

6.535392766E-02

# h-type functions

f 2 0 0

4.350657656E-01

1.598298965E-01

a 106

# Sg (Seaborgium)

# s-type functions

f 34 0 0

1.350976619E+10

2.643162790E+09

5.820617503E+08

1.433251252E+08

3.920331280E+07

1.183339669E+07

3.915807618E+06

1.411229306E+06

5.502717178E+05

2.306211919E+05

1.032054654E+05

4.899217206E+04

2.450813446E+04

1.283489813E+04

6.990564683E+03

3.933768525E+03

2.272066838E+03

1.338098899E+03

7.982688475E+02

4.792289613E+02

2.876132481E+02

1.714295648E+02

1.008120888E+02

5.810702050E+01

3.261164859E+01

1.770451780E+01

9.236378099E+00

4.600071724E+00

2.172760479E+00

9.669020968E-01

4.027314992E-01

1.559732756E-01

5.579886090E-02

1.831808496E-02

# p-type functions

f 30 0 0

2.876673999E+09

5.789896390E+08

1.297874331E+08

3.219653492E+07

8.782804132E+06

2.617807852E+06

8.471411390E+05

2.957468650E+05

1.106786442E+05

4.411839930E+04

1.861319095E+04

8.258478072E+03

3.829042984E+03

1.843420575E+03

9.156626913E+02

4.662903638E+02

2.418912324E+02

1.270163159E+02

6.708223562E+01

3.540765027E+01

1.855928250E+01

9.599147989E+00

4.867932568E+00

2.405081040E+00

1.150326443E+00

5.292387700E-01

2.327310305E-01

9.719903635E-02

3.830959707E-02

1.415872349E-02

# d-type functions

f 21 0 0

1.061015225E+05

3.156168871E+04

1.064266863E+04

4.011057991E+03

1.665911154E+03

7.517884114E+02

3.634600774E+02

1.856100557E+02

9.871800887E+01

5.391477217E+01

2.981275178E+01

1.645681011E+01

8.941388331E+00

4.714616402E+00

2.378681400E+00

1.132246795E+00

5.013340867E-01

2.035921743E-01

7.476684255E-02

2.448147135E-02

7.047140121E-03

# f-type functions

f 16 0 0

4.556530532E+03

1.643891287E+03

6.777538812E+02

3.124645975E+02

1.576265187E+02

8.513873318E+01

4.817972237E+01

2.795183902E+01

1.626804025E+01

9.294127439E+00

5.100353949E+00

2.630753101E+00

1.248009017E+00

5.328230287E-01

2.003298458E-01

6.490460445E-02

# g-type functions

f 3 0 0

5.013340867E-01

2.035921743E-01

7.476684255E-02

# h-type functions

f 2 0 0

5.328230287E-01

2.003298458E-01

a 107

# Bh (Bohrium)

# s-type functions

f 34 0 0

1.367535232E+10

2.661940440E+09

5.837214692E+08

1.432456811E+08

3.907931643E+07

1.177397058E+07

3.891620788E+06

1.401814921E+06

5.466690055E+05

2.292729657E+05

1.027299046E+05

4.885146291E+04

2.449153078E+04

1.285976313E+04

7.025054610E+03

3.966314532E+03

2.299144796E+03

1.359277836E+03

8.142052573E+02

4.908675672E+02

2.958833708E+02

1.771428286E+02

1.046391987E+02

6.058345856E+01

3.415258346E+01

1.862189682E+01

9.756097715E+00

4.878667855E+00

2.313237701E+00

1.033128128E+00

4.317417409E-01

1.677068624E-01

6.015276389E-02

1.979061600E-02

# p-type functions

f 30 0 0

3.088235542E+09

6.166698939E+08

1.374596604E+08

3.398033482E+07

9.254641176E+06

2.758803294E+06

8.942537783E+05

3.131334081E+05

1.176728510E+05

4.714667534E+04

2.000799051E+04

8.934765367E+03

4.170996134E+03

2.022195105E+03

1.011538999E+03

5.186426089E+02

2.707880015E+02

1.430263249E+02

7.592373362E+01

4.024054238E+01

2.115555692E+01

1.095996442E+01

5.558627184E+00

2.741885705E+00

1.306785244E+00

5.978357019E-01

2.608146003E-01

1.077963499E-01

4.193223315E-02

1.525152901E-02

# d-type functions

f 21 0 0

1.187999604E+05

3.542110144E+04

1.196096956E+04

4.510440589E+03

1.872878078E+03

8.443601037E+02

4.075334504E+02

2.076375412E+02

1.101146880E+02

5.993369967E+01

3.301209466E+01

1.814433000E+01

9.812153887E+00

5.147934659E+00

2.583667736E+00

1.223108428E+00

5.385271669E-01

2.174474588E-01

7.939530438E-02

2.584751294E-02

7.398026235E-03

# f-type functions

f 16 0 0

4.836028448E+03

1.692091070E+03

6.818082049E+02

3.093019836E+02

1.544413425E+02

8.298186675E+01

4.690509189E+01

2.726793995E+01

1.593890941E+01

9.158349231E+00

5.057157871E+00

2.623644113E+00

1.250232626E+00

5.349862389E-01

2.009734381E-01

6.479736866E-02

# g-type functions

f 3 0 0

5.385271669E-01

2.174474588E-01

7.939530438E-02

# h-type functions

f 2 0 0

5.349862389E-01

2.009734381E-01

a 108

# Hs (Hassium)

# s-type functions

f 34 0 0

1.300567411E+10

2.571978059E+09

5.720202094E+08

1.421391730E+08

3.920334021E+07

1.192306225E+07

3.972432998E+06

1.440382901E+06

5.646775447E+05

2.377786402E+05

1.068423665E+05

5.089335409E+04

2.553137127E+04

1.340081704E+04

7.311072004E+03

4.118812937E+03

2.380416084E+03

1.402077635E+03

8.361384644E+02

5.015565141E+02

3.006392348E+02

1.788974400E+02

1.049890141E+02

6.036892328E+01

3.378791710E+01

1.828674482E+01

9.507951576E+00

4.718040523E+00

2.219775728E+00

9.837343424E-01

4.079589337E-01

1.572800072E-01

5.600123790E-02

1.829520775E-02

# p-type functions

f 30 0 0

3.360194718E+09

6.472698406E+08

1.402560869E+08

3.394356756E+07

9.109125311E+06

2.691307315E+06

8.691632067E+05

3.046314960E+05

1.150449879E+05

4.647977675E+04

1.994563178E+04

9.026159337E+03

4.276747703E+03

2.106510867E+03

1.070871146E+03

5.578509428E+02

2.956586361E+02

1.582845084E+02

8.498566963E+01

4.543561784E+01

2.401455953E+01

1.245845719E+01

6.298677265E+00

3.081157533E+00

1.447911133E+00

6.489591640E-01

2.754382762E-01

1.099123961E-01

4.094194995E-02

1.413428472E-02

# d-type functions

f 21 0 0

1.336214147E+05

3.766867851E+04

1.215968500E+04

4.428071635E+03

1.792132341E+03

7.941479054E+02

3.795957513E+02

1.928158247E+02

1.025364179E+02

5.623937637E+01

3.134313922E+01

1.748625794E+01

9.620915811E+00

5.142968286E+00

2.631491240E+00

1.269677472E+00

5.691163392E-01

2.334735047E-01

8.636063182E-02

2.837582076E-02

8.159212018E-03

# f-type functions

f 16 0 0

3.826843708E+03

1.390455908E+03

5.798962304E+02

2.714886588E+02

1.395382319E+02

7.700282017E+01

4.461939872E+01

2.655071602E+01

1.586704224E+01

9.313538397E+00

5.251268285E+00

2.781481943E+00

1.353575854E+00

5.918546204E-01

2.274077971E-01

7.509055254E-02

# g-type functions

f 3 0 0

1.269677472E+00

5.691163392E-01

2.334735047E-01

# h-type functions

f 2 0 0

5.918546204E-01

2.274077971E-01

a 109

# Mt (Meitnerium)

# s-type functions

f 34 0 0

7.638874251E+10

1.317720478E+10

2.575694581E+09

5.666240265E+08

1.393405681E+08

3.804473423E+07

1.145508552E+07

3.777820665E+06

1.355426517E+06

5.254781628E+05

2.186401114E+05

9.697368441E+04

4.553855642E+04

2.248838903E+04

1.159961494E+04

6.207080208E+03

3.422489442E+03

1.931346819E+03

1.107883845E+03

6.416473669E+02

3.726655494E+02

2.155833110E+02

1.233776534E+02

6.938023542E+01

3.807722973E+01

2.025711754E+01

1.037588377E+01

5.082297826E+00

2.364477061E+00

1.037773307E+00

4.267904585E-01

1.633518807E-01

5.779406272E-02

1.877346239E-02

# p-type functions

f 30 0 0

5.755650200E+08

1.349016120E+08

3.503527738E+07

1.001616229E+07

3.131455288E+06

1.063608612E+06

3.898970430E+05

1.532470777E+05

6.415792714E+04

2.842274420E+04

1.323673723E+04

6.437790575E+03

3.248444091E+03

1.689422606E+03

8.996368914E+02

4.873084703E+02

2.667412065E+02

1.465775327E+02

8.032995916E+01

4.361764630E+01

2.331112032E+01

1.218209559E+01

6.184156840E+00

3.029565326E+00

1.422863305E+00

6.364594906E-01

2.693672437E-01

1.071585735E-01

3.980694872E-02

1.371773399E-02

# d-type functions

f 21 0 0

1.185963344E+05

3.513914040E+04

1.182448378E+04

4.454509474E+03

1.851823860E+03

8.374078097E+02

4.060386094E+02

2.080875521E+02

1.111037626E+02

6.092152679E+01

3.381641690E+01

1.873072760E+01

1.020486837E+01

5.390652259E+00

2.721521875E+00

1.294417557E+00

5.717214211E-01

2.311519117E-01

8.432744089E-02

2.736240140E-02

7.784107174E-03

# f-type functions

f 16 0 0

5.856294209E+03

2.001753481E+03

7.913457506E+02

3.535780492E+02

1.744869762E+02

9.293831623E+01

5.221268271E+01

3.023444510E+01

1.763470280E+01

1.012441172E+01

5.591165182E+00

2.902425509E+00

1.384017042E+00

5.924323313E-01

2.224581828E-01

7.160868544E-02

# g-type functions

f 3 0 0

1.294417557E+00

5.717214211E-01

2.311519117E-01

# h-type functions

f 2 0 0

5.924323313E-01

2.224581828E-01

a 110

# Ds (Darmstadtium)

# s-type functions

f 34 0 0

3.185183779E+10

6.177001982E+09

1.346597197E+09

3.278505701E+08

8.856334358E+07

2.637141548E+07

8.599551576E+06

3.051003104E+06

1.170026033E+06

4.818323822E+05

2.116925519E+05

9.857932944E+04

4.833907997E+04

2.479731689E+04

1.322106215E+04

7.278550445E+03

4.110568527E+03

2.365913639E+03

1.378787805E+03

8.082748806E+02

4.735276956E+02

2.754342188E+02

1.580294985E+02

8.885210881E+01

4.863715685E+01

2.575141121E+01

1.310170613E+01

6.363707242E+00

2.931632987E+00

1.272587431E+00

5.171372631E-01

1.954455387E-01

6.825099195E-02

2.187847281E-02

# p-type functions

f 30 0 0

1.223261983E+08

3.272488759E+07

9.628175214E+06

3.095583881E+06

1.080686114E+06

4.070432921E+05

1.643581719E+05

7.069314524E+04

3.218283081E+04

1.540840723E+04

7.709096023E+03

4.004856847E+03

2.146515387E+03

1.179424420E+03

6.601170629E+02

3.739488210E+02

2.130440344E+02

1.212881075E+02

6.856213410E+01

3.823783841E+01

2.090599642E+01

1.113377844E+01

5.738971598E+00

2.844926215E+00

1.347655856E+00

6.061550050E-01

2.572235443E-01

1.023259308E-01

3.791702769E-02

1.300415379E-02

# d-type functions

f 21 0 0

1.323046609E+05

3.846663199E+04

1.275210631E+04

4.749779874E+03

1.958681813E+03

8.811669527E+02

4.261489933E+02

2.183125695E+02

1.167387603E+02

6.420598718E+01

3.579028411E+01

1.992457126E+01

1.091571273E+01

5.799085837E+00

2.943854603E+00

1.407108571E+00

6.240197665E-01

2.530076330E-01

9.241415409E-02

2.996525698E-02

8.499183748E-03

# f-type functions

f 16 0 0

4.401782973E+03

1.549269058E+03

6.298166349E+02

2.889954477E+02

1.462709246E+02

7.980234936E+01

4.586322063E+01

2.713345873E+01

1.614871753E+01

9.448518691E+00

5.311078964E+00

2.802822979E+00

1.357072328E+00

5.891220392E-01

2.240799666E-01

7.297881598E-02

# g-type functions

f 3 0 0

1.407108571E+00

6.240197665E-01

2.530076330E-01

# h-type functions

f 2 0 0

5.891220392E-01

2.240799666E-01

a 111

# Rg (Roentgenium)

# s-type functions

f 34 0 0

2.085267353E+10

4.502479501E+09

1.083453664E+09

2.887523549E+08

8.470037195E+07

2.717550898E+07

9.477431179E+06

3.570361340E+06

1.443877267E+06

6.229209797E+05

2.849103364E+05

1.372916161E+05

6.926732085E+04

3.636213040E+04

1.973762089E+04

1.100912584E+04

6.270633446E+03

3.624587059E+03

2.112915821E+03

1.234441147E+03

7.183086803E+02

4.137065219E+02

2.343700668E+02

1.297861771E+02

6.981668966E+01

3.625622458E+01

1.806285570E+01

8.579436253E+00

3.860891458E+00

1.635915739E+00

6.485847953E-01

2.391074380E-01

8.145690325E-02

2.548350659E-02

# p-type functions

f 30 0 0

1.234834278E+08

3.336221480E+07

9.898789768E+06

3.205123284E+06

1.125374764E+06

4.257883582E+05

1.724999423E+05

7.435960406E+04

3.389163413E+04

1.622966888E+04

8.114147563E+03

4.208686903E+03

2.250480184E+03

1.232772701E+03

6.874236159E+02

3.877518634E+02

2.198496247E+02

1.245071625E+02

6.998647151E+01

3.880068554E+01

2.108262191E+01

1.115640176E+01

5.713370102E+00

2.813737894E+00

1.324196311E+00

5.917699981E-01

2.495397474E-01

9.866590875E-02

3.634875108E-02

1.239827410E-02

# d-type functions

f 21 0 0

1.357086252E+05

3.932924789E+04

1.300627833E+04

4.835989588E+03

1.991949303E+03

8.955658293E+02

4.330207989E+02

2.218593353E+02

1.186779581E+02

6.530576632E+01

3.642401368E+01

2.028824944E+01

1.111955880E+01

5.908570735E+00

2.999127474E+00

1.432816960E+00

6.347979317E-01

2.569774369E-01

9.365584424E-02

3.027755990E-02

8.554973313E-03

# f-type functions

f 16 0 0

4.860160799E+03

1.662384943E+03

6.603607428E+02

2.975355651E+02

1.485059334E+02

8.019278640E+01

4.575648711E+01

2.694233386E+01

1.598903361E+01

9.340131171E+00

5.245257204E+00

2.765686508E+00

1.337213514E+00

5.790279148E-01

2.192999235E-01

7.095074959E-02

# g-type functions

f 3 0 0

1.432816960E+00

6.347979317E-01

2.569774369E-01

# h-type functions

f 2 0 0

5.790279148E-01

2.192999235E-01

a 112

# Cn (Copernicium)

# s-type functions

f 34 0 0

2.108282684E+10

4.573622287E+09

1.105338746E+09

2.957512102E+08

8.706550015E+07

2.802505631E+07

9.802122105E+06

3.702195394E+06

1.500571077E+06

6.486407180E+05

2.971629349E+05

1.433904604E+05

7.242249152E+04

3.804929729E+04

2.066484677E+04

1.152981934E+04

6.567649583E+03

3.795657307E+03

2.211800554E+03

1.291454973E+03

7.508951661E+02

4.320544422E+02

2.444832789E+02

1.352084277E+02

7.262642582E+01

3.765427436E+01

1.872642991E+01

8.877878268E+00

3.987211427E+00

1.685883740E+00

6.669244659E-01

2.453063226E-01

8.337124612E-02

2.601906559E-02

# p-type functions

f 30 0 0

1.300260290E+08

3.501284602E+07

1.035476943E+07

3.342138814E+06

1.169862167E+06

4.412921456E+05

1.782600879E+05

7.662554576E+04

3.482889684E+04

1.663441987E+04

8.295308272E+03

4.292096318E+03

2.289673594E+03

1.251411112E+03

6.963120033E+02

3.919587177E+02

2.218014978E+02

1.253809191E+02

7.035522884E+01

3.894165417E+01

2.112713581E+01

1.116426647E+01

5.710027936E+00

2.808793878E+00

1.320475150E+00

5.895551667E-01

2.484034648E-01

9.814879216E-02

3.613778324E-02

1.232089978E-02

# d-type functions

f 21 0 0

1.483289387E+05

4.258110367E+04

1.396609422E+04

5.156159098E+03

2.111043575E+03

9.443084837E+02

4.546766470E+02

2.321612471E+02

1.238515335E+02

6.800860831E+01

3.787071330E+01

2.106912205E+01

1.153769377E+01

6.126993929E+00

3.108551196E+00

1.484489019E+00

6.574013679E-01

2.659776382E-01

9.686052382E-02

3.127965298E-02

8.825040814E-03

# f-type functions

f 16 0 0

5.253064437E+03

1.777356893E+03

6.991588779E+02

3.122639242E+02

1.546385738E+02

8.292191584E+01

4.701989687E+01

2.753342593E+01

1.625962232E+01

9.456657436E+00

5.289897380E+00

2.779358746E+00

1.339476566E+00

5.782613553E-01

2.183821511E-01

7.045623191E-02

# g-type functions

f 3 0 0

1.484489019E+00

6.574013679E-01

2.659776382E-01

# h-type functions

f 2 0 0

5.782613553E-01

2.183821511E-01