Available online at www.sciencedirect.com
SCIENCE DIRECT®
Journal of Chromatography A, 1050 (2004) 1
JOURNAL OF CHROMATOGRAPHY A
www.elsevier.com/locate/chroma

Foreword

In the early days of polarographic analysis, 30–40 years ago, in the opinion of many electrochemists, there was no need anymore for separation or purification methods, due to the high selectivity of the element selective techniques. Later, many mass spectroscopists suffered from the same illusion. Almost all of them were wrong. With real world samples, interferences and matrix effects have a tendency to destroy the beautiful pictures that can be drawn with pure standards alone. Thus, combinations with chromatographic methods are required almost always, either by high-resolution separation methods or by sample purification, e.g. on simple solid-phase extractors, depending on the sample and the analysis. In addition, modern element selective determinations, particularly in bioanalysis, include the chemical form of an element, i.e. chemical speciation, requiring some separation method prior to detection. The large difference in toxicity between different forms of arsenic should suffice for illustration.

Among the various instrumental methods available today, mass spectrometric techniques are becoming more and more dominating. However, in order to obtain an overview of the situation of element selective detection today, we asked a number of scientists to contribute to a special issue on this subject. Not all had the time or the opportunity to participate, but several of the world's leading researchers in the field wrote review or research articles for this issue. The Editor and the *Journal of Chromatography A* thank you all for your contributions.

Oslo, Norway Tyge Greibrokk

doi:10.1016/j.chroma.2004.08.035