Dihydrogen Bond: Principles, Experiments, and Applications
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DESCRIPTION
This definitive reference consolidates current knowledge on dihydrogen bonding, emphasizing its role in organizing interactions in different chemical reactions and molecular aggregations. After an overview, it analyzes the differences between dihydrogen bonds, classical hydrogen bonds, and covalent bonds. It describes dihydrogen bonds as intermediates in intramolecular and intermolecular proton transfer reactions. It describes dihydrogen bonding in the solid-state, the gas phase, and in solution. This is the premier reference for physical chemists, biochemists, biophysicists, and chemical engineers.

ABOUT THE AUTHOR
Vladimir I. Bakhmutov, PHD, works in the Department of Chemistry at Texas A&M University. He has published 300 articles and two books. Dr. Bakhmutov's research interests include extensive applications of the solution and solid-state NMR technique to chemistry, molecular physics, and materials science, and nuclear magnetic resonance relaxation in solution and the solid state. The development of new approaches to stereo-dynamics of organic and inorganic compounds and weak interactions is also an area of interest.