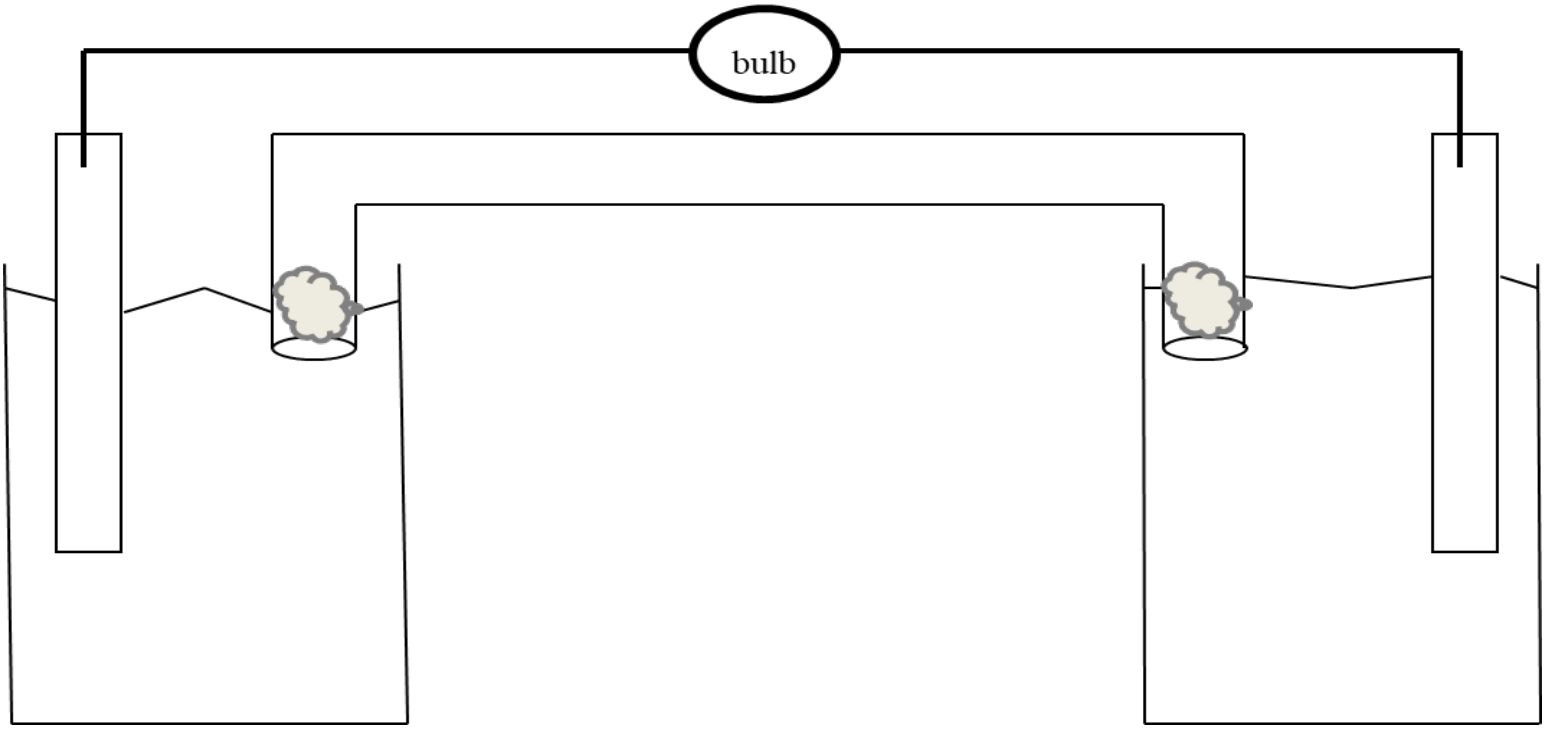
Fully label this voltaic cell, put zinc metal into a zinc nitrate solution on the right, put copper metal into copper (II) bromide solution at left. We will use a sodium chloride salt in the "bridge".
Write out half reactions, net reaction, and tell the 3 specific reasons that this cell will die.

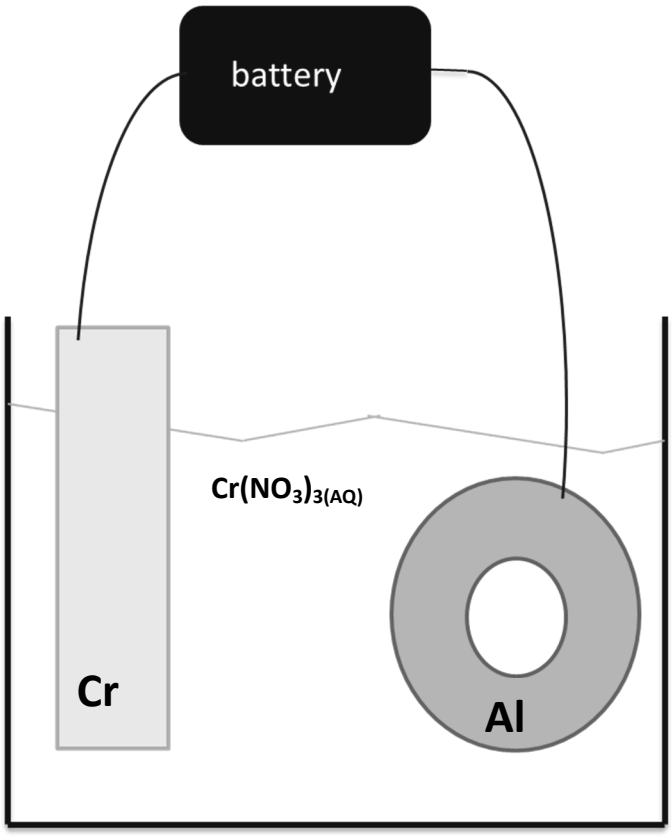


$^1/_2$ OX

$^1/_2$ RED

NET

Why would this "battery" die? You might run out of…



Fully label this electrolytic cell.
Make the chromium plate onto the aluminum metal
Write out half reactions, net reaction.
Careful with those chromium cations…

$^1/_2$ OX

$^1/_2$ RED

NET

Write out the half reactions and the net ionic equation for the decomposition of water in the Hoffmann apparatus.	$^1/_2$ OX $^1/_2$ RED NET

Turn these word equations into balanced equations, then write out their half reactions and then balance them properly. Write out the net ionic equations as well.

Tin metal is added to copper (I) nitrate, forming tin (IV) nitrate and copper.

$^1/_2$ OX

$^1/_2$ RED

NET

Sodium metal is added to zinc chloride solution…

$^1/_2$ OX

$^1/_2$ RED

NET