Quiz 6.1 - Energy

Name: Key

Question 1 (1 points)

Name 2 types of energy (there are many to choose from)

Chemical potential energy (bonds)

kinetic energy

etc.

Question 2 (2 points)

Consider the following reaction:

$$Mg(s) + 2H^{+}(aq) \longrightarrow Mg^{2+}(aq) + H_{2}(g)$$
 $\Delta H = -467 \frac{kJ}{mol}$

Predict the sign (+ or -) for both q and w for this reaction

- q (heat released to surroundings)

- W (gas product expands and does work on surroundings)

Question 3 (2 points)

Consider the reaction: $H_{\rm z}(g) + F_{\rm z}(g) \longrightarrow 2\,HF(g)$ $\Delta H = -542\frac{kJ}{mol}$

Is this reaction exothermic or endothermic?

exothermic

If I carry this reaction out, will I observe an increase or decrease in the temperature?

in crease (warm to touch)