



## Foreword

## Mass Spectrometry: Innovation and Application

In September and October 2002, Volumes 970 and 974 of *Journal of Chromatography A* were published as Special Volumes entitled *Mass Spectrometry: Innovation and Application*. After having briefly discussed, in the Foreword to Part I, the rapidly growing importance of mass spectrometry for detection, identification and/or confirmation, and quantification purposes – especially when combined with chromatographic techniques – we concluded by citing as a final example of the impact of MS in current analytical research “we have agreed to attempt a ‘repeat performance’ next year!”. And, indeed, here we are again – admittedly somewhat later than expected, but having met with essentially the same enthusiastic response from the invited scientists as on the first occasion. Also in this instance the number of reviews and regular papers received was so large that publication in two issues is required, the present Volume 1058 and a further volume to be published early in 2005.

Not unexpectedly, the various trends mentioned in our Foreword two years ago, are still there today. Nevertheless, there is a distinct move towards more sophisticated instrumentation – specifically time-of-flight mass spectrometers with their high acquisition rates (GC) or impressive mass accuracy (LC and GC). In addition, triple-quadrupole instruments increasingly replace their single-stage predecessors, and the merits of ion-trap mass spectrometers are clearly be-

ing recognised for both LC and GC applications. It is also true that more attention is devoted today to topics such as ion-suppression problems, reliable quantification and the use of adequate protocols for analyte identification and identity confirmation. Many further examples of innovation – with regard to both instrumentation, sample preparation, and data handling and interpretation – and application – for a wide variety of analyte/sample combinations, both at the trace and ultra-trace level – can be found in this, and the next, Special Volume. Indeed, because of the clear link between the papers published in Volumes 970 and 974, and those presented now, we have decided to maintain the original title, *Mass Spectrometry: Innovation and Application*, and to make the present volumes into Parts III and IV of the series.

Actually, we have already gone one step further, and agreed to continue our cooperation for a third (and final?) time. On that occasion we intend to use the same general approach as for Parts I–IV, but to remedy one deficiency and devote more attention to a separation technique too much neglected by us so far, capillary electrophoresis. After all, one should give due attention to all the keywords in the subtitle of the journal!

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