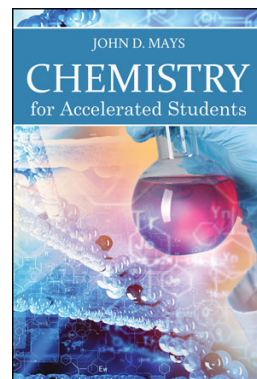


Chemistry for Accelerated Students



Errata

We always strive to make our textbooks as accurate as possible, but sadly, errors are a reality. We very much appreciate friends who report errata that are not included in this document!

Please send new errata to info@novaescienceandmath.com

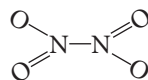
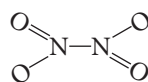
Last revised: February 20, 2019

Chemistry for Accelerated Students 2nd ed. (2018)

Chapter 1

28c. 2.91×10^{22} atoms

Chapter 3 Exercises



12 o. N_2O_4

22a. The Be—F bond is ionic

Chapter 5

13i. reaction products should be LiI(aq) and K(s)

Chapter 7

14b. 4.20×10^2 kg

Chapter 8

40. the first answer is 3.46 m

Chapter 9

4g. answer is diprotic

21. Add the following note to the answers given in the text: These answers all show the formation of carbonic acid, H_2CO_3 . This acid is unstable and immediately break down to CO_2 and water. Thus, each equation could be shown as: $\dots + CO_2 + H_2O$.

Chapter 10 Text

52. 8.50 atm

Chemistry for Accelerated Students (2016)

Chapter 1 Exercises

16 Yb: [Xe]6s24f14

Es: [Rn]7s25f11

No: [Rn]7s25f14

28c. 2.91×10^{22} atoms

Chapter 2 text

p. 52, The opening of the first paragraph should read, "The first 92 elements...are found in nature. Elements 93–118 have been synthesized in laboratories..."

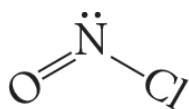
Chapter 2 Exercises

10. The problem statement should refer to cesium (Cs).

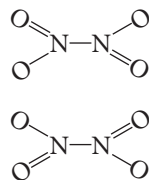
Answer: $\text{Mg} < \text{Na} < \text{Ba} < \text{Cs}$

Chapter 3 Answer Key

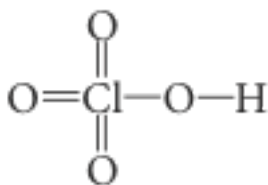
12a. $\text{H}-\text{C}\equiv\text{C}-\text{Cl}$



12l.



12 o. N_2O_4



12s.

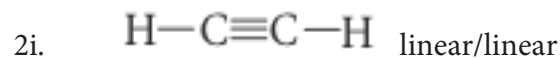
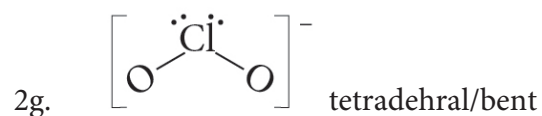
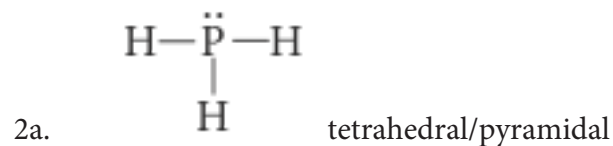
15d. perchloric acid

15f. bromous acid

18i. $\text{Cr}(\text{SO}_3)_3$ chromium(VI) sulfite

22a. The Be—F bond is ionic

Chapter 4 Answer Key

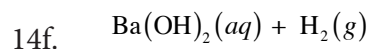
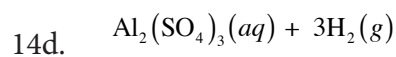


3e. N: sp^2 O: sp^3

3f. sp^3

Chapter 5 Answer Key

13i. reaction products should be LiI(aq) and K(s)



$$750 \text{ mg Al}(\text{OH})_3 \cdot \frac{1 \text{ g}}{1000 \text{ mg}} \cdot \frac{\text{mol}}{78.0034 \text{ g}} = 0.00961 \text{ mol Al}(\text{OH})_3$$

19a. $0.00961 \text{ mol Al}(\text{OH})_3 \cdot \frac{3 \text{ mol HCl}}{1 \text{ mol Al}(\text{OH})_3} = 0.0288 \text{ mol HCl}$

Rounding this result to 2 sig digs gives 0.029 mol HCl.

$$750 \text{ mg Al}(\text{OH})_3 \cdot \frac{1 \text{ g}}{1000 \text{ mg}} \cdot \frac{\text{mol}}{78.0034 \text{ g}} = 0.00961 \text{ mol Al}(\text{OH})_3$$

$$0.00961 \text{ mol Al}(\text{OH})_3 \cdot \frac{3 \text{ mol H}_2\text{O}}{1 \text{ mol Al}(\text{OH})_3} = 0.0288 \text{ mol H}_2\text{O}$$

19b. $0.0288 \text{ mol H}_2\text{O} \cdot \frac{18.02 \text{ g}}{\text{mol}} = 0.5198 \text{ g H}_2\text{O}$

Rounding this result to 2 sig digs gives 0.52 g H₂O.

Chapter 7

14b. $4.20 \times 10^2 \text{ kg}$

Chapter 8

40. the first answer is 3.46 m

Chapter 9 Exercises

- 4g. answer is diprotic
21. Add the following note to the answers given in the text: These answers all show the formation of carbonic acid, H_2CO_3 . This acid is unstable and immediately break down to CO_2 and water. Thus, each equation could be shown as: $\dots + \text{CO}_2 + \text{H}_2\text{O}$.
25. The first two sentences of the question should read: According to the activity series of metals (Table 5.2), copper does not react with sulfuric acid. However, if the acid is hot enough and concentrated enough, copper reacts with H_2SO_4 in a single-replacement reaction.
28. Item (g) is *basic*.

$$20.87 \text{ mL} \cdot \frac{1 \text{ L}}{1000 \text{ mL}} \cdot 4.077 \times 10^{-2} \text{ M} = 8.509 \times 10^{-4} \text{ mol HClO}_4$$

Ca(OH)_2 provides two moles of OH^- ions for each mole of Ca(OH)_2 . So only half as many moles of Ca(OH)_2 are required to neutralize HClO_4 .

$$\frac{8.509 \times 10^{-4} \text{ mol HClO}_4}{2} \rightarrow 4.254 \times 10^{-4} \text{ mol Ca(OH)}_2$$

$$M_{\text{Ca(OH)}_2} \cdot 22.94 \text{ mL} \cdot \frac{1 \text{ L}}{1000 \text{ mL}} = 4.254 \times 10^{-4} \text{ mol Ca(OH)}_2$$

36c.
$$M_{\text{Ca(OH)}_2} = \frac{4.254 \times 10^{-4} \text{ mol Ca(OH)}_2}{0.02294 \text{ L}} = 0.01855 \text{ M Ca(OH)}_2$$

Chapter 10 Text

Table 10-3, p. 304, Second column, fourth row should read “decreases disorder.”

52. 8.50 atm