

12 Stop Motion: Change in Enthalpy Lab (10596947)

Question

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Description

[StopMotion](#)

Instructions

[Bond energies](#)

1. Question Details

Lab Partners [1837468]

Enter the name(s) of your lab partner(s). (If you worked by yourself, enter "none").

2. Question Details

Stop Motion Lab Balance Eq. 1 [3888052]

Write the balanced equation for the reaction of hydrogen gas with oxygen gas to form water.(Use the lowest possible coefficients. Omit states-of-matter in your answer.)

3. Question Details

Stop Motion Delta H Eq. 1 [3888056]

For the reaction of hydrogen gas with oxygen gas to form water:

Calculate the energy needed to break all existing bonds: kJ

Calculate the energy needed to form all new bonds: kJ

Calculate the change in enthalpy (ΔH) for the reaction: kJ

4. Question Details

Stop Motion Lab Balance Eq. 2 [3888053]

Write the balanced equation for the reaction of solid carbon with oxygen gas to form carbon monoxide.(Use the lowest possible coefficients. Omit states-of-matter in your answer.)

5. Question Details

Stop Motion Delta H Eq. 2 [3888057]

For the reaction of solid carbon with oxygen gas to form carbon monoxide:

Calculate the energy needed to break all existing bonds: kJ

Calculate the energy needed to form all new bonds: kJ

Calculate the change in enthalpy (ΔH) for the reaction: kJ

6. Question Details

Stop Motion Lab Balance Eq. 3 [3888054]

Write the balanced equation for the reaction of nitrogen gas with hydrogen gas to form ammonia. (Use the lowest possible coefficients. Omit states-of-matter in your answer.)

7. Question Details

Stop Motion Delta H Eq. 3 [3888058]

For the reaction of nitrogen gas with hydrogen gas to form ammonia:

Calculate the energy needed to break all existing bonds: kJ

Calculate the energy needed to form all new bonds: kJ

Calculate the change in enthalpy (ΔH) for the reaction: kJ

8. Question Details

Stop Motion Lab Balance Eq. 4 [3888055]

Write the balanced equation for the decomposition of hydrogen peroxide to form water and oxygen gas. (Use the lowest possible coefficients. Omit states-of-matter in your answer.)

9. Question Details

Stop Motion Delta H Eq. 4 [3888059]

For the reaction of where hydrogen peroxide decomposes into water and oxygen gas:

Calculate the energy needed to break all existing bonds: kJ

Calculate the energy needed to form all new bonds: kJ

Calculate the change in enthalpy (ΔH) for the reaction: kJ

10. Question Details

Upload Stop Motion Video Enthalpy Changes [3888319]

Download the app "Stop Motion Studio" (free) either on your iPad or phone. Clamp the phone or iPad on a ring stand with a test tube clamp to keep it steady. Create a Stop Motion Video of the reaction assigned to your group. The video should show collision of molecules, bond breaking (with energy values and units), bond forming (with energy values and units) and ΔH for the reaction. Use sticky notes and sharpie pens to display energy numbers. Adjust the speed of the movie so that the energy values are legible. Save the movie to your photos. Upload the Stop Motion video. no file selected It must be less than 10 MB in size.

Assignment Details

Name (AID): **12 Stop Motion: Change in Enthalpy Lab (10596947)**

Submissions Allowed: **5**

Category: **Homework**

Code:

Locked: **Yes**

Author: **Ryan, Matt** (mryan@allsaintsschool.org)

Last Saved: **May 19, 2017 04:16 PM CDT**

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