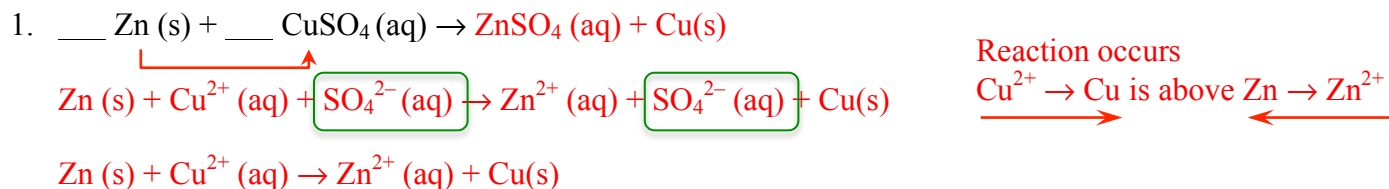


WKS – Honors Chem
Single Replacement Reaction Products

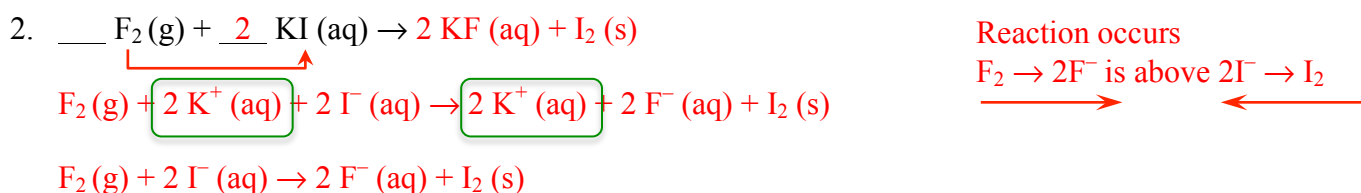
NAME Answer Key
 Period _____ Date _____

Part A

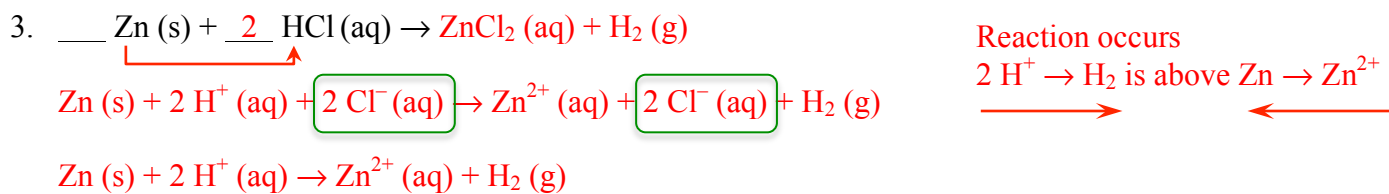
Determine the products and write the balanced equation for each for each of these reactions assuming that the reaction proceeds. Then use the Standard Reduction Potentials in Chart H to determine if the reaction does proceed. If the reaction cannot occur, write “NR” after it. Finally write the complete and net ionic equations. Remember—elements have no charge. Aqueous strong acids dissociate into H⁺ and their anion in the complete ionic equation.



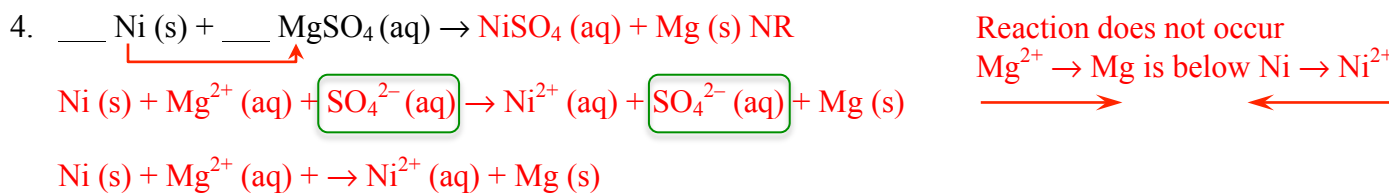
Reaction occurs
 $\text{Cu}^{2+} \rightarrow \text{Cu}$ is above $\text{Zn} \rightarrow \text{Zn}^{2+}$



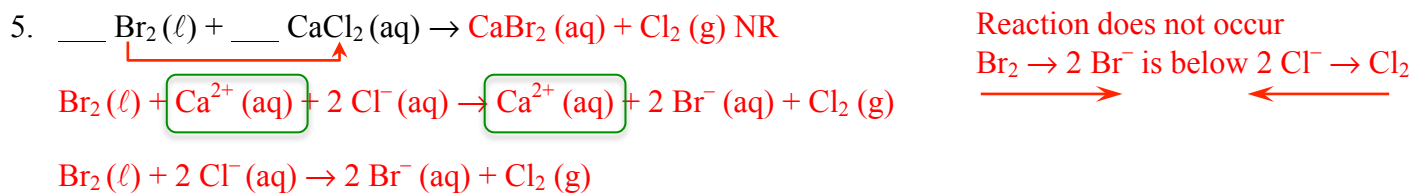
Reaction occurs
 $\text{F}_2 \rightarrow 2\text{F}^-$ is above $2\text{I}^- \rightarrow \text{I}_2$



Reaction occurs
 $2 \text{H}^+ \rightarrow \text{H}_2$ is above $\text{Zn} \rightarrow \text{Zn}^{2+}$



Reaction does not occur
 $\text{Mg}^{2+} \rightarrow \text{Mg}$ is below $\text{Ni} \rightarrow \text{Ni}^{2+}$

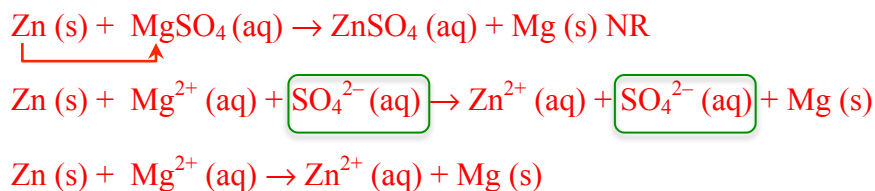


Reaction does not occur
 $\text{Br}_2 \rightarrow 2 \text{Br}^-$ is below $2 \text{Cl}^- \rightarrow \text{Cl}_2$

Part B

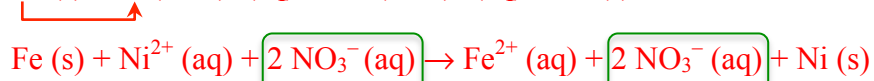
Determine the reactant formulas for the following scenarios, then complete the reactions as above.

6. A strip of zinc is placed into a solution of magnesium sulfate.

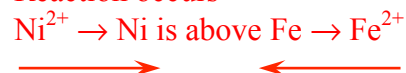


Reaction does not occur
 $\text{Mg}^{2+} \rightarrow \text{Mg}$ is below $\text{Zn} \rightarrow \text{Zn}^{2+}$

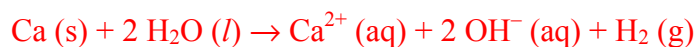
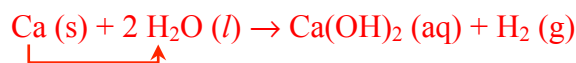
7. An iron nail is placed into a solution of nickel(II) nitrate. (Fe forms the Fe^{2+} ion)



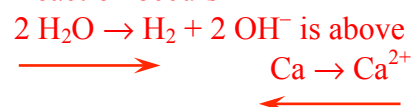
Reaction occurs



8. A solid chunk of calcium is placed into water.

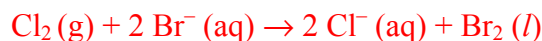
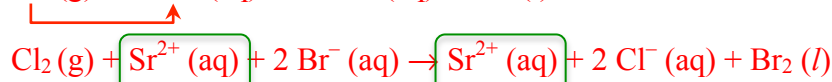
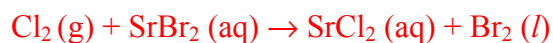


Reaction occurs

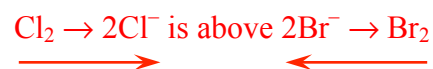


No spectator ions; the complete ionic equation is also the net ionic equation.

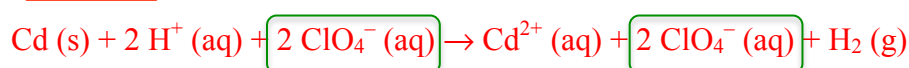
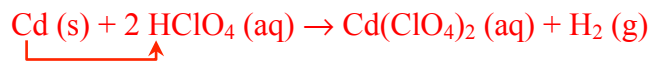
9. Chlorine gas is bubbled through a solution of strontium bromide.



Reaction occurs



10. Cadmium pellets are placed into a solution of perchloric acid.



Reaction occurs

