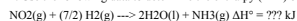
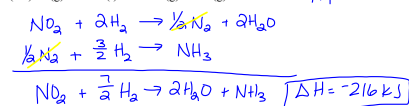
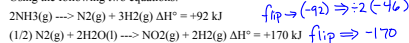


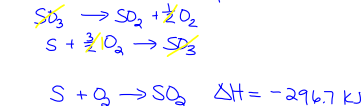
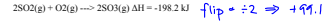
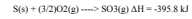
1. Use the following data to determine the enthalpy (ΔH°) of reaction for:



Using the following two equations:



2. Calculate the enthalpy of formation for sulfur dioxide, SO_2 . Use the following information:



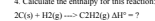
3. Given the following two reactions:



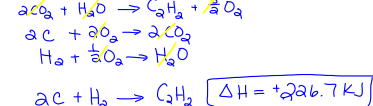
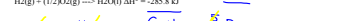
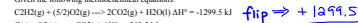
Calculate ΔH for the following reaction:



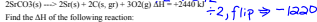
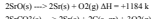
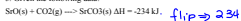
4. Calculate the enthalpy for this reaction:



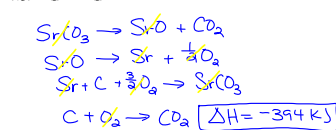
Given the following thermochemical equations:



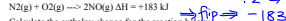
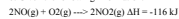
5. Given the following data:



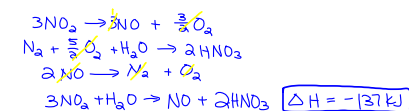
Find the ΔH of the following reaction:



6. Given the following information:

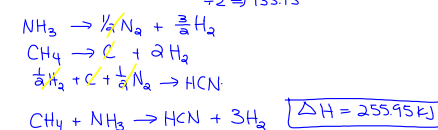
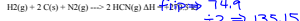


Calculate the enthalpy change for the reaction below:

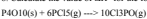


7. Calculate ΔH for this reaction: $\text{CH}_4(\text{g}) + \text{NH}_3(\text{g}) \rightarrow \text{HCN}(\text{g}) + 3\text{H}_2(\text{g})$

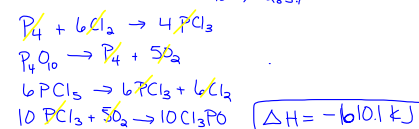
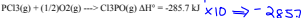
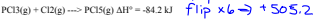
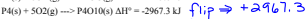
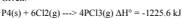
Given:



8. Calculate the value of ΔH° for the following reaction:



Given:



9. Calculate the ΔH in kilojoules for the following reaction, the preparation of nitrous acid HNO_2 :



Use the following thermochemical equations:

