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Avg: M_{water}: 50g M_{chips}: 13.62g T_{ini}: 21.6°C T_{final}: 92.1°C

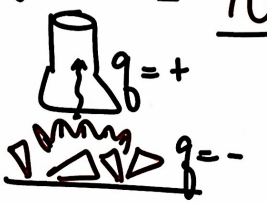
q_w: 14748.6J q_{chip}:

① $\Delta T = T_{final} - T_{ini}$

$= 92.1°C - 21.6°C$

$= 70.5°C$ (+)

q_{trans}



② $q_w = C_w \cdot M_w \cdot \Delta T$

$= 4.184 J/g \cdot °C \cdot 50g \cdot 70.5°C$

$= +14748.6J$

(+, endothermic, water gains q)

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Avg: M_{water}: 50g M_{chips}: 13.62g T_{ini}: 21.6°C T_{final}: 92.1°C

q_w: 14748.6J q_{chip}: -14748.6J

③ $q_{chip} = -q_{water}$

$q_{chip} = -14748.6J$

(-, exothermic, chips lose q)

④ Heat Capacity (C_{chip})

$C_{chip} = \frac{q_{chip}}{M_{chip}} = \frac{-14748.6J}{13.62g}$

$C_{chip} = -1082.86 J/g$