Foreword

Increasing attention has been given to environmental aspects of organometallic compounds since the methylmercury tragedies in the early fifties. Occurrence of alkyllead and butyltin compounds recently reported in water, fish and sediments has rekindled the fear.

The study of organometallic compounds in the environment has opened up new horizons of research, including the development of new analytical techniques for speciation, and studies on structure-toxicity relationships as well as biotransformation mechanisms. All these areas have been fast developing during the last ten years. Since the first ACS symposium on 'Organometals and Organometalloids - Occurrence and Fate in the Environment' in Anaheim, California, in 1978, remarkable advances have been made. Many new techniques have evolved in the speciation of organometals; methylation of inorganic lead has now been confirmed by separate research groups; the use of butyltin compounds has become an environmental issue in Europe and in North America because of their abundant use and potential hazards.

The present special issue comprises papers delivered at the special symposium on 'Organometallic Compounds in the Environment' at the Third Chemical Congress of North America, a joint American—Canadian—Mexican Conference, held in Toronto, 5–11 June 1988, on the following themes: chemical and biological aspects of organometals; environmental occurrence; fate and pathways; methylation processes

and mechanisms; toxicological aspects. Participants from Canada, USA, United Kingdom, Federal Republic of Germany, and People's Republic of China attended, and nineteen papers were presented in a twoday symposium. We sincerely express our thanks to the Environmental Chemistry Division of the Chemical Institute of Canada, the Geochemistry Division and Environmental Chemistry Division of the American Chemical Society for their sponsorship and financial support, and to Longman Group UK Ltd. who publish work based on these papers in the present special issue of Applied Organometallic Chemistry. It is hoped that the special issue will review and summarize the frontier knowledge and current progress of this fascinating research field, and also provide a guide to new researchers.

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