

Metals and their Compounds

Lecture 6.3

Transition metals (23.7 and Ch 24 BLB)

To explain why a ligand behaves, need to digress a little - to *acids* and *bases* (16.1 16.2 16.11)

Original definitions by Arrhenius (1884)

acid source of H^+ ions e.g. H_2SO_4

base source of OH^- ions e.g. $NaOH$

reaction $ACID + BASE \rightarrow SALT + WATER$

Limited - only applies to water as the solvent.

Brønsted-Lowry definition somewhat broader

acid source of H^+ ions

base acceptor of H^+ ions

But most *general* definition to Lewis

acid acceptor of pair of electrons

base source of pair of electrons

reaction $ACID + BASE \rightarrow ADDUCT$