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Dyes and Photoactive Molecules in Microporous Systems [

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Monografía

This book provides an overview of the design, synthesis, and characterization of different photoactive hybrid organic-inorganic materials, based on the combination of mainly organic molecules and inorganic nanostructures, tackling their uses in different scientific fields from photonics to biomedicine. There are many examples extensively describing how the confinement of organic compounds (i.e. chromophores, photochromic molecules or photoreactants), or other photoactive compounds (i.e.metal clusters) into several microporous systems can modulate the photophysical properties and photochemical reactions leading to interesting applications. Among (ordered)-hosts, different systems of diverse nature are widely used, such as the, the 1D- or 3D- channels of zeolitic frameworks, interlayer space of 2D-clays, the organic nanospace of curcubituril and cyclodextrins or the organo-inorganic porous crystalline MOFs systems. This volume highlights the advances of these photoactive materials and aims to be an inspiration for researchers working in materials science and photochemistry, including chemists, material engineers, physicists, biologists, and medical researchers. .

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