EXAMPLE OF ACIDIC SOLUTION REACTION:

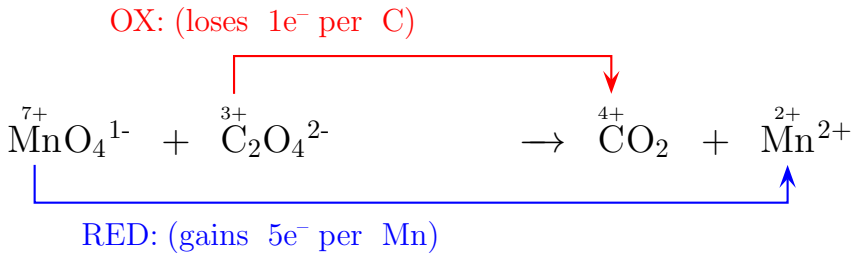
28. $\overset{7+}{\mathrm{Mn}}\mathrm{O_4}^{1-} + \overset{3+}{\mathrm{C_2}}\mathrm{O_4}^{2-} \longrightarrow \overset{4+}{\mathrm{C}}\mathrm{O_2} + \overset{2+}{\mathrm{Mn}}^{2+}$

FOR ACIDIC SOLUTIONS:

1. Assign oxidation states.

EXAMPLE OF ACIDIC SOLUTION REACTION:

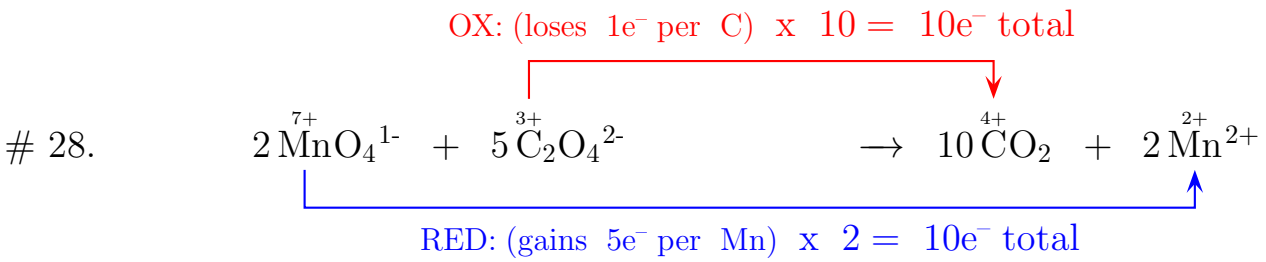
28.



FOR ACIDIC SOLUTIONS:

1. Assign oxidation states.
2. Identify the losers and gainers.

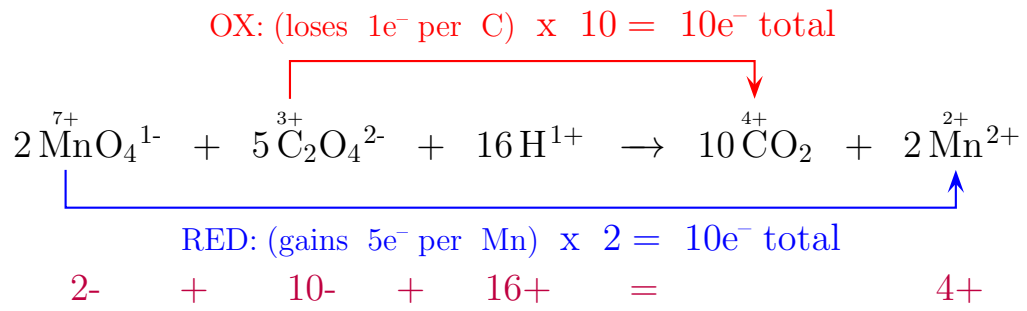
EXAMPLE OF ACIDIC SOLUTION REACTION:



FOR ACIDIC SOLUTIONS:

1. Assign oxidation states.
2. Identify the losers and gainers.
3. Balance the number of electrons lost and gained (pay attention to any additional stoichiometric considerations).
4. Balance atoms other than hydrogen and oxygen if possible.

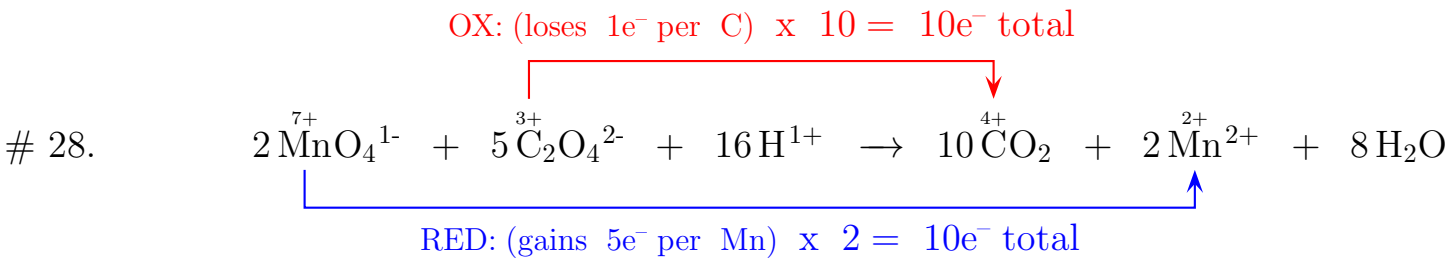
EXAMPLE OF ACIDIC SOLUTION REACTION:



FOR ACIDIC SOLUTIONS:

1. Assign oxidation states.
2. Identify the losers and gainers.
3. Balance the number of electrons lost and gained (pay attention to any additional stoichiometric considerations).
4. Balance atoms other than hydrogen and oxygen if possible.
5. Add H^{1+} to either side of the equation such that it creates a charge balance.

EXAMPLE OF ACIDIC SOLUTION REACTION:



FOR ACIDIC SOLUTIONS:

1. Assign oxidation states.
2. Identify the losers and gainers.
3. Balance the number of electrons lost and gained (pay attention to any additional stoichiometric considerations).
4. Balance atoms other than hydrogen and oxygen if possible.
5. Add H^{1+} to either side of the equation such that it creates a charge balance.
6. Add water to balance hydrogen and oxygen.