**Acids Unit: Redox application**

1. The following reaction takes place in a closed container.

**2SO2 (g) + O2(g) 🡨 🡪 2SO3(g)**

The oxidizing agent in the reaction is \_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| a | SO2(g) |
| b | O2(g) |
| c | SO3(g) |
| d | This is not an oxidation reduction reaction |

1. The following reaction takes place in a closed container.

**2SO2 (g) + O2(g) 🡨 🡪 2SO3(g)**

The reducing agent in the reaction is \_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| a | SO2(g) |
| b | O2(g) |
| c | SO3(g) |
| d | This is not an oxidation reduction reaction |

1. Hydrogen gas is produced when magnesium metal reacts with 1.0 of \_\_\_\_\_\_\_\_.

|  |  |
| --- | --- |
| a | CH3OH(aq) |
| b | C2H5OH(aq) |
| c | CH3COOH(aq) |
| d | C6H12O6(aq) |

1. Consider the following half reactions

ClO3-(aq) + 6H+(aq) + 5e- 🡪 ½ Cl2(g) + 3H2O(l) Eo = 1.47 V

Cl2(g) + 2e- 🡪 2Cl-(aq) Eo = 1.36 V

A student mixes acidified solutions of KCl(aq) and KClO3(aq). The FALSE observation is **\_\_\_\_\_.**

|  |  |
| --- | --- |
| a | Chlorine gas is produced |
| b | The pH of the mixture decreases. |
| c | A spontaneous reaction occurs. |
| d | The concentrations of ClO3-(aq) and 2Cl-(aq) both decrease.  |

Solutions: 1. B

 2. A

 3. C

 4. B