FORM of METHANE MOLECULE

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In pages of Physics Forums (version 2.0) I sufficiently in details have shown polytronic models of atomic hydrogen and two states of molecular hydrogen – ortho-hydrogen and para-hydrogen.
The experimental data about physicochemical properties of hydrogen have helped me to calculate a diameter of hydrogen polytron. It has appeared equal 197.714×10^{-12}m(1.97714Å).
The polytronic simulation of structure of diamond and graphite has shown, that the diameter of carbon polytron is equal 92.3057×10^{-12}m(0.923057Å).
The first stage of simulation of molecules of hydrocarbon compounds is to find such geometrical compositions, which would obey to a condition of equality of volume of a molecule in experiment and volume of model.
Density of liquid methane is equal 415 kg/cub.m.
The simple calculation yields for one molecule volume ~64 cub. angstroms.
The polyhedrons can be connected with each other by different ways. In fig.9 two variants of hydrocarbon compound CH_4 are shown.
In fig.9a four atoms of hydrogen (cubic form at m=12) are attached to four edges of atom of carbon.
In fig.9b two molecules of hydrogen (hexagonal form at m=6) are located perpendicularly to each other.
In the space between turned to one another by sides of molecules is encapsulated the carbon atom.

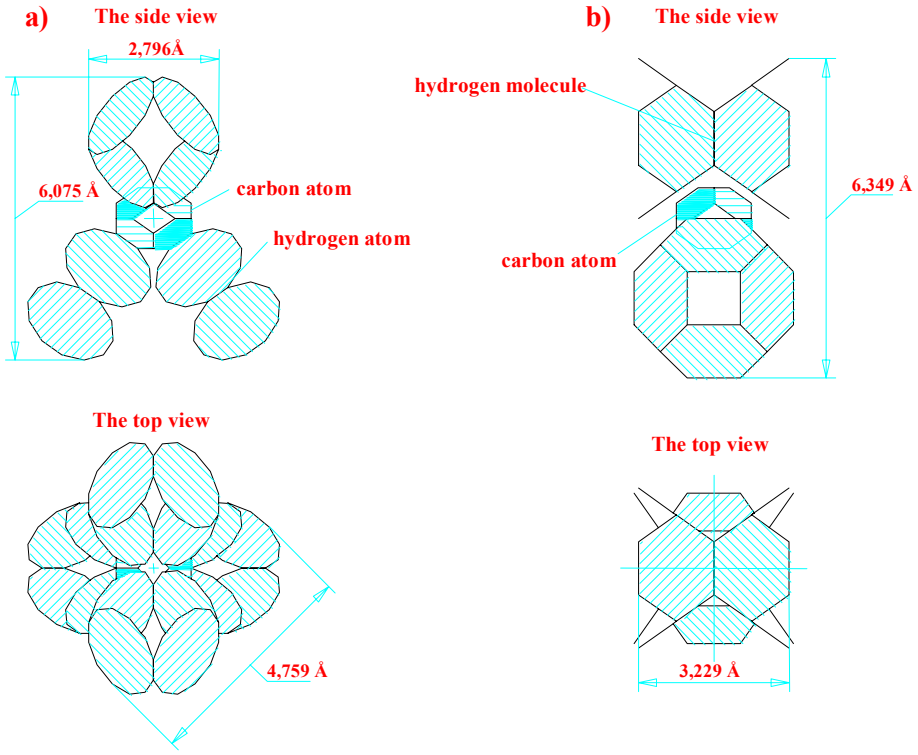

Fig.9
Two variants of build-up of a molecule of methane

The volume of tetrahedron in fig.9a makes about 68 cub. angstroms, the volume of figure in fig.9b – about 66 cub. angstroms. In view of filling space with adjacent molecules it is possible to consider the obtained outcomes satisfactory.