







Special Issue Reprint

Biomedical Applications of Polymeric Materials

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The goal of this reprint is to provide the reader a full picture of the most recent biotechnological technologies used to develop polymeric materials with vast application in the medical and pharmaceutical field, unraveling the potential of these cutting-edge methods. Researchers and top specialists in the field share research results, their insights, and visions for the future. Polymers, and especially biopolymers, have attracted the interest of scientists since ancient times and are widely used in medical and pharmaceutical fields due to their unique properties, which include versatility, bacteriostatic and hemostatic action, low cost of production, non-toxicity, great functionality, biocompatibility, and high absorbent capacity. The medical applications of biopolymeric materials vary from general healthcare to specific and very targeted domains such as surgery, wound healing, cancer management, tissue engineering, implants, and drug delivery system formulation. The development of functionalized polymeric materials or nanobiomaterials is a field of great relevance because it includes a multitude of biomaterials with medical applications such as films, sponges, wound dressings, hydrogels, aerogels, electrospun nanofibers, nanoparticles, etc. Together, we embark on a journey to unlock the advantages of using biopolymeric materials in the development of new, reliable, drug delivery systems with conventional or targeted release.





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