

Activity 20: Reaction Energy Diagrams

Learning Objectives

Draw reaction energy diagrams for exergonic and endergonic reactions

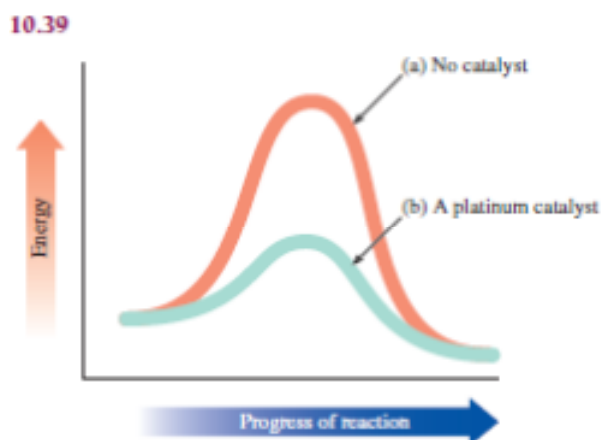
Compare reaction energy diagrams

Consider the effect of a catalyst to a reaction energy diagram

Estimated Completion Time 20–30 Minutes

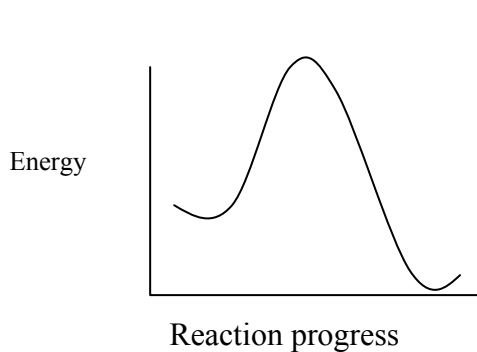
ANSWERS TO QUESTIONS

1. Diagram B
2. Diagram A
3. The following diagram shows the difference.

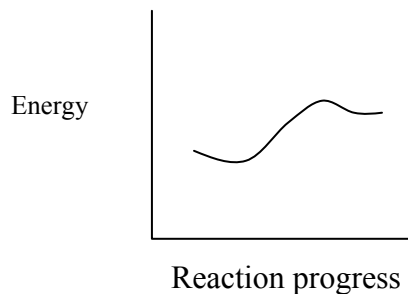


4. a. Diagram A b. Diagram A c. Negative. Positive
5. No, the energy of the reactants and the energy of the products are identical. Only the activation energy changes.

6. The two diagrams are different in that slow will have a high activation energy hill and fast will have a smaller activation energy hill. Also, in an exothermic reaction, the energy of the products is less than that of the reactants, and in an endothermic reaction, the energy of the products is greater than that of the reactants.



Slow, exothermic



Fast, endothermic

Activity 20: Skill Development—Reaction Energy Diagrams

1. Dashed trace is catalyzed. Start and finish of traces should be identical.

