

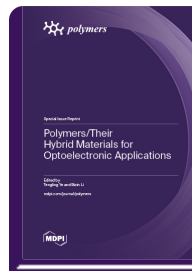
*Special Issue Reprint*

## **Polymers/Their Hybrid Materials for Optoelectronic Applications**

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This reprint represents a comprehensive collection of cutting-edge research in the field of polymer materials and their hybrid composites tailored for optoelectronic applications. This reprint brings together contributions from leading experts across the globe, showcasing innovative approaches to developing advanced materials that push the boundaries of technology in areas such as solar cells, organic thin-film transistors, light-emitting diodes (LEDs), and sensors.

This volume includes chapters on novel conjugated polymers designed for high-performance polymer solar cells/organic thin-film transistors, defect passivation strategies enhancing halide perovskite solar cells. Furthermore, it explores synergistic all-acceptor strategies for organic semiconductors, blue polymer LEDs optimized through layer thickness adjustments, and quantum dot-embedded polymer films for LCD backlight displays. Contributions also highlight environmentally friendly photoluminescent coatings for corrosion sensing, near-infrared responsive composites, and robust polymer materials for resistive switching memory.

This compilation not only serves as an essential reference for researchers and engineers working at the forefront of material science but also provides valuable insights into future directions for polymer-based technologies. Readers will find this work indispensable for understanding how polymers and their hybrids can be engineered to meet the demands of modern optoelectronics.

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