



Recent Progress on Functional Dyes and Their Applications

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Message from the Guest Editors

The rapid advances in material technology have brought to the definition of "functional dyes" as attractive materials generating new functions that are e.g., changing their optical properties, converting energy, or recording information by external stimuli including light, temperature, pressure, pH, electric and magnetic field, etc. As the result of considerable research efforts over the last few years, functional dyes have been applied as semiconductors, emitters and photosensitizers in optoelectronics and photovoltaics, optical and luminescent sensors for biological and environmental monitoring systems, and therapeutical agents for medical purposes. Moreover, functional dyes have attracted growing interest as one of the most promising materials contributing to Sustainable Development Goals (SDGs 2030 Agenda for sustainable development). This Special Issue is to provide an overview of the most recent advances on functional dyes for high-technology and emerging applications such as dye-sensitized solar cells, photochromic materials, organic light emitting devices, organic semiconductors, hole-transporting materials, biological imaging, sensors, and photodynamic therapy.

