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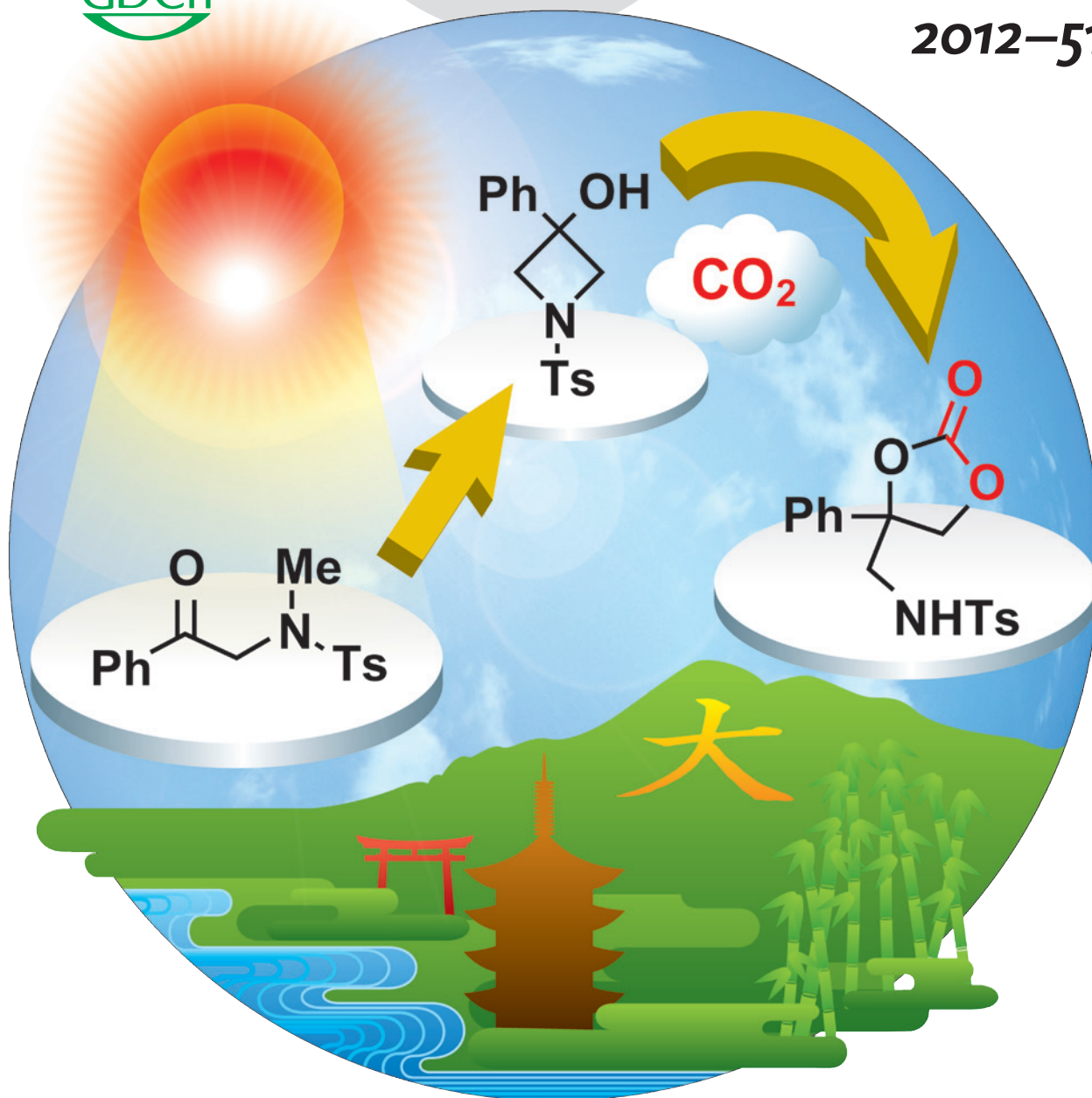
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Catalyst Research

Editorial by B. C. Gates and T. J. Marks

Self-Powered Systems

Review by Z. L. Wang and W. Wu

N-Heterocyclic Carbenes

Minireview by K. A. Scheidt et al.

Highlights: Artificial Water Channels • meta-Directing Groups

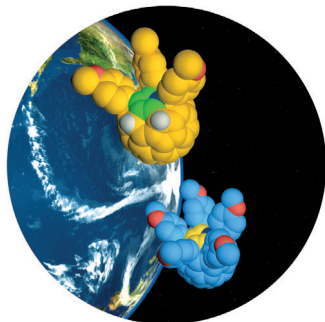
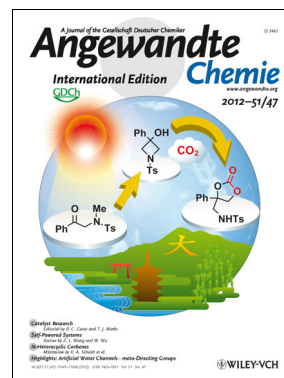
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Cover Picture

Naoki Ishida, Yasuhiro Shimamoto, and Masahiro Murakami*

Carbon dioxide was incorporated into α -amino ketones through a consecutive process consisting of a solar-energy-harvesting photocyclization reaction and a CO_2 incorporation reaction driven by the harvested energy. The single-flask operation described by M. Murakami and co-workers in their Communication on page 11750 ff. produced amino-substituted cyclic carbonates, thereby presenting a simple model of the chemical utilization of solar energy for CO_2 incorporation.

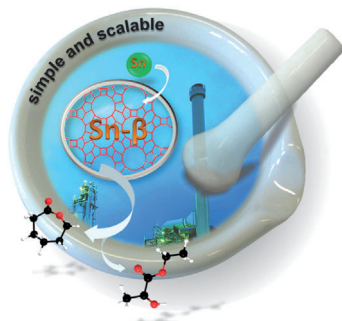
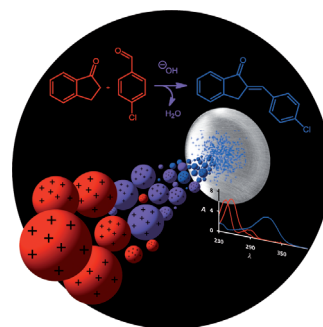


Heterofullerenes

In their Communication on p. 11722 ff., Y. Rubin, A. Hirsch, and co-workers report the synthesis of pentaarylated azafullerene derivatives and their multihydro intermediates. A triaryldihydroazafullerene derivative is the first crystallographically characterized hydroazafullerene.

Mass Spectrometry

In their Communication on page 11832 ff., T. Müller, R. G. Cooks, and A. Badu-Tawiah investigate the Claisen–Schmidt condensation of 1-indanone and 4-chlorobenzaldehyde by electrospray-ionization mass spectrometry.



Heterogeneous Catalysts

In their Communication on page 11736 ff., I. Hermans and co-workers report a convenient preparation of Sn- β by solid-state ion exchange. The product has more favorable catalytic properties than Sn- β prepared by other routes.