ELECTRONIC STRUCTURE CALCULATION OF $U(BH_4)_4$ WITH A CORRELATION CONSISTENT BASIS SET

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A correlation consistent basis set, through g functions, is developed for uranium. Calculations are carried out for $U(BH_4)_4$ using a relativistic effective core potential and the spin-orbit effect included at the configuration interation level. The calculated electronic energy levels are compared with experimental data and previous assignments and calculations. The effect of basis set size on f→f excitation energies is discussed.