

Chemistry Final Answers

1. B, D, C, A
2. 3,1,5,2,4
3. 5.6×10^{-3}
4. A nucleus surrounded by electrons
5. In the periodic table, the groups are the columns of elements.
6. Its chemical formula is MgCO_3
7. Planck
8. Atomic mass
9. Positive
10. Moseley
11. Ionization energy
12. Ionic
13. Negative
14. Ammonia
15. ZnS
16. $\text{Cl}_2(\text{g}) + 2\text{NaBr}(\text{aq}) \rightarrow 2\text{NaCl}(\text{aq}) + \text{Br}_2(\text{l})$
17. $2\text{LiOH}(\text{s}) + \text{CO}_2(\text{g}) \rightarrow \text{Li}_2\text{CO}_3(\text{s}) + \text{H}_2\text{O}(\text{l})$
18. NO_2 $14.0\text{ g} + 2(16.0\text{ g}) = 46.0\text{ g}$ $92.0 / 46.0 = 2$
$$\begin{array}{c} \text{NO}_2 \\ \text{N}_2\text{O}_4 \end{array}$$
19. $? \text{ mol Se} = 45 \text{ g Se} \times \frac{1 \text{ mol Se}}{79.0 \text{ g Se}} = 0.57 \text{ mol Se}$
20. b. 3.74
21. b. 17.9
22. increases
23. $24.0\text{ kPa} - 1.7\text{ kPa} = 22.3\text{ kPa}$
24. 0.3L
25. 31.3M
26. A measure of how much solute can dissolve in a given amount of solvent.
27. 80g
28. NaCl and KClO₃
29. sulfurous acid
30. magnesium sulfate

31. $Q = m \times C \times \Delta t$
 $Q = 25.0 \text{ g} \times 4.184 \text{ J / g } ^\circ\text{C} \times (-)25^\circ\text{C}$
 $Q = -2620 \text{ J}$
 t is negative, so Q is negative as well.
32. $Q = m \times \Delta H_{\text{fus}}$
 $Q = 25.0 \text{ g} \times 334 \text{ J/g}$
 $Q = 8350 \text{ J}$
33. Protons and 2 Neutrons are lost.
34. Electron
35. b. right
36. no change
37. Alpha= least Beta= middle Gamma= mos
38. For alpha and beta decay it does because the proton number changes. During gamma, there is no change of identity, just energy
39. acid+base $\rightarrow$ salt+water
40. a. compound
41. $C_2H_6 \quad 2(12.0 \text{ g}) + 6(1.0 \text{ g}) = 30.0 \text{ g}$
42. b. covalent
43. a. Zn
44. a. Orbital