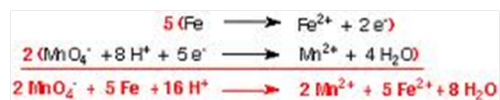
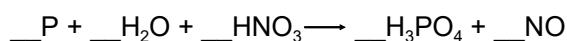


Chem Unit 13.2 Notes - Balancing Redox Reactions

13.2 Balancing Redox Equations



1. Warmup Problem: Balance this!

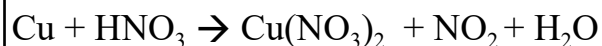


Answer Later!

Balancing Procedure

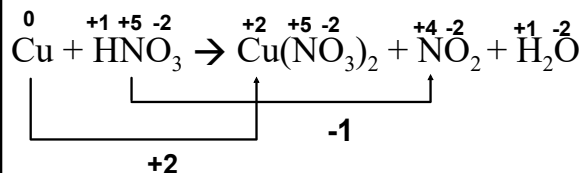
1. Assign oxidation numbers to all atoms.
2. Pair oxidation number changes.
3. Add coefficients to equalize charge.
4. Balance non-changed elements by inspection.

2. Guided Balancing Example



1. Assign oxidation numbers to all atoms.

2. Balancing Example



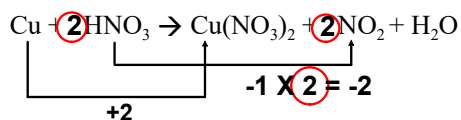
2. Pair number changes:

Cu is oxidized: +2; N is reduced: -1

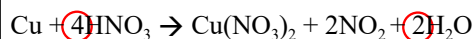
H, O, and N (in nitrate) are unchanged.

2. Balancing Example

3. Adjust coefficients to equalize charges:

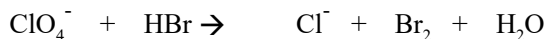


4. Use inspection for the rest:

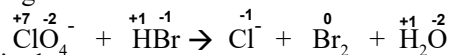


Chem Unit 13.2 Notes - Balancing Redox Reactions

3. Another Example



1. Assign oxidation numbers:

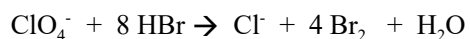


2. Pair changes:



Changes: Cl = -8 Br = +1 (need 8)

3. Adjust coefficients:

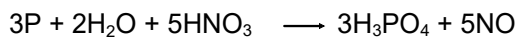
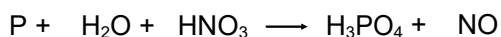


3. Another Example

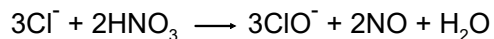
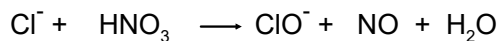
4. Balance the rest by inspection



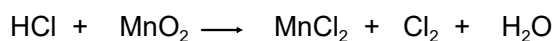
Try this again!



4. Now try this!



5. Finally this!



Homework

13.2 Problems.

Due Next Class.