

A Journal of the Gesellschaft Deutscher Chemiker

D 3461

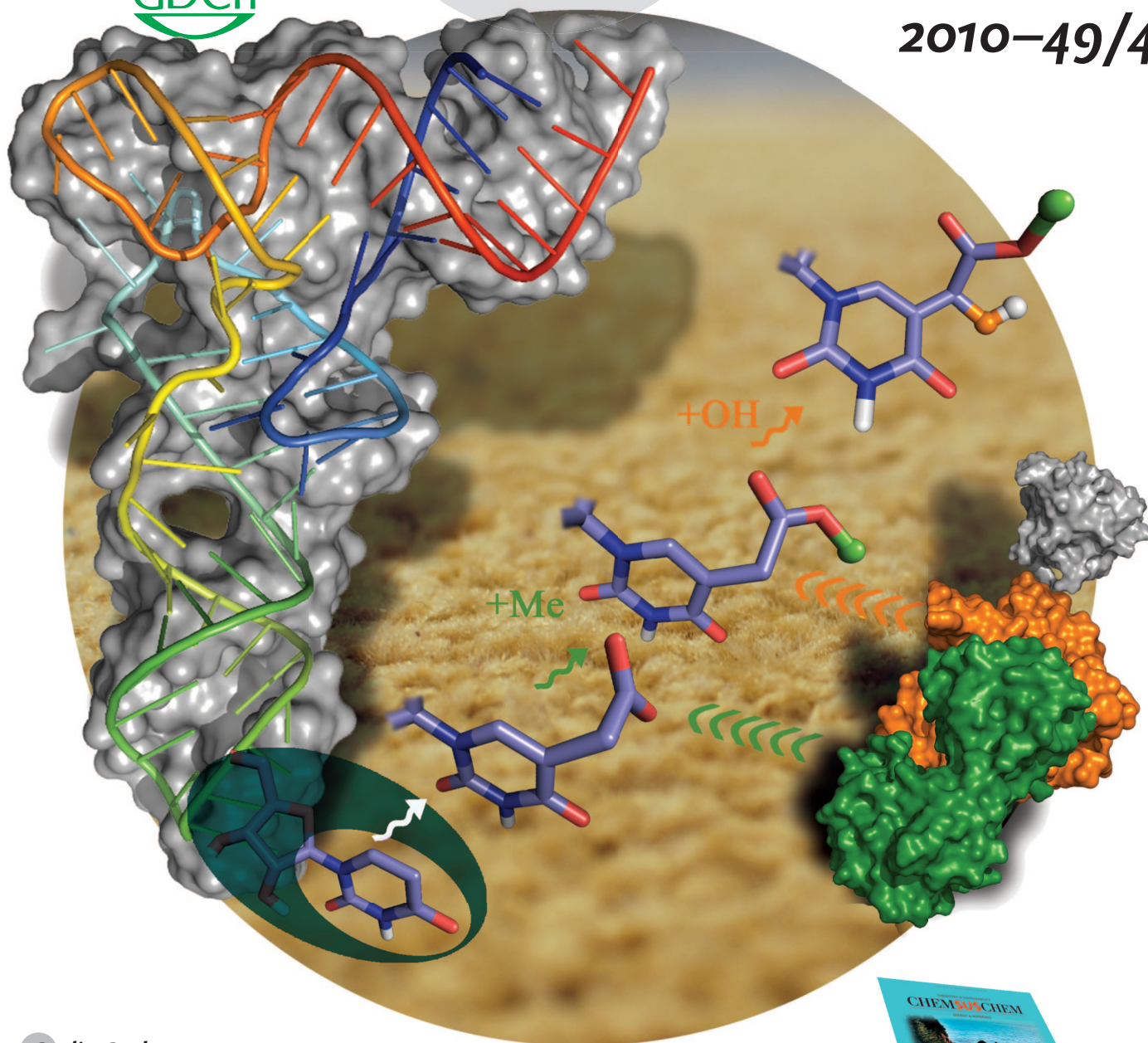
Angewandte Chemie

International Edition

GDCh

www.angewandte.org

2010–49/47



Cyclic Carbenes

G. Bertrand et al.

IspH Proteins

T. Gräwert, M. Groll et al.

Gene Sequencing

F. Schulz et al.

Catenanes

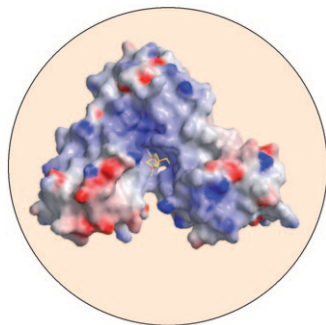
G. Rapenne et al.



Cover Picture

Ye Fu, Qing Dai, Wen Zhang, Jin Ren, Tao Pan,* and Chuan He*

tRNA Hypermodification by mammalian ABH8 is described by C. He, T. Pan, and co-workers in their Communication on page 8885 ff. The mammalian AlkB homologue ABH8, containing an AlkB dioxygenase domain, catalyzes the oxidation of mcm⁵U into (S)-mcm⁵U at the wobble position (uridine) in tRNA.

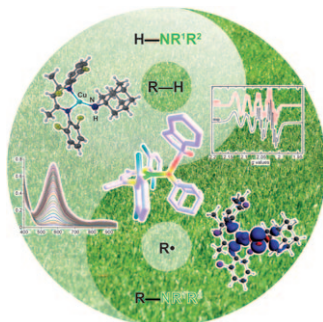
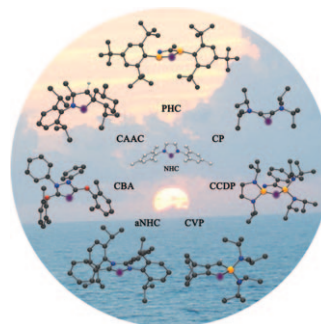


Isoprenoid Biosynthesis

Based on X-ray structure analyses of IspH proteins, a mechanism for the last step in the non-mevalonate biosynthesis of isopentenyl diphosphate and dimethylallyl diphosphate is described by M. Groll, T. Gräwert et al. in their Minireview on page 8802 ff.

Stable Cyclic Carbenes

In their Review on page 8810 ff. G. Bertrand et al. describe the synthesis and characterization of stable cyclic carbenes. The stability, electronic properties, coordination behavior, and catalytic activity of these complexes are also described.



Catalytic C–H Functionalization

T. R. Cundari, T. H. Warren, and co-workers describe in their Communication on page 8850 ff. a three-coordinate copper(II) amide that allows for the catalytic amination of C(sp³)–H bonds with unactivated primary and secondary amines.