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Review

Oxidative Coupling of Aromatic Substrates with Alkynes
and Alkenes under Rhodium Catalysis

T. Satoh and M. Miura

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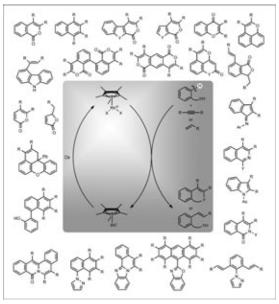
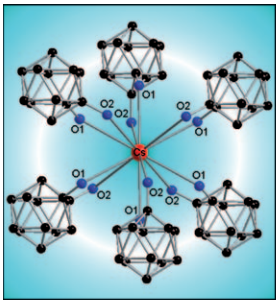
Biologically valuable…

… histrionicotoxin spiropiperidine alkaloids are found in the Colombian poison arrow frog *Dendrobates histrionicus* (shown on the cover). In their Full Paper on page 11471 ff., J. H. Ryan et al. describe efforts to synthesize an unnatural analogue, perhydrohistrionicotoxin, by combining conventional with microreactor techniques. (Photograph of *Dendrobates histrionicus* by Mauricio Rivera. Design by Martin Kowalski.)



Rhodium Catalysis
The oxidative coupling of aromatic substrates with oxygen- and nitrogen-containing substituents by rhodium-catalyzed regioselective C−H bond cleavage is described by T. Satoh and M. Miura in their Review article on page 11212 ff. These new reactions provide useful methods for preparing a variety of π-conjugated molecules from simple, readily available substrates.

Oligocyclic Compounds
In their Full Paper on page 11276 ff., D. B. Werz et al. report on the synthesis, structural properties, and theoretical investigations of oligoannelated THF moieties. A repetitive three-step procedure consisting of cyclopropanation, reduction, and oxidative ring enlargement of push–pull-substituted three-membered rings leads to molecules with a corkscrew-stair-like arrangement.



Radical Clusters
In their Communication on page 11242 ff., T. Schleid et al. describe a surprisingly straightforward reaction between $Cs_2[B_{12}H_{12}]$ and H_2O_2 (30 %) that yields both diamagnetic $Cs_2[B_{12}(OH)_{12}]\cdot 2H_2O$ and paramagnetic $Cs[B_{12}(OH)_{12}]$ as parts of a new structurally characterized oligoborane cluster redox system with a stable radical state and the potential for functionalization at the OH groups.

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