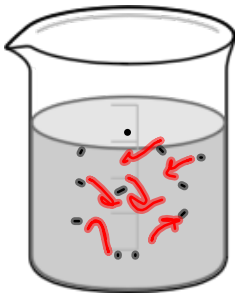


$CaCl_2$ dissolves + releases heat from chemical bonds

ΔH_{soln} = "heat of solution"

$\Delta H_{soln}\ CaCl_2 = -82.8\ kJ/mol$

exo -

$$\Delta H_{soln} = \frac{q}{moles}$$

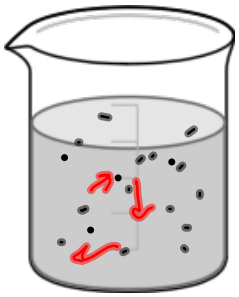
$C_{H_2O} = 4.18\ J/g^\circ C$

100g

$q = C m \Delta T$ ← $T_f - T_i$

$$\Delta H_{soln}\ CaCl_2 = \frac{q}{mol\ CaCl_2}$$

$$5\ g\ CaCl_2 \left| \frac{1\ mol\ CaCl_2}{g\ CaCl_2} = \right)$$



$CaCl_2$ – releases heat into the water as chemical bonds are broken

$\Delta H_{soln} = -82.8\ kJ/mol$

$$\Delta H_{soln} = \frac{kJ}{mol} = \frac{q}{\text{moles } CaCl_2}$$

$$q = Cm\Delta T = \left(4.18\ J/g^{\circ}C\right)(100\ g)(T_f - T_i) \Rightarrow kJ$$

$$5\ g\ CaCl_2 \left| \frac{1\ mol\ CaCl_2}{g\ CaCl_2} \right. = mol$$