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Microfluidics on Biological Interfaces

Review by E. Delamarche et al.

Analysis by Surface-Enhanced Raman Scattering

Minireview by L. M. Liz-Marzán and R. A. Alvarez-Puebla

The Invention of Immersion Ultramicroscopy

Essay by T. Mappes et al.

Highlights: Catalysis with Peptide Nanoparticles • Porphyrinic True Nanorings

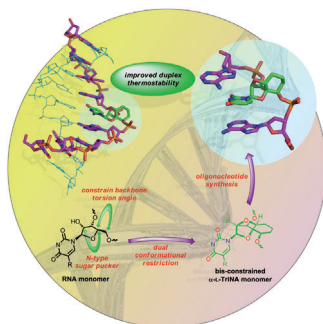
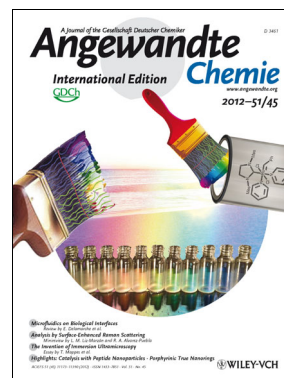
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Cover Picture

Garret M. Miyake, Victoria A. Piunova, Raymond A. Weitekamp, and Robert H. Grubbs*

Molecular brush block copolymers rapidly self-assemble to photonic crystals that can reflect light from the UV, across the visible, and into the near-IR region of the spectrum. In their Communication on page 11246 ff., R. H. Grubbs et al. demonstrate that the blending of two different molecular weight brush block copolymers can predictably modulate the sizes of the polymer domains, enabling facile precision tuning of these photonic-band-gap materials.

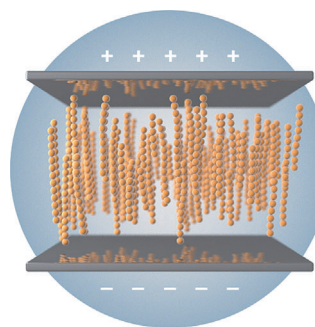


Modified Nucleotides

Conformationally constrained nucleotides have a stabilizing effect on RNA/DNA duplexes. In their Communication on page 11242 ff., S. Hanessian, P. P. Seth, et al. present a doubly constrained tricyclic nucleotide (α -L-TriNA) that imparts great duplex stability.

Colloids

A general method for the design of colloidal analogues of polymer chains with tunable flexibility from dielectric colloids is described by H. R. Vutukuri, A. van Blaaderen, et al. in their Communication on page 11249 ff.



Nanoparticle Formation

In their Communication on page 11350 ff., M. O. Wolf et al. study the formation of amine-capped Pd nanoparticles by NMR analysis, and show that these species can be produced at lower temperature in the presence of a Lewis base.