

Polycyclic Polyethers

I. Vilotijevic and T. F. Jamison

Microfluidics

W. Drenckhan

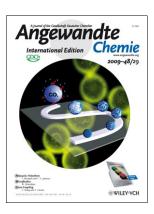
Cross-Coupling

C. Wang and F. Glorius

Cover Picture

Jai Il Park, Zhihong Nie, Alexander Kumachev, Ahmed I. Abdelrahman, Bernard P. Binks, Howard A. Stone, and Eugenia Kumacheva*

A chemically mediated microfluidic approach to the generation of particle-coated bubbles is reported by E. Kumacheva and co-workers in their Communication on page 5300 ff. The approach employs rapid, controllable dissolution of CO_2 bubbles in a dispersion of carboxylated particles. Local increases in the acidity of the medium in the neighborhood of the bubbles lead to a change in the surface energy of the particles and their deposition on the gas–liquid interface.



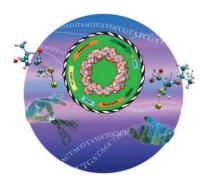


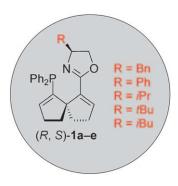
Epoxide-Opening Casades

I. Vilotijevic and T. F. Jamison present the role of epoxide precursors in the biosynthesis and the biomemetic synthesis of polycyclic natural products in their Review on page 5250 ff. Target structures involved are usually marine ladder polyethers and ionophores with such motifs.

DNA on Chiral Surfaces

T. Sun, L. Chi and co-workers describe in their Communication on page 5282 ff. how plasmid DNA prefers relaxed conformations on a surface modified with L-N-isobutyrylcysteine (L-NIBC), whereas the supercoiled conformation is more likely on the D-NIBC surface. Picture design: J. Zhao.





P,N Ligands

A reaction delivering optically active amines with 98% *ee* using an iridium(I) catalyst is described by K. Ding and co-workers in their Communication on page 5345 ff. The catalyst system was used in the synthesis of sertraline, an important antidepressant.