

All-electron scalar relativistic basis sets for the actinides

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SUPPORTING INFORMATION

Complete listings of SARC basis sets in standard ORCA input format.

SARC-DKH2 basis sets

Basis set for element : Ac
NewGTO 89

S 9		
1	55109808.74124400	0.0312766245
2	25049913.06420200	-0.0204119520
3	11386324.12009200	0.0582795151
4	5175601.872769000	0.0047558262
5	2352546.305804000	0.0899377462
6	1069339.229911000	0.0775555648
7	486063.2863230000	0.1904178134
8	220937.8574200000	0.2641478696
9	100426.2988270000	0.4915549572
S 1		
1	45648.3176490000	1.0000000000
S 1		
1	20749.2352950000	1.0000000000
S 1		
1	9431.4705890000	1.0000000000
S 1		
1	4287.0320860000	1.0000000000
S 1		
1	1948.6509480000	1.0000000000
S 1		
1	885.7504310000	1.0000000000
S 1		
1	402.6138320000	1.0000000000
S 1		
1	183.0062870000	1.0000000000
S 1		
1	83.1846760000	1.0000000000
S 1		
1	37.8112160000	1.0000000000
S 1		
1	17.1869170000	1.0000000000
S 1		
1	7.8122350000	1.0000000000
S 1		
1	3.5510160000	1.0000000000
S 1		
1	1.6140980000	1.0000000000
S 1		
1	0.7336810000	1.0000000000
S 1		
1	0.3334910000	1.0000000000
S 1		
1	0.1515870000	1.0000000000
S 1		
1	0.0689030000	1.0000000000
S 1		
1	0.0313200000	1.0000000000
S 1		
1	0.0142360000	1.0000000000
P 8		
1	782789.9000960001	0.0031757524
2	326162.4583730000	0.0008406366
3	135901.0243220000	0.0083656049
4	56625.4268010000	0.0126957020
5	23593.9278340000	0.0370008398
6	9830.8032640000	0.0908384712
7	4096.1680270000	0.2586186730
8	1706.7366780000	0.7139694175
P 1		
1	711.1402820000	1.0000000000
P 1		
1	296.3084510000	1.0000000000

P	1		
1	123.4618550000	1.0000000000	
P	1		
1	51.4424390000	1.0000000000	
P	1		
1	21.4343500000	1.0000000000	
P	1		
1	8.9309790000	1.0000000000	
P	1		
1	3.7212410000	1.0000000000	
P	1		
1	1.5505170000	1.0000000000	
P	1		
1	0.6460490000	1.0000000000	
P	1		
1	0.2691870000	1.0000000000	
P	1		
1	0.1121610000	1.0000000000	
P	1		
1	0.0467340000	1.0000000000	
D	7		
1	37896.8365590000	0.0001482612	
2	15158.7346230000	0.0003702219	
3	6063.4938490000	0.0020736881	
4	2425.3975400000	0.0096748493	
5	970.1590160000	0.0520379811	
6	388.0636060000	0.2362709965	
7	155.2254430000	0.7964725694	
D	1		
1	62.0901770000	1.0000000000	
D	1		
1	24.8360710000	1.0000000000	
D	1		
1	9.9344280000	1.0000000000	
D	1		
1	3.9737710000	1.0000000000	
D	1		
1	1.5895090000	1.0000000000	
D	1		
1	0.6358030000	1.0000000000	
D	1		
1	0.2543210000	1.0000000000	
D	1		
1	0.1017290000	1.0000000000	
D	1		
1	0.0406910000	1.0000000000	
F	6		
1	3860.7881580000	0.0000676369	
2	1484.9185220000	0.0004993795	
3	571.1225090000	0.0048810577	
4	219.6625030000	0.0404316252	
5	84.4855780000	0.2453229456	
6	32.4944530000	0.8182721188	
F	1		
1	12.4978670000	1.0000000000	
F	1		
1	4.8068720000	1.0000000000	
F	1		
1	1.8487970000	1.0000000000	
F	1		
1	0.7110760000	1.0000000000	
F	1		
1	0.2734910000	1.0000000000	
F	1		
1	0.1051890000	1.0000000000	
end			

Basis set for element : Th

NewGT0 90

S 9		
1	56363088.88971600	0.0318759066
2	25619585.85896200	-0.0208607830
3	11645266.29952800	0.0593104871
4	5293302.863422000	0.0045173834
5	2406046.756101000	0.0910942228
6	1093657.616409000	0.0776539218
7	497117.0983680000	0.1914375494
8	225962.3174400000	0.2636687905
9	102710.1442910000	0.4900758514
S 1		
1	46686.4292230000	1.0000000000
S 1		
1	21221.1041920000	1.0000000000
S 1		
1	9645.9564510000	1.0000000000
S 1		
1	4384.5256600000	1.0000000000
S 1		
1	1992.9662090000	1.0000000000
S 1		
1	905.8937310000	1.0000000000
S 1		
1	411.7698780000	1.0000000000
S 1		
1	187.1681260000	1.0000000000
S 1		
1	85.0764210000	1.0000000000
S 1		
1	38.6711000000	1.0000000000
S 1		
1	17.5777730000	1.0000000000
S 1		
1	7.9898970000	1.0000000000
S 1		
1	3.6317710000	1.0000000000
S 1		
1	1.6508050000	1.0000000000
S 1		
1	0.7503660000	1.0000000000
S 1		
1	0.3410750000	1.0000000000
S 1		
1	0.1550340000	1.0000000000
S 1		
1	0.0704700000	1.0000000000
S 1		
1	0.0320320000	1.0000000000
S 1		
1	0.0145600000	1.0000000000
P 8		
1	801557.4232150000	0.0032622731
2	333982.2596730000	0.0008569025
3	139159.2748640000	0.0085578818
4	57983.0311930000	0.0129143706
5	24159.5963310000	0.0375326683
6	10066.4984710000	0.0916129238
7	4194.3743630000	0.2594858133
8	1747.6559850000	0.7123765928
P 1		
1	728.1899940000	1.0000000000
P 1		
1	303.4124970000	1.0000000000
P 1		
1	126.4218740000	1.0000000000
P 1		
1	52.6757810000	1.0000000000
P 1		

1	21.9482420000	1.0000000000
P 1		
1	9.1451010000	1.0000000000
P 1		
1	3.8104590000	1.0000000000
P 1		
1	1.5876910000	1.0000000000
P 1		
1	0.6615380000	1.0000000000
P 1		
1	0.2756410000	1.0000000000
P 1		
1	0.1148500000	1.0000000000
P 1		
1	0.0478540000	1.0000000000
D 7		
1	38933.2915440000	0.0001513887
2	15573.3166180000	0.0003759661
3	6229.3266470000	0.0020977831
4	2491.7306590000	0.0097347616
5	996.6922640000	0.0521624557
6	398.6769050000	0.2362677556
7	159.4707620000	0.7964070682
D 1		
1	63.7883050000	1.0000000000
D 1		
1	25.5153220000	1.0000000000
D 1		
1	10.2061290000	1.0000000000
D 1		
1	4.0824520000	1.0000000000
D 1		
1	1.6329810000	1.0000000000
D 1		
1	0.6531920000	1.0000000000
D 1		
1	0.2612770000	1.0000000000
D 1		
1	0.1045110000	1.0000000000
D 1		
1	0.0418040000	1.0000000000
F 6		
1	4035.8413290000	0.0000665503
2	1552.2466650000	0.0004925640
3	597.0179480000	0.0047782956
4	229.6222880000	0.0397489860
5	88.3162650000	0.2429834827
6	33.9677940000	0.8203559595
F 1		
1	13.0645360000	1.0000000000
F 1		
1	5.0248220000	1.0000000000
F 1		
1	1.9326240000	1.0000000000
F 1		
1	0.7433170000	1.0000000000
F 1		
1	0.2858910000	1.0000000000
F 1		
1	0.1099580000	1.0000000000
end		

Basis set for element : Pa

NewGTO 91

S 9

1	57631858.17253400	0.0324936320
2	26196299.16933400	-0.0213243242
3	11907408.71333400	0.0603713014

4	5412458.506061000	0.0042675023
5	2460208.411846000	0.0922786745
6	1118276.550839000	0.0777436539
7	508307.5231090000	0.1924734529
8	231048.8741400000	0.2631671960
9	105022.2155180000	0.4885848292
S 1		
1	47737.3706900000	1.0000000000
S 1		
1	21698.8048590000	1.0000000000
S 1		
1	9863.0931180000	1.0000000000
S 1		
1	4483.2241440000	1.0000000000
S 1		
1	2037.8291570000	1.0000000000
S 1		
1	926.2859800000	1.0000000000
S 1		
1	421.0390820000	1.0000000000
S 1		
1	191.3814010000	1.0000000000
S 1		
1	86.9915460000	1.0000000000
S 1		
1	39.5416120000	1.0000000000
S 1		
1	17.9734600000	1.0000000000
S 1		
1	8.1697540000	1.0000000000
S 1		
1	3.7135250000	1.0000000000
S 1		
1	1.6879660000	1.0000000000
S 1		
1	0.7672570000	1.0000000000
S 1		
1	0.3487530000	1.0000000000
S 1		
1	0.1585240000	1.0000000000
S 1		
1	0.0720560000	1.0000000000
S 1		
1	0.0327530000	1.0000000000
S 1		
1	0.0148880000	1.0000000000
P 8		
1	820588.6600690000	0.0033507411
2	341911.9416950000	0.0008734200
3	142463.3090400000	0.0087537475
4	59359.7121000000	0.0131359375
5	24733.2133750000	0.0380705333
6	10305.5055730000	0.0923923439
7	4293.9606550000	0.2603540937
8	1789.1502730000	0.7107726266
P 1		
1	745.4792800000	1.0000000000
P 1		
1	310.6163670000	1.0000000000
P 1		
1	129.4234860000	1.0000000000
P 1		
1	53.9264530000	1.0000000000
P 1		
1	22.4693550000	1.0000000000
P 1		
1	9.3622310000	1.0000000000
P 1		
1	3.9009300000	1.0000000000

P 1		
1	1.6253870000	1.0000000000
P 1		
1	0.6772450000	1.0000000000
P 1		
1	0.2821850000	1.0000000000
P 1		
1	0.1175770000	1.0000000000
P 1		
1	0.0489910000	1.0000000000
D 7		
1	39984.8312080000	0.0001545696
2	15993.9324830000	0.0003818697
3	6397.5729930000	0.0021222331
4	2559.0291970000	0.0097968379
5	1023.6116790000	0.0522921295
6	409.4446720000	0.2362850042
7	163.7778690000	0.7963212840
D 1		
1	65.5111470000	1.0000000000
D 1		
1	26.2044590000	1.0000000000
D 1		
1	10.4817840000	1.0000000000
D 1		
1	4.1927130000	1.0000000000
D 1		
1	1.6770850000	1.0000000000
D 1		
1	0.6708340000	1.0000000000
D 1		
1	0.2683340000	1.0000000000
D 1		
1	0.1073330000	1.0000000000
D 1		
1	0.0429330000	1.0000000000
F 6		
1	4212.3892570000	0.0000656512
2	1620.1497140000	0.0004867345
3	623.1345050000	0.0046875705
4	239.6671170000	0.0391377282
5	92.1796610000	0.2408751552
6	35.4537160000	0.8222271707
F 1		
1	13.6360440000	1.0000000000
F 1		
1	5.2446320000	1.0000000000
F 1		
1	2.0171660000	1.0000000000
F 1		
1	0.7758330000	1.0000000000
F 1		
1	0.2983970000	1.0000000000
F 1		
1	0.1147680000	1.0000000000
end		

Basis set for element : U

NewGTO 92

S 9

1	58915269.20406200	0.0331306134
2	26779667.82002800	-0.0218032405
3	12172576.28183100	0.0614632410
4	5532989.219014000	0.0040056242
5	2514995.099552000	0.0934922512
6	1143179.590705000	0.0778243085
7	519627.0866840000	0.1935262084
8	236194.1303110000	0.2626421889

9	107360.9683230000	0.4870813929
S 1		
1	48800.4401470000	1.0000000000
S 1		
1	22182.0182490000	1.0000000000
S 1		
1	10082.7355680000	1.0000000000
S 1		
1	4583.0616220000	1.0000000000
S 1		
1	2083.2098280000	1.0000000000
S 1		
1	946.9135580000	1.0000000000
S 1		
1	430.4152540000	1.0000000000
S 1		
1	195.6432970000	1.0000000000
S 1		
1	88.9287710000	1.0000000000
S 1		
1	40.4221690000	1.0000000000
S 1		
1	18.3737130000	1.0000000000
S 1		
1	8.3516880000	1.0000000000
S 1		
1	3.7962220000	1.0000000000
S 1		
1	1.7255550000	1.0000000000
S 1		
1	0.7843430000	1.0000000000
S 1		
1	0.3565200000	1.0000000000
S 1		
1	0.1620540000	1.0000000000
S 1		
1	0.0736610000	1.0000000000
S 1		
1	0.0334820000	1.0000000000
S 1		
1	0.0152190000	1.0000000000
P 8		
1	839813.6669700000	0.0034411220
2	349922.3612380000	0.0008901889
3	145800.9838490000	0.0089531291
4	60750.4099370000	0.0133603309
5	25312.6708070000	0.0386144089
6	10546.9461700000	0.0931768584
7	4394.5609040000	0.2612253423
8	1831.0670430000	0.7091556378
P 1		
1	762.9446010000	1.0000000000
P 1		
1	317.8935840000	1.0000000000
P 1		
1	132.4556600000	1.0000000000
P 1		
1	55.1898580000	1.0000000000
P 1		
1	22.9957740000	1.0000000000
P 1		
1	9.5815730000	1.0000000000
P 1		
1	3.9923220000	1.0000000000
P 1		
1	1.6634670000	1.0000000000
P 1		
1	0.6931110000	1.0000000000
P 1		

1	0.2887960000	1.0000000000
P 1		
1	0.1203320000	1.0000000000
P 1		
1	0.0501380000	1.0000000000
D 7		
1	41049.8202270000	0.0001578167
2	16419.9280910000	0.0003878999
3	6567.9712360000	0.0021472035
4	2627.1884950000	0.0098608714
5	1050.8753980000	0.0524286051
6	420.3501590000	0.2363168740
7	168.1400640000	0.7962195195
D 1		
1	67.2560250000	1.0000000000
D 1		
1	26.9024100000	1.0000000000
D 1		
1	10.7609640000	1.0000000000
D 1		
1	4.3043860000	1.0000000000
D 1		
1	1.7217540000	1.0000000000
D 1		
1	0.6887020000	1.0000000000
D 1		
1	0.2754810000	1.0000000000
D 1		
1	0.1101920000	1.0000000000
D 1		
1	0.0440770000	1.0000000000
F 6		
1	4391.9602590000	0.0000648280
2	1689.2154840000	0.0004816285
3	649.6982630000	0.0046032038
4	249.8839470000	0.0385657246
5	96.1092110000	0.2388464606
6	36.9650810000	0.8240173974
F 1		
1	14.2173390000	1.0000000000
F 1		
1	5.4682070000	1.0000000000
F 1		
1	2.1031570000	1.0000000000
F 1		
1	0.8089060000	1.0000000000
F 1		
1	0.3111180000	1.0000000000
F 1		
1	0.1196610000	1.0000000000
end		

Basis set for element : Np
NewGTO 93

S 9		
1	60212393.78258100	0.0337877053
2	27369269.90117300	-0.0222982323
3	12440577.22780600	0.0625876540
4	5654807.830821000	0.0037311573
5	2570367.195828000	0.0947361564
6	1168348.725376000	0.0778954004
7	531067.6024440000	0.1945965254
8	241394.3647470000	0.2620928230
9	109724.7112490000	0.4855650387
S 1		
1	49874.8687490000	1.0000000000
S 1		
1	22670.3948860000	1.0000000000

S	1		
1	10304.7249480000	1.0000000000	
S	1		
1	4683.9658860000	1.0000000000	
S	1		
1	2129.0754030000	1.0000000000	
S	1		
1	967.7615470000	1.0000000000	
S	1		
1	439.8916120000	1.0000000000	
S	1		
1	199.9507330000	1.0000000000	
S	1		
1	90.8866970000	1.0000000000	
S	1		
1	41.3121350000	1.0000000000	
S	1		
1	18.7782430000	1.0000000000	
S	1		
1	8.5355650000	1.0000000000	
S	1		
1	3.8798020000	1.0000000000	
S	1		
1	1.7635460000	1.0000000000	
S	1		
1	0.8016120000	1.0000000000	
S	1		
1	0.3643690000	1.0000000000	
S	1		
1	0.1656220000	1.0000000000	
S	1		
1	0.0752830000	1.0000000000	
S	1		
1	0.0342190000	1.0000000000	
S	1		
1	0.0155540000	1.0000000000	
P	8		
1	859302.8310040000	0.0035335599	
2	358042.8462520000	0.0009072179	
3	149184.5192720000	0.0091562829	
4	62160.2163630000	0.0135877381	
5	25900.0901510000	0.0391645831	
6	10791.7042300000	0.0939664749	
7	4496.5434290000	0.2620978347	
8	1873.5597620000	0.7075269947	
P	1		
1	780.6499010000	1.0000000000	
P	1		
1	325.2707920000	1.0000000000	
P	1		
1	135.5294970000	1.0000000000	
P	1		
1	56.4706240000	1.0000000000	
P	1		
1	23.5294270000	1.0000000000	
P	1		
1	9.8039280000	1.0000000000	
P	1		
1	4.0849700000	1.0000000000	
P	1		
1	1.7020710000	1.0000000000	
P	1		
1	0.7091960000	1.0000000000	
P	1		
1	0.2954980000	1.0000000000	
P	1		
1	0.1231240000	1.0000000000	
P	1		
1	0.0513020000	1.0000000000	

D 7		
1	42129.4422870000	0.0001611265
2	16851.7769150000	0.0003940653
3	6740.7107660000	0.0021726234
4	2696.2843060000	0.0099267939
5	1078.5137230000	0.0525706620
6	431.4054890000	0.2363631910
7	172.5621960000	0.7961024818
D 1		
1	69.0248780000	1.0000000000
D 1		
1	27.6099510000	1.0000000000
D 1		
1	11.0439810000	1.0000000000
D 1		
1	4.4175920000	1.0000000000
D 1		
1	1.7670370000	1.0000000000
D 1		
1	0.7068150000	1.0000000000
D 1		
1	0.2827260000	1.0000000000
D 1		
1	0.1130900000	1.0000000000
D 1		
1	0.0452360000	1.0000000000
F 6		
1	4574.1842730000	0.0000640986
2	1759.3016440000	0.0004772097
3	676.6544780000	0.0045257498
4	260.2517220000	0.0380362075
5	100.0968160000	0.2369289742
6	38.4987760000	0.8257014451
F 1		
1	14.8072210000	1.0000000000
F 1		
1	5.6950850000	1.0000000000
F 1		
1	2.1904170000	1.0000000000
F 1		
1	0.8424680000	1.0000000000
F 1		
1	0.3240260000	1.0000000000
F 1		
1	0.1246250000	1.0000000000
end		

Basis set for element : Pu
NewGTO 94

S 9		
1	61522220.62252900	0.0344658099
2	27964645.73751300	-0.0228100400
3	12711202.60796100	0.0637459626
4	5777819.367255000	0.0034434745
5	2626281.530570000	0.0960116578
6	1193764.332077000	0.0779564129
7	542620.1509440000	0.1956851492
8	246645.5231560000	0.2615180971
9	112111.6014350000	0.4840352422
S 1		
1	50959.8188340000	1.0000000000
S 1		
1	23163.5540150000	1.0000000000
S 1		
1	10528.8881890000	1.0000000000
S 1		
1	4785.8582680000	1.0000000000
S 1		

1	2175.3901220000	1.0000000000
S 1		
1	988.8136920000	1.0000000000
S 1		
1	449.4607690000	1.0000000000
S 1		
1	204.3003500000	1.0000000000
S 1		
1	92.8637950000	1.0000000000
S 1		
1	42.2108160000	1.0000000000
S 1		
1	19.1867350000	1.0000000000
S 1		
1	8.7212430000	1.0000000000
S 1		
1	3.9642010000	1.0000000000
S 1		
1	1.8019100000	1.0000000000
S 1		
1	0.8190500000	1.0000000000
S 1		
1	0.3722950000	1.0000000000
S 1		
1	0.1692250000	1.0000000000
S 1		
1	0.0769210000	1.0000000000
S 1		
1	0.0349640000	1.0000000000
S 1		
1	0.0158930000	1.0000000000
P 8		
1	879013.3813660000	0.0036280441
2	366255.5755690000	0.0009245055
3	152606.4898210000	0.0093631710
4	63586.0374250000	0.0138180947
5	26494.1822610000	0.0397209745
6	11039.2426090000	0.0947610975
7	4599.6844200000	0.2629722435
8	1916.5351750000	0.7058860729
P 1		
1	798.5563230000	1.0000000000
P 1		
1	332.7318010000	1.0000000000
P 1		
1	138.6382510000	1.0000000000
P 1		
1	57.7659380000	1.0000000000
P 1		
1	24.0691410000	1.0000000000
P 1		
1	10.0288090000	1.0000000000
P 1		
1	4.1786700000	1.0000000000
P 1		
1	1.7411130000	1.0000000000
P 1		
1	0.7254640000	1.0000000000
P 1		
1	0.3022760000	1.0000000000
P 1		
1	0.1259490000	1.0000000000
P 1		
1	0.0524790000	1.0000000000
D 7		
1	43223.8765000000	0.0001644977
2	17289.5506000000	0.0004003774
3	6915.8202400000	0.0021984643
4	2766.3280960000	0.0099946905

5	1106.5312380000	0.0527180463
6	442.6124950000	0.2364259417
7	177.0449980000	0.7959685659
D 1		
1	70.8179990000	1.0000000000
D 1		
1	28.3272000000	1.0000000000
D 1		
1	11.3308800000	1.0000000000
D 1		
1	4.5323520000	1.0000000000
D 1		
1	1.8129410000	1.0000000000
D 1		
1	0.7251760000	1.0000000000
D 1		
1	0.2900710000	1.0000000000
D 1		
1	0.1160280000	1.0000000000
D 1		
1	0.0464110000	1.0000000000
F 6		
1	4758.8680260000	0.0000634702
2	1830.3338560000	0.0004734278
3	703.9745600000	0.0044552586
4	270.7594460000	0.0375494378
5	104.1382490000	0.2351391900
6	40.0531730000	0.8272671140
F 1		
1	15.4050660000	1.0000000000
F 1		
1	5.9250260000	1.0000000000
F 1		
1	2.2788560000	1.0000000000
F 1		
1	0.8764830000	1.0000000000
F 1		
1	0.3371090000	1.0000000000
F 1		
1	0.1296570000	1.0000000000
end		

Basis set for element : Am

NewGTO 95

S 9		
1	62843653.32610500	0.0351658825
2	28565296.96641200	-0.0233394478
3	12984225.89382300	0.0649396714
4	5901920.860829000	0.0031419101
5	2682691.300377000	0.0973200958
6	1219405.136535000	0.0780067978
7	554275.0620610000	0.1967928683
8	251943.2100280000	0.2609169513
9	114519.6409220000	0.4824914468
S 1		
1	52054.3822370000	1.0000000000
S 1		
1	23661.0828350000	1.0000000000
S 1		
1	10755.0376520000	1.0000000000
S 1		
1	4888.6534780000	1.0000000000
S 1		
1	2222.1152170000	1.0000000000
S 1		
1	1010.0523720000	1.0000000000
S 1		
1	459.1147140000	1.0000000000

S 1		
1	208.6885070000	1.0000000000
S 1		
1	94.8584120000	1.0000000000
S 1		
1	43.1174600000	1.0000000000
S 1		
1	19.5988450000	1.0000000000
S 1		
1	8.9085660000	1.0000000000
S 1		
1	4.0493480000	1.0000000000
S 1		
1	1.8406130000	1.0000000000
S 1		
1	0.8366420000	1.0000000000
S 1		
1	0.3802920000	1.0000000000
S 1		
1	0.1728600000	1.0000000000
S 1		
1	0.0785730000	1.0000000000
S 1		
1	0.0357150000	1.0000000000
S 1		
1	0.0162340000	1.0000000000
P 8		
1	898929.0904960000	0.0037246164
2	374553.7877070000	0.0009420557
3	156064.0782110000	0.0095738607
4	65026.6992550000	0.0140514412
5	27094.4580230000	0.0402836985
6	11289.3575090000	0.0955608348
7	4703.8989620000	0.2638489693
8	1959.9579010000	0.7042322614
P 1		
1	816.6491250000	1.0000000000
P 1		
1	340.2704690000	1.0000000000
P 1		
1	141.7793620000	1.0000000000
P 1		
1	59.0747340000	1.0000000000
P 1		
1	24.6144730000	1.0000000000
P 1		
1	10.2560300000	1.0000000000
P 1		
1	4.2733460000	1.0000000000
P 1		
1	1.7805610000	1.0000000000
P 1		
1	0.7419000000	1.0000000000
P 1		
1	0.3091250000	1.0000000000
P 1		
1	0.1288020000	1.0000000000
P 1		
1	0.0536680000	1.0000000000
D 7		
1	44331.4203980000	0.0001679383
2	17732.5681590000	0.0004068217
3	7093.0272640000	0.0022248332
4	2837.2109050000	0.0100645341
5	1134.8843620000	0.0528720089
6	453.9537450000	0.2365032043
7	181.5814980000	0.7958188325
D 1		
1	72.6325990000	1.0000000000

D	1		
1	29.0530400000	1.0000000000	
D	1		
1	11.6212160000	1.0000000000	
D	1		
1	4.6484860000	1.0000000000	
D	1		
1	1.8593950000	1.0000000000	
D	1		
1	0.7437580000	1.0000000000	
D	1		
1	0.2975030000	1.0000000000	
D	1		
1	0.1190010000	1.0000000000	
D	1		
1	0.0476010000	1.0000000000	
F	6		
1	4946.8424820000	0.0000628938	
2	1902.6317240000	0.0004701484	
3	731.7814320000	0.0043891511	
4	281.4543970000	0.0370904453	
5	108.2516910000	0.2334062650	
6	41.6352660000	0.8287755370	
F	1		
1	16.0135640000	1.0000000000	
F	1		
1	6.1590630000	1.0000000000	
F	1		
1	2.3688700000	1.0000000000	
F	1		
1	0.9111040000	1.0000000000	
F	1		
1	0.3504250000	1.0000000000	
F	1		
1	0.1347790000	1.0000000000	
end			

Basis set for element : Cm
NewGTO 96

S	9		
1	64183659.71228800	0.0358890046	
2	29174390.77831300	-0.0238873385	
3	13261086.71741500	0.0661705007	
4	6027766.689734000	0.0028257430	
5	2739893.949879000	0.0986630440	
6	1245406.340854000	0.0780460170	
7	566093.7912970000	0.1979206486	
8	257315.3596810000	0.2602882009	
9	116961.5271280000	0.4809328290	
S	1		
1	53164.3305130000	1.0000000000	
S	1		
1	24165.6047780000	1.0000000000	
S	1		
1	10984.3658080000	1.0000000000	
S	1		
1	4992.8935490000	1.0000000000	
S	1		
1	2269.4970680000	1.0000000000	
S	1		
1	1031.5895760000	1.0000000000	
S	1		
1	468.9043530000	1.0000000000	
S	1		
1	213.1383420000	1.0000000000	
S	1		
1	96.8810650000	1.0000000000	
S	1		

1	44.0368480000	1.0000000000
S 1		
1	20.0167490000	1.0000000000
S 1		
1	9.0985220000	1.0000000000
S 1		
1	4.1356920000	1.0000000000
S 1		
1	1.8798600000	1.0000000000
S 1		
1	0.8544820000	1.0000000000
S 1		
1	0.3884010000	1.0000000000
S 1		
1	0.1765460000	1.0000000000
S 1		
1	0.0802480000	1.0000000000
S 1		
1	0.0364760000	1.0000000000
S 1		
1	0.0165800000	1.0000000000
P 8		
1	919065.4160050000	0.0038233559
2	382943.9233360000	0.0009598734
3	159559.9680560000	0.0097884845
4	66483.3200240000	0.0142878620
5	27701.3833430000	0.0408529100
6	11542.2430600000	0.0963657199
7	4809.2679420000	0.2647275734
8	2003.8616420000	0.7025657657
P 1		
1	834.9423510000	1.0000000000
P 1		
1	347.8926460000	1.0000000000
P 1		
1	144.9552690000	1.0000000000
P 1		
1	60.3980290000	1.0000000000
P 1		
1	25.1658450000	1.0000000000
P 1		
1	10.4857690000	1.0000000000
P 1		
1	4.3690700000	1.0000000000
P 1		
1	1.8204460000	1.0000000000
P 1		
1	0.7585190000	1.0000000000
P 1		
1	0.3160500000	1.0000000000
P 1		
1	0.1316870000	1.0000000000
P 1		
1	0.0548700000	1.0000000000
D 7		
1	45453.5554980000	0.0001714478
2	18181.4221990000	0.0004133915
3	7272.5688800000	0.0022516908
4	2909.0275520000	0.0101360687
5	1163.6110210000	0.0530312799
6	465.4444080000	0.2365910587
7	186.1777630000	0.7956572424
D 1		
1	74.4711050000	1.0000000000
D 1		
1	29.7884420000	1.0000000000
D 1		
1	11.9153770000	1.0000000000
D 1		

1	4.7661510000	1.0000000000
D 1		
1	1.9064600000	1.0000000000
D 1		
1	0.7625840000	1.0000000000
D 1		
1	0.3050340000	1.0000000000
D 1		
1	0.1220130000	1.0000000000
D 1		
1	0.0488050000	1.0000000000
F 6		
1	5137.9626210000	0.0000623692
2	1976.1394700000	0.0004673406
3	760.0536420000	0.0043272570
4	292.3283240000	0.0366582974
5	112.4339710000	0.2317312383
6	43.2438350000	0.8302266034
F 1		
1	16.6322440000	1.0000000000
F 1		
1	6.3970170000	1.0000000000
F 1		
1	2.4603910000	1.0000000000
F 1		
1	0.9463040000	1.0000000000
F 1		
1	0.3639630000	1.0000000000
F 1		
1	0.1399860000	1.0000000000
end		

Basis set for element : Bk

NewGTO 97

S 9		
1	65541743.54207900	0.0366362262
2	29791701.61003600	-0.0244545791
3	13541682.55001600	0.0674400979
4	6155310.250007000	0.0024942219
5	2797868.295458000	0.1000419508
6	1271758.316117000	0.0780734218
7	578071.9618710000	0.1990693119
8	262759.9826690000	0.2596306533
9	119436.3557590000	0.4793588927
S 1		
1	54289.2526180000	1.0000000000
S 1		
1	24676.9330080000	1.0000000000
S 1		
1	11216.7877310000	1.0000000000
S 1		
1	5098.5398780000	1.0000000000
S 1		
1	2317.5181260000	1.0000000000
S 1		
1	1053.4173300000	1.0000000000
S 1		
1	478.8260590000	1.0000000000
S 1		
1	217.6482090000	1.0000000000
S 1		
1	98.9310040000	1.0000000000
S 1		
1	44.9686380000	1.0000000000
S 1		
1	20.4402900000	1.0000000000
S 1		
1	9.2910410000	1.0000000000

S	1		
1		4.2232000000	1.0000000000
S	1		
1		1.9196370000	1.0000000000
S	1		
1		0.8725620000	1.0000000000
S	1		
1		0.3966190000	1.0000000000
S	1		
1		0.1802810000	1.0000000000
S	1		
1		0.0819460000	1.0000000000
S	1		
1		0.0372480000	1.0000000000
S	1		
1		0.0169310000	1.0000000000
P	8		
1		939440.7605340000	0.0039243336
2		391433.6502220000	0.0009779604
3		163097.3542590000	0.0100071543
4		67957.2309410000	0.0145274046
5		28315.5128920000	0.0414286822
6		11798.1303720000	0.0971756151
7		4915.8876550000	0.2656073518
8		2048.2865230000	0.7008871987
P	1		
1		853.4527180000	1.0000000000
P	1		
1		355.6052990000	1.0000000000
P	1		
1		148.1688750000	1.0000000000
P	1		
1		61.7370310000	1.0000000000
P	1		
1		25.7237630000	1.0000000000
P	1		
1		10.7182350000	1.0000000000
P	1		
1		4.4659310000	1.0000000000
P	1		
1		1.8608050000	1.0000000000
P	1		
1		0.7753350000	1.0000000000
P	1		
1		0.3230560000	1.0000000000
P	1		
1		0.1346070000	1.0000000000
P	1		
1		0.0560860000	1.0000000000
D	7		
1		46590.6458960000	0.0001750203
2		18636.2583580000	0.0004201197
3		7454.5033430000	0.0022789545
4		2981.8013370000	0.0102096143
5		1192.7205350000	0.0531954810
6		477.0882140000	0.2366963299
7		190.8352860000	0.7954780716
D	1		
1		76.3341140000	1.0000000000
D	1		
1		30.5336460000	1.0000000000
D	1		
1		12.2134580000	1.0000000000
D	1		
1		4.8853830000	1.0000000000
D	1		
1		1.9541530000	1.0000000000
D	1		
1		0.7816610000	1.0000000000

```

D 1
1      0.3126650000      1.0000000000
D 1
1      0.1250660000      1.0000000000
D 1
1      0.0500260000      1.0000000000
F 6
1      5327.8457110000      0.0000619947
2      2049.1714270000      0.0004653579
3      788.1428570000      0.0042749941
4      303.1318680000      0.0362878121
5      116.5891800000      0.2302770619
6      44.8419920000      0.8314823055
F 1
1      17.2469200000      1.0000000000
F 1
1      6.6334310000      1.0000000000
F 1
1      2.5513200000      1.0000000000
F 1
1      0.9812770000      1.0000000000
F 1
1      0.3774140000      1.0000000000
F 1
1      0.1451590000      1.0000000000
end

```

Basis set for element : Cf

NewGTO 98

```

S 9
1      66908672.67153500      0.0374085968
2      30413033.03251600      -0.0250420417
3      13824105.92387100      0.0687500948
4      6283684.510850000      0.0021465649
5      2856220.232205000      0.1014582118
6      1298281.923729000      0.0780882908
7      590128.1471500000      0.2002396174
8      268240.0668860000      0.2589431115
9      121927.3031300000      0.4777692911
S 1
1      55421.5014230000      1.0000000000
S 1
1      25191.5915560000      1.0000000000
S 1
1      11450.7234340000      1.0000000000
S 1
1      5204.8742880000      1.0000000000
S 1
1      2365.8519490000      1.0000000000
S 1
1      1075.3872500000      1.0000000000
S 1
1      488.8123860000      1.0000000000
S 1
1      222.1874480000      1.0000000000
S 1
1      100.9942950000      1.0000000000
S 1
1      45.9064980000      1.0000000000
S 1
1      20.8665900000      1.0000000000
S 1
1      9.4848140000      1.0000000000
S 1
1      4.3112790000      1.0000000000
S 1
1      1.9596720000      1.0000000000
S 1

```

1	0.8907600000	1.0000000000
S 1		
1	0.4048910000	1.0000000000
S 1		
1	0.1840410000	1.0000000000
S 1		
1	0.0836550000	1.0000000000
S 1		
1	0.0380250000	1.0000000000
S 1		
1	0.0172840000	1.0000000000
P 8		
1	960041.3086390001	0.0040276045
2	400017.2119330000	0.0009963220
3	166673.8383050000	0.0102299597
4	69447.4326270000	0.0147701296
5	28936.4302610000	0.0420111673
6	12056.8459420000	0.0979906843
7	5023.6858090000	0.2664887009
8	2093.2024210000	0.6991958875
P 1		
1	872.1676750000	1.0000000000
P 1		
1	363.4031980000	1.0000000000
P 1		
1	151.4179990000	1.0000000000
P 1		
1	63.0908330000	1.0000000000
P 1		
1	26.2878470000	1.0000000000
P 1		
1	10.9532700000	1.0000000000
P 1		
1	4.5638620000	1.0000000000
P 1		
1	1.9016090000	1.0000000000
P 1		
1	0.7923370000	1.0000000000
P 1		
1	0.3301410000	1.0000000000
P 1		
1	0.1375590000	1.0000000000
P 1		
1	0.0573160000	1.0000000000
D 7		
1	47740.9667690000	0.0001786657
2	19096.3867080000	0.0004269828
3	7638.5546830000	0.0023067483
4	3055.4218730000	0.0102850279
5	1222.1687490000	0.0533657826
6	488.8675000000	0.2368148452
7	195.5470000000	0.7952843597
D 1		
1	78.2188000000	1.0000000000
D 1		
1	31.2875200000	1.0000000000
D 1		
1	12.5150080000	1.0000000000
D 1		
1	5.0060030000	1.0000000000
D 1		
1	2.0024010000	1.0000000000
D 1		
1	0.8009610000	1.0000000000
D 1		
1	0.3203840000	1.0000000000
D 1		
1	0.1281540000	1.0000000000
D 1		

1	0.0512610000	1.0000000000
F 6		
1	5522.2215080000	0.0000616371
2	2123.9313490000	0.0004636186
3	816.8966730000	0.0042245181
4	314.1910280000	0.0359285881
5	120.8427030000	0.2288308799
6	46.4779630000	0.8327258043
F 1		
1	17.8761400000	1.0000000000
F 1		
1	6.8754380000	1.0000000000
F 1		
1	2.6443990000	1.0000000000
F 1		
1	1.0170770000	1.0000000000
F 1		
1	0.3911830000	1.0000000000
F 1		
1	0.1504550000	1.0000000000
end		

Basis set for element : Es

NewGTO 99

S 9		
1	68291966.01786400	0.0382073668
2	31041802.73539300	-0.0256507539
3	14109910.33426900	0.0701024687
4	6413595.606486000	0.0017819093
5	2915270.730221000	0.1029136072
6	1325123.059191000	0.0780899367
7	602328.6632690000	0.2014326209
8	273785.7560310000	0.2582241751
9	124448.0709230000	0.4761632255
S 1		
1	56567.3049650000	1.0000000000
S 1		
1	25712.4113480000	1.0000000000
S 1		
1	11687.4597040000	1.0000000000
S 1		
1	5312.4816830000	1.0000000000
S 1		
1	2414.7644020000	1.0000000000
S 1		
1	1097.6201830000	1.0000000000
S 1		
1	498.9182650000	1.0000000000
S 1		
1	226.7810290000	1.0000000000
S 1		
1	103.0822860000	1.0000000000
S 1		
1	46.8555850000	1.0000000000
S 1		
1	21.2979930000	1.0000000000
S 1		
1	9.6809060000	1.0000000000
S 1		
1	4.4004120000	1.0000000000
S 1		
1	2.0001870000	1.0000000000
S 1		
1	0.9091760000	1.0000000000
S 1		
1	0.4132620000	1.0000000000
S 1		
1	0.1878460000	1.0000000000

S	1		
1	0.0853850000	1.0000000000	
S	1		
1	0.0388110000	1.0000000000	
S	1		
1	0.0176410000	1.0000000000	
P	8		
1	980851.9776920000	0.0041332085	
2	408688.3240390000	0.0010149594	
3	170286.8016830000	0.0104569563	
4	70952.8340340000	0.0150160479	
5	29563.6808480000	0.0426004057	
6	12318.2003530000	0.0988108855	
7	5132.5834810000	0.2673716902	
8	2138.5764500000	0.6974916631	
P	1		
1	891.0735210000	1.0000000000	
P	1		
1	371.2806340000	1.0000000000	
P	1		
1	154.7002640000	1.0000000000	
P	1		
1	64.4584430000	1.0000000000	
P	1		
1	26.8576850000	1.0000000000	
P	1		
1	11.1907020000	1.0000000000	
P	1		
1	4.6627920000	1.0000000000	
P	1		
1	1.9428300000	1.0000000000	
P	1		
1	0.8095130000	1.0000000000	
P	1		
1	0.3372970000	1.0000000000	
P	1		
1	0.1405400000	1.0000000000	
P	1		
1	0.0585580000	1.0000000000	
D	7		
1	48905.6146030000	0.0001823817	
2	19562.2458410000	0.0004339877	
3	7824.8983360000	0.0023350216	
4	3129.9593350000	0.0103622607	
5	1251.9837340000	0.0535412927	
6	500.7934940000	0.2369464545	
7	200.3173970000	0.7950766376	
D	1		
1	80.1269590000	1.0000000000	
D	1		
1	32.0507840000	1.0000000000	
D	1		
1	12.8203130000	1.0000000000	
D	1		
1	5.1281250000	1.0000000000	
D	1		
1	2.0512500000	1.0000000000	
D	1		
1	0.8205000000	1.0000000000	
D	1		
1	0.3282000000	1.0000000000	
D	1		
1	0.1312800000	1.0000000000	
D	1		
1	0.0525120000	1.0000000000	
F	6		
1	5719.1357660000	0.0000613354	
2	2199.6676020000	0.0004622721	
3	846.0260010000	0.0041780067	

4	325.3946160000	0.0355948244
5	125.1517750000	0.2274579329
6	48.1352980000	0.8339018758
F 1		
1	18.5135760000	1.0000000000
F 1		
1	7.1206060000	1.0000000000
F 1		
1	2.7386950000	1.0000000000
F 1		
1	1.0533440000	1.0000000000
F 1		
1	0.4051320000	1.0000000000
F 1		
1	0.1558200000	1.0000000000
end		

Basis set for element : Fm

NewGTO 100

S 9		
1	69690927.07216800	0.0390337818
2	31677694.12371300	-0.0262817473
3	14398951.87441500	0.0714991707
4	6544978.124734000	0.0013993543
5	2974990.056697000	0.1044098445
6	1352268.207590000	0.0780775752
7	614667.3670860000	0.2026492856
8	279394.2577660000	0.2574724267
9	126997.3898940000	0.4745401221
S 1		
1	57726.0863150000	1.0000000000
S 1		
1	26239.1301430000	1.0000000000
S 1		
1	11926.8773380000	1.0000000000
S 1		
1	5421.3078810000	1.0000000000
S 1		
1	2464.2308550000	1.0000000000
S 1		
1	1120.1049340000	1.0000000000
S 1		
1	509.1386060000	1.0000000000
S 1		
1	231.4266390000	1.0000000000
S 1		
1	105.1939270000	1.0000000000
S 1		
1	47.8154210000	1.0000000000
S 1		
1	21.7342820000	1.0000000000
S 1		
1	9.8792190000	1.0000000000
S 1		
1	4.4905540000	1.0000000000
S 1		
1	2.0411610000	1.0000000000
S 1		
1	0.9278000000	1.0000000000
S 1		
1	0.4217270000	1.0000000000
S 1		
1	0.1916940000	1.0000000000
S 1		
1	0.0871340000	1.0000000000
S 1		
1	0.0396060000	1.0000000000
S 1		

1	0.0180030000	1.0000000000
P 8		
1	1001894.089886000	0.0042412402
2	417455.8707860000	0.0010338777
3	173939.9461610000	0.0106883016
4	72474.9775670000	0.0152652560
5	30197.9073200000	0.0431965823
6	12582.4613830000	0.0996362565
7	5242.6922430000	0.2682558591
8	2184.4551010000	0.6957747230
P 1		
1	910.1896260000	1.0000000000
P 1		
1	379.2456770000	1.0000000000
P 1		
1	158.0190320000	1.0000000000
P 1		
1	65.8412630000	1.0000000000
P 1		
1	27.4338600000	1.0000000000
P 1		
1	11.4307750000	1.0000000000
P 1		
1	4.7628230000	1.0000000000
P 1		
1	1.9845100000	1.0000000000
P 1		
1	0.8268790000	1.0000000000
P 1		
1	0.3445330000	1.0000000000
P 1		
1	0.1435550000	1.0000000000
P 1		
1	0.0598150000	1.0000000000
D 7		
1	50085.1221850000	0.0001861691
2	20034.0488740000	0.0004411335
3	8013.6195500000	0.0023637654
4	3205.4478200000	0.0104412302
5	1282.1791280000	0.0537215840
6	512.8716510000	0.2370898560
7	205.1486600000	0.7948562136
D 1		
1	82.0594640000	1.0000000000
D 1		
1	32.8237860000	1.0000000000
D 1		
1	13.1295140000	1.0000000000
D 1		
1	5.2518060000	1.0000000000
D 1		
1	2.1007220000	1.0000000000
D 1		
1	0.8402890000	1.0000000000
D 1		
1	0.3361160000	1.0000000000
D 1		
1	0.1344460000	1.0000000000
D 1		
1	0.0537780000	1.0000000000
F 6		
1	5918.7118140000	0.0000610840
2	2276.4276210000	0.0004612776
3	875.5490850000	0.0041350354
4	336.7496480000	0.0352838640
5	129.5190950000	0.2261506375
6	49.8150370000	0.8350176085
F 1		
1	19.1596290000	1.0000000000


```

F 1
1      7.3690880000      1.0000000000
F 1
1      2.8342650000      1.0000000000
F 1
1      1.0901020000      1.0000000000
F 1
1      0.4192700000      1.0000000000
F 1
1      0.1612580000      1.0000000000
end

```

Basis set for element : Md

NewGTO 101

```

S 9
1  71095290.12593000      0.0398891130
2  32316040.96633200     -0.0269360781
3  14689109.53015100      0.0729421777
4  6676867.968250000      0.0009979576
5  3034939.985568000      0.1059486225
6  1379518.175258000      0.0780503541
7  627053.7160270000      0.2038905511
8  285024.4163760000      0.2566864307
9  129556.5528980000      0.4728994876
S 1
1  58889.3422260000      1.0000000000
S 1
1  26767.8828300000      1.0000000000
S 1
1  12167.2194680000      1.0000000000
S 1
1  5530.5543040000      1.0000000000
S 1
1  2513.8883200000      1.0000000000
S 1
1  1142.6765090000      1.0000000000
S 1
1  519.3984130000      1.0000000000
S 1
1  236.0901880000      1.0000000000
S 1
1  107.3137220000      1.0000000000
S 1
1  48.7789640000      1.0000000000
S 1
1  22.1722570000      1.0000000000
S 1
1  10.0782980000      1.0000000000
S 1
1  4.5810450000      1.0000000000
S 1
1  2.0822930000      1.0000000000
S 1
1  0.9464970000      1.0000000000
S 1
1  0.4302260000      1.0000000000
S 1
1  0.1955570000      1.0000000000
S 1
1  0.0888900000      1.0000000000
S 1
1  0.0404040000      1.0000000000
S 1
1  0.0183660000      1.0000000000
P 8
1  1023192.458988000      0.0043518001
2  426330.1912450000      0.0010530818
3  177637.5796850000      0.0109241630

```

4	74015.6582020000	0.0155178550
5	30839.8575840000	0.0437998927
6	12849.9406600000	0.1004668336
7	5354.1419420000	0.2691407353
8	2230.8924760000	0.6940452684
P 1		
1	929.5385320000	1.0000000000
P 1		
1	387.3077210000	1.0000000000
P 1		
1	161.3782170000	1.0000000000
P 1		
1	67.2409240000	1.0000000000
P 1		
1	28.0170520000	1.0000000000
P 1		
1	11.6737720000	1.0000000000
P 1		
1	4.8640710000	1.0000000000
P 1		
1	2.0266960000	1.0000000000
P 1		
1	0.8444570000	1.0000000000
P 1		
1	0.3518570000	1.0000000000
P 1		
1	0.1466070000	1.0000000000
P 1		
1	0.0610860000	1.0000000000
D 7		
1	51278.5205840000	0.0001900304
2	20511.4082340000	0.0004484251
3	8204.5632930000	0.0023930088
4	3281.8253170000	0.0105220498
5	1312.7301270000	0.0539072106
6	525.0920510000	0.2372466561
7	210.0368200000	0.7946214265
D 1		
1	84.0147280000	1.0000000000
D 1		
1	33.6058910000	1.0000000000
D 1		
1	13.4423570000	1.0000000000
D 1		
1	5.3769430000	1.0000000000
D 1		
1	2.1507770000	1.0000000000
D 1		
1	0.8603110000	1.0000000000
D 1		
1	0.3441240000	1.0000000000
D 1		
1	0.1376500000	1.0000000000
D 1		
1	0.0550600000	1.0000000000
F 6		
1	6120.8574960000	0.0000608811
2	2354.1759600000	0.0004606143
3	905.4522920000	0.0040954206
4	348.2508820000	0.0349945988
5	133.9426470000	0.2249072419
6	51.5164030000	0.8360750168
F 1		
1	19.8140010000	1.0000000000
F 1		
1	7.6207700000	1.0000000000
F 1		
1	2.9310650000	1.0000000000
F 1		

1	1.1273330000	1.0000000000
F 1		
1	0.4335900000	1.0000000000
F 1		
1	0.1667650000	1.0000000000
end		

Basis set for element : No

NewGTO 102

S 9		
1	72522948.25117100	0.0407748606
2	32964976.47780500	-0.0276149861
3	14984080.21718400	0.0744338617
4	6810945.553265000	0.0005766671
5	3095884.342393000	0.1075320682
6	1407220.155633000	0.0780074140
7	639645.5252880000	0.2051576486
8	290747.9660400000	0.2558644588
9	132158.1663820000	0.4712404642
S 1		
1	60071.8938100000	1.0000000000
S 1		
1	27305.4062770000	1.0000000000
S 1		
1	12411.5483080000	1.0000000000
S 1		
1	5641.6128670000	1.0000000000
S 1		
1	2564.3694850000	1.0000000000
S 1		
1	1165.6224930000	1.0000000000
S 1		
1	529.8284060000	1.0000000000
S 1		
1	240.8310940000	1.0000000000
S 1		
1	109.4686790000	1.0000000000
S 1		
1	49.7584900000	1.0000000000
S 1		
1	22.6174960000	1.0000000000
S 1		
1	10.2806800000	1.0000000000
S 1		
1	4.6730360000	1.0000000000
S 1		
1	2.1241070000	1.0000000000
S 1		
1	0.9655030000	1.0000000000
S 1		
1	0.4388650000	1.0000000000
S 1		
1	0.1994840000	1.0000000000
S 1		
1	0.0906750000	1.0000000000
S 1		
1	0.0412160000	1.0000000000
S 1		
1	0.0187340000	1.0000000000
P 8		
1	1044695.317505000	0.0044648922
2	435289.7156270000	0.0010725714
3	181370.7148450000	0.0111645278
4	75571.1311850000	0.0157738043
5	31487.9713270000	0.0444103084
6	13119.9880530000	0.1013026162
7	5466.6616890000	0.2700270522
8	2277.7757040000	0.6923025030

P	1		
1	949.0732100000	1.0000000000	
P	1		
1	395.4471710000	1.0000000000	
P	1		
1	164.7696540000	1.0000000000	
P	1		
1	68.6540230000	1.0000000000	
P	1		
1	28.6058430000	1.0000000000	
P	1		
1	11.9191010000	1.0000000000	
P	1		
1	4.9662920000	1.0000000000	
P	1		
1	2.0692880000	1.0000000000	
P	1		
1	0.8622030000	1.0000000000	
P	1		
1	0.3592510000	1.0000000000	
P	1		
1	0.1496880000	1.0000000000	
P	1		
1	0.0623700000	1.0000000000	
D	7		
1	52485.5878850000	0.0001939672	
2	20994.2351540000	0.0004558647	
3	8397.6940620000	0.0024227611	
4	3359.0776250000	0.0106047308	
5	1343.6310500000	0.0540982091	
6	537.4524200000	0.2374169324	
7	214.9809680000	0.7943721750	
D	1		
1	85.9923870000	1.0000000000	
D	1		
1	34.3969550000	1.0000000000	
D	1		
1	13.7587820000	1.0000000000	
D	1		
1	5.5035130000	1.0000000000	
D	1		
1	2.2014050000	1.0000000000	
D	1		
1	0.8805620000	1.0000000000	
D	1		
1	0.3522250000	1.0000000000	
D	1		
1	0.1408900000	1.0000000000	
D	1		
1	0.0563560000	1.0000000000	
F	6		
1	6334.4566490000	0.0000606051	
2	2436.3294800000	0.0004596386	
3	937.0498000000	0.0040517232	
4	360.4037690000	0.0346769906	
5	138.6168340000	0.2235293511	
6	53.3141670000	0.8372440483	
F	1		
1	20.5054490000	1.0000000000	
F	1		
1	7.8867110000	1.0000000000	
F	1		
1	3.0333500000	1.0000000000	
F	1		
1	1.1666730000	1.0000000000	
F	1		
1	0.4487200000	1.0000000000	
F	1		
1	0.1725850000	1.0000000000	

end

Basis set for element : Lr
NewGTO 103

```
S 9
  1 73963782.78320600      0.0416924538
  2 33619901.26509300    -0.0283196623
  3 15281773.30231500      0.0759764420
  4 6946260.591961000     0.0001344127
  5 3157391.178164000     0.1091620804
  6 1435177.808256000     0.0779477770
  7 652353.5492070000     0.2064516167
  8 296524.3405490000     0.2550048856
  9 134783.7911590000     0.4695625357
S 1
  1 61265.3596180000      1.0000000000
S 1
  1 27847.8907350000      1.0000000000
S 1
  1 12658.1321520000      1.0000000000
S 1
  1 5753.6964330000       1.0000000000
S 1
  1 2615.3165600000       1.0000000000
S 1
  1 1188.7802550000       1.0000000000
S 1
  1 540.3546610000        1.0000000000
S 1
  1 245.6157550000        1.0000000000
S 1
  1 111.6435250000        1.0000000000
S 1
  1 50.7470570000         1.0000000000
S 1
  1 23.0668440000         1.0000000000
S 1
  1 10.4849290000         1.0000000000
S 1
  1 4.7658770000          1.0000000000
S 1
  1 2.1663080000          1.0000000000
S 1
  1 0.9846850000          1.0000000000
S 1
  1 0.4475840000          1.0000000000
S 1
  1 0.2034470000          1.0000000000
S 1
  1 0.0924760000          1.0000000000
S 1
  1 0.0420350000          1.0000000000
S 1
  1 0.0191070000          1.0000000000
P 8
  1 1066386.172543000     0.0045805752
  2 444327.5718930000     0.0010923505
  3 185136.4882890000     0.0114094860
  4 77140.2034540000      0.0160331521
  5 32141.7514390000      0.0450279439
  6 13392.3964330000      0.1021436966
  7 5580.1651800000       0.2709149807
  8 2325.0688250000       0.6905460164
P 1
  1 968.7786770000        1.0000000000
P 1
  1 403.6577820000        1.0000000000
P 1
```

1	168.1907430000	1.0000000000
P 1		
1	70.0794760000	1.0000000000
P 1		
1	29.1997820000	1.0000000000
P 1		
1	12.1665760000	1.0000000000
P 1		
1	5.0694070000	1.0000000000
P 1		
1	2.1122530000	1.0000000000
P 1		
1	0.8801050000	1.0000000000
P 1		
1	0.3667110000	1.0000000000
P 1		
1	0.1527960000	1.0000000000
P 1		
1	0.0636650000	1.0000000000
D 7		
1	53706.9942560000	0.0001979823
2	21482.7977020000	0.0004634382
3	8593.1190810000	0.0024530344
4	3437.2476320000	0.0106890240
5	1374.8990530000	0.0542940150
6	549.9596210000	0.2375962102
7	219.9838480000	0.7941125739
D 1		
1	87.9935390000	1.0000000000
D 1		
1	35.1974160000	1.0000000000
D 1		
1	14.0789660000	1.0000000000
D 1		
1	5.6315870000	1.0000000000
D 1		
1	2.2526350000	1.0000000000
D 1		
1	0.9010540000	1.0000000000
D 1		
1	0.3604220000	1.0000000000
D 1		
1	0.1441690000	1.0000000000
D 1		
1	0.0576670000	1.0000000000
F 6		
1	6543.7113860000	0.0000604625
2	2516.8120720000	0.0004594572
3	968.0046430000	0.0040165681
4	372.3094780000	0.0344165711
5	143.1959530000	0.2223536006
6	55.0753670000	0.8382365256
F 1		
1	21.1828330000	1.0000000000
F 1		
1	8.1472440000	1.0000000000
F 1		
1	3.1335550000	1.0000000000
F 1		
1	1.2052140000	1.0000000000
F 1		
1	0.4635440000	1.0000000000
F 1		
1	0.1782860000	1.0000000000
end		

SARC-ZORA basis sets

Basis set for element : Ac
NewGTO 89

S 9		
1	55109808.74124400	0.0178209759
2	25049913.06420200	-0.0048962533
3	11386324.12009200	0.0319255750
4	5175601.872769000	0.0167252354
5	2352546.305804000	0.0611584085
6	1069339.229911000	0.0785620392
7	486063.2863230000	0.1627798541
8	220937.8574200000	0.2738459149
9	100426.2988270000	0.5252374109
S 1		
1	45648.3176490000	1.0000000000
S 1		
1	20749.2352950000	1.0000000000
S 1		
1	9431.4705890000	1.0000000000
S 1		
1	4287.0320860000	1.0000000000
S 1		
1	1948.6509480000	1.0000000000
S 1		
1	885.7504310000	1.0000000000
S 1		
1	402.6138320000	1.0000000000
S 1		
1	183.0062870000	1.0000000000
S 1		
1	83.1846760000	1.0000000000
S 1		
1	37.8112160000	1.0000000000
S 1		
1	17.1869170000	1.0000000000
S 1		
1	7.8122350000	1.0000000000
S 1		
1	3.5510160000	1.0000000000
S 1		
1	1.6140980000	1.0000000000
S 1		
1	0.7336810000	1.0000000000
S 1		
1	0.3334910000	1.0000000000
S 1		
1	0.1515870000	1.0000000000
S 1		
1	0.0689030000	1.0000000000
S 1		
1	0.0313200000	1.0000000000
S 1		
1	0.0142360000	1.0000000000
P 8		
1	782789.9000960000	0.0009671587
2	326162.4583730000	0.0009821244
3	135901.0243220000	0.0040393628
4	56625.4268010000	0.0092656876
5	23593.9278340000	0.0271978860
6	9830.8032640000	0.0789132917
7	4096.1680270000	0.2465259563
8	1706.7366780000	0.7375427350
P 1		
1	711.1402820000	1.0000000000
P 1		
1	296.3084510000	1.0000000000

P	1		
1	123.4618550000	1.0000000000	
P	1		
1	51.4424390000	1.0000000000	
P	1		
1	21.4343500000	1.0000000000	
P	1		
1	8.9309790000	1.0000000000	
P	1		
1	3.7212410000	1.0000000000	
P	1		
1	1.5505170000	1.0000000000	
P	1		
1	0.6460490000	1.0000000000	
P	1		
1	0.2691870000	1.0000000000	
P	1		
1	0.1121610000	1.0000000000	
P	1		
1	0.0467340000	1.0000000000	
D	7		
1	37896.8365590000	0.0001025871	
2	15158.7346230000	0.0002818463	
3	6063.4938490000	0.0017362414	
4	2425.3975400000	0.0087081829	
5	970.1590160000	0.0500634942	
6	388.0636060000	0.2344308595	
7	155.2254430000	0.7991184111	
D	1		
1	62.0901770000	1.0000000000	
D	1		
1	24.8360710000	1.0000000000	
D	1		
1	9.9344280000	1.0000000000	
D	1		
1	3.9737710000	1.0000000000	
D	1		
1	1.5895090000	1.0000000000	
D	1		
1	0.6358030000	1.0000000000	
D	1		
1	0.2543210000	1.0000000000	
D	1		
1	0.1017290000	1.0000000000	
D	1		
1	0.0406910000	1.0000000000	
F	6		
1	3860.7881580000	0.0000567234	
2	1484.9185220000	0.0004538133	
3	571.1225090000	0.0046863670	
4	219.6625030000	0.0399061529	
5	84.4855780000	0.2448573163	
6	32.4944530000	0.8188357754	
F	1		
1	12.4978670000	1.0000000000	
F	1		
1	4.8068720000	1.0000000000	
F	1		
1	1.8487970000	1.0000000000	
F	1		
1	0.7110760000	1.0000000000	
F	1		
1	0.2734910000	1.0000000000	
F	1		
1	0.1051890000	1.0000000000	
end			

Basis set for element : Th

NewGT0 90

S 9		
1	56363088.88971600	0.0182637261
2	25619585.85896200	-0.0050406098
3	11645266.29952800	0.0326076658
4	5293302.863422000	0.0169207802
5	2406046.756101000	0.0620530411
6	1093657.616409000	0.0791967162
7	497117.0983680000	0.1637381891
8	225962.3174400000	0.2738796425
9	102710.1442910000	0.5230263015
S 1		
1	46686.4292230000	1.0000000000
S 1		
1	21221.1041920000	1.0000000000
S 1		
1	9645.9564510000	1.0000000000
S 1		
1	4384.5256600000	1.0000000000
S 1		
1	1992.9662090000	1.0000000000
S 1		
1	905.8937310000	1.0000000000
S 1		
1	411.7698780000	1.0000000000
S 1		
1	187.1681260000	1.0000000000
S 1		
1	85.0764210000	1.0000000000
S 1		
1	38.6711000000	1.0000000000
S 1		
1	17.5777730000	1.0000000000
S 1		
1	7.9898970000	1.0000000000
S 1		
1	3.6317710000	1.0000000000
S 1		
1	1.6508050000	1.0000000000
S 1		
1	0.7503660000	1.0000000000
S 1		
1	0.3410750000	1.0000000000
S 1		
1	0.1550340000	1.0000000000
S 1		
1	0.0704700000	1.0000000000
S 1		
1	0.0320320000	1.0000000000
S 1		
1	0.0145600000	1.0000000000
P 8		
1	801557.4232150000	0.0009847016
2	333982.2596730000	0.0010011849
3	139159.2748640000	0.0041062120
4	57983.0311930000	0.0094027289
5	24159.5963310000	0.0275102389
6	10066.4984710000	0.0794834908
7	4194.3743630000	0.2472115083
8	1747.6559850000	0.7364057736
P 1		
1	728.1899940000	1.0000000000
P 1		
1	303.4124970000	1.0000000000
P 1		
1	126.4218740000	1.0000000000
P 1		
1	52.6757810000	1.0000000000
P 1		

1	21.9482420000	1.0000000000
P 1		
1	9.1451010000	1.0000000000
P 1		
1	3.8104590000	1.0000000000
P 1		
1	1.5876910000	1.0000000000
P 1		
1	0.6615380000	1.0000000000
P 1		
1	0.2756410000	1.0000000000
P 1		
1	0.1148500000	1.0000000000
P 1		
1	0.0478540000	1.0000000000
D 7		
1	38933.2915440000	0.0001043495
2	15573.3166180000	0.0002856760
3	6229.3266470000	0.0017526674
4	2491.7306590000	0.0087468045
5	996.6922640000	0.0501427023
6	398.6769050000	0.2343835795
7	159.4707620000	0.7991155197
D 1		
1	63.7883050000	1.0000000000
D 1		
1	25.5153220000	1.0000000000
D 1		
1	10.2061290000	1.0000000000
D 1		
1	4.0824520000	1.0000000000
D 1		
1	1.6329810000	1.0000000000
D 1		
1	0.6531920000	1.0000000000
D 1		
1	0.2612770000	1.0000000000
D 1		
1	0.1045110000	1.0000000000
D 1		
1	0.0418040000	1.0000000000
F 6		
1	4035.8413290000	0.0000555544
2	1552.2466650000	0.0004464523
3	597.0179480000	0.0045802380
4	229.6222880000	0.0392090403
5	88.3162650000	0.2424968910
6	33.9677940000	0.8209390710
F 1		
1	13.0645360000	1.0000000000
F 1		
1	5.0248220000	1.0000000000
F 1		
1	1.9326240000	1.0000000000
F 1		
1	0.7433170000	1.0000000000
F 1		
1	0.2858910000	1.0000000000
F 1		
1	0.1099580000	1.0000000000
end		

Basis set for element : Pa

NewGTO 91

S 9

1	57631858.17253400	0.0187193263
2	26196299.16933400	-0.0051902602
3	11907408.71333400	0.0333074445

4	5412458.506061000	0.0171165732
5	2460208.411846000	0.0629638672
6	1118276.550839000	0.0798332463
7	508307.5231090000	0.1647021802
8	231048.8741400000	0.2739005188
9	105022.2155180000	0.5207983409
S 1		
1	47737.3706900000	1.0000000000
S 1		
1	21698.8048590000	1.0000000000
S 1		
1	9863.0931180000	1.0000000000
S 1		
1	4483.2241440000	1.0000000000
S 1		
1	2037.8291570000	1.0000000000
S 1		
1	926.2859800000	1.0000000000
S 1		
1	421.0390820000	1.0000000000
S 1		
1	191.3814010000	1.0000000000
S 1		
1	86.9915460000	1.0000000000
S 1		
1	39.5416120000	1.0000000000
S 1		
1	17.9734600000	1.0000000000
S 1		
1	8.1697540000	1.0000000000
S 1		
1	3.7135250000	1.0000000000
S 1		
1	1.6879660000	1.0000000000
S 1		
1	0.7672570000	1.0000000000
S 1		
1	0.3487530000	1.0000000000
S 1		
1	0.1585240000	1.0000000000
S 1		
1	0.0720560000	1.0000000000
S 1		
1	0.0327530000	1.0000000000
S 1		
1	0.0148880000	1.0000000000
P 8		
1	820588.6600690000	0.0010025701
2	341911.9416950000	0.0010205136
3	142463.3090400000	0.0041739348
4	59359.7121000000	0.0095412197
5	24733.2133750000	0.0278251995
6	10305.5055730000	0.0800575826
7	4293.9606550000	0.2478986161
8	1789.1502730000	0.7352620311
P 1		
1	745.4792800000	1.0000000000
P 1		
1	310.6163670000	1.0000000000
P 1		
1	129.4234860000	1.0000000000
P 1		
1	53.9264530000	1.0000000000
P 1		
1	22.4693550000	1.0000000000
P 1		
1	9.3622310000	1.0000000000
P 1		
1	3.9009300000	1.0000000000

```

P 1
1      1.6253870000      1.0000000000
P 1
1      0.6772450000      1.0000000000
P 1
1      0.2821850000      1.0000000000
P 1
1      0.1175770000      1.0000000000
P 1
1      0.0489910000      1.0000000000
D 7
1      39984.8312080000      0.0001061301
2      15993.9324830000      0.0002896200
3      6397.5729930000      0.0017693155
4      2559.0291970000      0.0087871933
5      1023.6116790000      0.0502259708
6      409.4446720000      0.2343540923
7      163.7778690000      0.7990953306
D 1
1      65.5111470000      1.0000000000
D 1
1      26.2044590000      1.0000000000
D 1
1      10.4817840000      1.0000000000
D 1
1      4.1927130000      1.0000000000
D 1
1      1.6770850000      1.0000000000
D 1
1      0.6708340000      1.0000000000
D 1
1      0.2683340000      1.0000000000
D 1
1      0.1073330000      1.0000000000
D 1
1      0.0429330000      1.0000000000
F 6
1      4212.3892570000      0.0000545578
2      1620.1497140000      0.0004400304
3      623.1345050000      0.0044858505
4      239.6671170000      0.0385820377
5      92.1796610000      0.2403631201
6      35.4537160000      0.8228337957
F 1
1      13.6360440000      1.0000000000
F 1
1      5.2446320000      1.0000000000
F 1
1      2.0171660000      1.0000000000
F 1
1      0.7758330000      1.0000000000
F 1
1      0.2983970000      1.0000000000
F 1
1      0.1147680000      1.0000000000
end

```

Basis set for element : U

NewGTO 92

```

S 9
1      58915269.20406200      0.0191882768
2      26779667.82002800      -0.0053454445
3      12172576.28183100      0.0340255790
4      5532989.219014000      0.0173125062
5      2514995.099552000      0.0638914339
6      1143179.590705000      0.0804714997
7      519627.0866840000      0.1656720091
8      236194.1303110000      0.2739080595

```

9	107360.9683230000	0.5185531527
S 1		
1	48800.4401470000	1.0000000000
S 1		
1	22182.0182490000	1.0000000000
S 1		
1	10082.7355680000	1.0000000000
S 1		
1	4583.0616220000	1.0000000000
S 1		
1	2083.2098280000	1.0000000000
S 1		
1	946.9135580000	1.0000000000
S 1		
1	430.4152540000	1.0000000000
S 1		
1	195.6432970000	1.0000000000
S 1		
1	88.9287710000	1.0000000000
S 1		
1	40.4221690000	1.0000000000
S 1		
1	18.3737130000	1.0000000000
S 1		
1	8.3516880000	1.0000000000
S 1		
1	3.7962220000	1.0000000000
S 1		
1	1.7255550000	1.0000000000
S 1		
1	0.7843430000	1.0000000000
S 1		
1	0.3565200000	1.0000000000
S 1		
1	0.1620540000	1.0000000000
S 1		
1	0.0736610000	1.0000000000
S 1		
1	0.0334820000	1.0000000000
S 1		
1	0.0152190000	1.0000000000
P 8		
1	839813.6669700000	0.0010207634
2	349922.3612380000	0.0010400968
3	145800.9838490000	0.0042425290
4	60750.4099370000	0.0096810982
5	25312.6708070000	0.0281429485
6	10546.9461700000	0.0806360206
7	4394.5609040000	0.2485904639
8	1831.0670430000	0.7341081564
P 1		
1	762.9446010000	1.0000000000
P 1		
1	317.8935840000	1.0000000000
P 1		
1	132.4556600000	1.0000000000
P 1		
1	55.1898580000	1.0000000000
P 1		
1	22.9957740000	1.0000000000
P 1		
1	9.5815730000	1.0000000000
P 1		
1	3.9923220000	1.0000000000
P 1		
1	1.6634670000	1.0000000000
P 1		
1	0.6931110000	1.0000000000
P 1		

1	0.2887960000	1.0000000000
P 1		
1	0.1203320000	1.0000000000
P 1		
1	0.0501380000	1.0000000000
D 7		
1	41049.8202270000	0.0001079397
2	16419.9280910000	0.0002936574
3	6567.9712360000	0.0017863611
4	2627.1884950000	0.0088293819
5	1050.8753980000	0.0503159404
6	420.3501590000	0.2343398683
7	168.1400640000	0.7990587936
D 1		
1	67.2560250000	1.0000000000
D 1		
1	26.9024100000	1.0000000000
D 1		
1	10.7609640000	1.0000000000
D 1		
1	4.3043860000	1.0000000000
D 1		
1	1.7217540000	1.0000000000
D 1		
1	0.6887020000	1.0000000000
D 1		
1	0.2754810000	1.0000000000
D 1		
1	0.1101920000	1.0000000000
D 1		
1	0.0440770000	1.0000000000
F 6		
1	4391.9602590000	0.0000536296
2	1689.2154840000	0.0004343368
3	649.6982630000	0.0043978390
4	249.8839470000	0.0379947240
5	96.1092110000	0.2383103935
6	36.9650810000	0.8246462333
F 1		
1	14.2173390000	1.0000000000
F 1		
1	5.4682070000	1.0000000000
F 1		
1	2.1031570000	1.0000000000
F 1		
1	0.8089060000	1.0000000000
F 1		
1	0.3111180000	1.0000000000
F 1		
1	0.1196610000	1.0000000000
end		

Basis set for element : Np
NewGTO 93

S 9		
1	60212393.78258100	0.0196711796
2	27369269.90117300	-0.0055064269
3	12440577.22780600	0.0347628812
4	5654807.830821000	0.0175085406
5	2570367.195828000	0.0648364627
6	1168348.725376000	0.0811115338
7	531067.6024440000	0.1666480048
8	241394.3647470000	0.2739018403
9	109724.7112490000	0.5162898199
S 1		
1	49874.8687490000	1.0000000000
S 1		
1	22670.3948860000	1.0000000000

S	1		
1	10304.7249480000	1.0000000000	
S	1		
1	4683.9658860000	1.0000000000	
S	1		
1	2129.0754030000	1.0000000000	
S	1		
1	967.7615470000	1.0000000000	
S	1		
1	439.8916120000	1.0000000000	
S	1		
1	199.9507330000	1.0000000000	
S	1		
1	90.8866970000	1.0000000000	
S	1		
1	41.3121350000	1.0000000000	
S	1		
1	18.7782430000	1.0000000000	
S	1		
1	8.5355650000	1.0000000000	
S	1		
1	3.8798020000	1.0000000000	
S	1		
1	1.7635460000	1.0000000000	
S	1		
1	0.8016120000	1.0000000000	
S	1		
1	0.3643690000	1.0000000000	
S	1		
1	0.1656220000	1.0000000000	
S	1		
1	0.0752830000	1.0000000000	
S	1		
1	0.0342190000	1.0000000000	
S	1		
1	0.0155540000	1.0000000000	
P	8		
1	859302.8310040000	0.0010393027	
2	358042.8462520000	0.0010599603	
3	149184.5192720000	0.0043120471	
4	62160.2163630000	0.0098224737	
5	25900.0901510000	0.0284634361	
6	10791.7042300000	0.0812184770	
7	4496.5434290000	0.2492844786	
8	1873.5597620000	0.7329467192	
P	1		
1	780.6499010000	1.0000000000	
P	1		
1	325.2707920000	1.0000000000	
P	1		
1	135.5294970000	1.0000000000	
P	1		
1	56.4706240000	1.0000000000	
P	1		
1	23.5294270000	1.0000000000	
P	1		
1	9.8039280000	1.0000000000	
P	1		
1	4.0849700000	1.0000000000	
P	1		
1	1.7020710000	1.0000000000	
P	1		
1	0.7091960000	1.0000000000	
P	1		
1	0.2954980000	1.0000000000	
P	1		
1	0.1231240000	1.0000000000	
P	1		
1	0.0513020000	1.0000000000	

D 7		
1	42129.4422870000	0.0001097745
2	16851.7769150000	0.0002977923
3	6740.7107660000	0.0018037274
4	2696.2843060000	0.0088732225
5	1078.5137230000	0.0504110447
6	431.4054890000	0.2343396171
7	172.5621960000	0.7990077350
D 1		
1	69.0248780000	1.0000000000
D 1		
1	27.6099510000	1.0000000000
D 1		
1	11.0439810000	1.0000000000
D 1		
1	4.4175920000	1.0000000000
D 1		
1	1.7670370000	1.0000000000
D 1		
1	0.7068150000	1.0000000000
D 1		
1	0.2827260000	1.0000000000
D 1		
1	0.1130900000	1.0000000000
D 1		
1	0.0452360000	1.0000000000
F 6		
1	4574.1842730000	0.0000527862
2	1759.3016440000	0.0004293200
3	676.6544780000	0.0043166642
4	260.2517220000	0.0374497757
5	100.0968160000	0.2363683935
6	38.4987760000	0.8263529071
F 1		
1	14.8072210000	1.0000000000
F 1		
1	5.6950850000	1.0000000000
F 1		
1	2.1904170000	1.0000000000
F 1		
1	0.8424680000	1.0000000000
F 1		
1	0.3240260000	1.0000000000
F 1		
1	0.1246250000	1.0000000000
end		

Basis set for element : Pu

NewGTO 94

S 9		
1	61522220.62252900	0.0201686722
2	27964645.73751300	-0.0056734877
3	12711202.60796100	0.0355202097
4	5777819.367255000	0.0177046354
5	2626281.530570000	0.0657997146
6	1193764.332077000	0.0817534122
7	542620.1509440000	0.1676305096
8	246645.5231560000	0.2738814262
9	112111.6014350000	0.5140073552
S 1		
1	50959.8188340000	1.0000000000
S 1		
1	23163.5540150000	1.0000000000
S 1		
1	10528.8881890000	1.0000000000
S 1		
1	4785.8582680000	1.0000000000
S 1		

1	2175.3901220000	1.0000000000
S 1		
1	988.8136920000	1.0000000000
S 1		
1	449.4607690000	1.0000000000
S 1		
1	204.3003500000	1.0000000000
S 1		
1	92.8637950000	1.0000000000
S 1		
1	42.2108160000	1.0000000000
S 1		
1	19.1867350000	1.0000000000
S 1		
1	8.7212430000	1.0000000000
S 1		
1	3.9642010000	1.0000000000
S 1		
1	1.8019100000	1.0000000000
S 1		
1	0.8190500000	1.0000000000
S 1		
1	0.3722950000	1.0000000000
S 1		
1	0.1692250000	1.0000000000
S 1		
1	0.0769210000	1.0000000000
S 1		
1	0.0349640000	1.0000000000
S 1		
1	0.0158930000	1.0000000000
P 8		
1	879013.3813660000	0.0010581923
2	366255.5755690000	0.0010801019
3	152606.4898210000	0.0043824941
4	63586.0374250000	0.0099653234
5	26494.1822610000	0.0287866938
6	11039.2426090000	0.0818050183
7	4599.6844200000	0.2499815412
8	1916.5351750000	0.7317768089
P 1		
1	798.5563230000	1.0000000000
P 1		
1	332.7318010000	1.0000000000
P 1		
1	138.6382510000	1.0000000000
P 1		
1	57.7659380000	1.0000000000
P 1		
1	24.0691410000	1.0000000000
P 1		
1	10.0288090000	1.0000000000
P 1		
1	4.1786700000	1.0000000000
P 1		
1	1.7411130000	1.0000000000
P 1		
1	0.7254640000	1.0000000000
P 1		
1	0.3022760000	1.0000000000
P 1		
1	0.1259490000	1.0000000000
P 1		
1	0.0524790000	1.0000000000
D 7		
1	43223.8765000000	0.0001116326
2	17289.5506000000	0.0003020314
3	6915.8202400000	0.0018213757
4	2766.3280960000	0.0089187204

5	1106.5312380000	0.0505106822
6	442.6124950000	0.2343542525
7	177.0449980000	0.7989416427
D 1		
1	70.8179990000	1.0000000000
D 1		
1	28.3272000000	1.0000000000
D 1		
1	11.3308800000	1.0000000000
D 1		
1	4.5323520000	1.0000000000
D 1		
1	1.8129410000	1.0000000000
D 1		
1	0.7251760000	1.0000000000
D 1		
1	0.2900710000	1.0000000000
D 1		
1	0.1160280000	1.0000000000
D 1		
1	0.0464110000	1.0000000000
F 6		
1	4758.8680260000	0.0000520342
2	1830.3338560000	0.0004249173
3	703.9745600000	0.0042422970
4	270.7594460000	0.0369469391
5	104.1382490000	0.2345517700
6	40.0531730000	0.8279432543
F 1		
1	15.4050660000	1.0000000000
F 1		
1	5.9250260000	1.0000000000
F 1		
1	2.2788560000	1.0000000000
F 1		
1	0.8764830000	1.0000000000
F 1		
1	0.3371090000	1.0000000000
F 1		
1	0.1296570000	1.0000000000
end		

Basis set for element : Am

NewGTO 95

S 9		
1	62843653.32610500	0.0206813702
2	28565296.96641200	-0.0058469133
3	12984225.89382300	0.0362983882
4	5901920.860829000	0.0179006871
5	2682691.300377000	0.0667818941
6	1219405.136535000	0.0823970363
7	554275.0620610000	0.1686198260
8	251943.2100280000	0.2738462218
9	114519.6409220000	0.5117051466
S 1		
1	52054.3822370000	1.0000000000
S 1		
1	23661.0828350000	1.0000000000
S 1		
1	10755.0376520000	1.0000000000
S 1		
1	4888.6534780000	1.0000000000
S 1		
1	2222.1152170000	1.0000000000
S 1		
1	1010.0523720000	1.0000000000
S 1		
1	459.1147140000	1.0000000000

S 1		
1	208.6885070000	1.0000000000
S 1		
1	94.8584120000	1.0000000000
S 1		
1	43.1174600000	1.0000000000
S 1		
1	19.5988450000	1.0000000000
S 1		
1	8.9085660000	1.0000000000
S 1		
1	4.0493480000	1.0000000000
S 1		
1	1.8406130000	1.0000000000
S 1		
1	0.8366420000	1.0000000000
S 1		
1	0.3802920000	1.0000000000
S 1		
1	0.1728600000	1.0000000000
S 1		
1	0.0785730000	1.0000000000
S 1		
1	0.0357150000	1.0000000000
S 1		
1	0.0162340000	1.0000000000
P 8		
1	898929.0904960000	0.0010774408
2	374553.7877070000	0.0011005237
3	156064.0782110000	0.0044538914
4	65026.6992550000	0.0101096564
5	27094.4580230000	0.0291128237
6	11289.3575090000	0.0823958274
7	4703.8989620000	0.2506826608
8	1959.9579010000	0.7305972857
P 1		
1	816.6491250000	1.0000000000
P 1		
1	340.2704690000	1.0000000000
P 1		
1	141.7793620000	1.0000000000
P 1		
1	59.0747340000	1.0000000000
P 1		
1	24.6144730000	1.0000000000
P 1		
1	10.2560300000	1.0000000000
P 1		
1	4.2733460000	1.0000000000
P 1		
1	1.7805610000	1.0000000000
P 1		
1	0.7419000000	1.0000000000
P 1		
1	0.3091250000	1.0000000000
P 1		
1	0.1288020000	1.0000000000
P 1		
1	0.0536680000	1.0000000000
D 7		
1	44331.4203980000	0.0001135209
2	17732.5681590000	0.0003063667
3	7093.0272640000	0.0018394225
4	2837.2109050000	0.0089660056
5	1134.8843620000	0.0506168335
6	453.9537450000	0.2343841307
7	181.5814980000	0.7988592880
D 1		
1	72.6325990000	1.0000000000

D	1		
1	29.0530400000	1.0000000000	
D	1		
1	11.6212160000	1.0000000000	
D	1		
1	4.6484860000	1.0000000000	
D	1		
1	1.8593950000	1.0000000000	
D	1		
1	0.7437580000	1.0000000000	
D	1		
1	0.2975030000	1.0000000000	
D	1		
1	0.1190010000	1.0000000000	
D	1		
1	0.0476010000	1.0000000000	
F	6		
1	4946.8424820000	0.0000513281	
2	1902.6317240000	0.0004210229	
3	731.7814320000	0.0041723332	
4	281.4543970000	0.0364722578	
5	108.2516910000	0.2327932976	
6	41.6352660000	0.8294751707	
F	1		
1	16.0135640000	1.0000000000	
F	1		
1	6.1590630000	1.0000000000	
F	1		
1	2.3688700000	1.0000000000	
F	1		
1	0.9111040000	1.0000000000	
F	1		
1	0.3504250000	1.0000000000	
F	1		
1	0.1347790000	1.0000000000	
end			

Basis set for element : Cm
NewGTO 96

S	9		
1	64183659.71228800	0.0212102338	
2	29174390.77831300	-0.0060270545	
3	13261086.71741500	0.0370987287	
4	6027766.689734000	0.0180968760	
5	2739893.949879000	0.0677843361	
6	1245406.340854000	0.0830429990	
7	566093.7912970000	0.1696168268	
8	257315.3596810000	0.2737957782	
9	116961.5271280000	0.5093806630	
S	1		
1	53164.3305130000	1.0000000000	
S	1		
1	24165.6047780000	1.0000000000	
S	1		
1	10984.3658080000	1.0000000000	
S	1		
1	4992.8935490000	1.0000000000	
S	1		
1	2269.4970680000	1.0000000000	
S	1		
1	1031.5895760000	1.0000000000	
S	1		
1	468.9043530000	1.0000000000	
S	1		
1	213.1383420000	1.0000000000	
S	1		
1	96.8810650000	1.0000000000	
S	1		

1	44.0368480000	1.0000000000
S 1		
1	20.0167490000	1.0000000000
S 1		
1	9.0985220000	1.0000000000
S 1		
1	4.1356920000	1.0000000000
S 1		
1	1.8798600000	1.0000000000
S 1		
1	0.8544820000	1.0000000000
S 1		
1	0.3884010000	1.0000000000
S 1		
1	0.1765460000	1.0000000000
S 1		
1	0.0802480000	1.0000000000
S 1		
1	0.0364760000	1.0000000000
S 1		
1	0.0165800000	1.0000000000
P 8		
1	919065.4160050000	0.0010970615
2	382943.9233360000	0.0011212375
3	159559.9680560000	0.0045262709
4	66483.3200240000	0.0102555198
5	27701.3833430000	0.0294418515
6	11542.2430600000	0.0829908583
7	4809.2679420000	0.2513873144
8	2003.8616420000	0.7294086077
P 1		
1	834.9423510000	1.0000000000
P 1		
1	347.8926460000	1.0000000000
P 1		
1	144.9552690000	1.0000000000
P 1		
1	60.3980290000	1.0000000000
P 1		
1	25.1658450000	1.0000000000
P 1		
1	10.4857690000	1.0000000000
P 1		
1	4.3690700000	1.0000000000
P 1		
1	1.8204460000	1.0000000000
P 1		
1	0.7585190000	1.0000000000
P 1		
1	0.3160500000	1.0000000000
P 1		
1	0.1316870000	1.0000000000
P 1		
1	0.0548700000	1.0000000000
D 7		
1	45453.5554980000	0.0001154384
2	18181.4221990000	0.0003107918
3	7272.5688800000	0.0018578305
4	2909.0275520000	0.0090148321
5	1163.6110210000	0.0507282614
6	465.4444080000	0.2344254017
7	186.1777630000	0.7987645431
D 1		
1	74.4711050000	1.0000000000
D 1		
1	29.7884420000	1.0000000000
D 1		
1	11.9153770000	1.0000000000
D 1		

1	4.7661510000	1.0000000000
D 1		
1	1.9064600000	1.0000000000
D 1		
1	0.7625840000	1.0000000000
D 1		
1	0.3050340000	1.0000000000
D 1		
1	0.1220130000	1.0000000000
D 1		
1	0.0488050000	1.0000000000
F 6		
1	5137.9626210000	0.0000506674
2	1976.1394700000	0.0004176065
3	760.0536420000	0.0041066076
4	292.3283240000	0.0360248602
5	112.4339710000	0.2310943371
6	43.2438350000	0.8309482898
F 1		
1	16.6322440000	1.0000000000
F 1		
1	6.3970170000	1.0000000000
F 1		
1	2.4603910000	1.0000000000
F 1		
1	0.9463040000	1.0000000000
F 1		
1	0.3639630000	1.0000000000
F 1		
1	0.1399860000	1.0000000000
end		

Basis set for element : Bk

NewGTO 97

S 9		
1	65541743.54207900	0.0217560418
2	29791701.61003600	-0.0062142475
3	13541682.55001600	0.0379222736
4	6155310.250007000	0.0182931697
5	2797868.295458000	0.0688079596
6	1271758.316117000	0.0836914053
7	578071.9618710000	0.1706219120
8	262759.9826690000	0.2737295699
9	119436.3557590000	0.5070326595
S 1		
1	54289.2526180000	1.0000000000
S 1		
1	24676.9330080000	1.0000000000
S 1		
1	11216.7877310000	1.0000000000
S 1		
1	5098.5398780000	1.0000000000
S 1		
1	2317.5181260000	1.0000000000
S 1		
1	1053.4173300000	1.0000000000
S 1		
1	478.8260590000	1.0000000000
S 1		
1	217.6482090000	1.0000000000
S 1		
1	98.9310040000	1.0000000000
S 1		
1	44.9686380000	1.0000000000
S 1		
1	20.4402900000	1.0000000000
S 1		
1	9.2910410000	1.0000000000

S	1		
1		4.2232000000	1.0000000000
S	1		
1		1.9196370000	1.0000000000
S	1		
1		0.8725620000	1.0000000000
S	1		
1		0.3966190000	1.0000000000
S	1		
1		0.1802810000	1.0000000000
S	1		
1		0.0819460000	1.0000000000
S	1		
1		0.0372480000	1.0000000000
S	1		
1		0.0169310000	1.0000000000
P	8		
1		939440.7605340000	0.0011170680
2		391433.6502220000	0.0011422566
3		163097.3542590000	0.0045996610
4		67957.2309410000	0.0104029576
5		28315.5128920000	0.0297737266
6		11798.1303720000	0.0835898642
7		4915.8876550000	0.2520941835
8		2048.2865230000	0.7282121380
P	1		
1		853.4527180000	1.0000000000
P	1		
1		355.6052990000	1.0000000000
P	1		
1		148.1688750000	1.0000000000
P	1		
1		61.7370310000	1.0000000000
P	1		
1		25.7237630000	1.0000000000
P	1		
1		10.7182350000	1.0000000000
P	1		
1		4.4659310000	1.0000000000
P	1		
1		1.8608050000	1.0000000000
P	1		
1		0.7753350000	1.0000000000
P	1		
1		0.3230560000	1.0000000000
P	1		
1		0.1346070000	1.0000000000
P	1		
1		0.0560860000	1.0000000000
D	7		
1		46590.6458960000	0.0001173790
2		18636.2583580000	0.0003153281
3		7454.5033430000	0.0018765002
4		2981.8013370000	0.0090653303
5		1192.7205350000	0.0508438109
6		477.0882140000	0.2344824183
7		190.8352860000	0.7986541950
D	1		
1		76.3341140000	1.0000000000
D	1		
1		30.5336460000	1.0000000000
D	1		
1		12.2134580000	1.0000000000
D	1		
1		4.8853830000	1.0000000000
D	1		
1		1.9541530000	1.0000000000
D	1		
1		0.7816610000	1.0000000000

D 1		
1	0.3126650000	1.0000000000
D 1		
1	0.1250660000	1.0000000000
D 1		
1	0.0500260000	1.0000000000
F 6		
1	5327.8457110000	0.0000501427
2	2049.1714270000	0.0004149657
3	788.1428570000	0.0040503079
4	303.1318680000	0.0356384948
5	116.5891800000	0.2296147001
6	44.8419920000	0.8322276049
F 1		
1	17.2469200000	1.0000000000
F 1		
1	6.6334310000	1.0000000000
F 1		
1	2.5513200000	1.0000000000
F 1		
1	0.9812770000	1.0000000000
F 1		
1	0.3774140000	1.0000000000
F 1		
1	0.1451590000	1.0000000000
end		

Basis set for element : Cf

NewGTO 98

S 9		
1	66908672.67153500	0.0223193024
2	30413033.03251600	-0.0064087975
3	13824105.92387100	0.0387696749
4	6283684.510850000	0.0184892425
5	2856220.232205000	0.0698531465
6	1298281.923729000	0.0843416655
7	590128.1471500000	0.1716349860
8	268240.0668860000	0.2736468347
9	121927.3031300000	0.5046617061
S 1		
1	55421.5014230000	1.0000000000
S 1		
1	25191.5915560000	1.0000000000
S 1		
1	11450.7234340000	1.0000000000
S 1		
1	5204.8742880000	1.0000000000
S 1		
1	2365.8519490000	1.0000000000
S 1		
1	1075.3872500000	1.0000000000
S 1		
1	488.8123860000	1.0000000000
S 1		
1	222.1874480000	1.0000000000
S 1		
1	100.9942950000	1.0000000000
S 1		
1	45.9064980000	1.0000000000
S 1		
1	20.8665900000	1.0000000000
S 1		
1	9.4848140000	1.0000000000
S 1		
1	4.3112790000	1.0000000000
S 1		
1	1.9596720000	1.0000000000
S 1		

1	0.8907600000	1.0000000000
S 1		
1	0.4048910000	1.0000000000
S 1		
1	0.1840410000	1.0000000000
S 1		
1	0.0836550000	1.0000000000
S 1		
1	0.0380250000	1.0000000000
S 1		
1	0.0172840000	1.0000000000
P 8		
1	960041.3086390000	0.0011374730
2	400017.2119330000	0.0011635893
3	166673.8383050000	0.0046740948
4	69447.4326270000	0.0105520092
5	28936.4302610000	0.0301085585
6	12056.8459420000	0.0841930164
7	5023.6858090000	0.2528038185
8	2093.2024210000	0.7270071633
P 1		
1	872.1676750000	1.0000000000
P 1		
1	363.4031980000	1.0000000000
P 1		
1	151.4179990000	1.0000000000
P 1		
1	63.0908330000	1.0000000000
P 1		
1	26.2878470000	1.0000000000
P 1		
1	10.9532700000	1.0000000000
P 1		
1	4.5638620000	1.0000000000
P 1		
1	1.9016090000	1.0000000000
P 1		
1	0.7923370000	1.0000000000
P 1		
1	0.3301410000	1.0000000000
P 1		
1	0.1375590000	1.0000000000
P 1		
1	0.0573160000	1.0000000000
D 7		
1	47740.9667690000	0.0001193500
2	19096.3867080000	0.0003199583
3	7638.5546830000	0.0018955409
4	3055.4218730000	0.0091174251
5	1222.1687490000	0.0509647993
6	488.8675000000	0.2345517512
7	195.5470000000	0.7985305723
D 1		
1	78.2188000000	1.0000000000
D 1		
1	31.2875200000	1.0000000000
D 1		
1	12.5150080000	1.0000000000
D 1		
1	5.0060030000	1.0000000000
D 1		
1	2.0024010000	1.0000000000
D 1		
1	0.8009610000	1.0000000000
D 1		
1	0.3203840000	1.0000000000
D 1		
1	0.1281540000	1.0000000000
D 1		

1	0.0512610000	1.0000000000
F 6		
1	5522.2215080000	0.0000496296
2	2123.9313490000	0.0004125745
3	816.8966730000	0.0039957217
4	314.1910280000	0.0352630222
5	120.8427030000	0.2281410123
6	46.4779630000	0.8334963455
F 1		
1	17.8761400000	1.0000000000
F 1		
1	6.8754380000	1.0000000000
F 1		
1	2.6443990000	1.0000000000
F 1		
1	1.0170770000	1.0000000000
F 1		
1	0.3911830000	1.0000000000
F 1		
1	0.1504550000	1.0000000000
end		

Basis set for element : Es

NewGTO 99

S 9		
1	68291966.01786400	0.0229010727
2	31041802.73539300	-0.0066111062
3	14109910.33426900	0.0396423593
4	6413595.606486000	0.0186852265
5	2915270.730221000	0.0709212952
6	1325123.059191000	0.0849942551
7	602328.6632690000	0.1726569101
8	273785.7560310000	0.2735468889
9	124448.0709230000	0.5022654421
S 1		
1	56567.3049650000	1.0000000000
S 1		
1	25712.4113480000	1.0000000000
S 1		
1	11687.4597040000	1.0000000000
S 1		
1	5312.4816830000	1.0000000000
S 1		
1	2414.7644020000	1.0000000000
S 1		
1	1097.6201830000	1.0000000000
S 1		
1	498.9182650000	1.0000000000
S 1		
1	226.7810290000	1.0000000000
S 1		
1	103.0822860000	1.0000000000
S 1		
1	46.8555850000	1.0000000000
S 1		
1	21.2979930000	1.0000000000
S 1		
1	9.6809060000	1.0000000000
S 1		
1	4.4004120000	1.0000000000
S 1		
1	2.0001870000	1.0000000000
S 1		
1	0.9091760000	1.0000000000
S 1		
1	0.4132620000	1.0000000000
S 1		
1	0.1878460000	1.0000000000

S	1		
1	0.0853850000	1.0000000000	
S	1		
1	0.0388110000	1.0000000000	
S	1		
1	0.0176410000	1.0000000000	
P	8		
1	980851.9776920000	0.0011582837	
2	408688.3240390000	0.0011852364	
3	170286.8016830000	0.0047495845	
4	70952.8340340000	0.0107026684	
5	29563.6808480000	0.0304463832	
6	12318.2003530000	0.0848003791	
7	5132.5834810000	0.2535168574	
8	2138.5764500000	0.7257929891	
P	1		
1	891.0735210000	1.0000000000	
P	1		
1	371.2806340000	1.0000000000	
P	1		
1	154.7002640000	1.0000000000	
P	1		
1	64.4584430000	1.0000000000	
P	1		
1	26.8576850000	1.0000000000	
P	1		
1	11.1907020000	1.0000000000	
P	1		
1	4.6627920000	1.0000000000	
P	1		
1	1.9428300000	1.0000000000	
P	1		
1	0.8095130000	1.0000000000	
P	1		
1	0.3372970000	1.0000000000	
P	1		
1	0.1405400000	1.0000000000	
P	1		
1	0.0585580000	1.0000000000	
D	7		
1	48905.6146030000	0.0001213501	
2	19562.2458410000	0.0003246886	
3	7824.8983360000	0.0019149269	
4	3129.9593350000	0.0091711525	
5	1251.9837340000	0.0510908974	
6	500.7934940000	0.2346346930	
7	200.3173970000	0.7983927080	
D	1		
1	80.1269590000	1.0000000000	
D	1		
1	32.0507840000	1.0000000000	
D	1		
1	12.8203130000	1.0000000000	
D	1		
1	5.1281250000	1.0000000000	
D	1		
1	2.0512500000	1.0000000000	
D	1		
1	0.8205000000	1.0000000000	
D	1		
1	0.3282000000	1.0000000000	
D	1		
1	0.1312800000	1.0000000000	
D	1		
1	0.0525120000	1.0000000000	
F	6		
1	5719.1357660000	0.0000491663	
2	2199.6676020000	0.0004105704	
3	846.0260010000	0.0039450951	

4	325.3946160000	0.0349132408
5	125.1517750000	0.2267417726
6	48.1352980000	0.8346966396
F 1		
1	18.5135760000	1.0000000000
F 1		
1	7.1206060000	1.0000000000
F 1		
1	2.7386950000	1.0000000000
F 1		
1	1.0533440000	1.0000000000
F 1		
1	0.4051320000	1.0000000000
F 1		
1	0.1558200000	1.0000000000
end		

Basis set for element : Fm

NewGTO 100

S 9		
1	69690927.07216800	0.0235022496
2	31677694.12371300	-0.0068215675
3	14398951.87441500	0.0405415180
4	6544978.124734000	0.0188810540
5	2974990.056697000	0.0720134373
6	1352268.207590000	0.0856492145
7	614667.3670860000	0.1736881277
8	279394.2577660000	0.2734290222
9	126997.3898940000	0.4998426122
S 1		
1	57726.0863150000	1.0000000000
S 1		
1	26239.1301430000	1.0000000000
S 1		
1	11926.8773380000	1.0000000000
S 1		
1	5421.3078810000	1.0000000000
S 1		
1	2464.2308550000	1.0000000000
S 1		
1	1120.1049340000	1.0000000000
S 1		
1	509.1386060000	1.0000000000
S 1		
1	231.4266390000	1.0000000000
S 1		
1	105.1939270000	1.0000000000
S 1		
1	47.8154210000	1.0000000000
S 1		
1	21.7342820000	1.0000000000
S 1		
1	9.8792190000	1.0000000000
S 1		
1	4.4905540000	1.0000000000
S 1		
1	2.0411610000	1.0000000000
S 1		
1	0.9278000000	1.0000000000
S 1		
1	0.4217270000	1.0000000000
S 1		
1	0.1916940000	1.0000000000
S 1		
1	0.0871340000	1.0000000000
S 1		
1	0.0396060000	1.0000000000
S 1		

1	0.0180030000	1.0000000000
P 8		
1	1001894.089886000	0.0011795162
2	417455.8707860000	0.0012072133
3	173939.9461610000	0.0048261691
4	72474.9775670000	0.0108549981
5	30197.9073200000	0.0307872246
6	12582.4613830000	0.0854118673
7	5242.6922430000	0.2542324611
8	2184.4551010000	0.7245703942
P 1		
1	910.1896260000	1.0000000000
P 1		
1	379.2456770000	1.0000000000
P 1		
1	158.0190320000	1.0000000000
P 1		
1	65.8412630000	1.0000000000
P 1		
1	27.4338600000	1.0000000000
P 1		
1	11.4307750000	1.0000000000
P 1		
1	4.7628230000	1.0000000000
P 1		
1	1.9845100000	1.0000000000
P 1		
1	0.8268790000	1.0000000000
P 1		
1	0.3445330000	1.0000000000
P 1		
1	0.1435550000	1.0000000000
P 1		
1	0.0598150000	1.0000000000
D 7		
1	50085.1221850000	0.0001233787
2	20034.0488740000	0.0003295164
3	8013.6195500000	0.0019346356
4	3205.4478200000	0.0092263732
5	1282.1791280000	0.0512213626
6	512.8716510000	0.2347290567
7	205.1486600000	0.7982428154
D 1		
1	82.0594640000	1.0000000000
D 1		
1	32.8237860000	1.0000000000
D 1		
1	13.1295140000	1.0000000000
D 1		
1	5.2518060000	1.0000000000
D 1		
1	2.1007220000	1.0000000000
D 1		
1	0.8402890000	1.0000000000
D 1		
1	0.3361160000	1.0000000000
D 1		
1	0.1344460000	1.0000000000
D 1		
1	0.0537780000	1.0000000000
F 6		
1	5918.7118140000	0.0000487467
2	2276.4276210000	0.0004089100
3	875.5490850000	0.0038979519
4	336.7496480000	0.0345861496
5	129.5190950000	0.2254078616
6	49.8150370000	0.8358368799
F 1		
1	19.1596290000	1.0000000000

```

F 1
1      7.3690880000      1.0000000000
F 1
1      2.8342650000      1.0000000000
F 1
1      1.0901020000      1.0000000000
F 1
1      0.4192700000      1.0000000000
F 1
1      0.1612580000      1.0000000000
end

```

Basis set for element : Md

NewGTO 101

```

S 9
1  71095290.12593000      0.0241234764
2  32316040.96633200     -0.0070405502
3  14689109.53015100      0.0414679822
4  6676867.968250000      0.0190763794
5  3034939.985568000      0.0731301110
6  1379518.175258000      0.0863059521
7  627053.7160270000      0.1747286347
8  285024.4163760000      0.2732923506
9  129556.5528980000      0.4973935863
S 1
1  58889.3422260000      1.0000000000
S 1
1  26767.8828300000      1.0000000000
S 1
1  12167.2194680000      1.0000000000
S 1
1  5530.5543040000      1.0000000000
S 1
1  2513.8883200000      1.0000000000
S 1
1  1142.6765090000      1.0000000000
S 1
1  519.3984130000      1.0000000000
S 1
1  236.0901880000      1.0000000000
S 1
1  107.3137220000      1.0000000000
S 1
1  48.7789640000      1.0000000000
S 1
1  22.1722570000      1.0000000000
S 1
1  10.0782980000      1.0000000000
S 1
1  4.5810450000      1.0000000000
S 1
1  2.0822930000      1.0000000000
S 1
1  0.9464970000      1.0000000000
S 1
1  0.4302260000      1.0000000000
S 1
1  0.1955570000      1.0000000000
S 1
1  0.0888900000      1.0000000000
S 1
1  0.0404040000      1.0000000000
S 1
1  0.0183660000      1.0000000000
P 8
1  1023192.458988000      0.0012011861
2  426330.1912450000      0.0012295340
3  177637.5796850000      0.0049038851

```

4	74015.6582020000	0.0110090538
5	30839.8575840000	0.0311311096
6	12849.9406600000	0.0860274159
7	5354.1419420000	0.2549499790
8	2230.8924760000	0.7233399697
P 1		
1	929.5385320000	1.0000000000
P 1		
1	387.3077210000	1.0000000000
P 1		
1	161.3782170000	1.0000000000
P 1		
1	67.2409240000	1.0000000000
P 1		
1	28.0170520000	1.0000000000
P 1		
1	11.6737720000	1.0000000000
P 1		
1	4.8640710000	1.0000000000
P 1		
1	2.0266960000	1.0000000000
P 1		
1	0.8444570000	1.0000000000
P 1		
1	0.3518570000	1.0000000000
P 1		
1	0.1466070000	1.0000000000
P 1		
1	0.0610860000	1.0000000000
D 7		
1	51278.5205840000	0.0001254375
2	20511.4082340000	0.0003344454
3	8204.5632930000	0.0019546919
4	3281.8253170000	0.0092832009
5	1312.7301270000	0.0513567754
6	525.0920510000	0.2348365466
7	210.0368200000	0.7980791512
D 1		
1	84.0147280000	1.0000000000
D 1		
1	33.6058910000	1.0000000000
D 1		
1	13.4423570000	1.0000000000
D 1		
1	5.3769430000	1.0000000000
D 1		
1	2.1507770000	1.0000000000
D 1		
1	0.8603110000	1.0000000000
D 1		
1	0.3441240000	1.0000000000
D 1		
1	0.1376500000	1.0000000000
D 1		
1	0.0550600000	1.0000000000
F 6		
1	6120.8574960000	0.0000483690
2	2354.1759600000	0.0004075722
3	905.4522920000	0.0038541090
4	348.2508820000	0.0342806437
5	133.9426470000	0.2241375640
6	51.5164030000	0.8369190545
F 1		
1	19.8140010000	1.0000000000
F 1		
1	7.6207700000	1.0000000000
F 1		
1	2.9310650000	1.0000000000
F 1		

1	1.1273330000	1.0000000000
F 1		
1	0.4335900000	1.0000000000
F 1		
1	0.1667650000	1.0000000000
end		

Basis set for element : No

NewGTO 102

S 9		
1	72522948.25117100	0.0247663050
2	32964976.47780500	-0.0072685813
3	14984080.21718400	0.0424238448
4	6810945.553265000	0.0192716088
5	3095884.342393000	0.0742734509
6	1407220.155633000	0.0869656042
7	639645.5252880000	0.1757797970
8	290747.9660400000	0.2731361884
9	132158.1663820000	0.4949140363
S 1		
1	60071.8938100000	1.0000000000
S 1		
1	27305.4062770000	1.0000000000
S 1		
1	12411.5483080000	1.0000000000
S 1		
1	5641.6128670000	1.0000000000
S 1		
1	2564.3694850000	1.0000000000
S 1		
1	1165.6224930000	1.0000000000
S 1		
1	529.8284060000	1.0000000000
S 1		
1	240.8310940000	1.0000000000
S 1		
1	109.4686790000	1.0000000000
S 1		
1	49.7584900000	1.0000000000
S 1		
1	22.6174960000	1.0000000000
S 1		
1	10.2806800000	1.0000000000
S 1		
1	4.6730360000	1.0000000000
S 1		
1	2.1241070000	1.0000000000
S 1		
1	0.9655030000	1.0000000000
S 1		
1	0.4388650000	1.0000000000
S 1		
1	0.1994840000	1.0000000000
S 1		
1	0.0906750000	1.0000000000
S 1		
1	0.0412160000	1.0000000000
S 1		
1	0.0187340000	1.0000000000
P 8		
1	1044695.317505000	0.0012233006
2	435289.7156270000	0.0012521977
3	181370.7148450000	0.0049827454
4	75571.1311850000	0.0111648253
5	31487.9713270000	0.0314781128
6	13119.9880530000	0.0866472012
7	5466.6616890000	0.2556705674
8	2277.7757040000	0.7221004452

P	1		
1	949.0732100000	1.0000000000	
P	1		
1	395.4471710000	1.0000000000	
P	1		
1	164.7696540000	1.0000000000	
P	1		
1	68.6540230000	1.0000000000	
P	1		
1	28.6058430000	1.0000000000	
P	1		
1	11.9191010000	1.0000000000	
P	1		
1	4.9662920000	1.0000000000	
P	1		
1	2.0692880000	1.0000000000	
P	1		
1	0.8622030000	1.0000000000	
P	1		
1	0.3592510000	1.0000000000	
P	1		
1	0.1496880000	1.0000000000	
P	1		
1	0.0623700000	1.0000000000	
D	7		
1	52485.5878850000	0.0001275273	
2	20994.2351540000	0.0003394764	
3	8397.6940620000	0.0019751020	
4	3359.0776250000	0.0093416460	
5	1343.6310500000	0.0514971814	
6	537.4524200000	0.2349572730	
7	214.9809680000	0.7979015879	
D	1		
1	85.9923870000	1.0000000000	
D	1		
1	34.3969550000	1.0000000000	
D	1		
1	13.7587820000	1.0000000000	
D	1		
1	5.5035130000	1.0000000000	
D	1		
1	2.2014050000	1.0000000000	
D	1		
1	0.8805620000	1.0000000000	
D	1		
1	0.3522250000	1.0000000000	
D	1		
1	0.1408900000	1.0000000000	
D	1		
1	0.0563560000	1.0000000000	
F	6		
1	6334.4566490000	0.0000479235	
2	2436.3294800000	0.0004059586	
3	937.0498000000	0.0038062252	
4	360.4037690000	0.0339464480	
5	138.6168340000	0.2227302689	
6	53.3141670000	0.8381146240	
F	1		
1	20.5054490000	1.0000000000	
F	1		
1	7.8867110000	1.0000000000	
F	1		
1	3.0333500000	1.0000000000	
F	1		
1	1.1666730000	1.0000000000	
F	1		
1	0.4487200000	1.0000000000	
F	1		
1	0.1725850000	1.0000000000	

end

Basis set for element : Lr
NewGTO 103

```
S 9
  1 73963782.78320600      0.0254314704
  2 33619901.26509300    -0.0075060780
  3 15281773.30231500      0.0434100498
  4 6946260.591961000     0.0194663593
  5 3157391.178164000     0.0754440633
  6 1435177.808256000     0.0876275137
  7 652353.5492070000     0.1768416025
  8 296524.3405490000     0.2729595270
  9 134783.7911590000     0.4924043577
S 1
  1 61265.3596180000      1.0000000000
S 1
  1 27847.8907350000      1.0000000000
S 1
  1 12658.1321520000      1.0000000000
S 1
  1 5753.6964330000       1.0000000000
S 1
  1 2615.3165600000       1.0000000000
S 1
  1 1188.7802550000       1.0000000000
S 1
  1 540.3546610000        1.0000000000
S 1
  1 245.6157550000        1.0000000000
S 1
  1 111.6435250000        1.0000000000
S 1
  1 50.7470570000         1.0000000000
S 1
  1 23.0668440000         1.0000000000
S 1
  1 10.4849290000         1.0000000000
S 1
  1 4.7658770000          1.0000000000
S 1
  1 2.1663080000          1.0000000000
S 1
  1 0.9846850000          1.0000000000
S 1
  1 0.4475840000          1.0000000000
S 1
  1 0.2034470000          1.0000000000
S 1
  1 0.0924760000          1.0000000000
S 1
  1 0.0420350000          1.0000000000
S 1
  1 0.0191070000          1.0000000000
P 8
  1 1066386.172543000     0.0012458711
  2 444327.5718930000     0.0012752099
  3 185136.4882890000     0.0050627758
  4 77140.2034540000      0.0113223370
  5 32141.7514390000      0.0318283161
  6 13392.3964330000      0.0872713846
  7 5580.1651800000       0.2563948402
  8 2325.0688250000       0.7208510570
P 1
  1 968.7786770000        1.0000000000
P 1
  1 403.6577820000        1.0000000000
P 1
```

1	168.1907430000	1.0000000000
P 1		
1	70.0794760000	1.0000000000
P 1		
1	29.1997820000	1.0000000000
P 1		
1	12.1665760000	1.0000000000
P 1		
1	5.0694070000	1.0000000000
P 1		
1	2.1122530000	1.0000000000
P 1		
1	0.8801050000	1.0000000000
P 1		
1	0.3667110000	1.0000000000
P 1		
1	0.1527960000	1.0000000000
P 1		
1	0.0636650000	1.0000000000
D 7		
1	53706.9942560000	0.0001296503
2	21482.7977020000	0.0003446003
3	8593.1190810000	0.0019958902
4	3437.2476320000	0.0094015674
5	1374.8990530000	0.0516425050
6	549.9596210000	0.2350882183
7	219.9838480000	0.7977127450
D 1		
1	87.9935390000	1.0000000000
D 1		
1	35.1974160000	1.0000000000
D 1		
1	14.0789660000	1.0000000000
D 1		
1	5.6315870000	1.0000000000
D 1		
1	2.2526350000	1.0000000000
D 1		
1	0.9010540000	1.0000000000
D 1		
1	0.3604220000	1.0000000000
D 1		
1	0.1441690000	1.0000000000
D 1		
1	0.0576670000	1.0000000000
F 6		
1	6543.7113860000	0.0000475960
2	2516.8120720000	0.0004051086
3	968.0046430000	0.0037668407
4	372.3094780000	0.0336701482
5	143.1959530000	0.2215290610
6	55.0753670000	0.8391305662
F 1		
1	21.1828330000	1.0000000000
F 1		
1	8.1472440000	1.0000000000
F 1		
1	3.1335550000	1.0000000000
F 1		
1	1.2052140000	1.0000000000
F 1		
1	0.4635440000	1.0000000000
F 1		
1	0.1782860000	1.0000000000
end		

Polarization functions

SARC g polarization function for actinides

Ac:

G 1		
1	0.7100250000	1.0000000000

Th:

G 1		
1	0.7422170000	1.0000000000

Pa:

G 1		
1	0.7746840000	1.0000000000

U :

G 1		
1	0.8077110000	1.0000000000

Np:

G 1		
1	0.8412210000	1.0000000000

Pu:

G 1		
1	0.8751860000	1.0000000000

Am:

G 1		
1	0.9097580000	1.0000000000

Cm:

G 1		
1	0.9449040000	1.0000000000

Bk:

G 1		
1	0.9798240000	1.0000000000

Cf:

G 1		
1	1.0155710000	1.0000000000

Es:

G 1		
1	1.0517850000	1.0000000000

Fm:

G 1		
1	1.0884900000	1.0000000000

Md:

G 1		
1	1.1256660000	1.0000000000

No:

G 1		
1	1.1649470000	1.0000000000

Lr:

G 1		
1	1.2034310000	1.0000000000