This book gives an extensive description of the state-of-the-art in research on excited-state hydrogen bonding and hydrogen transfer in recent years.

Initial chapters present both the experimental and theoretical investigations on the excited-state hydrogen bonding structures and dynamics of many organic and biological chromophores. Following this, several chapters describe the influences of the excited-state hydrogen bonding on various photophysical processes and photochemical reactions, for example: hydrogen bonding effects on fluorescence emission behaviors and photoisomerization; the role of hydrogen bonding in photosynthetic water splitting; photoinduced electron transfer and solvation dynamics in room temperature ionic liquids; and hydrogen bonding barrier crossing dynamics at bio-mimicking surfaces. Finally, the book examines experimental and theoretical studies on the nature and control of excited-state hydrogen transfer in various systems.

*Hydrogen Bonding and Transfer in the Excited State* is an essential overview of this increasingly important field of study, surveying the entire field over 2 volumes, 40 chapters and 1200 pages. It will find a place on the bookshelves of researchers in photochemistry, photobiology, photophysics, physical chemistry and chemical physics.

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