

## ELECTROLYSIS PRACTICE QUESTIONS AND PROBLEMS

Reduction always takes place at the \_\_\_\_\_ .

Oxidation always takes place at the \_\_\_\_\_ .

When a molten (melted) ionic compound undergoes electrolysis, the \_\_\_\_\_ ion will be oxidized, and the \_\_\_\_\_ ion will be reduced.

For the following substances, indicate which ions or molecules are present, and indicate what would be oxidized and what would be reduced. Then write the half reactions that take place at each electrode.

### 1) $\text{AlCl}_3(l)$

present: \_\_\_\_\_ cathode: \_\_\_\_\_ →

oxidized: \_\_\_\_\_ anode: \_\_\_\_\_ →

reduced: \_\_\_\_\_

### 2) $\text{FeBr}_3(l)$

present: \_\_\_\_\_ cathode: \_\_\_\_\_ →

oxidized: \_\_\_\_\_ anode: \_\_\_\_\_ →

reduced: \_\_\_\_\_

### 3) $\text{CoF}_2(l)$

present: \_\_\_\_\_ cathode: \_\_\_\_\_ →

oxidized: \_\_\_\_\_ anode: \_\_\_\_\_ →

reduced: \_\_\_\_\_

### 4) $\text{KI}(l)$

present: \_\_\_\_\_ cathode: \_\_\_\_\_ →

oxidized: \_\_\_\_\_ anode: \_\_\_\_\_ →

reduced: \_\_\_\_\_

### 5) $\text{NaCl}(l)$

present: \_\_\_\_\_ cathode: \_\_\_\_\_ →

oxidized: \_\_\_\_\_ anode: \_\_\_\_\_ →

reduced: \_\_\_\_\_