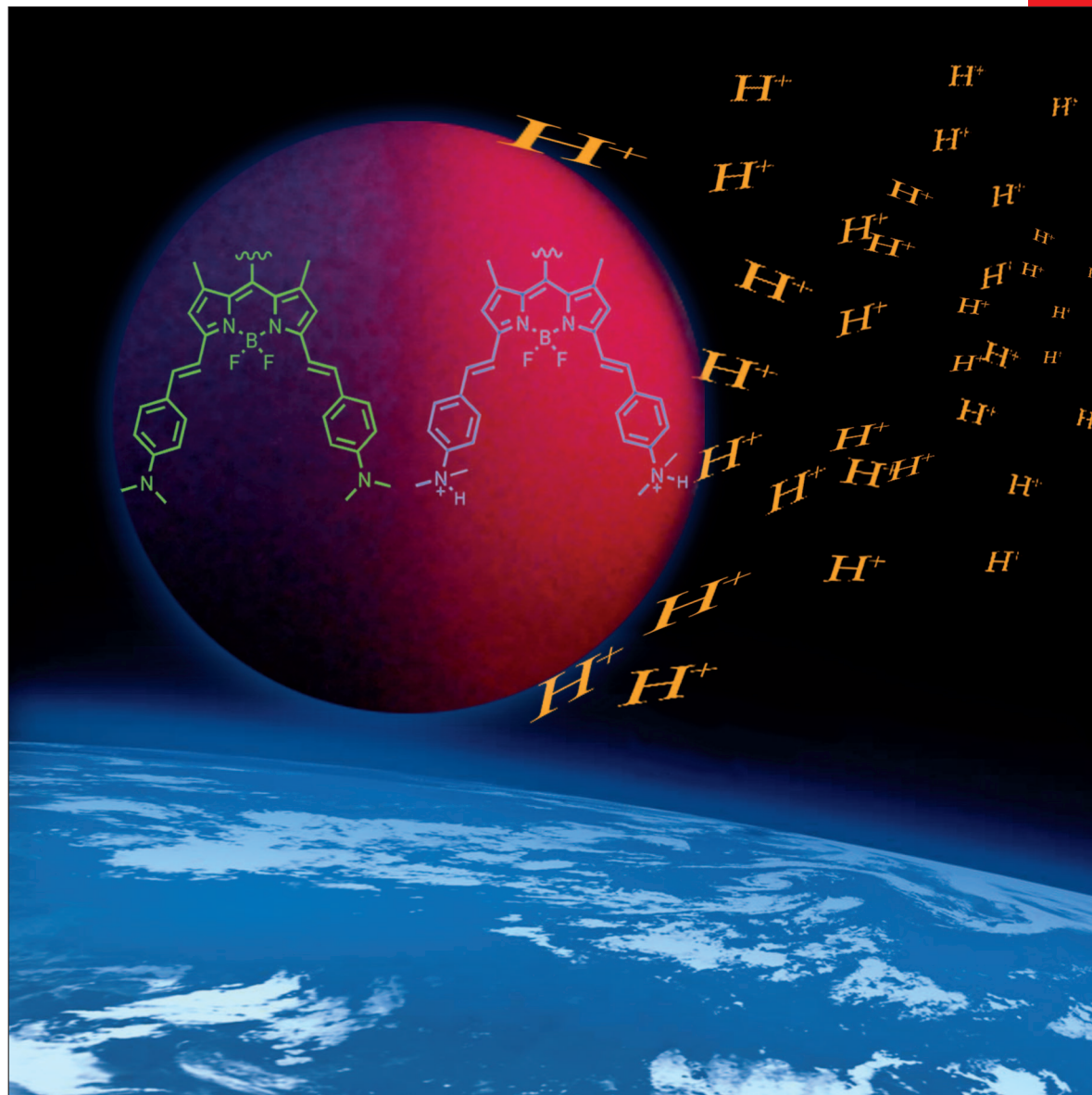


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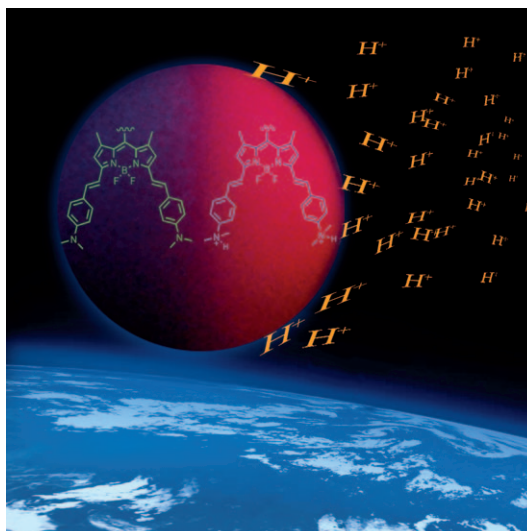
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Concept

Applications of Multicomponent Reactions to the Synthesis
of Diverse Heterocyclic Scaffolds
S. F. Martin and J. D. Sunderhaus

 WILEY-VCH

... coated with a dialkylamino-styryl boradiazaindacene dye are green, but emit light outside the range visible to the human eye. Exposure to trace amounts of acid (symbolized on the picture by a gas flow spiced with traces of $\text{HCl} < 100 \text{ ppb}$) turns the beads deep blue and switches on an intense red fluorescence. The process, which is fully reversed in the presence of base, also responds to alkylating reagents and phosgene. In their Full paper on page 1359 ff., R. Ziessel et al. report compelling evidence for this unique push-pull mechanism

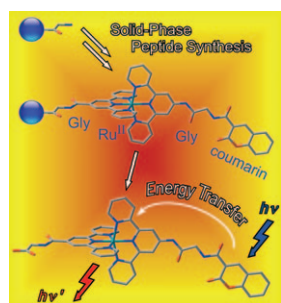
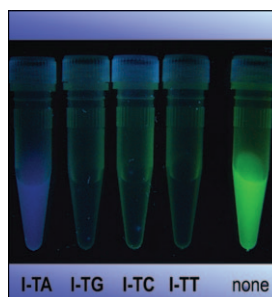


Heterocyclic Scaffolds

In their Concept article on page 1300 ff., J. D. Sunderhaus and S. F. Martin describe how multicomponent reactions (MCRs) can be used to prepare functionalized heterocyclic scaffolds. The functional groups present on the initial MCR product may be chosen so that a variety of post MCR transformations can be employed. The examples presented herein illustrate that with careful selection of the MCR inputs, a single MCR can be used to generate versatile intermediates that may be readily transformed into diverse collections of compounds.

Anthracene Sensor for DNA

In their Communication on page 1314 ff., M.-P. Teulade-Fichou and A. Granzhan demonstrate that a macrocyclic anthracene derivative binds to matched and mismatched base pairs in DNA by distinct binding modes that may be differentiated by UV/Vis and CD spectroscopy. Moreover, when the mismatched base is thymine, binding of the probe results in a quasi-complete quenching of its fluorescence, which allows an easy differentiation from the sequences in which the middle thymine is matched with adenine.



Metallo Amino Acids

In their Full Paper on page 1346 ff., K. Heinze and K. Hempel describe the development of a solid-phase synthesis protocol for ruthenium(II) chromophores as a way towards the realization of more elaborate multichromophore systems.

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