

Chapter 9 Review

- (a) +0.71 V
(b) +0.62 V
- (a) +0.48 V
(b) +0.48 V
(c) +1.77 V
- (b) +0.14 V
- +1.54 V
- (c) +0.47 V
- (a) +0.23 V

Chapter 10 Electrolytic Cells**Section 10.1 Questions**

- (a) $\Delta E^\circ = -0.50$ V
(b) $\Delta E^\circ = -0.03$ V
(c) $\Delta E^\circ = -0.47$ V
- (a) 0.43 V
(b) 0.29 V
- (a) -1.30 V

Section 10.3 Questions

- 2.80 mmol
- 0.58 Mg or 0.58 t
- 82.8 min
- 52.8 kA
- (a) 1.63 Mg or 1.63 t
(b) 4.76 Mg or 4.76 t
- 0.174 mol/L
- 24.42 g

Chapter 10 Self-Quiz

- True
- False
- False
- True
- True
- True
- False
- (e)
- (a)
- (b)
- (d)
- (b)
- (e)
- (c)
- (a)
- (d)

Chapter 10 Review

- (a) 1.22 V
(b) 0.80 V
(c) 0.00 V
- (a) 1.90 V
(b) 1.23 V
(c) 1.51 V
- (b) 1.23 V
- (b) 2.19 V
- (c) 0.889 g
- Al: 0.629 g; Ni: 2.05 g;
Ag: 7.54 g
- (a) 7.42×10^3 s
(b) 4.05×10^3 s
(c) 4.34×10^3 s
- (a) 1.99 V
(b) 590 s
- 2.98 kA

- 20.1 min
- 1.03 kmol/h
- (a) 1.8 A
(b) 2%

Unit 5 Self-Quiz

- True
- False
- False
- True.
- False
- True
- True
- False
- True
- False
- False
- True
- False
- True
- True
- True
- False
- False
- (b)
- (e)
- (c)
- (c)
- (d)
- (d)
- (e)
- (b)
- (d)
- (a)
- (d)
- (a)
- (b)

Unit 5 Review

- (a) -2
(b) +4
(c) +6
(d) +4
(e) 0
- (a) Sn +4; Co 0; Sn 2+; Co +2
(b) Fe +3; Zn 0; Fe +2; Zn +2
(c) Cl 0; I -1; Cl -1; I 0
(d) C +3; O -2; Mn +7; O -2; H +1; C +4; O -2; Mn +2; H +1; O -2
(e) Cl 0; S +4; O -2; O -2; H +1; Cl -1; S +6; O -2; H +1, O -2

Appendix D**Chemistry 11 Review****Unit 2 Quantities in Chemical Reactions**

- (a) 28.02 g/mol
(b) 114.26 g/mol
(c) 32.00 g/mol
(d) 182.71 g/mol
(e) 187.42 g/mol
(f) 285.75 g/mol
(g) 4.00 g/mol
(h) 80.06 g/mol
(i) 17.04 g/mol
(j) 36.46 g/mol
- (a) 6 mol
(b) Fe: 2 mol; N: 3 mol; O: 9 mol
(c) K: 9 mol; Cr 9 mol; O: 31.5 mol
(d) 3 mol
(e) N: 10 mo; H: 40 mol; S: 5 mol; O: 20 mol
- (a) 146 g
(b) 45.0 g
(c) 216 mg
(d) 126 g
(e) 0.803 g
- (a) 0.555 mol
(b) 14.7 mol
(c) 1.43×10^{-5} mol
(d) 5.94×10^{-6} mol
(e) 16.6 mol
- (a) H: 2.06%; S: 32.69%; O: 65.25%
(b) Ag: 63.498%; N 8.247%; O: 28.26%
(c) N: 35.00%; H: 5.05%; O: 59.96%
- (a) 7.5 mol
(b) 12.5 mol
- (b) 5.144 g
(c) 2.04 g
- (b) 250.3 g.
(c) 189.0 g
- (c) 14.4 g
(d) 15.8 g
- (d) 132.9 g
- (a) 945 g.
(b) 762.3 g
- (a) 8.82 g.
(b) 1.44 g
- (a) 25.98 g
(b) 68.98%
- (a) 0.259 g
(b) 73%

Unit 3 Solutions and Solubility

- (a) 0.696 mol/L
(b) 2.00 mol/L
(c) 0.664 mol/L
- 0.25 L
- 6.4 g
- 119 g
- 0.390 mol/L
- (a) 0.640 mol/L

- (b) 1.28 mol/L
(c) 0.640 mol/L
- 4.98×10^{-3} mol
- 4.69 g
- 0.348 mol/L
- 24.2 mL
- (a) 1.00×10^3 g
(b) 55.5 mol
(c) 55.5 mol/L
- (c) 0.381 g
- (b) 0.11 mol/L
- (a) 2
(b) 10.35
(c) 2.26
(d) 9.14
- (a) 1.0×10^{-5} mol/L
(b) 8×10^{-3} mol/L
(c) 1.6×10^{-10} mol/L
(d) 1.0×10^{-7} mol/L
- 0.146 mol/L
- 0.0105 mol/L
- 0.0775 mol/L
- 0.112 mol/L
- 32.4 mL
- 0.180 mol/L

Unit 4 Gases and Atmospheric Chemistry

- 2.39 L
- 1.78 L
- 180 kPa
- 3.25 L
- 6.98 L
- 82.6 L
- 186 kPa
- 0.092 mol
- 2660 L
- 27.96 g/mol
- 1.3 g
- (a) 25.0 L
(b) 50.0 L
- 95.6 kPa
- 0.732 g
- (b) 981 L

Unit 5 Hydrocarbons and Energy

- 376 kJ
- 1.06×10^3 kJ
- (b) 2.3 kJ/g
(c) 140 kJ/mol
- (b) 728 kJ/mol