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Nota di contenuto	1.Chitosan-based hydrogels in drug delivery carrier -- 2. Alginate – based hydrogel for drug carriers -- 3. Gelatin Based Hydrogels for Drug Delivery: A Recent Update -- 4. Cellulose based hydrogel for therapeutic carrier -- 5. Starch-based hydrogel in drug delivery applications -- 6. Hyaluronic acid hydrogel in therapeutics delivery and biomedical applications -- 7. Chitosan/gold nanoparticles hydrogels for drug delivery and tissue engineering applications -- 8. Collagen Hydrogel in drug delivery and tissue engineering -- 9. Magnetic hydrogel: Biomedical aspects -- 10. Injectable hydrogel for drug delivery -- 11. DNA-Based Hydrogel in drug delivery -- 12. 3D printing of hydrogels: design, strategies and biomedical applications -- 13. Synthetic polymer-based hydrogels for tissue engineering -- 14. Hydrogel Biomaterial in Bone Tissue Engineering. .

Sommario/riassunto

This book highlights recent advances in natural and synthetic biomaterials-based hydrogel for drug delivery carriers and tissue engineering. It covers key topics such as chitosan, alginate, gelatin, cyclodextrin, cellulose, starch, hyaluronic acid, dextran, collagen hydrogel, Injectable hydrogel magnetic hydrogel, DNA-based hydrogels, 3D printing of hydrogels, hydrogel for bone tissue engineering and regenerative medicine, etc. Each chapter develops a particular aspect of recent advances in biomaterial-based Hydrogels delivery systems to cover the importance, fabrication technology, characterization, evaluation, delivery of therapeutic and biomedical applications, and future perspectives. Written by a group of renowned scientists, chemists, biologists, and engineers from around the world, the book is designed as an important reference resource for scientists and researchers working on advanced biomaterials in the fields of pharmaceuticals, biomedical science, biomedical engineering, nanotechnology, and material science for most updated findings and future research trends.