

Bond Energy and the Types of Reactions

Exit Quiz –
Teacher's Edition

State whether the following are examples of endothermic or exothermic process. Give a reason for your answer:

1. Magnesium reacting with oxygen gas releases 150 kJ of energy.

Type of process:

Reason:

2. Ice melting

Type of process:

Reason:

3. Wood burning in air (oxygen)

Type of process:

Reason:

4. Ammonium nitrate dissolving in water decreases the water's temperature.

Type of process:

Reason:

5. Salt crystals forming in a salt solution

Type of process:

Reason:

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State whether the following are examples of endothermic or exothermic process. Give a reason for your answer:

1. Magnesium reacting with oxygen gas releases 150 kJ of energy.

Type of process: **Exothermic**

Reason:

Large amounts of energy is released

When magnesium ignites it produces heat and a bright white light

2. Ice melting

Type of process: **Endothermic**

Reason:

Ice absorbs heat from its surroundings to increase the kinetic energy of the water particles

3. Wood burning in air (oxygen)

Type of process: **Exothermic**

Reason:

Large amounts of energy are released in the form of heat and light.

4. Ammonium nitrate dissolving in water decreases the water's temperature.

Type of process: **Endothermic**

Reason:

Energy is absorbed from its surroundings to break the bonds between the ions

5. Salt crystals forming in a salt solution

Type of process: **Exothermic**

Reason:

Energy is released into the surroundings – the ions are attracted to one another to form a solid. This attractive energy is greater than the energy needed to disrupt the water-ion attractions.