

The book was found

1001/fundamental General Chemistry Set / With Resealable Bag (HGS Polyhedron Molecular Model)



Synopsis

(1) In the HGS polyhedron models, atoms are represented by polyhedrons, and bonds are represented by sticks. Polyhedron atoms have holes corresponding to the exact bond angles: e.g., sp^3 carbon with $109^\circ 28'$; sp^2 carbon with 120° ; sp carbon with 180° . Sticks of different bond lengths are provided. So students can assemble molecular models considering the hybrid orbital of atoms and bond length. The HGS molecular models are thus very useful for students to understand not only molecular structure but also atom hybrid orbitals, bond angle, and bond length. (2) Because of the exact mechanical matching of hole and stick, polyhedron atoms can smoothly rotate around a bond stick connecting atoms, but the rotation needs some small force. Therefore, the HGS models of high quality are the best for demonstrating conformational changes. For example, the cyclohexane ring flips can be easily performed even by beginners, and the ideal chair form and flipped one are readily obtained together with the boat form as an intermediate. Another example is the all-trans conformation of n-hexane, which is easily assembled and maintained. It is thus easy to maintain a specific conformation of flexible acyclic compounds. (3) In some models including the HGS polyhedron models, two sp^3 carbon atoms connected with two bent bonds are traditionally used as a $C = C$ double bond, because it easily visualizes the double bond (two bonds). However, such simple visualization may be confusing to students, because this structure is scientifically incorrect. In the HGS model, two sp^2 carbon atoms can be connected with one Alfa-bond, and Pi-bond can be made by using p-atomic orbital plates, showing the correct structure and bonding mechanism of a $C = C$ double bond. After understanding the basic nature of double bond, p-atomic orbital plates become unnecessary for assembling larger molecules. If double and triple bonds of old type are desired, it is still possible to use the bent bonds

Book Information

Misc. Supplies

ISBN-10: 4902897334

ISBN-13: 978-4902897333

ASIN: B0092O3Z5W

Product Dimensions: 9 x 5 x 0.7 inches

Shipping Weight: 1.2 pounds

Average Customer Review: Be the first to review this item

Best Sellers Rank: #779,204 in Books (See Top 100 in Books) #61 in Books > Science & Math > Chemistry > Molecular Chemistry #1969 in Books > Science & Math > Chemistry > General &

Reference

[Download to continue reading...](#)

1001/fundamental General Chemistry Set / with Resealable Bag (HGS Polyhedron Molecular Model) 1000 / Fundamental Organic Chemistry Set with resealable bag (HGS Polyhedron Molecular Model) 1013A /Organic Chemistry Set for Student (HGS Polyhedron Molecular Model) 1006/ Researcher Inorganic Chemistry D-set (HGS Polyhedron Molecular Model) 1005/ Researcher Organic Chemistry B-set (HGS Polyhedron Molecular Model) Ace General Chemistry I and II (The EASY Guide to Ace General Chemistry I and II): General Chemistry Study Guide, General Chemistry Review Ace General Chemistry I: The EASY Guide to Ace General Chemistry I: (General Chemistry Study Guide, General Chemistry Review) McGraw-Hill Polyhedron Molecular Model - Organic Chemistry Set Prentice Hall Molecular Model Set for General and Organic Chemistry Advanced Molecular Model Set for General and Organic Chemistry Prepping: Prepping Your 72 Hour Bug Out Bag (Prepping your Bug Out Bag Book 1) Heavy Bag Training: For Boxing, Mixed Martial Arts and Self-Defense (Heavy Bag Training Series Book 1) Molecular Visions (Organic, Inorganic, Organometallic) Molecular Model Kit #1 by Darling Models to accompany Organic Chemistry Prentice Hall Molecular Model Set For Organic Chemistry 1001 Whiskies You Must Taste Before You Die (1001 (Universe)) 1001 Beers You Must Taste Before You Die (1001 (Universe)) 1001 Pirate Things to Spot (1001 Things to Spot) Ace General Chemistry II: The EASY Guide to Ace General Chemistry II Roofing (Fundamental Series) (Passbooks) (Fundamental Passbooks) Windows 10: From Beginner To Expert: A Complete User Guide to Microsoft's Intelligent New Operating System (Now With Bonus Chapter) (Windows - General ... General Guide, Windows - General Mastery,)

[Dmca](#)