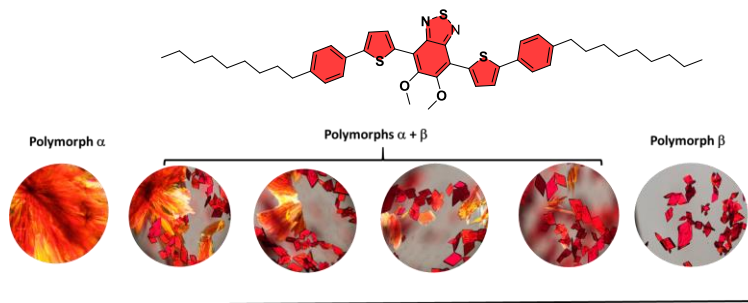


Supramolecular LUMinescent Chemosensors for Environmental Security

Mechanistic Insights into Giant Thermosalient Behavior and Reversible Color Switching in Organic Semiconducting Molecular Single Crystals

Each year SPIE, the international society for optics and photonics community comes together to share and discuss current research, hear the latest breakthroughs, and connect with colleagues.

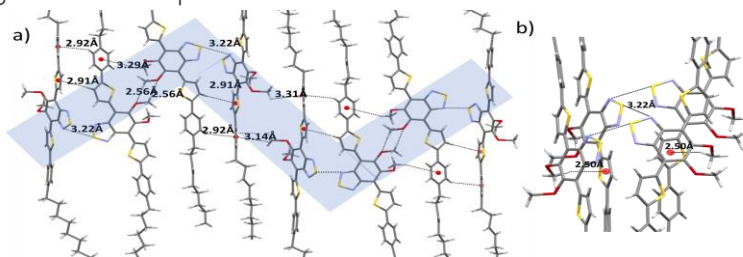
We developed new organic semiconducting thermosalient molecule; explained how supramolecular organization controls their properties in single crystals.



✓ Transformation of β (Triclinic) to δ (Monoclinic) phase with giant thermal expansion



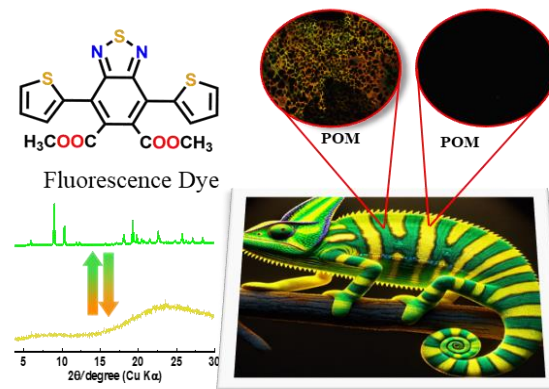
✓ Supramolecular organization of α phase



We developed new class of fluorophore that exhibit more versatile thermochromic luminescence properties.



✓ Switching crystalline (green) to amorphous (yellow) phase



Mohammad Afsar Uddin

Affiliation: Instituto de Ciencia de Materiales de Madrid (ICMM-CSIC), Cantoblanco, 28049 Madrid, Spain

Attended conference: SPIE Optics + Photonics 2025

Dates: 03/08/2025 to 07/08/2025