Report for Experiment 15

Forming and Naming Ionic Compounds

Prelaboratory Questions

- 1. For the following pairs of ions, write the formula of the compound that you would expect them to form:
 - A. barium and hydroxide
 - B. cobalt (III) and phosphate
 - C. iron (II) and sulfate
 - D. silver and hydrogen carbonate

2. Platinum is a transition metal and forms Pt^{2+} and Pt^{4+} ions. Write the formulas for the compounds for each of these ions with

- A. bromide ions
- B. carbonate ions

Data/Observations

	Na ₃ PO ₄	КОН	K ₄ Fe(CN) ₆	Na ₂ CO ₃	KI	Na ₂ C ₂ O ₄
	PO4 ³⁻	OH-	$\begin{array}{c c} K_4 Fe(CN)_6 \\ Fe(CN)_6^{4-} \end{array}$	Na ₂ CO ₃ CO ₃ ²⁻	I-	$\begin{array}{c} Na_2C_2O_4\\ C_2O_4^{2-}\end{array}$
CoCl ₂ Co ²⁺						
Pb(NO ₃) ₂ Pb ²⁺						
Pb ²⁺						
CuSO ₄						
Cu ²⁺						
$Fe(NO_3)_3$ Fe^{3+}						
Fe ³⁺						
NiCl ₂						
Ni ²⁺						
SrCl ₂						
Sr ²⁺						
AgNO ₃						
$\begin{array}{c} AgNO_3 \\ Ag^+ \end{array}$						

Analysis and Conclusions

 For each case in which you found a reaction occurred, write the correct formula for the substance formed.

	Na ₃ PO ₄	KOH	K ₄ Fe(CN) ₆	Na ₂ CO ₃ CO ₃ ²⁻	KI	Na ₂ C ₂ O ₄
	PO4 ³⁻	OH-	K ₄ Fe(CN) ₆ Fe(CN) ₆ ⁴⁻	CO3 ²⁻	I-	$Na_2C_2O_4$ $C_2O_4^{2-}$
CoCl ₂						
C0 ²⁺						
Pb(NO ₃) ₂ Pb ²⁺						
Pb ²⁺						
CuSO ₄						
Cu ²⁺						
Fe(NO ₃) ₃ Fe ³⁺						
Fe ³⁺						
NiCl ₂						
Ni ²⁺						
SrCl ₂						
Sr ²⁺						
AgNO ₃						
$\begin{array}{c} \text{AgNO}_3\\ \text{Ag}^+ \end{array}$						

2. For each formula above, write the correct chemical name for the compound formed.

Formula	Name	Formula	Name
		-	
		-	
		1	
			1