



TRANSITION METALS (B)

1 Give the full electron configuration of the following atoms and ions.

a Cr atom (1)

b Cr^{3+} ion (1)

2 The complex $[\text{Cu}(\text{H}_2\text{O})_6]^{2+}$ reacts irreversibly with Na_4EDTA .

a Write an equation for the reaction.

b Explain clearly why this reaction is irreversible.

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(5)

3 Complete the table about the following complex ions.

Complex	$[\text{Ni}(\text{NH}_2\text{CH}_2\text{CH}_2\text{NH}_2)_3]^{3+}$	$[\text{CuCl}_4]^{2-}$
Sketch of shape		
Name of shape		
Bond angles		
Ligand		
Co-ordination number		
Oxidation state of metal		