

Multiple Choice Response Sheet

Name: _____

1. A

2. B

3. A

4. A

5. A

6. B

7. C

8. A

9. C

10. D

11. D

12. D

13. C

14. C

15. D

16. A

17. D

18. B

19. D

20. C

21. D

22. C

23. C

24. C

25. A

26. B

27. D

28. B

29. A

30. C

31. C

32. B

33. B

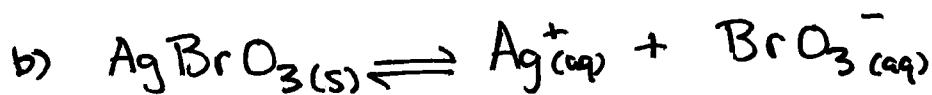
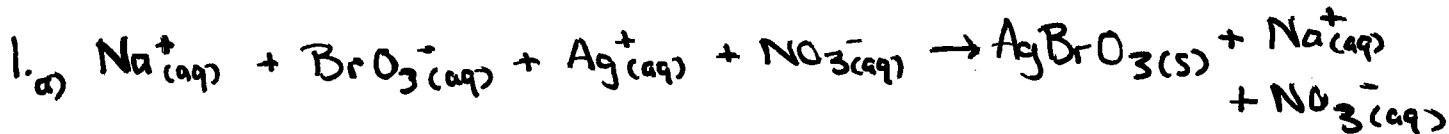
34. _____

35. _____

36. _____

Solubility

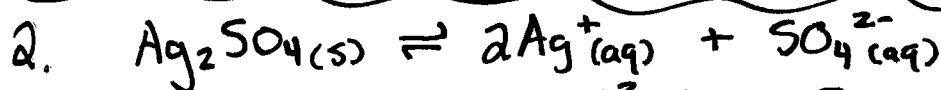
44



$$K_{sp} = [\text{Ag}^+][\text{BrO}_3^-] = 5.3 \times 10^{-5}$$

$$[\text{BrO}_3^-] = [\text{NaBrO}_3] = \frac{5.3 \times 10^{-5}}{2.0M}$$

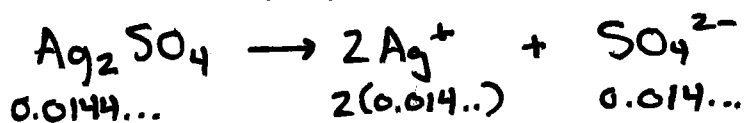
$$= 2.7 \times 10^{-5} M$$



$$K_{sp} = [\text{Ag}^+]^2 [\text{SO}_4^{2-}] = ?$$

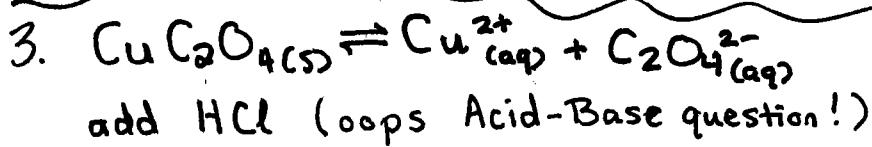
$$\begin{aligned} \text{Mass of Ag}_2\text{SO}_4 &= 32.260g - 32.125g \\ &= 0.135g \text{ Ag}_2\text{SO}_4 \quad \approx 3 \text{ S.F.} \end{aligned}$$

$$[\text{Ag}_2\text{SO}_4] = \frac{0.135g}{0.03000L} \times \frac{1 \text{ mol}}{311.9g} = 0.01442...M$$

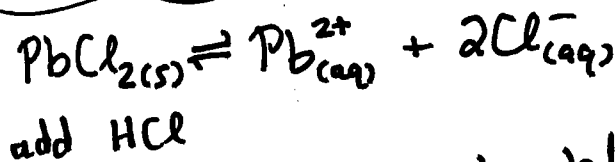


$$\begin{aligned} K_{sp} &= (2(0.0144...))^2 (0.0144...) \\ &= 1.2012 \times 10^{-5} \end{aligned}$$

$$K_{sp} = 1.20 \times 10^{-5}$$



H^+ (an acid) will react with the base $\text{C}_2\text{O}_4^{2-}$ which will decrease the $[\text{C}_2\text{O}_4^{2-}]$. When $\text{C}_2\text{O}_4^{2-}$ is removed, the \rightleftharpoons will shift RIGHT to create more. This causes more $\text{CuC}_2\text{O}_4(s)$ to dissolve.



adding Cl^- to a saturated solution of PbCl_2 would cause the equilibrium to shift LEFT to consume the added Cl^- . This causes more $\text{PbCl}_2(s)$ to be created.