



# Dyes and Photoactive Molecules in Microporous Systems [

Martínez-Martínez, Virginia

López Arbeloa, Fernando

Springer International Publishing,  
2020

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. .

<https://rebiunoda.pro.baratznet.cloud:38443/OpacDiscovery/public/catalog/detail/b2FpOmNlbgVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMjY3MTQxNTE>

**Título:** Dyes and Photoactive Molecules in Microporous Systems [Recurso electrónico] edited by Virginia Martínez-Martínez, Fernando López Arbeloa

**Edición:** 1st ed

**Editorial:** Cham Springer International Publishing 2020

**Descripción física:** IX, 406 p. 1 il

**Mención de serie:** Springer eBooks Structure and Bonding 183

**Contenido:** Guests in nano channels of zeolite L -- Highly luminescent metal clusters confined in zeolites -- Photoactive Molecules within MOFs -- Guest Based Photoactive Porous Materials Based Upon Zn-Carboxylate Metal Organic Frameworks -- Tuning emission properties by dye encapsulation into layered silicates -- Resonance energy transfer in hybrid systems of photoactive dye molecules and layered inorganics. -- Photofunctions of dye-clay hybrids; recent developments -- Photophysicochemical processes directed within nano-containers

**Detalles del sistema:** Forma de acceso: World Wide Web

**ISBN:** 9783030566340

**Autores:** Martínez-Martínez, Virginia López Arbeloa, Fernando

**Entidades:** SpringerLink

---

### **Baratz Innovación Documental**

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- [informa@baratz.es](mailto:informa@baratz.es)