
Foreword

Arsenic, which has long played a traditional role as a major poison, is now being studied by researchers in many fields.

The Japanese incident in 1955, when many infants became poison victims as a result of an accidental mixing of arsenic into powdered milk, is still fresh in the minds of many people, reminding them of the dreadful potential of arsenic toxicity. Later, concern increased about damage to our health from arsenic pollution around refineries; about the safety of drugs, industrial chemicals, and pesticides; and the possible uptake of arsenic compounds by the human body from field crops. Progress in electronics, particularly the likely switch to gallium arsenide semiconductors in the post-silicon era, will require careful evaluation of the potential hazards to humans posed by the use of volatile and non-volatile arsenic compounds and the disposal of arsenic-containing wastes and products.

Apart from this contamination by human action, marine organisms and their microorganisms are now known to accumulate and store arsenic compounds in their bodies at far higher concentrations than terrestrial animals. Tests on sea food must identify the chemical form of the arsenic present and clarify its potential toxicity. This work might also help to eliminate man-made waste products through uptake of arsenic compounds by such organisms, thus helping to purify the environment and also assisting elucidation of *in vivo* detoxification mechanisms for arsenic compounds.

Against this kind of background, arsenic researchers in fields such as medicine, pharmacology, chemistry, biology, engineering, agriculture, and oceanography met for the first time in Japan and discussions took place at the Women's College, Tokai University in Shizuoka, Japan on 3 November 1983, at which the Japanese Arsenic Scientists' Society (JASS) was initiated.

The officers of JASS are as follows. President: Professor Noburu Ishinishi, Kyushu University; Vice-Presidents: Professor Takaeki Kikuchi, Tokyo University of Fisheries, Professor Shozo Toda, Tokyo University; Secretary General: Professor Shigeki Matsuto, Women's College, Tokai University.

The aim of the JASS is to exchange and concert research on arsenic, to promote arsenic science and to contribute to public health and general science. It plans to hold an arsenic symposium once every two years, and also publish an information newsletter. The papers presented at the first meeting (1983) were published as a book, *Arsenic— Chemistry, Metabolism, Toxicity* (Kosei-sha Kosei-Kaku Publishers, 1985). The second and third symposia on arsenic were held on 23 November 1985 and 22 November 1987, respectively.

At the third symposium, at which twenty papers were delivered, three foreign experts, Professor K.J. Irgolic, Professor A.A. Benson, and Dr J.S. Edmonds were invited. The organizing committee of this symposium asked Professor Irgolic to edit the papers for publication in an appropriate journal. On behalf of the organizing committee and JASS, we wish to express our appreciation to Professor Irgolic for this work, and also to Dr P.J. Craig for accepting publication of the papers in *Applied Organometallic Chemistry*.

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