

## Electronic structure of water

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### Abstract

Analysis of the electronic structure of water in the chain of causality: atoms of hydrogen and oxygen → water molecules → ice, water has been given. A new approach to the description of the electronic structure of water, based on a new understanding of the nature of the covalent bond between the hydrogen and oxygen atoms has been presented. A model of the "oxygen-hydrogen" bonding as a basis for constructing the supramolecular structure of water has been analyzed. The substantiation of the activation mechanism of intra- and intermolecular electron transfer has been given. The basic physical properties of water in the light of new ideas about the electronic structure of water have been discussed.