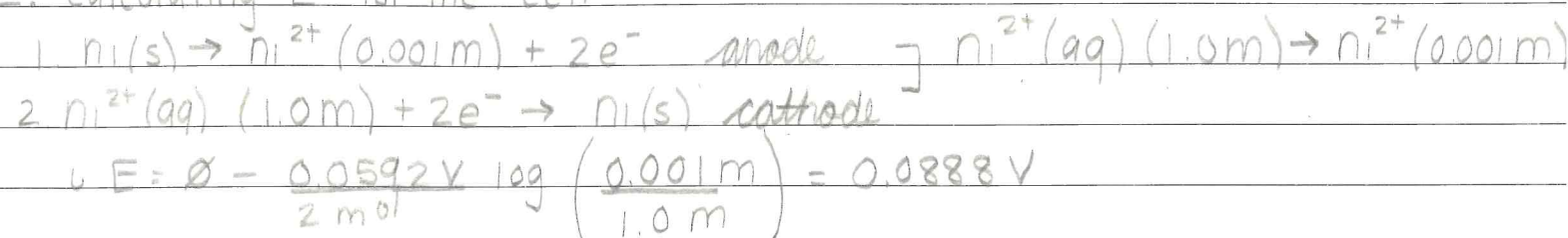
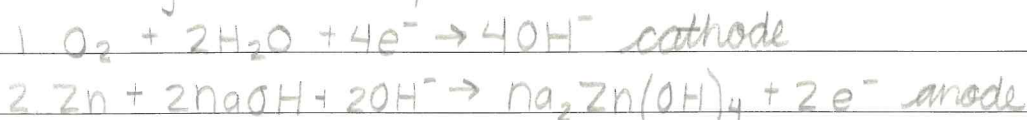


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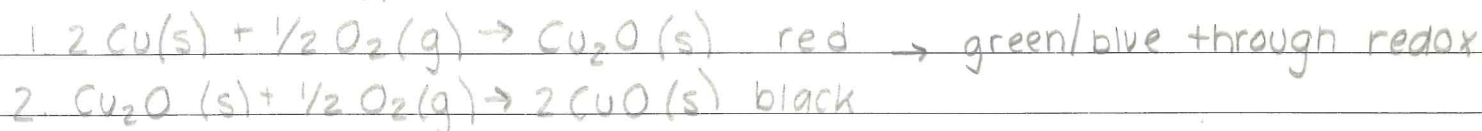
L. Calculating E for the cell



M. making a Battery



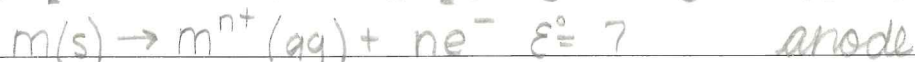
N. Corrosion of Copper



3 Corrosion: the oxidation of a metal to be a metallic compound

↳ The anode and cathode must be in electrical contact

a. One possible corrosion reaction, O_2 as the cathode:



for spontaneous reaction, $E^\circ_{\text{metal}} < 1.23\text{V}$

b. Look at reduction potentials to determine spontaneity

↳ Precious metals tend not to rust as quickly (Pd, Ag, Au, Pt)

O. Preventing Corrosion

1. Some metals oxidize to form an adherent coating that protects against further oxidation



2. Metal alloys (mix of metals) may be more resistant to corrosion because reduction potential is changed

3. Galvanized steel is Fe with a coating of zinc

↳ Zinc is more easily oxidized, acting as a sacrificial anode

Electrolytic Cell: Non-Spontaneous

Nonspontaneous reactions can occur if electricity is used to drive the reaction

Electrolysis: use of electrical energy to create chemical reactions

