

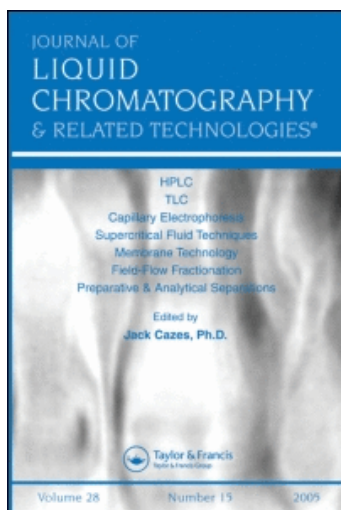
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### Applications of Atomic Spectrometry to Regulatory Compliance Monitoring, 2nd Ed.

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**APPLICATIONS OF ATOMIC SPECTROMETRY TO REGULATORY COMPLIANCE MONITORING**, 2nd Ed., S. W. Jenniss, S. A. Katz, R. W. Lynch. Wiley-VCH, New York, 1997, 247 pp., \$100.00

The authors state in the Preface that, "Human exposure to and intake of trace metals are areas of high activity from the toxicological as well as the nutritional perspectives. State and federal public health and environmental protection agencies require or at least recommend monitoring the occupational, community, and domestic environments for toxic trace metals. Some federal statutes requiring compliance monitoring are the Occupational Health and Safety Act of 1970 (PL 91-596), the Clean Air Act of 1970, the Safe Drinking Water Act of 1972 (PL 93-523), the Resource Conservation and Recovery Act of 1976 (PL-94-580), the Clean Water Act of 1977 (PL 95-217), the Water Quality Act of 1987 (PL 100-4), and the Nutritional Labeling and Education Act."

*"Applications of Atomic Spectrometry to Regulatory Compliance Monitoring* is a sequel to *Regulatory Compliance Monitoring by Atomic Absorption Spectroscopy* (Verlag Chemie International, 1983). While atomic absorption spectrometry (AAS) remains a popular technique for quantifying the many metallic constituents of environmental samples, inductively coupled plasma-atomic emission spectrometry (ICP-AES) and inductively coupled plasma-mass spectrometry (ICP-MS) have been adopted and are now approved for this purpose. The sequel is necessitated by this and other significant changes made during the last decade in the procedures required and/or recommended by regulatory agencies in the United States for the collection, preservation, storage, and preparation of samples and for the quantification of the metallic contaminants in these samples. Such regulatory bodies include the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration."

This book is well written in a clear and easy fashion to follow. It is a comprehensive guide to all methods of atomic spectrometry currently recognized by regulatory agencies for the monitoring of metallic contaminants. It is an indispensable working resource for analytical chemists and spectroscopists responsible for generating scientifically and legally defensible laboratory results for regulatory compliance.

The book answers many questions regarding material selection, preparation, preservation, analysis, and the testing equipment itself. It begins with a thorough explication of the three major spectrometric methods: atomic absorption, inductively coupled plasma atomic spectrometry, and inductively coupled plasma mass spectrometry. Each method is described in terms of its scope of sensitivity, theoretical principles, material and equipment requirements, interferences and their corrections, and calibration. Following chapters provide

detailed accounts of sample collection, preservation, and preparation; concentration and separation methods; and laboratory analysis methods for compliance monitoring of air, water, wastes, animal tissues, and food.

The authors also provide helpful hints and guidelines on how to organize a laboratory; plan projects; report results; communicate with clients, regulators, and the public; market services; and more.

This book is recommended to all those involved in regulatory compliance monitoring of metallic contaminants and to analytical chemists interested in quantifying trace metals in different matrices.

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Editor  
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