

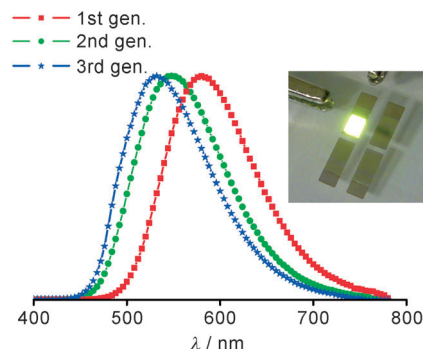
### Dendrimers

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Dendritic Luminescent Gold(III)  
Complexes for Highly Efficient Solution-  
Processable Organic Light-Emitting  
Devices

**Emission control:** Carbazole-based dendritic alkynylgold(III) complexes have been evaluated as phosphorescent emitters in organic light-emitting devices. The energy as well as the bathochromic shift of the emissions can be tuned effectively through a control of the dendrimer generation (see spectra). The optimized devices show high current and external quantum efficiencies of up to  $24.0 \text{ cd A}^{-1}$  and 7.8%, respectively.

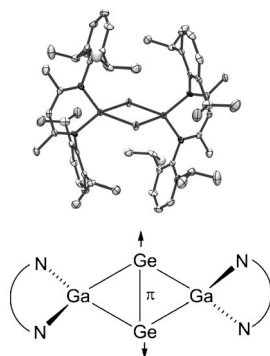


### Metalloid Clusters

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Low-Valent  $\text{Ge}_2$  and  $\text{Ge}_4$  Species Trapped  
by N-Heterocyclic Gallylene



**Much  $\pi$  and no  $\sigma$ :** Quantum chemical calculations showed that the Ge atoms of the  $\text{Ga}_2\text{Ge}_2$  core in  $\text{Ge}_2[\text{Ga}(\text{DPP})]_2$  are not bonded by  $\sigma$  interactions, but rather by a transannular  $\pi$  interaction (see picture). The compound is formed by reduction of  $(\text{PCy}_3)_2\text{GeCl}_2$  with  $\text{Ga}(\text{DDP})/\text{KC}_8$  which also yielded a further product  $\text{Ge}_4[\text{Ga}(\text{DPP})]_2$  with a  $\text{Ge}_4$  tetrahedron ( $\text{DDP} = \text{HC}(\text{CMeNC}_6\text{H}_3-2,6-i\text{Pr}_2)_2$ ).

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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 issue of the year started with a Review by the late Emanuel Vogel on valence isomerization in compounds with strained rings. These rearrangement reactions are driven mostly by relief of strain in energy-rich small or medium-sized rings. Vogel's many achievements are recorded in a personal account of his research career spanning 50 years (*Angew. Chem. Int. Ed.* **2011**, *50*, 4278).

A Review by J. Heyna from the former company Hoechst AG on the topic of

reactive dyes summarized recent progress on dyes that contain vinylsulfonyl groups and react with nitrogenous and cellulose fibers. At that time, high-resolution color photography was not available and so the best way to show the results was to produce an insert bearing samples of dyed fabrics. The colors have still not faded!

The preparation of cyclopentadienylcycloheptatrienylchromium(0) was reported by E. O. Fischer and S. Breit-

schaft. The complex, which was air-sensitive and formed blue solutions in organic solvents, was prepared by reduction of the corresponding chromium(I) cation. Fischer was one of the pioneers of organometallic chemistry and won the Nobel Prize in Chemistry in 1973 for his work on sandwich compounds (see *Angew. Chem. Int. Ed.* **2011**, *51*, 6052 for a recent Essay by H. Werner on the subject).

[Read more in Issue 1/1963](#)