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Assembly; 4.1 Concept and Mechanism; 4.2 Preparation and Characterization; 4.2.1 Applicable Materials and Interactions; 4.2.2 Thin-Film Preparation: Fundamental Procedure and Characterization; 4.2.3 Various Driving Forces and Techniques; 4.2.4 Three-Dimensional Assemblies
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5.3.1 Definition of Polymer Brushes5.3.2 Preparation of Polymer Brushes; 5.3.3 Properties and Applications of Concentrated Polymer Brushes; 5.4 Organic-Inorganic Hybrids; 5.5 Colloidal Layers; 5.6 Newly Appearing Techniques; 5.6.1 Material-Binding Peptide; 5.6.2 Block-Copolymer Films; 5.6.3 Nanoimprint Lithography; Index

Sommario/riassunto

This handy reference is the first comprehensive book covering both fundamentals and recent developments in the field with an emphasis on nanotechnology. Written by a highly regarded author in the field, the book details state-of-the-art preparation, characterization and applications of thin films of organic molecules and biomaterials fabricated by wet processes and also highlights applications in nanotechnology. The categories of films covered include monomolecular films (monolayers) both on a water surface and on a solid plate, Langmuir-Blodgett films (transferred multilayer fil
