

# Chapter 4 Problem Set 1

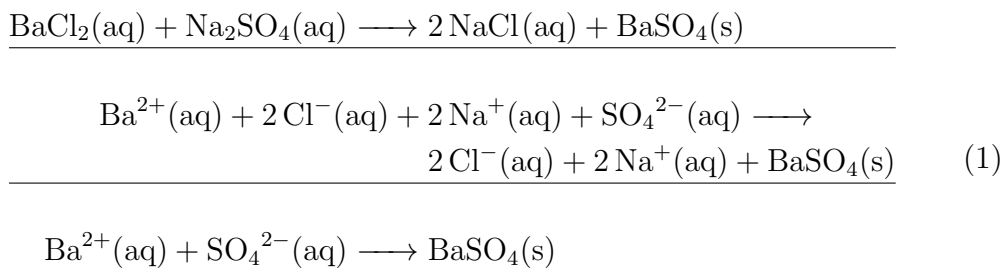
Michael Brodskiy

Instructor: Mr. Morgan

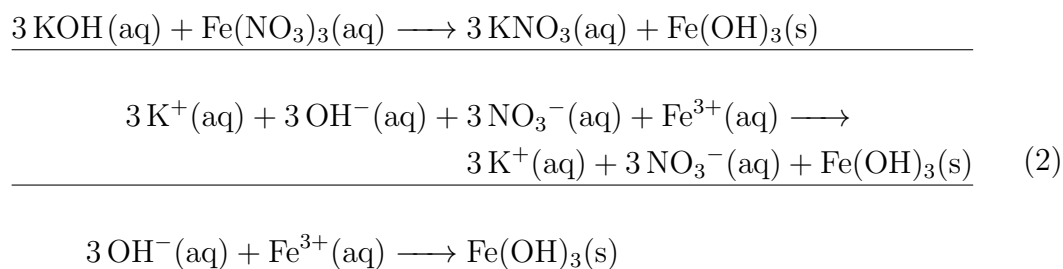
September 29, 2020

1. Write the molecular, complete ionic, and net equations for the following:

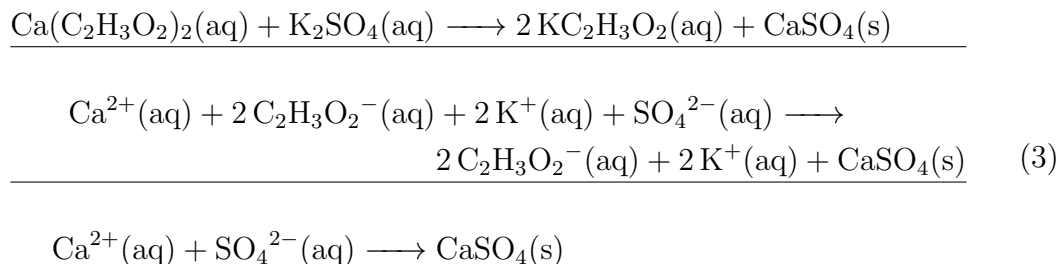
(a)  $\text{BaCl}_2$  and  $\text{Na}_2\text{SO}_4$  (1)



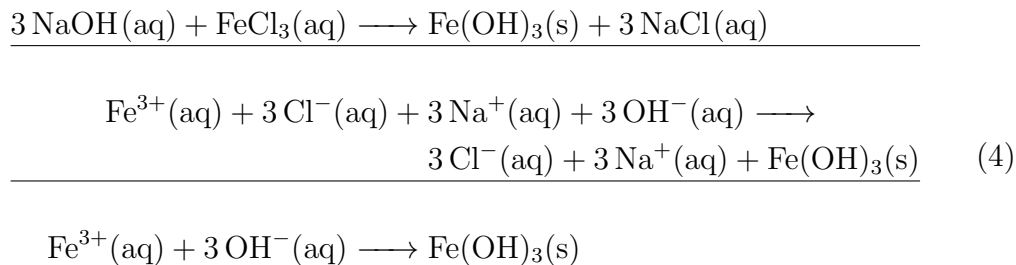
(b)  $\text{KOH}$  and  $\text{Fe}(\text{NO}_3)_3$  (2)



(c)  $\text{Ca}(\text{C}_2\text{H}_3\text{O}_2)_2$  and  $\text{K}_2\text{SO}_4$  (3)

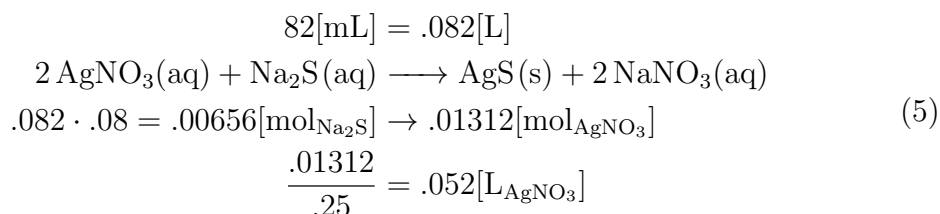


(d)  $\text{FeCl}_3$  and  $\text{NaOH}$  (4)

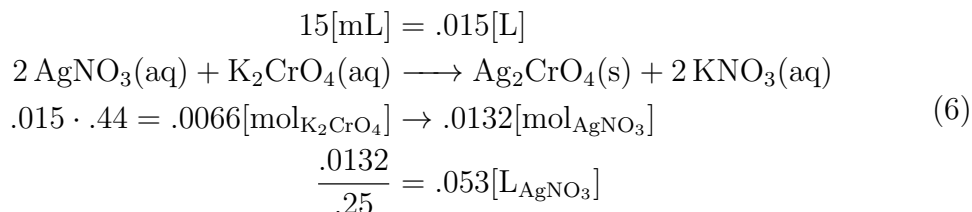


2. What volume of .25[M]  $\text{AgNO}_3$  is required to react with:

(a) 82[mL] of .08[M]  $\text{Na}_2\text{S}$  (5)

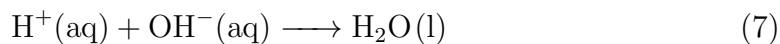


(b) 15[mL] of .44[M]  $\text{K}_2\text{CrO}_4$  (6)

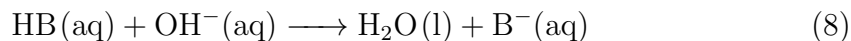


3. Write a net equation for the following:

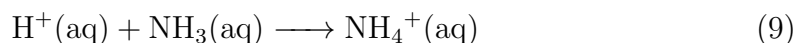
(a)  $\text{HNO}_3$  and  $\text{Ba}(\text{OH})_2$  (7)



(b)  $\text{LiOH}$  and  $\text{HB}$  (8)



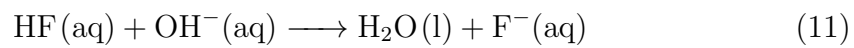
(c)  $\text{HClO}_4$  and  $\text{NH}_3$  (weak base) (9)



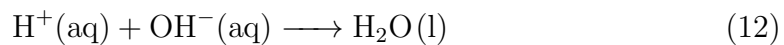
(d)  $\text{CH}_3\text{NH}_2$  (weak base) and  $\text{HBr}$  (10)



(e)  $\text{HF}$  and  $\text{KOH}$  (11)



(f)  $\text{Mg}(\text{OH})_2$  and  $\text{H}_2\text{SO}_4$  (12)



(g)  $\text{HClO}_4$  and  $\text{CsOH}$  (13)

