Cover Picture

Torsten Beweries, Vladimir V. Burlakov, Marc A. Bach, Stephan Peitz, Perdita Arndt, Wolfgang Baumann, Anke Spannenberg, Uwe Rosenthal,* Biswarup Pathak, and Eluvathingal D. Jemmis*

Only hafnium but not titanium and zirconium promote simultaneous Si–C and C–H bond-cleavage reactions of bis(trimethylsilyl)acetylene that occur by interaction with decamethyl metallocene. In their Communication on page 6907 ff., U. Rosenthal, E. D. Jemmis, and co-workers investigate this reaction, which exemplifies the higher reactivity of hafnocenes relative to their titanocene and zirconocene congeners. The cover picture shows the corresponding section of the periodic table, in which red indicates the unexpected activity of hafnium.



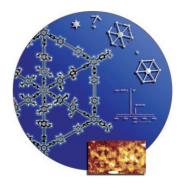


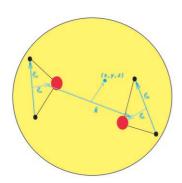
Olefin Metathesis

Olefin metathesis reactions are an attractive and powerful transformation for the formation of new carbon–carbon double bonds. In their Review on page 6786 ff., S. P. Nolan et al. summarize the numerous studies focused on developing cleaner ruthenium-catalyzed metathesis processes.

Molecular Spoked Wheel

A rigid 2D oligomer consisting of hub, spoke, and rim subunits based on arylene ethylene building blocks and its characterization by both MALDI-TOF mass spectrometry and STM are described by S. Höger, S. De Feyter, et al. on page 6802 ff.





Hydrated Proton

In their Communication on page 6918 ff., H.-D. Meyer et al. describe their results from full-dimensional quantum simulation of the dynamics and IR absorption spectrum of the protonated water dimer.