

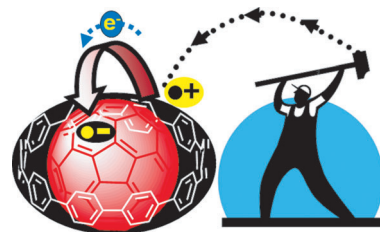
### Single-Wall Nanotube Models

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Properties of Sizeable  
[*n*]Cycloparaphenylenes as Molecular  
Models of Single-Wall Carbon Nanotubes  
Elucidated by Raman Spectroscopy:  
Structural and Electron-Transfer  
Responses under Mechanical Stress

[*n*]Cycloparaphenylenes behave as molecular templates of “perfectly chemically defined” single-wall carbon nanotubes. These [*n*]CPP molecules have electronic, mechanical, and chemical properties in size correspondence with their giant congeners. Under mechanical stress, they form charge-transfer salts, or complexes with fullerene, by one-electron concave–convex electron transfer.

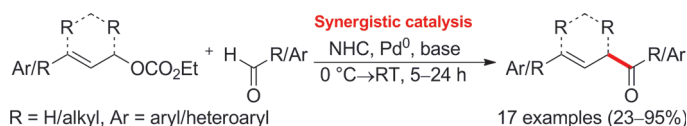


### Synthetic Methods

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Direct Allylation of In Situ Generated  
Aldehyde Acyl Anions by Synergistic NHC  
and Palladium Catalysis



**Efficient access** to  $\beta,\gamma$ -unsaturated ketones is achieved through synergistic NHC and Pd catalysis. The direct, regioselective allylation of in situ generated aldehyde acyl anions starts from easily accessible allylic carbonates and alde-

hydes without any preactivation and proceeds under mild reaction conditions. This synergistic catalysis method adds a new dimension to metal-mediated C allylations.

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## Flashback: 50 Years Ago ...

Which elements was the milky way formed from? The chemical composition of the stars was discussed in a Review by A. Unsöld, who outlined the evolution of stars and the milky way, and the quantitative analysis of stellar spectra to determine elemental abundance in the atmospheres of various stars. The analysis showed that the first stars were formed from an almost spherical cloud of hydrogen. Topics of other Reviews included heat-resistant films and fibers (F. T. Wallenberger) and the synthesis of the corrin system (A. Eschenmoser et al.).

R. Köster et al. from the Max Planck Institute for Coal Research, which celebrates its centenary this year, published two Communications on boron and aluminum radicals. The first report was on the generation of boron and aluminum free radicals by dehalogenation of the corresponding chloro compounds, and the second was on the formation of organic carboranes by radical reactions.

Alan MacDiarmid, who shared the Nobel Prize in Chemistry 2000 with Alan Heeger and Hideki Shirakawa for

their work on conductive polymers, published a Communication on compounds containing the Si–N–B linkage. Compounds such as  $[(\text{CH}_3)_3\text{Si}]_2\text{NBF}_2$  were prepared by reacting lithium bis(trimethylsilylamide) with  $\text{BF}_3$ . Competition was fierce even 50 years ago: an alternative route to these compounds was published by P. Geymayer around the same time in *Angewandte Chemie*.

[Read more in Issue 7/1964.](#)