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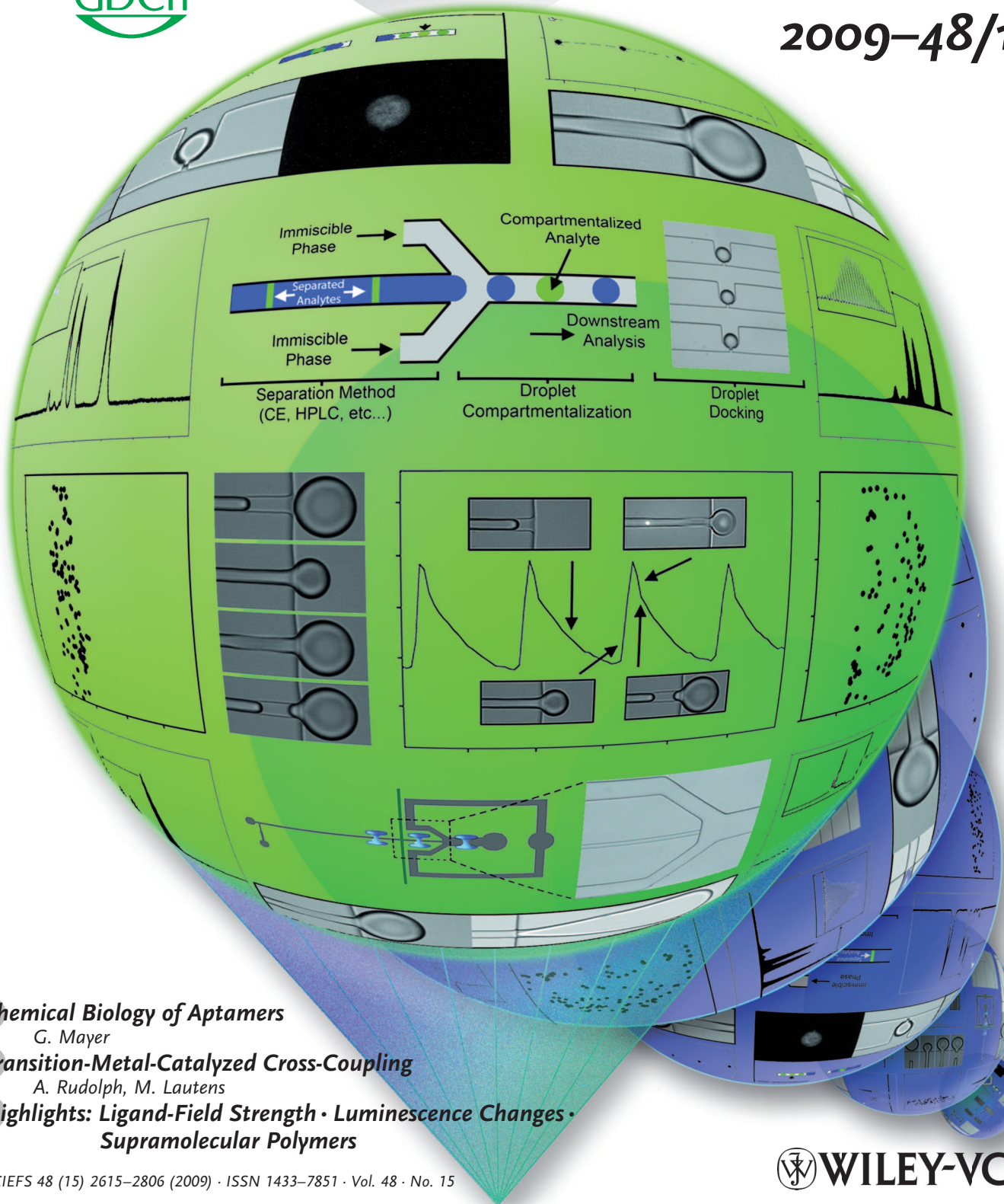
# Angewandte Chemie

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2009–48/15



**Chemical Biology of Aptamers**

G. Mayer

**Transition-Metal-Catalyzed Cross-Coupling**

A. Rudolph, M. Lautens

**Highlights: Ligand-Field Strength • Luminescence Changes •  
Supramolecular Polymers**

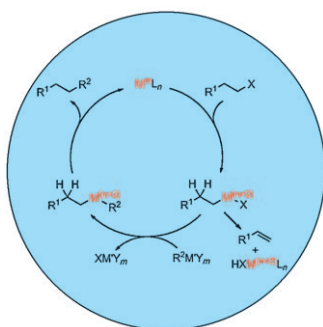
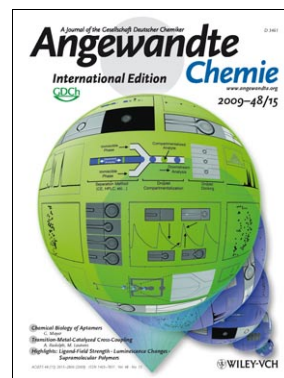
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## Cover Picture

**J. Scott Edgar, Graham Milne, Yiqiong Zhao, Chaitanya P. Pabbati,  
David S. W. Lim, and Daniel T. Chiu\***

**Electroosmotic-flow-driven droplet generation** integrated with capillary electrophoresis (CE) allows the molecular components separated by CE to be compartmentalized into a stream of droplets, as reported by D. T. Chiu and co-workers in their Communication on page 2719 ff. and illustrated on the cover picture. After separation and droplet compartmentalization, the droplet-confined bands either can be docked and studied on-chip or removed off-chip for a second-dimension separation and further analysis.

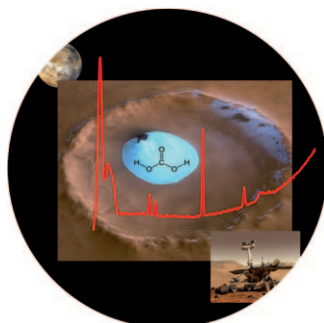
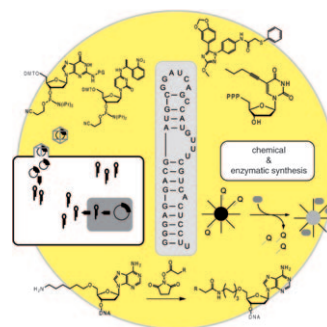


### Cross-Coupling

The Minireview on page 2656 ff. examines the use of secondary alkyl halides as electrophiles in cross-coupling reactions. M. Lautens and A. Rudolph present nickel-, cobalt-, iron-, and palladium-catalyzed processes.

## Aptamers

Aptamers are single-stranded oligonucleotides that inhibit their target molecules with high specificity. G. Mayer presents in his Review on page 2672 ff. the current status of this area and describes the application of aptamers in chemical biology.



### *Help for Mars Exploration*

In the Communication on page 2690 ff., T. Loerting and co-workers describe the Raman spectra of carbonic acid. This information should be useful in the search for this compound on the surface of the pole caps of Mars during the planned Martian expedition in 2009.