

Foreword



Figure 1 Organizing Committee and guests, Sixth International Symposium on Environmental and Industrial Arsenic

The sixth International Symposium on Environmental and Industrial Arsenic was held on 13 and 14 November 1993 at KSP Hotel, Kanagawa Science Park, Kawasaki, Japan. The symposium was organized by the Japanese Arsenic Scientist's Society (JASS) under the auspices of the St Marianna University School of Medicine, Kawasaki City and Kanagawa prefecture, and with support from 11 academic groups in Japan. The total number of participants at the symposium was about 190; 25 members from nine countries—namely Austria, Belgium, Indonesia, Mexico, the Republic of China, Sweden,

Thailand, the UK and the USA—took part in the symposium while 165 members gathered from the home country. The specialities of the participants were sufficiently comprehensive to have areas covered such as toxicology, occupational health, environmental health, fisheries, pharmacy, engineering and administration.

Today, arsenic is attracting more attention than ever as it opens up a new avenue of use as a potential material for the production of arsenical semiconductors, represented by gallium arsenide. Because arsine gas, a very toxic substance with hemolytic toxicity, is being used for production of these arsenical semiconductors, the semiconductor industry is showing deep concern towards the problems of occupational health and disposal of industrial waste. On the other hand, arsenic is now widely distributed in the natural environment and arsenic poisoning can be found in many parts of the world, such as the Republic of China, Thailand and Mexico where the concentration of arsenic in drinking water is particularly intense. The symposium focused primarily on the issues mentioned above, providing two major themes, 'Metabolism of arsenic compounds in the

Editor's Note

Professor Craig wishes to thank Professor Yamamura and his organizing committee for the opportunity of visiting Japan and attending the Sixth International Symposium on Environmental and Industrial Arsenic at Kawasaki, Japan, 13–14 November 1993. This issue contains papers presented at the Symposium.

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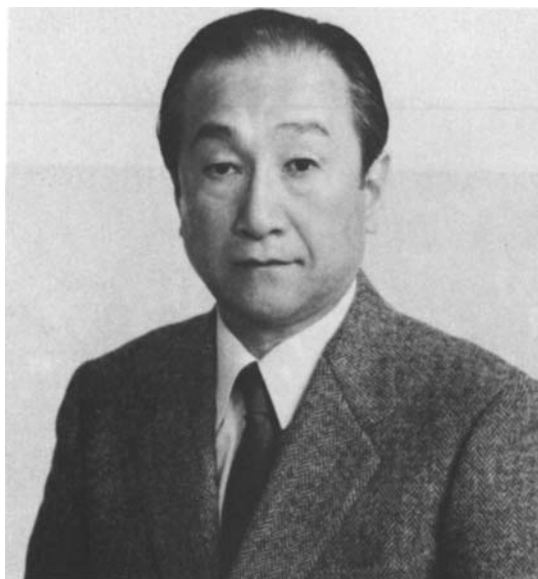


Figure 2 Chairman of the Organizing Committee, Prof. Y. Yamamura, St Marianna University School of Medicine.

environment and *in vivo*' and 'Occupational health issues caused by production of arsenical semiconductors', for participants to take up in their presentations. Special lectures on metabolism of arsenic compounds were given by Professor M. Vahter (Sweden), Professor J. P. Buchet (Belgium), Dr M. E. Cebrian (Mexico), Professor P. J. Craig (UK), Professor K. J. Irgolic (Austria), Professor S. Maeda (Japan) and Dr M. Morita (Japan), while Mr T. Yuki (Japan), Professor J. LaDou (USA), Professor B. A. Fowler (USA), Professor N. Ishinishi (Japan), Professor G. Endo (Japan), Professor Y. Aizawa (Japan) and Dr Y. Aoki (Japan) gave their presentations on the effects of arsenical semiconductors *in vitro* and *in vivo*. Other than these, special lectures were given by Professor Y. Yamamura (Japan) on toxicity and metabolism of alkylarsines and by Professor F. J. Lu (Republic of China) on blackfoot disease induced by humic acid or arsenic. Other presentations were given by means of poster sessions in which 22 delegates from Japan, the Republic of China, Thailand and the USA addressed the results of their studies. Overall, the symposium was able to bring out significant results in the following areas:

- (1) mechanism of arsenic methylation in mammals;
- (2) mechanism of methylation in the natural environment;
- (3) effects of gallium arsenide *in vitro* and *in vivo*;
- (4) studies of epidemiological research in the semiconductor industry in the USA;
- (5) actual conditions in arsenic poisoning globally;
- (6) studies of the causes of blackfoot disease.

These fruits of the symposium suggested a course of direction to arsenical researchers in conducting their studies as the symposium threw light on the importance of the following subjects:

- Effects of arsenical semiconductors *in vitro* and *in vivo*.
- Setting up of a biomarker for detection of arsenic.
- Surveying the actual conditions of blackfoot disease worldwide.

In my view, a symposium of this kind provided more opportunities for arsenic researchers to exchange views with each other so that they could share the results of their studies on a global level which of course is very worthwhile.

The success of the Sixth International Symposium on Environmental and Industrial Arsenic was brought about owing to the efforts of the participants who presented their excellent lectures and participated actively in the discussions, and to the efforts of the organizing committee members who put their hearts and souls into the management of the symposium. In particular, my special thanks to Professor Bruce A. Fowler (University of Maryland, USA) who kindly gave us the most helpful advice with regard to the management of the symposium. Lastly I would like to mention that the publication of the proceedings of the symposium was made possible through the courtesy of Professor Peter J. Craig, the general editor of the journal *Applied Organometallic Chemistry*, and with the cooperation of Professor Shigeru Maeda (Kagoshima University, Japan) to whom I am more than happy to extend my sincere gratitude.

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