No.
Date

$q_{rxn} = n_{moles\ rxn} \cdot \Delta H_{rxn}$ $0 = q_{rxn} + q_{cal}$

$q_{cal} = m C_s \Delta T$ $q_{rxn} = -q_{cal}$.

$C_s = \frac{J\ (Energy)}{g\ (mass)\ K\ (\Delta T)}$

e.g 1:

0.20 mol   Exothermic.

$HCl(s) \rightarrow HCl(aq)$. $\Delta H = -17.88\ kJ/mol_{HCl}$.

$q_{rxn} = n_{moles\ rxn} \cdot \Delta H_{rxn}$

$= 0.20\ mol \times (-17.88\ kJ/mol_{HCl})$

$= -3.576\ kJ$.

$q_{rxn} = -q_{cal}$

$q_{cal} = 3.576\ kJ$.

$q_{cal} = m C_s \Delta T$

$\Delta T = \frac{m C_s}{q_{cal}} = \frac{500g \times 4.184 J/(g K)}{3.576 kJ} = 1.709 K = 1.7K$. ← sig fig

e.g 2:

$2H_2O_2 \rightarrow 2H_2O + O_2$.

$\Delta T = 72K$

$C_{cal} = 400.J/K$.

$q_{cal} = \Delta T \cdot C_{cal} = -q_{rxn} = 28800J$; $q_{rxn} = -28800J$.

$\Delta H_m = \frac{q_{rxn}}{n_{moles\ rxn}} = \frac{-28800J}{10.0g \times \frac{1mol}{34.04g} \times 2}$

KOKUYO