

图书基本信息

书名:<<化学>>

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内容概要

《化学——普通化学、有机化学和生物化学导论(第11版)》适合与健康相关的不同专业的学生学习化学知识,如营养及护理、环境科学、农业科学等专业。

本书旨在帮助学生了解物质的结构及性质与其在健康及环境中的作用之间的联系。

书中设有 "chemistry

link to health " , " chemistry link to

environment "等兴趣阅读框,帮助学生了解化学原理的应用。

并通过概念讨论、解题指引、综合性习题等,介绍解决问题的策略。

全书内容丰富生动,语言清晰易懂。

《化学——普通化学、有机化学和生物化学导论(第11版)》主要内容包括:化学与测量,物质与能量,原子与元素,化合物与化学键,化学计算与化学反应,气体,溶液,酸和碱,核反应,有机化学简介——烷烃,不饱和烃,含氧和硫的有机化合物,碳水化合物,羧酸、酯、胺和酰胺,脂类,氨基酸、蛋白质和酶,核酸及蛋白质合成,代谢途径及能量产生。



作者简介

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章节摘录

插图: 6.13 A gas with a volume of 4.0 L is contained in a closed container. Indicate the changes in pressure when the volumeundergoes the following changes at constant temperature and amount of gas: a. The volume is compressed to 2.0 L. b. The volume expands to 12 L. c. The volume is compressed to 0.40 L. 6.14 A gas at a pressure of 2.0 atm is contained in a dosedcontainer. Indicate the changes in its volume when the pressure undergoes the following changes at constanttemperature and amount of gas: a. The pressure increases to 6.0 atm. b. The pressure drops to 1.0 atm. c. The pressure drops to 0.40 arm. 6.15 A 10.0-L balloon contains helium gas at a pressure of 655 mmHg. What is the new pressure, in mmHg, of the helium gas at each of the following volumes, if there is nochange in temperature or amount of gas? a. 20.0 L b. 2.50 L e. 1500. mL 6.16 The air in a 5.00-L tank has a pressure of 1.20 atm. What is the new pressure, in atm, when the air is placed in tanks that have the following volumes, if there is no change intemperature and amount ofgas? a. 1.00 L b. 2500. mL e. 750. mL 6.17 A sample of nitrogen (N2) has a volume of 50.0 L at apressure of 760. mmHg. What is the volume, in liters, of the gas at each of the following pressures, if there is no change in temperature and amount of gas? a. 1500 mmHg b. 4.00 arm c. 0.500 atm 6.18 A sample of methane (CH4) has a volume of 25 mL at apressure of 0.80 atm. What is the volume, in milliliters, of the gas at each of the following pressures, if there is no change in temperature and amount of gas? a. 0.40 atm b. 2.00 atm c. 2500 mmHg 6.19 Cyclopropane, C3H6, is a general anesthetic. A 5.0-L samplehas a pressure of 5.0 atm. What is the volume, in liters, of theanesthetic given to a patient at a pressure of 1.0 arm with nochange in temperature and amount of gas? 6.20 The volume of air in a person's lungs is 615 mL at a pressure of 760. mmHg. Inhalation occurs as the pressure in the lungsdrops to 752 mmHg with no change in temperature andamount of gas. To what volume, in milliliters, did the lungsexpand? 6.21 Use the words inspiration or expiration to describe the part of the breathing cycle that occurs as a result of each of the following: a. The diaphragm contracts (flattens out). b. The volume of the lungs decreases. c. The pressure within the lungs is less than that of theatmosphere. 6.22 Use the words inspiration or expiration to describe the part of the breathing cycle that occurs as a result of each of thefollowing: a. The diaphragm relaxes, moving up into the thoracic cavity. b. The volume of the lungs expands. c. The pressure within the lungs is greater than that of theatmosohere.



编辑推荐

《国外高校优秀化学教材:化学:普通化学、有机化学和生物化学导论(第11版)(影印版)》适合与健康相关的不同专业的学生学习化学知识,如营养及护理、环境科学、农业科学等专业。



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