**DESCRIPTION**

Metal- and metalloid-containing macromolecules are defined as large molecules (i.e., polymers, DNA, proteins) that contain a metal or metalloid group affiliated with the molecule. This volume describes what is possible with metal-containing polymers where the metal is an essential ingredient in obtaining desired optical and electronic properties. Covering applications in nonlinear optical materials, solar cells, light-emitting diodes, photovoltaic cells, field-effect transistors, chemosensing devices, and biosensing devices, this indispensable guide focuses on the photochemistry and photophysics of metal-containing polymers, with chapters by leading contributors to the core advances in this field.

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