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Topic: Chemistry

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Paper: GENERATIVE ART OF NATURE - MOLECULES

Abstract:

Chemistry is a science of making molecules and studying their structures, properties and reactions. One of the central concept in chemistry is the concept of molecular structure and one of the central problems in chemistry is the deduction of molecular properties from the structure of the molecule.

We can look at the molecular structure in a variety of ways. The simplest view of the molecular structure is the molecular composition. This is the number and kind of atoms making up the molecule. This representation is a kind of one dimensional molecular structure. Next in the hierarchy of structure of the molecules is the molecular constitution. This is a kind of two dimensional representation of molecular structure. It contains the bonding relations between atoms in the molecule.

In this lecture we shall be concerned with the symmetry characteristics of geometric structure of molecules. The molecules are essence of human lives and surrounding. It seems that the Nature has its own generative approach for making molecules with the targeted purpose, but it is still a secret to the human being, although the science discovered many of the rules of the Nature.



Buckminsterfullerene, C60



Fullerene C60 resembles to soccerball

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Keywords:

Chemistry, molecules, structure of molecule, molecular composition, molecular constitution