

This book explores the synthesis, characterization, and catalytic applications of "polyaniline-based composites doped with cobalt, manganese, and titanium dioxide (TiO_2)" in organic synthesis. Conducting polymers such as polyaniline (PANI) have gained immense importance due to their unique electronic, structural, and redox properties, which are further enhanced when combined with transition metals and metal oxides. The text highlights how the synergistic effect of cobalt, manganese, and TiO_2 doping significantly improves catalytic performance, stability, and selectivity in diverse organic transformations. Emphasis is placed on eco-friendly reaction pathways, sustainable practices, and green chemistry perspectives. Through detailed discussions on preparation methods, structural analysis, and mechanistic insights, the book serves as a comprehensive resource for researchers, academicians, and industrial chemists. By integrating polymer chemistry, nanotechnology, and catalysis, it opens new avenues for designing advanced materials that bridge the gap between laboratory innovation and large-scale organic synthesis.



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INNOVATIONS IN POLYMER-SUPPORTED CATALYSIS

Polyaniline Doped Cobalt–Manganese– TiO_2 Systems for Green Organic Synthesis

