

Unit
11

Lesson
7

AIM

- More voltaic cell practice

AGENDA

- More voltaic cell practice
- U11L7 video

YOYO

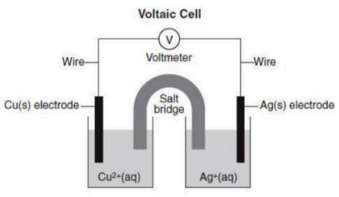
- Pull up the U11L7 (unit 11 lesson 7) video on YouTube

HOMEWORK

- Voltaic Cell Castle Learning due tonight by 11:59 pm
- Follow the calendar

1

Voltaic Cell



Wire

Voltmeter

Wire

Cu(s) electrode

Salt bridge

Ag(s) electrode

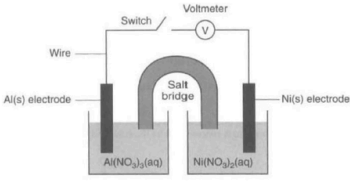
Cu²⁺(aq)

Ag⁺(aq)

$$\text{Cu(s)} + 2\text{Ag}^+(\text{aq}) \rightarrow \text{Cu}^{2+}(\text{aq}) + 2\text{Ag(s)}$$

- Anode: _____
- Cathode: _____
- Direction of e⁻: _____
- _____ increases in mass
- _____ decreases in mass
- Oxidation half reaction: _____
- Reduction half reaction: _____

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Wire

Switch

Voltmeter

Al(s) electrode

Salt bridge

Ni(s) electrode

Al(NO₃)₃(aq)

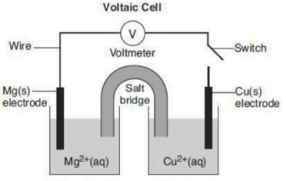
Ni(NO₃)₂(aq)

$$2\text{Al(s)} + 3\text{Ni}^{2+}(\text{aq}) \rightarrow 2\text{Al}^{3+}(\text{aq}) + 3\text{Ni(s)}$$

- Anode: _____
- Cathode: _____
- Direction of e⁻: _____
- _____ increases in mass
- _____ decreases in mass
- Oxidation half reaction: _____
- Reduction half reaction: _____

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Voltaic Cell



Wire

Voltmeter

Switch

Mg(s) electrode

Salt bridge

Cu(s) electrode

Mg²⁺(aq)

Cu²⁺(aq)

$$\text{Mg(s)} + \text{Cu}^{2+}(\text{aq}) \rightarrow \text{Mg}^{2+}(\text{aq}) + \text{Cu(s)}$$

- Anode: _____
- Cathode: _____
- Direction of e⁻: _____
- _____ increases in mass
- _____ decreases in mass
- Oxidation half reaction: _____
- Reduction half reaction: _____

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Voltaic Cell

Wire

Zn(s) electrode Fe(s) electrode

Zn²⁺(aq) Fe²⁺(aq)

Salt bridge

Zn(s) + Fe²⁺(aq) → Zn²⁺(aq) + Fe(s)

- Anode: _____
- Cathode: _____
- Direction of e⁻: _____
- _____ increases in mass
- _____ decreases in mass
- Oxidation half reaction: _____
- Reduction half reaction: _____

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- In terms of atoms and ions, why is the mass of the anode decreasing?

- In terms of atoms and ions, why is the mass of the cathode increasing?

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