

ORGANOMETALLICS

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The Editor's Page

Our cover molecules, ethylzinc iodide and diethylzinc, were the first main-group organometallic compounds to be prepared (if you count Zn, Cd, and Hg as honorary main-group elements), but they were not the first that were isolated and identified as such. When Edward Frankland prepared them in 1849, he was hunting different game—the ethyl radical—and he completely missed them. The first such compound to actually be isolated and identified was dimethylzinc (see Cover Essay, p xxxx). However, the ethylzinc compounds were the first, although unrecognized, and so here they are on our cover. Frankland's impact on organometallic chemistry was significant. Not only did he prepare the first organozinc compounds, but having done so, he realized that organic derivatives of other metals should be accessible. Very quickly, he prepared organic compounds of tin, mercury, and arsenic. This obviously new and fertile area on the borderline of inorganic and organic chemistry attracted other chemists throughout Europe, and organometallic chemistry developed very quickly. Not only did Frankland's discovery of the organozinc compounds initiate a new field of chemistry but it also led to a new way of looking at chemical compounds. Recognizing that there was a definite relationship between the metal and the number of organic groups associated with it, he came up with the concept of valency (the doctrine of atomicity, as he called it), which even before the electron was discovered and recognized as the "glue" that bonds atoms together, played an important part in the development of inorganic and organic chemistry.

We now have presented on our covers the first transition metal–organic compound, the anion of Zeise's salt, the first organometalloidal compound, tetramethyldiarsine, and, on the present cover, the first main-group organometallic compounds. Future covers will bring other molecules that have played an important role in the development of organometallic chemistry. There are many, and we hope that those which we choose and their stories will be of interest to our readers.

Thanks are due to Professor Arnold L. Rheingold for the cover molecules and to Ms. Rhonda Rawlings for the cover design.

Dietmar Seyferth
Editor

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