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Editor's Page

A review by John Ellis in the previous issue of *Organometallics* featured the homoleptic metal carbonyl anions. The first members of this class of compounds date back to the 1930s, and in fact, the first one, $[Fe(CO)_4]^{2-}$, may have been prepared (but not isolated) in 1905. In contrast, the homoleptic cationic metal carbonyls, the subject of the present review, are of more recent vintage. In a series of brilliantly conceived and executed studies, the area of metal carbonyl cation chemistry has been developed since 1992 in a collaboration between the authors of the present review, Helge Willner of the Bergische Universität Wuppertal and Friedhelm Aubke of the University of British Columbia and their respective research groups, such that carbonyl cations of 16 metals now are known. As the reader will learn, their preparation is very challenging synthetic chemistry. Nevertheless, much is known about them in terms of solid-state structures, spectroscopy, and bonding.

The cover picture, which shows $[Hg(CO)_2][Sb_2F_{11}]_2$, was kindly provided by the authors. In contrast to the previous cover molecule, $[Hf(CO)_6]^{2-}$, the $[Hg(CO)_2]^{2+}$ cation is shown with its associated counterion since, as the picture shows, there are eight cation−anion interactions.

Now that we have reviewed the homoleptic metal carbonyl anions and cations, it remains to deal with the neutral homoleptic metal carbonyls. This will be done in a future cover molecule essay.

Dietmar Seyferth
Editor

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