

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

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- Complete the following table.

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Formula	Oxidation state of transition metal	Coordination number of transition metal	Number of <i>d</i> -electrons in the complex ion	Species formed upon dissolving in water
$\text{K}_3[\text{Mn}(\text{CN})_6]$				
$[\text{Ru}(\text{NH}_3)_5(\text{OH}_2)](\text{NO}_3)_2$				
$[\text{Cr}(\text{en})_3]\text{Cl}_3$				

en = ethylenediamine = $\text{NH}_2\text{CH}_2\text{CH}_2\text{NH}_2$