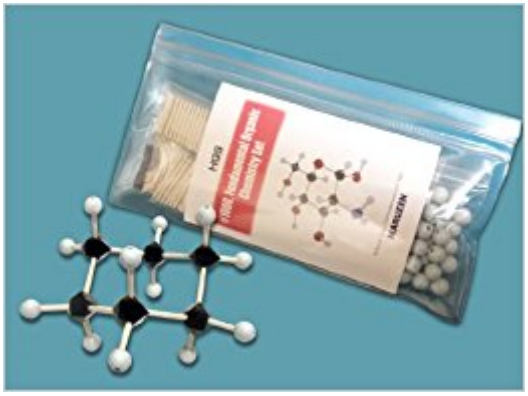
1000 / Fundamental Organic Chemistry Set With Resealable Bag (HGS Polyhedron Molecular Model)



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., sp3 carbon with 109Ãƒâ Ã Â 28'; sp2 carbon with 120Ãƒâ Ã Â ; sp carbon with 180Ãƒâ Ã Â . 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.Ã£â ¬â ¬ (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 sp3 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 sp2 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

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Customer Reviews

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This "Polyhedron Molecular Model" set is fairly small, but perfectly serviceable for those needing to model organic molecules. My pre-med college student daughter asked for this (and the MUCH largerÃ Â Molecular Model Sets; Fisher; Basic: Organic; Advanced: Organic, Inorganic, and Molecular) for use in her studies.The set contains the components needed to represent the structure of molecules and, although plastic, the parts are well made and connect together more securely than expected. It should be noted that the product picture shows two boxes, but you actually only get one (I expected this thanks to another reviewer).The set is physically small in size (roughly 4" x 4"), so it is easy to carry or store when not in use.Recommended!CFH

great little set! took it out and started playing with it as soon as i got it. needed it for group theory in

p-chem and let me tell you, i understand the symmetry operations so much better seeing a model of the molecules (some are pretty complex, hard to imagine in your head). the whole set is about the size of a nintendo DS. the largest model i made was about the size of a tennis ball so its all good. great product, all teh pieces are solid with no crappy parts. fast delivery too (assuming u do the free 2-day shipping. if your not doing that then idk what your doing) btw if your a student, your student email will give you like 6 or so free months of prime. pretty good deal.

Im currently studying chemical engineering and i bought this for my undergrad orgo 1,2 and lab classes. So far, its been pretty great, especially for the price. The main two complaints i have are: no possibility of triple bonding and not enough atoms in general. But for a 20 dollar price, im definitely willing to sacrifice those, especially looking at the prices of some other model kits ($70+ for a few undergrad courses just doesn't seem worth it, especially after spending twice that much on my book). The pros to this set are its super small/compact and really easy to carry around (around 4X6X1 inches), there are double bond linkages and a ton of hydrogen atoms, and, as previously stated, its super cheap! Also it comes with a little rubber tube that makes it easier to take the bond parts out of the atoms (acts as a source of friction). Definitely worth buying.

A neat little kit that easily fits on a college lecture hall desk. Pieces easily snap together and there is a little rubber tube for pulling bonds out. I have carpal tunnel, so thus product is a little difficult to pull apart, but the rubber tube helps a lot. If you have wrist or joint pains, I would look for a bigger kit. Other than that, I love this product.

It was a little too small when I got it and I wondered if the amount of atoms they provided would be enough for me in my course. Shipping was good...I got it within the same week of ordering it. However, I would just like the website to be a little more descriptive about the product. I thought I was getting 1000 pieces in the set, but that wasn't the case at all. Additionally, the atoms for hydrogen have too many holes (two instead of one).

Got this set today and have been busy building glucose ever since. It's great, hands down. More than enough pieces to build the basic monomers I've been studying in Orgo I. It's physically small, so it's not even noticeable if you're hauling all of your gear to class (I like to travel light, so this fits me perfectly).A well thought out package. I didn't realize the black rubber tubing was the "bond puller", but now that I know what it is, I'm using it constantly. The pieces fit together snuggly, so the

bond puller is great to have. It just reminds me of the detail that the manufacturer went into when setting up this kit. Everything serves a purpose and fits perfectly in the supplied plastic carrying case.I highly recommend. In fact, I just put an order in for a second kit so I can build some disaccharides. At $19 a set, this baby is a steal! I've seen plenty of bulkier sets that are significantly more expensive, and don't provide much more than this set.Also, as other reviewers have pointed out, the product only contains ONE (1) set, unlike what is depicted in the product picture. Just a heads up.

A great kit with all the essentials needed to create models of hydrocarbons. Price is fair for what you get, it definitely helps to visualize and understand the shape of the molecules and the bonding angles particularly when trying to grasp chiral carbons. The little rubber tube really helps to take the molecules back apart too. A well thought out and balanced kit.

First of all I got my set for 20 bucks including shipping and it was brand new and I think that's an amazing deal compared to other model sets out there. I'm in organic chemistry and I wasn't originally going to get a model set, but when I came across some problems where I HAD to visualize the molecule I decided to go with this one. When I received this model kit in the mail I was so overcome with excitement that I almost spilled all the little pieces trying to get it open. I immediately went to the problems that I needed it for and I worked them out and got the right answers and I understood it too!!!! I am so smitten with this molecular model set that I don't even know what to do with myself. By the way, I have named him Clive and he's coming to my exam with me tonight and I'm very confident that he will prove to be a incredibly helpful and loyal friend!!!!

Molecular Visions Organic Model Kit with Molecular Modeling Handbook Molecular Visions Organic Model Kit #3 [With Model PiecesWith Instruction Booklet] Bug Out Bag: The Ultimate Bug Out Bag - How to Make a Flawless 72-Hour Disaster Survival Kit that WILL KEEP YOU ALIVE Celestial Moon Tarot Bag: Luxury Velvet Drawstring Tarot or Oracle Bag Heavy Bag Training: For Boxing, Mixed Martial Arts and Self-Defense (Heavy Bag Training Series Book 1) Prepping: Prepping Your 72 Hour Bug Out Bag (Prepping your Bug Out Bag Book 1) Heavy Bag Training: Boxing - Mixed Martial Arts - Self Defense (Heavy Bag Training Series) (Volume 1) Molymod Molecular Modeling Set by Indigo to Accompany Organic Chemistry Experimental Organic Chemistry: A Miniscale & Microscale Approach (Cengage Learning Laboratory Series for Organic Chemistry) The Organic Chemistry of Drug Synthesis, Volume 3 (Organic Chemistry Series of Drug Synthesis) Euler's Gem: The Polyhedron Formula and the Birth of Topology