

Metals and their Compounds

Lecture 5.1

Transition metals (23.7 and Ch 24 BLB)

Reminder - properties of *Active metals* Grps 1,2,3

(i) all *very* electropositive (form cations very easily). Therefore virtually *impossible* to reduce.

(ii) have only ONE oxidation state (+1 for Grp 1, +2 for Grp 2)

(iii) ions are *colourless* - therefore all salts are colourless *unless* ANION is coloured (e.g KMnO₄ is purple because the MnO₄⁻ ion is purple)

(iv) ions are not reactive - tend to be "spectators"
Only common exceptions are precipitation reactions $\text{Ba}^{2+} + \text{SO}_4^{2-} \rightarrow \text{BaSO}_4 \downarrow$

(v) ions do NOT form *coordination compounds*