Trace Element Analytical Chemistry in Medicine and Biology

Volume 2

Editors
Peter Brätter · Peter Schramel

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Proceedings of the second International Workshop
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April 1982

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Preface

Analytical chemistry as applied to the determination of trace constituents, especially trace elements, has become an indispensable part of biomedical research. As already demonstrated two years ago, at the first International Workshop on "Trace Element Analytical Chemistry in Medicine and Biology", there is an urgent need for greater interaction and transfer of scientific knowledge between the analytical chemist, who provides the data and the biochemist or clinician, who uses the data.

As a means of satisfying this need for greater interdisciplinary interactions the GSF (Gesellschaft für Strahlen- und Umweltforschung mbH) and the Working Group on "Trace Elements in the Life-Sciences" of the AGF (Arbeitsgemeinschaft der Großforschungseinrichtungen) organized the 2nd International Workshop.

The specific aim of this meeting was to stimulate some discussion on how to estimate the requirements of essential trace elements, their availability in various diets and the possible interelement effects that affect their absorption and utilization. In addition, the effects of subclinical and chronic deficiency of trace elements, the possibilities that exist in the determination of the trace element status and the current advances in trace element analytical chemistry were among the topics discussed.

This workshop was attended by 174 experts from 27 countries. About 130 papers were submitted for inclusion into the confe-

rence program and 92 contributions were accepted for oral or poster presentation. However, the acceptance of such a large number of contributions led to a reduction in the presentation time and limited the time for personal exchanges. It is therefore a future aim of the conference organisers to limit the number of papers accepted and to concentrate on a few major topics in order to leave more time for valuable discussions.

The present proceedings volume contains the invited lectures, papers and posters. In order to ensure rapid publication, the manuscripts were not extensively edited; in addition, the discussion after each session was summarized from the tape recording.

We hope that these contributions will not only be valuable aids to the analytical chemists and life scientists in their separate endeavours but also a source of information that will enable both groups of workers to appreciate the problems encountered in various disciplines. The editors would like to thank all participants who contributed by presenting either a paper or a poster. Our thanks are also due to the chairpersons of the individual sessions and to all who contributed in the valuable discussions.

November 1982

P. Brätter
P. Schramel

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SESSION I

NUTRITIONAL REQUIREMENTS

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