

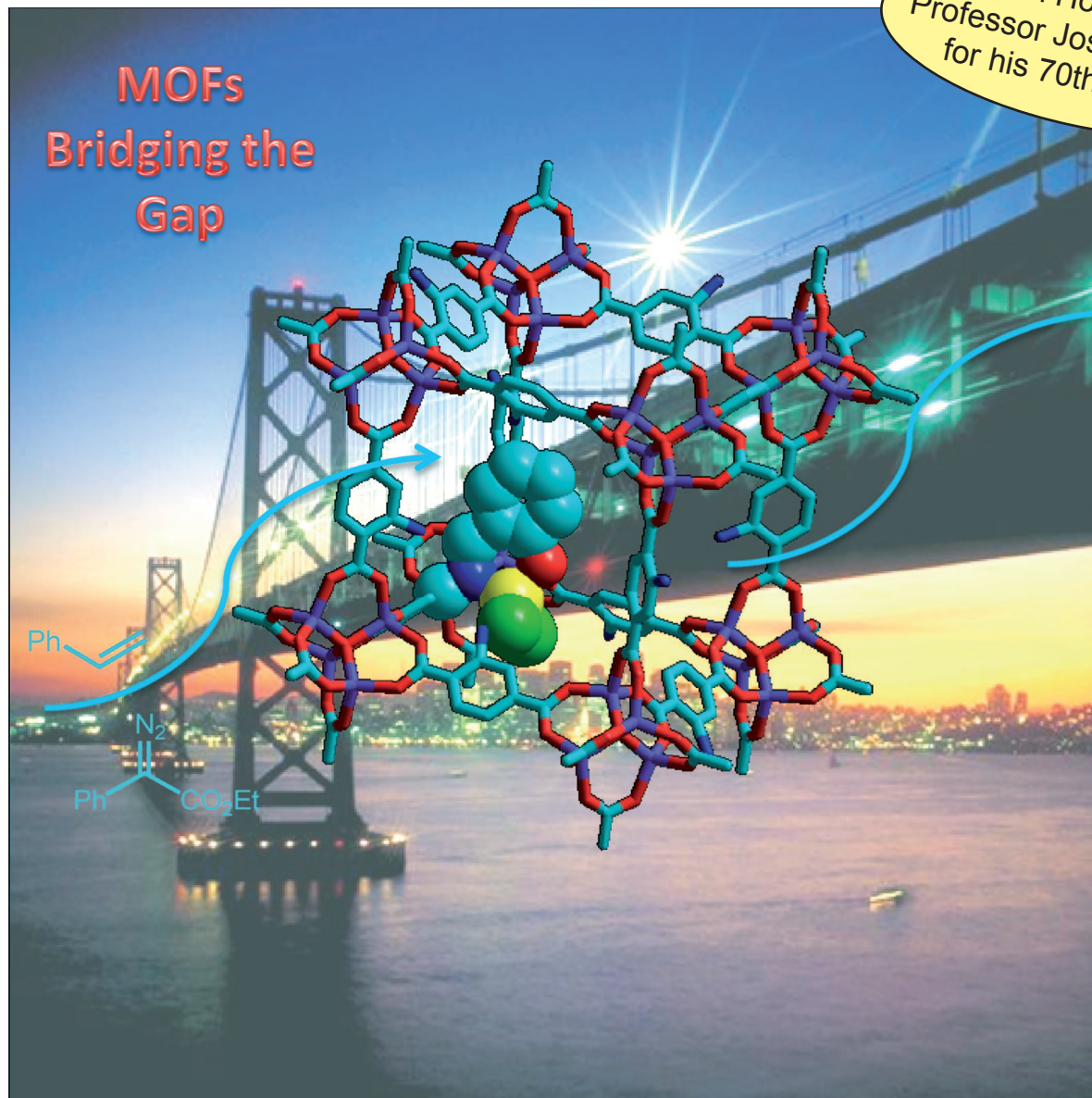
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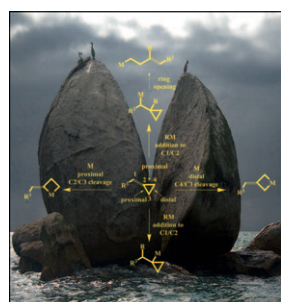
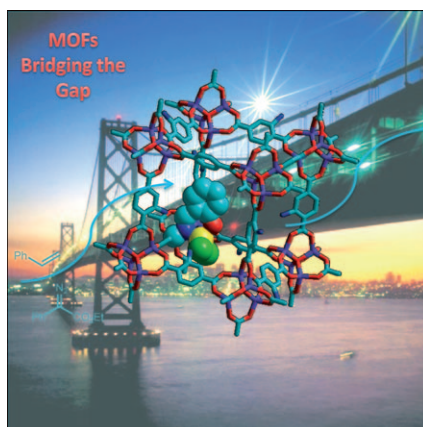
Selectivity in Metal-Catalyzed Carbon–Carbon Bond Cleavage
of Alkylidenecyclopropanes (I. Marek and A. Masarwa)

Minireview

Recent Synthetic Approaches
to 6,15-Iminoisoquino[3,2-*b*]3-benzazocine Compounds
C. Avendaño and E. de la Cuesta

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... (MOF) materials containing either Cu or Au centers can act as catalysts for the cyclopropanation of alkenes with diazoacetates. In their Full Paper on on page 9789 ff., A. Corma et al. describe Cu and Au MOFs that are active and reusable heterogeneous catalysts for cyclopropanation of alkenes with high chemo- and diastereoselectivities. This example is the first use of these materials to induce the carbene transfer reactions from diazo compounds.

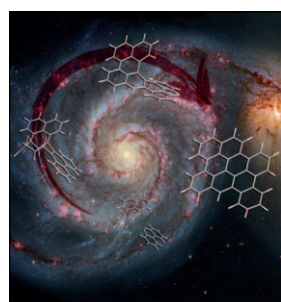
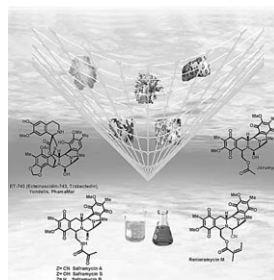


Cyclopropane reactivity

“Breaking symmetry in a dramatic sky and calm sea” is like breaking the carbon–carbon bond in alkylidenecyclopropanes. The rationalization as well as synthetic applications are described by I. Marek and A. Masarwa in their Concept article on page 9712 ff.

Antitumor Antibiotics

In their Minireview on page 9722 ff., C. Avendaño and E. de la Cuesta discuss developments in the synthesis of saframycin analogues, which are the largest subgroup of the tetrahydroisoquinoline antitumor antibiotics. The results have been arranged according to the bonding events as opposed to chronological order.

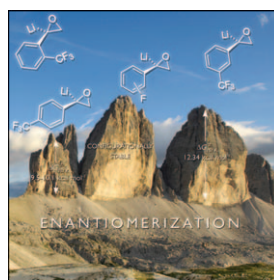


Domino Reactions

A composition of the popular Whirlpool Galaxy (M51) and the synthetic route to obtain a polycyclic aromatic hydrocarbon (PAH) characterized by the presence of nine fused benzene rings is illustrated. Large PAHs are considered to be abundant and ubiquitous in the interstellar medium of galaxies. This route is based on a domino cycloaddition reaction involving an aryne, and it opens a new way to access elusive perylene derivatives that could be useful as carbon-based electronic materials. For details see the Communication by D. Peña, E. Guitián et al. on page 9736 ff. Image credit: NASA, Hubble Heritage Team, (STScI/AURA), ESA, S. Beckwith (STScI). Additional processing: Robert Gendler.

The “Three Peaks of Lavaredo”

The “Three Peaks of Lavaredo” (or “Drei Zinnen”) are one of the world-famous pinnacles belonging to the Sestro Dolomites. The depicted lithiated fluorinated styrene oxides are, among oxiranylolithiums, quite promising building blocks for constructing stereodefined fluorinated amino alcohols of pharmaceutical interest. Barriers of inversion, activation parameters, and mechanisms of racemization have been discussed in the full paper by V. Capriati, S. Florio et al. on page 9778 ff.



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