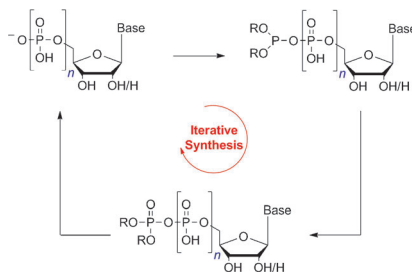


**Omne trium perfectum:** Nucleoside triphosphates can be synthesized by an iterative approach based on P-amidite chemistry (coupling, oxidation, deprotection). The reactions occur under ambient conditions without drying of any solvent or reagent. The process is very convenient, fast, and works with all canonical nucleosides. An extension of this approach is the iterative coupling applied to a controlled pore glass bound nucleoside.



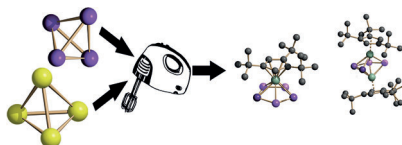
### Iterative Synthesis

G. S. Cremosnik, A. Hofer,  
H. J. Jessen\* — 286–289

Iterative Synthesis of Nucleoside  
Oligophosphates with Phosphoramidites



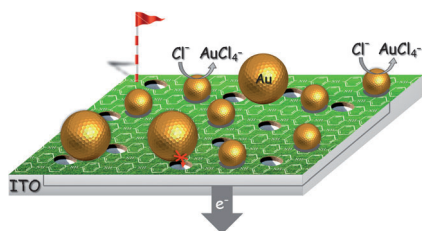
A **P<sub>4</sub> butterfly complex** reacts with yellow arsenic to yield the largest mixed P<sub>n</sub>As<sub>m</sub> ligand complexes synthesized to date. Mass spectrometry together with NMR spectroscopy and X-ray crystallography give clear evidence about the arrangement of the E positions within the *cyclo*-E<sub>5</sub> and E<sub>4</sub> moieties of the products. Moreover, the results of DFT calculations agree well with the experimental determined outcomes.



### Mixed-Element Ligands

C. Schwarzmaier, M. Bodensteiner,  
A. Y. Timoshkin, M. Scheer\* — 290–293

An Approach to Mixed P<sub>n</sub>As<sub>m</sub> Ligand  
Complexes



**Suitable refills:** Gold nanoparticles transferred together with monolayers of polyaniline onto a conducting substrate can be electro-oxidized leaving behind cavities of uniform size in the polymer films. The cavities show size-exclusion properties and the films can be used as an analytical tool for the recognition of nanoparticles.

### Nanoparticle Detection

S. Kraus-Ophir, J. Witt, G. Wittstock,  
D. Mandler\* — 294–298

Nanoparticle-Imprinted Polymers for  
Size-Selective Recognition of  
Nanoparticles



DOI: 10.1002/anie.201309444

## Flashback: 50 Years Ago ...

**M**anfred Eigen, who was awarded the 1967 Nobel Prize in Chemistry together with Ronald G. W. Norrish and George Porter, published a classic Review on proton transfer mechanisms and the modes of acid–base and enzymatic catalysis. The systems discussed include proton mobility in ice crystals, and pseudo acids. A review of his latest book entitled *From Strange Simplicity to Complex Familiarity: A Treatise on Matter, Information, Life and Thought* appeared in Issue 52/2013.

Albert Eschenmoser et al. reported on the use of *N,N*-dimethylformamide

dineopentylacetal for the esterification of carboxylic acids with benzyl alcohols. Use of this reagent is advantageous as only one equivalent of the alcohol is required and only volatile by-products are produced in some cases. Eschenmoser's most recent contribution is a grand Review on prebiotic chemistry (*Angew. Chem. Int. Ed.* **2011**, 50, 12412).

The preparation of pure disulfur monoxide was reported by P. W. Schenk and R. Steudel, who reacted thionyl chloride with metal sulfides that act as dehalogenating reagents. The reaction of thionyl

chloride and silver sulfide provided disulfur monoxide in 96 % purity.

H. Rheinheckel published two Communications on triethylaluminum, and reported how an ice-cold mixture of triethylaluminum and carbon tetrachloride exploded when the ice bath was taken away. The explosion was so violent that the hood was destroyed and not a single fragment of glass could be found.

[Read more in Issue 1/1964.](#)