

In coordination chemistry, tetrahedral complexes are usually high spin due to several intrinsic factors related to their geometric and electronic structure: 1. **Electronic Configuration**: The electrons prefer to occupy higher energy orbitals rather than pair up in lower energy orbitals because pairing up requires overcoming the electron–electron repulsion, which is not sufficiently compensated by the weak crystal field splitting. These factors contribute to tetrahedral complexes generally exhibiting high spin states. This results in a weaker crystal field splitting. Typically, Δ_t is about 4/9 of Δ_o .