

## THE HYDROGEN MOLECULE STRUCTURE

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### THE SUMMARY

A hydrogen molecule model is presented, that corresponds to the criteria formulated in the article "QUANTUM MECHANICS' FOUNDATION, HOW STRONG IS IT?" <http://www.wbabin.net/physics/dunaev1.pdf>. The molecule has a nucleus built with two nucleons that are pressed one to another tangentially to and astride the electron orbit plane. The nucleons are jointed together by strong interaction forces, provoked by the ether pressure. Two electrons are orbiting the nucleus in opposite directions along very close orbits.

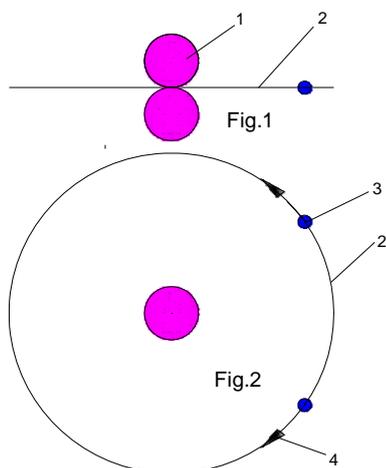
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In my previous article "QUANTUM MECHANICS' FOUNDATION, HOW STRONG IS IT?" <http://www.wbabin.net/physics/dunaev1.pdf>, there was disclosed that by founding the quantum mechanics, Niels Bohr relied on the then known Balmer-Rydberg formula formulating the relation between electromagnetic radiation frequencies emitted by heated hydrogen. Bohr as well as his followers believed that the by hydrogen radiated photons generated in its atoms, and that the said relation as concerning exclusively hydrogen atoms had to contain information based on which there might be built and there indeed was built a model of this atom, which model was laid to the foundation of the quantum mechanics. In modern literature on quantum mechanics [1] one even may find allegations that the gas discharge tube which had served as source of the explored radiation had been filled with monatomic gas, although in earlier sources such reports had not been noticeable. On the other hand, it is known that under ordinary conditions on Earth, elemental hydrogen exists as the diatomic gas H<sub>2</sub> [en.wikipedia.org/wiki/Hydrogen](http://en.wikipedia.org/wiki/Hydrogen) and that the most elements aside from the noble gases form diatomic molecules when heated [en.wikipedia.org/.../Diatomic molecule](http://en.wikipedia.org/.../Diatomic_molecule).

In my above mentioned article there was proved that the by hydrogen born radiation generated not in its atoms but in its diatomic molecules. There was also proposed that similarly to the solar planetary system the hydrogen molecule is composed with a nucleus having two protons, and two electrons orbiting the nucleus in the same plane with equal but opposite velocities and at the same distance there from. Calculations made in the article had led to the discovery of the electron orbit radius and meaning of the main physical constants such as those of fine structure, Rydberg and Planck, which calculations had been made based that the so called electric charge of the molecule nucleus had to equal precisely two elementary electric charges. The calculations having led to the precise coincidence of the obtained results with the respective tabular data, the conclusion was made that the electric charge of the hydrogen molecule nucleus is exactly equal to two elementary electric charges.

Although the said hydrogen molecule structure hypothesis has turned to be efficient, some of its details remained uncertain and needed further clarification. If according to planetary model to admit that the hydrogen molecule nucleus is composed with two closely connected nucleons placed together with the orbital electrons in a common plane, the electric charge of this nucleus acting on the electrons would resulting from shading of one of them by the other inevitably lesser than two elementary charges. There also remained unclear the difference between such a molecule and the atom of deuterium. If though to presume that in this planetary model the nucleons are not connected with each other, there remained to explain why the distance between them has to be shorter than the electron orbit diameter.

A hydrogen molecule that would match the model disclosed on two here presented figures completely satisfies the criteria formulated in the above mentioned article. Among the two mentioned figures fig.1 is the molecule's side view, while fig.2 is a top view on fig.1. The molecule has a nucleus built with two nucleons 1 that are pressed one to another tangentially to and astride the electron orbits' 2 plane. The nucleons are pressed together by strong interaction forces, provoked by the ether pressure after the well known Magdeburg hemispheres, which had been pressed together by atmospheric pressure. Two electrons 3 are orbiting the nucleus in opposite directions marked with arrows 4 along orbits 2 so close one to another that they might be drawn by one circular line.



Accounting for a relatively long distance between the electrons and nucleus, there may be seen from the drawing that the nucleus' charge has to continuously equal 2 charges of the nucleons that jointly equal two elementary electric charges.

The presented model also explains the high activity of the represented molecule, such high activity resulting from that its nucleus, as every other unrestrained system tends to rotate around the nucleons contact point (spin). Though this rotation may be somewhat stabilized by the orbital electrons, the molecule always remains agitated, which explains its high chemical activity and very low boiling point temperature.

## CONCLUSION

The hydrogen diatomic molecule ( $H_2$ ) has a nucleus built with two nucleons that are pressed one to another tangentially to and astride the electron orbits' plane. The nucleons are pressed together by strong interaction forces, provoked by the ether pressure. Two electrons orbit the nucleus in opposite directions along very close orbits.

## BIBLIOGRAPHY

- 1) Robert Eisberg and Robert Resnick, Quantum Physics, John Wiley & Sons, Second Edition, ISBN 0-471-87373-X, p.96