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Book Review

Toxicants in the Aqueous Ecosystem, by R. Crompton, ISBN 0-471-97272-X (hardback), pp. 382 + xiii, John Wiley & Sons, Chichester, 1997, £75, US\$ 130.

This book deals with a subject not normally considered to be the province of organometallic chemists. However, it is generally recognised that methylmercury and organotin compounds are both soluble in water and biologically dangerous, and for that reason alone we should be aware of what our compounds might do in the environment. Even compounds generally considered benign, such as organosilicon polymers, are now being accused of causing biological damage under certain special circumstances. It is really becoming necessary to understand how compounds behave when released into soil and water, and this book is a good place to start.

The volume has a European emphasis, but that is no real drawback. The corresponding data for other countries are often available from other sources, and methodology is not country-specific. Organometallic compounds are referred to throughout. The first chapter is concerned with defining terms, but already in the second chapter bioaccumulation of lead, copper, zinc, cadmium, and mercury are discussed. The first and the last certainly involve organometallic compounds, and organoarsenic and organotin compounds are also

present in the environment and biologically active. There follow chapters on control regulations and toxicity data, and chapter 6 discusses the identities, concentrations, biological effects, and analytical determinations of organomercury, tin, lead, selenium, and arsenic in both fresh and saline waters.

The rest of the book deals with pollution of sedimentary matter and sea creatures, and, very briefly, potable water and radioactivity. Every chapter is replete with full references and tables of data, and five generous appendices summarise information on metal concentrations in water and on toxicants in various bodies of water and in the environment generally.

This book is a valuable starting point and reference for anyone interested in qualitative and quantitative information on the dispersal of toxic metallic elements and their compounds in the environment. Many of these are in the form of organometallic compounds, and for this reason at least it should be of interest to organometallic chemists.

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