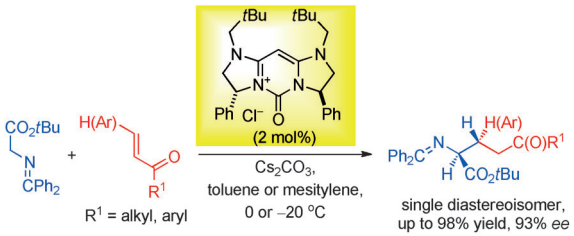
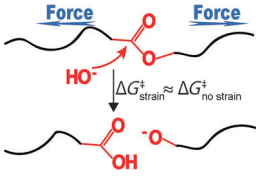
Asymmetric Synthesis



In nothing flat: The title salts, having planar nitrogen centers, were utilized successfully as phase-transfer catalysts for asymmetric Michael reactions of *tert*-butyl glycinate benzophenone Schiff base with vinyl ketone and chalcone derivatives, thus providing excellent levels of diastereo- and enantiocontrol (see scheme).

Kinetics



Experiments and computations are reported of how stretching a polymer containing an ester moiety affects the kinetics of its basic hydrolysis (see picture). DFT computations of complete conformational ensembles of three homologous esters suggest that a stretching force stabilizes the tetrahedral intermediate and the second transition state (TS) but has no effect on the relative energy of the first TS.

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50 Years Ago . . .

Angewandte Chemie International Edition was first published in 1962, the mother journal first in 1888. In this monthly flashback, we feature some of the articles that appeared 50 years ago. This look back can open our eyes, stimulate discussion, or even raise a smile.

The first Review in the July 1963 issue was by T. Wieland and H. Determann, who summarized the developments in solution-phase peptide synthesis from 1959–1962, including protecting groups and methods of coupling. The Review was well-timed, as July 1963 marked a turning point in peptide chemistry when R. B. Merrifield published his seminal paper on solid-phase peptide synthesis and revolutionized the field.

Armin Weiss and co-workers published two Communications: the first reported the isolation of pure $BaSi_2$ by melting Ba and Si followed by slow cooling. The Si atoms in $BaSi_2$ formed discrete Si_4 tetrahedra rather than forming layers, which are formed in $CaSi_2$. The second paper dealt with the structure of $Co(CN)_2$. As both the hydrated and anhydrous forms have a cubic structure, it was postulated that large cavities must be present in the anhydrous form, which can form inclusion or zeolitic compounds with a wide range of polar guests. The three-dimensional framework cannot accommodate molecules with diameters greater than 3.6 Å and thus acts as a molecular sieve.

Georg Wittig reported on the preparation of azatriptycene in a Communication. The target compound was prepared by a ring-closing reaction that took place when treating 9-*o*-chlorophenyl-9,10-dihydroacridine with KNH_2 in liquid ammonia.

The Conference Report covered some highlights from the South-West German section of the Division of Food and Forensic Chemistry of the Gesellschaft Deutscher Chemiker (GDCh; German Chemical Society). Among the topics presented were the investigation of inks in ballpoint pen samples, and the detection of sweetened, fortified, and diluted wines to confirm if so-called top-quality wines really were the real thing.

Read more in Issue 6/1963