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Nota di contenuto	Nanoparticles and Nanostructured Films; Contents; List of Contributors; 1 Electrodeposited Quantum Dots: Size Control by Semiconductor-Substrate Lattice Mismatch; 1.1 Introduction; 1.2 The CdSe/Au System; 1.3 Change of Semiconductor Lattice Spacing - Cd(Se, Te)/Au; 1.4 Change of Substrate Lattice Spacing - CdSe/Pd; 1.5 Thicker Layers of CdSe on Au and Pd; 1.6 Other Semiconductor-Substrate Systems; 1.6.1 (Cd, Zn)Se/Au; 1.6.1.1 CDs/Au; 1.6.1.2 CDs/Pd; 1.6.1.3 CdSe/Au-Pd; 1.7 Bandgap Measurements; 1.8 Conclusion and Speculations; Acknowledgments; References 2 Oriented Growth of Nanoparticles at Organized Assemblies2.1 Introduction; 2.2 Oriented Crystal Growth on Self-assembled Monolayers and Multilayers; 2.2.1 Growth of Zincophosphate Zeolites on Zirconium Phosphate Multilayers; 2.2.2 Oriented Aluminophosphate Zeolite Crystals Grown on Self-assembled Monolayers; 2.2.3 Nucleation

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4.3.1 Magnetic Fluids: Syntheses and Properties

Sommario/riassunto

In this concise handbook leading experts give a broad overview of the latest developments in this emerging and fascinating field of nano-sized materials.Coverage includes new techniques for the synthesis of nanoparticles as well as an in-depth treatment of their characterization and chemical and physical properties. The future applications of these advanced materials are also discussed.The wealth of information included makes this an invaluable guide for graduate students as well as scientists in materials science, chemistry or physics - looking for a comprehensive treatment of the top