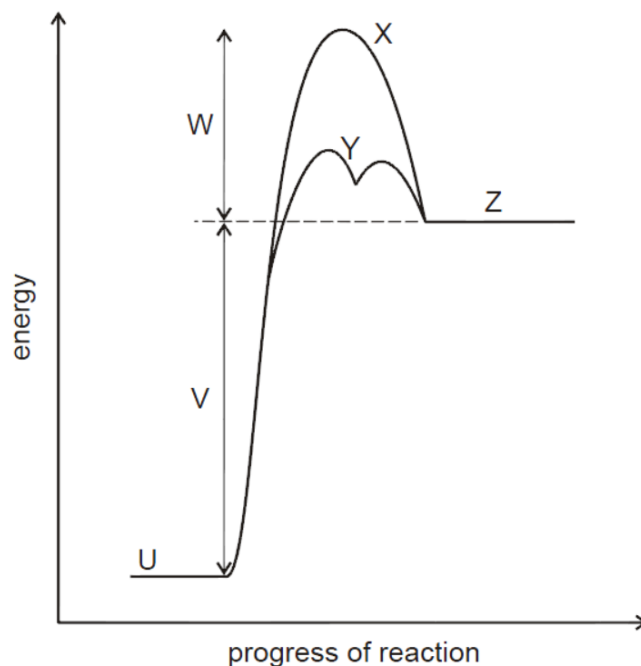


Rates of Reaction

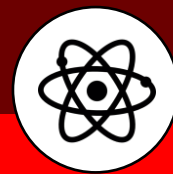
2006

22 The energy profile for a reaction is shown below.



Which of the following is a fully correct statement about this energy level profile?

- A The reaction is endothermic, V is the heat of reaction (positive sign) and X is the activation energy.
- B Products (Z) have more energy than the reactants (U), X shows the route taken when a catalyst is present and W is the activation energy.
- C Y is the route taken when a catalyst is present, V is the heat of reaction and the reaction is exothermic overall.
- D X shows the route taken without a catalyst, V + W is the activation energy and V (the heat of reaction) has a positive sign.



Rates of Reaction

2007

- 25 A mixture of equal parts of hexane (bp 68 °C) and heptane (bp 98 °C) is distilled using a fractionating column.

The temperature of the liquid in the flask and the temperature at the top of the fractionating column are measured.

Which one of the following shows the likely temperatures when the first drops of distillate are collected?

	temperature in flask/°C	temperature at top of column/°C
A	83	68
B	98	68
C	83	83
D	98	83