

Answer on Question #45335 – Chemistry – Inorganic Chemistry

Question

Which d-orbitals are involved in sp^3d^3 hybridization?

Answer

Three d orbitals of the same energy, namely d_{xy} , d_{xz} and d_{yz} are involved in sp^3d^3 hybridization, because it is energy-optimal combination. It has been determined based on Schrödinger equation by quantum mechanical calculations.