

Special Issue Reprint

Recent Researches in Polymer and Plastic Processing

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This Reprint, entitled “Recent Researches in Polymer and Plastic Processing”, presents a curated selection of ten scientific articles from the journal *Materials*, offering a comprehensive overview of current trends and innovations in polymer science. Under the guiding theme of Polymers Reimagined—From Surface Engineering to Sustainable Recycling, this publication explores the following: Plasma-based surface treatments to enhance coating adhesion; The inkjet printability of biodegradable starch-based films; The impact of infill density reduction on the mechanical properties of 3D-printed PLA structures within a circular economy framework; The optimization of injection molding parameters using BP neural networks and NSGA-II algorithms; The strengthening of SGFRP-BMC composites through fiber shortening and electron beam irradiation; The use of asphalt as a low-cost plasticizer in polyacrylonitrile-based synthetic fiber production; The development of hydrogels incorporating plant-based ashes for internal curing in cementitious materials; UV-assisted degradation of PET using nonmetallic dibasic ionic liquids; Advanced recycling techniques for recovering EVA, PVDF, and PET from end-of-life photovoltaic modules.

This volume is an essential resource for researchers, engineers, and students interested in advanced polymer processing, sustainable materials, and industrial applications. It highlights the transformative potential of polymers in shaping a more efficient and environmentally responsible future.

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