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| Autore | Kammerlander Nadine |
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| Nota di contenuto | Metallized DNA; Abstract; Zusammenfassung; Contents; Chapter 1 Motivation; Chapter 2 Fundamentals; Chapter 3 Synthesis of Metallized DNA; Chapter 4 Absorption Spectrometry; Chapter 5 Dynamic Light Scattering; Chapter 6 Stabilization of the Nanoparticles; Chapter 7 Nanorings; Chapter 8 Atomic Force Microscopy; Chapter 9 Conclusion; Chapter 10 Outlook; Appendix; Bibliography |
| Sommario/riassunto | Metallic nanoparticles have been studied intensively during the last decades because of their intriguing optical properties: Due to collective oscillations of the conducting electrons - the so called plasmonic oscillations - they absorb light in the visible spectrum. The resonance frequency thereby sensitively depends on parameters such as the particle size and shape as well as the dielectric constant of the medium. DNA exhibits outstanding recognition properties and can be modified easily. Thus, template-directed material synthesis along synthetic DNA is a promising route to grow nanoparticle |