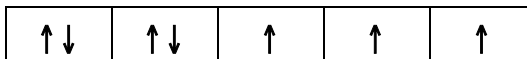


- Compounds of *d*-block elements are frequently paramagnetic. Using the box notation to represent atomic orbitals, account for this property in compounds of Co^{2+} .

Co^{2+} has a $3d^7$ configuration:



Co^{2+} is a d^7 system, so must have at least 1 unpaired electron. Consequently it must be paramagnetic.