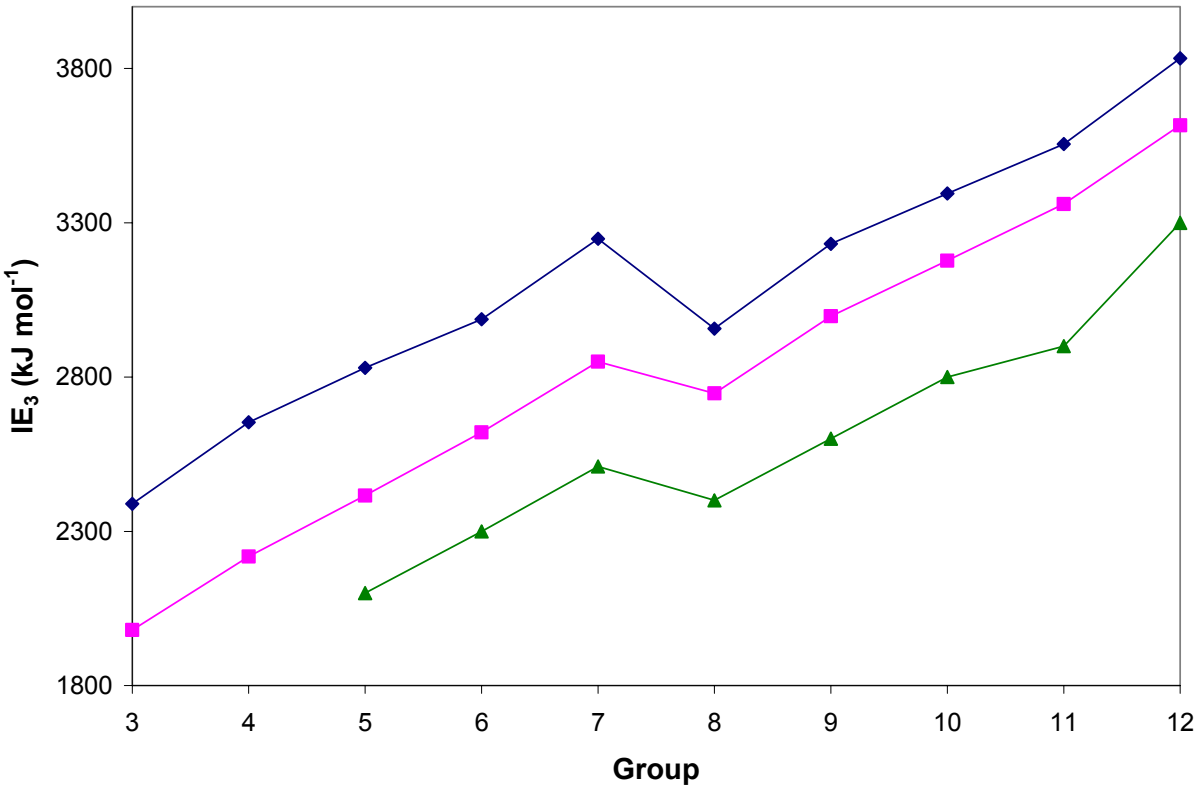
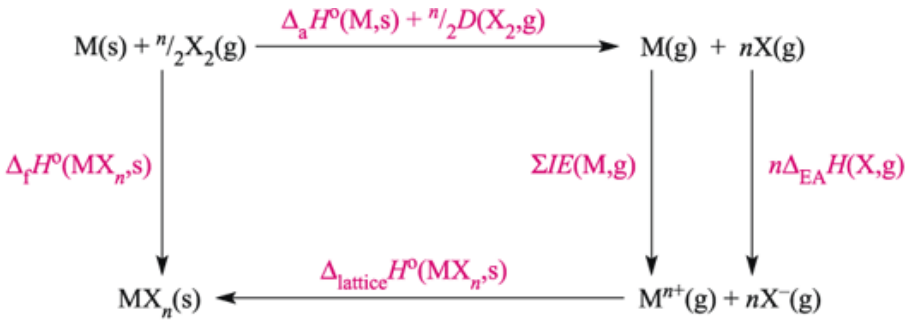


Figure 5.1 Third ionization energies of the d-block metals



$\Delta_a H^\circ(M,s)$ = Enthalpy of atomization of metal M
$D(X_2,g)$ = Dissociation enthalpy of X_2 = 2 × Enthalpy of atomization of X
$\Sigma IE(M,g)$ = Sum of the ionization energies for the processes $M(g) \rightarrow M^+(g) \rightarrow M^{2+}(g) \ldots \rightarrow M^{n+}(g)$
$\Delta_{EA}H(X,g)$ = Enthalpy change associated with the attachment of an electron
$\Delta_f H^\circ(MX_n,s)$ = Standard enthalpy of formation
$\Delta_{lattice}H^\circ(MX_n,s)$ = Lattice enthalpy change (see text)

Scheme 5.1 Born-Haber thermochemical cycle for the formation of a salt MX_n.