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Micro- and Nanofabricated Scaffolds for Three-Dimensional Tissue Recapitulation; 5.1 Introduction; 5.2 Microfabricated Interfaces; 5.3 Nanofabricated Interfaces; 5.4 Conclusion; References; Chapter 6 Biomimetic Hydrogels to Support and Guide Tissue Formation; 6.1 Introduction; 6.2 Hydrogels and Their Synthesis; 6.3 Incorporating Bioactive Factors into Hydrogels; 6.4 Two-Dimensional Patterning of Hydrogels; 6.5 Three-Dimensional Rapid Prototyping of Hydrogels; 6.6 Summary; References.

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Sommario/riassunto

Supported with 140 illustrations, the volume exhaustively covers the micro- and nano-system technologies involved in developing cell-based bioengineering applications. You get full details on efforts to engineer the soluble and insoluble cell microenvironments, including the latest advances in microfluidic devices, surface patterning, 3D scaffolds, and techniques for engineering cellular mechanical properties and topography.
