



### Tabulated Enthalpies

1: vaporization of Na(s)	107.3 kJ/mol
2: ionization of Na(s)	609.3 kJ/mol
3: formation of NaCl(s)	-411.1 kJ/mol
4: formation of NaCl(aq)	-407.3 kJ/mol
5: ionization of $\frac{1}{2}\text{Cl}_2$	-233.1 kJ/mol

### Calculated Enthalpies

A: enthalpy of solution of NaCl(s)	3.8 kJ/mol
B: lattice enthalpy of NaCl(s)	787.3 kJ/mol
C: hydration enthalpy of $\text{Na}^+ + \text{Cl}^-$	-783.5 kJ/mol
D: ionization enthalpy of Na(g)	502.0 kJ/mol

$$A = 4 - 3$$

$$\Delta_{\text{soln}}H = \Delta_{\text{f}}H(\text{aq}) - \Delta_{\text{f}}H(\text{s})$$

$$A = B + C$$

$$\Delta_{\text{soln}}H = \Delta_{\text{LEH}} + \Delta_{\text{hyd}}H$$