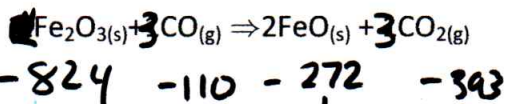


Topic Reminder : Enthalpy Calculations

During the firing process of a pottery plate carbon monoxide of the burning wood reacts with iron(III) oxide to produce iron(II) oxide with amazing colors.



-824   -110   -272   -393

1. Determine the enthalpy change ( $\Delta H$ ) for the reaction above?

-824   -330   -544   -1179  
 -1154                      -1723



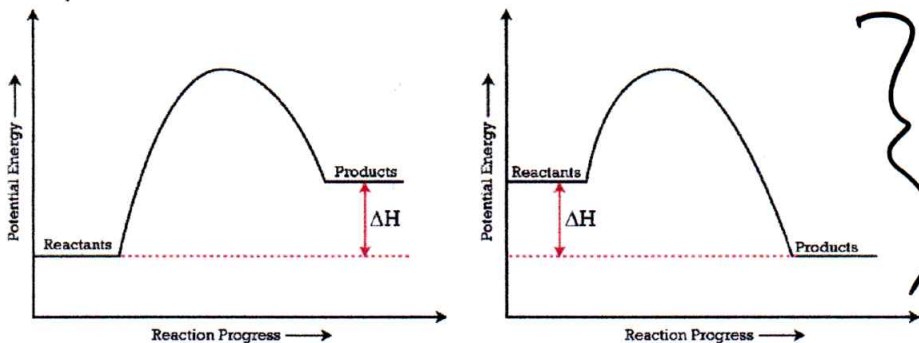
2. Is the reactions exothermic or endothermic?

-1723 - -1154  
 = -569

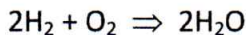
3. (2 points) How much energy is involved if 10 g of FeO is produced?

10g .  $\frac{1 \text{ mol}}{71.5 \text{ g}}$  .  $\frac{569}{2}$  = 40 kJ Exothermic

4. Which picture below would best describe the reaction above?



5. How much energy is involved in the reactants of the reaction below. Use your bond energy tables to determine.



6. Would you expect the product bond energy to be (more/less) than the reactants?

H-H                      O=O  
 H-H  
 2(104)                      119  
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 (327 kJ)

— This rxn is exothermic

