

CONCEPT: BALANCING REDOX REACTIONS (SIMPLIFIED)

- **Balancing Redox Reactions** requires a new approach that accounts for the transfer of electrons between reactants.

□ Redox reactions not only balance the atoms of elements, but also _____ and _____.

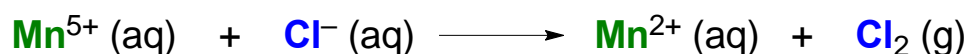
Half-Reactions

- Balancing a redox reaction begins with identifying its *half reactions*.

□ **Half Reaction:** Either the oxidation or reduction reaction portion of a redox reaction.

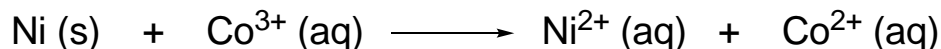
□ Usually a half reaction is obtained by identifying the elements that are found as _____ & _____.

EXAMPLE: Identify the half reactions from the following redox reaction.



Balancing Redox Reactions

EXAMPLE: Balance the following redox reaction.



STEP 1: Break the full redox reaction into 2 half reactions.

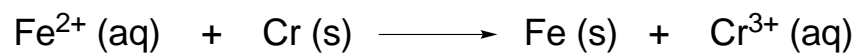
STEP 2: Balance the overall charge by adding **electrons** to the more _____ charged side of each half reaction.

□ If the number of electrons of both half reactions differ then _____ to get the lowest common multiple.

STEP 3: Combine the half reactions and _____ the electrons on both sides.

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PRACTICE: Balance the following redox reaction.



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