

2009–48/52 =Cu" CHEMCATCHEM **Biaryl Synthesis** L. Ackermann et al.

Photoredox Catalysis

K. Zeitler

Catalyst Design

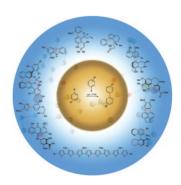
T. Bligaard

Cover Picture

Hua Yang, Andrzej Z. Rys, Christopher K. McLaughlin, and Hanadi F. Sleiman*

DNA can template the formation of different ligand environments that are selective for their binding metals. H. F. Sleiman and co-workers describe in their Communication on page 9919 ff. how placement of a metal in the incorrect DNA-templated environment results in the occurrence of "error-checking": the metal can spontaneously adjust its redox state, displace another labile metal to form a morestable complex, or reorganize the coordination site to create a more-favored complex.



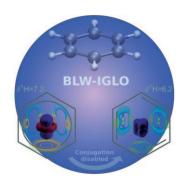


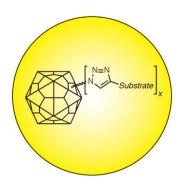
Direct Arylation

The area of transition-metal-catalyzed direct arylation has undergone rapid development recently. In their Review on page 9792 ff., L. Ackermann and coworkers highlight the most important progress in the last three years.

Chemical Shift Prediction

Disabling conjugative interactions using the quantum chemical BLW-IGLO approach allows evaluation of the effects of $\pi\text{-electron}$ delocalization on NMR spectroscopy chemical shifts, as described by C. Corminboeuf et al. in their Communication on page 9828 ff.





Click Chemistry

A robust and simple method for the modification of proteins, DNA, and RNA that uses ascorbate as the reducing agent yet avoids the problems of copper ascorbate side reactions is presented by M. G. Finn et al. in their Communication on page 9879 ff.