Anode & Cathode

1. During the electroplating of copper spoons, copper is deposited by

|  |  |
| --- | --- |
| a | oxidizing copper ions at the cathode |
| b | reducing copper ions at the cathode |
| c | oxidizing copper ions at the anode |
| d | reducing copper ions at the anode |

1. Use this information to answer the question that follows.

3Zn2+(aq) + 2Al(s) 🡪 3Zn(a) + 2Al3+(aq)

This equation represents the reaction in an electrochemical cell.

The half-cell reaction that occurs at the anode is \_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| a | Zn(s) 🡪 2e- + Zn2+(aq) |
| b | Zn2+(aq) + 2e- 🡪 Zn(s) |
| c | Al(s) 🡪 3e- + Al3+(aq) |
| d | Al3+(aq) + 3e- 🡪Al(s) |

1. In an electrochemical cell, the cathode is the electrode at which electrons\_\_\_\_ the half cell and \_\_\_\_\_\_\_\_ takes place.

|  |  |  |
| --- | --- | --- |
| a | Leave | Oxidation |
| b | Leave | Reduction |
| c | Enter | Oxidation |
| d | Enter | Reduction |

Solutions

1. B
2. C
3. D