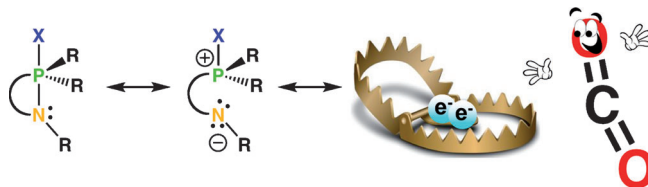


Carbon Dioxide Capture

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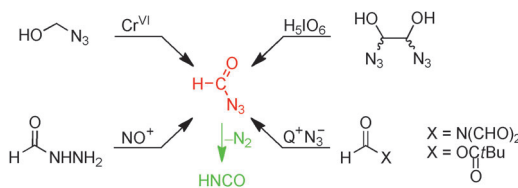
Phosphorus as a Lewis Acid: CO₂
Sequestration with Amidophosporanes

CO₂ snapper: Compounds containing both acidic and basic P,N functionalities have been prepared. Of these, two amidophosporanes containing highly reactive P–N bonds within four-membered

rings react rapidly with CO₂, resulting in relief of ring strain. These compounds demonstrate the utility of phosphorus as a Lewis acid for small-molecule activation.

Acyl Azides

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Experimental and Theoretical Studies on
the Synthesis, Spectroscopic Data, and
Reactions of Formyl Azide

Small is beautiful: spectroscopic proof or any other indication for the existence of formyl azide (HC(O)N₃) has until now been lacking. Although it liberates dini-

trogen much more rapidly than homologous acyl azides, it has been prepared for the first time by four different methods (see scheme).

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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.

In the 1960s, mercurial diuretics—drugs that promote the formation of urine—were still the agents of choice if rapid action on the kidneys was required, however, given the toxicity of organomercury species, new orally active drugs were required. In a Review, E. Schlittler, G. Destevens, and L. Werner discussed the developments in non-mercurial diuretics, in particular the sulfonamide derivatives chlorothiazide and hydrochlorothiazide. In early 1961, hydrochlorothiazide was the leading product worldwide and the total sales for all non-mercurial diuretics in the USA was 45 million dollars—a large turnover in those days.

Drug synthesis was also reported by U. Schmidt and F. Geiger, who discussed the total synthesis of the antibiotics thiolutin, aureothricin, and holomycin in a Communication. These antibiotics contain condensed pyrrolonethiol ring systems and are active against pathogenic fungi and Gram-negative and Gram-positive bacteria.

NMR spectroscopy was already beginning to have applications in physical chemistry, and W. Seiffert, H. Zimmermann, and G. Scheibe reported how the proton magnetic resonance spectra of aromatic heterocyclic compounds could be used for estimating π -electron den-

sities in the molecular ground state. This estimation was carried out by comparing the chemical shifts of the molecule in question with those of benzene, and calculating the electron densities from these shift differences by using a calibration curve. The method was applied to pyridine and the experimentally derived values were comparable to those derived from quantum mechanical calculations.

[Read more in Issue 5/1962](#)