

# Chp 9 Acids, Bases, pH, and Buffers

## 9.1 Properties of Acids and Bases

Read Ethylene Glycol Poisoning p. 308

(2) (3) (3) (4) (4)  
24, 25, 27, 28, 29

Definitions

(2) (3) (2) (2) (6)  
30, 32, 34, 35, 36

Hydronium ion

- ionization of  $H_2O$

(8) (6) (3) (4) (4)  
38, 39, 40, 44, 45

- amphoteric

Conjugate acid-base pair

(6)  
48

9.4 p. 313

Strength of Acids + Bases

- strong acids

- strong bases

Weak Acids + Bases

- partially dissociate

- equilibrium

amino acids

9.7-9.10 p. 318

Le Châtelier's Principle

- shifts

Acid-Base Neutralization Rxns

9.14-9.16 p. 324

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## 9.2 pH

ion-product constant  $K_w$

(1) (7) (10) (3) (3)  
52, 53, 55, 57, 60

pH scale

\*  $pH = -\log [H^+]$

\*  $[H^+] = 10^{-pH}$

9.19-9.22 p. 327

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9.2 cont'd

pH + the cell

- physiological pH

measuring pH

9.3 Buffers

- Buffer solution

- Buffer capacity

buffer systems in the Body

Acid-base Homeostasis

- acidosis

metabolic acidosis  
respiratory acidosis

- Alkalosis

respiratory  
metabolic

(2) (4) (2) (4) (4)

61, 62, 63, 65, 66

(6)

68

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27

Chem in med

(2) (2) (2) (2) (2) (2)

69, 70, 71, 72, 73, 74

(2)

75

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