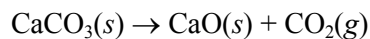
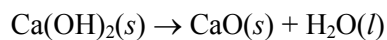


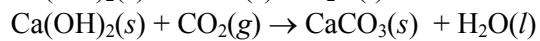
Determine the heat of reaction for the decomposition of calcium carbonate (Note that you may not necessarily use all of the equations given)



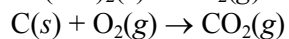
given the following thermochemical equations:



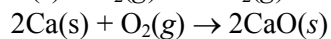
$$\Delta H = 65.2 \text{ kJ}$$



$$\Delta H = -113.2 \text{ kJ}$$

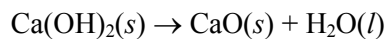


$$\Delta H = -393.5 \text{ kJ}$$

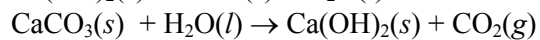


$$\Delta H = -1270.2 \text{ kJ}$$

Answer



$$\Delta H = 65.2 \text{ kJ}$$



$$\Delta H = 113.2 \text{ kJ}$$

$$\Delta H_{\text{rxn}} = 65.2 \text{ kJ} + 113.2 \text{ kJ} = \mathbf{178.4 \text{ kJ}}$$