

Special Issue

Photoinduced Proton Transfer Processes Within Heterocyclic Structures

Message from the Guest Editors

Photoinduced proton transfer processes are very important in nature and have been observed in many heterocyclic systems, such as in green fluorescent protein (GFP), isolated from the jellyfish *Aequorea Victoria*. Over the years, a wide range of synthetic fluorophores have built upon this important elementary process to provide an important database of heterocyclic dyes displaying single, dual, or multiple photoinduced proton-transfer reactions, including excited-state proton transfer (ESPT), excited-state intramolecular proton transfer (ESIPT), and proton-coupled electron transfer (PCET). Intense research has been devoted to the understanding and dynamics of these processes for fundamental knowledge but also to engineer innovative applications in the fields of sensing, data storage, security, and optoelectronics. Probes featuring proton(s) dynamics including tautomerism are now a major topic in a growing number of areas. This Special Issue targets scientific contributions (original research or reviews) at the crossroads of synthetic, analytical, physical, and theoretical chemistry.

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