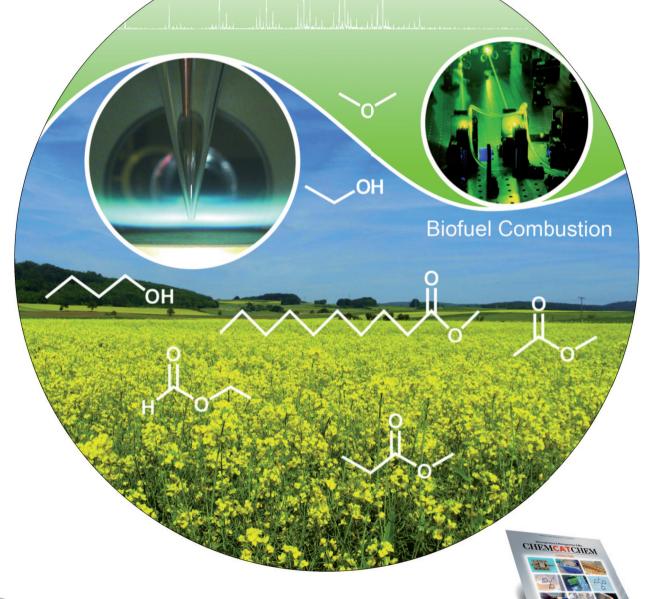


2010-49/21



Biofuels

K. Kohse-Höinghaus et al.

DNA-Water Interactions

T. Elsaesser et al.

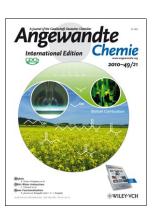
Arene Functionalization

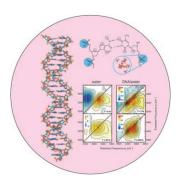
A. Jacobi von Wangelin and C. E. I. Knappke

Cover Picture

Katharina Kohse-Höinghaus,* Patrick Oßwald, Terrill A. Cool, Tina Kasper, Nils Hansen, Fei Qi, Charles K. Westbrook, and Phillip R. Westmoreland

Biodiesel a mixture of esters, is produced from rapeseed; other potential biofuels are alcohols and ethers. As K. Kohse-Höinghaus et al. describe in their Review on page 3572 ff., the structure of a fuel molecule has a significant influence on its combustion chemistry. The complex chemical reaction pathways of the fuel decomposition and oxidation can be revealed by mass spectrometry and laser diagnostics.



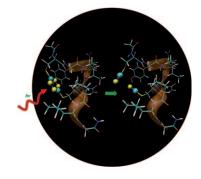


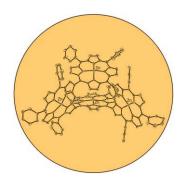
DNA-Water Interactions

T. Elsaesser and co-workers take a close look at the interaction of DNA with water at different hydration levels in their Review on page 3598 ff. The ultrafast processes have been elucidated by femtosecond vibrational spectroscopy.

Phototriggering

In their Communication on page 3612 ff, R. M. Hochstrasser, A. B. Smith III, and coworkers report ultrafast photochemical s-tetrazine triggers for investigating the dynamics of folding peptides and proteins by 1D and 2D IR spectroscopy.





Porphyrinoids

The designed synthesis of directly meso- β doubly linked porphyrin rings by Suzuki-Miyaura cyclization is reported by N. Aratani, D. Kim, H. Shinokubo, A. Osuka et al. in their Communication on page 3617 ff.