

2012-51/15

Fluorescence Imaging

Review by M. Schäferling

Fingerprint Analysis

Minireview by D. A. Russell and P. Hazarika

Highlights: Peptidome Analysis $\cdot \pi$ -Conjugated Polymers

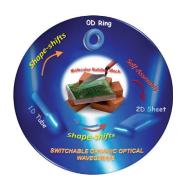


Cover Picture

Alasdair W. Clark and Jonathan M. Cooper*

Molecular binding events can be used to construct complex arrays and systems of plasmonic nanoparticles, as well as to influence the brilliant colors exhibited by these structures. In their Communication on page 3562 ff., J. M. Cooper and A. W. Clark demonstrate an engineered approach to a molecularly mediated plasmonic sensor in which direct-write nanolithography is combined with nanoscale protein patterning and an antibody binding assay to enable naked-eye detection of single protein binding at extreme sensitivities.





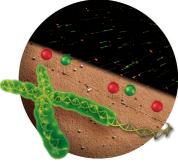
Nanostructures

In their Communication on page 3556 ff., R. Chandrasekar and N. Chandrasekar exploit the reversible shape-shifting nature of 1D nanotubes and 2D nanosheets to control the waveguiding properties of organic solids.

Proton Mobility

In their Communication on page 3573 ff., T. Kitamori and co-workers report a new method for the direct measurement of proton mobilities with fluorescence microscopy by using a pH-sensitive fluorescent probe.





Genomic Imaging

E. Weinhold, S. Weiss, Y. Ebenstein, and co-workers demonstrate that the genome of the T7 bacteriophage can be visualized by sequence-specific methyltransferase-induced labeling of DNA in their Communication on page 3578 ff.