

## Book Review

**Handbook of GC/MS**

Hans-Joachim Hübschmann, Wiley–VCH, Weinheim, 2001, xvi + 591 pp., ISBN: 3-527-30107-4, \$95.00

The coupling of gas chromatography with mass spectrometry is probably the oldest hybrid technique in instrumental analysis. Capillary gas chromatography is today the most important process in organic chemical analysis for the determination of individual substances in complex mixtures. Mass spectrometry as the detection procedure gives the most meaningful data, arising from the direct determination of the substance molecule or of fragments. The complete integration of mass spectrometry and gas chromatography into a single GC/MS system has shown itself to be synergistic in every respect.

In *Handbook of GC/MS* the instrumental aspects of sample preparation, gas chromatography separation and mass spectrometry are described carefully and comprehensively, including the most recent developments. A comparison with other common methods of detection is also included. The particular features of GC/MS coupling are then discussed and finally a large number of selected examples are given, showing how far this method has penetrated the field of analysis in environmental chemistry and medicine. After the chapter on sample preparation, in which the

versatile possibilities of various extraction methods are described, injection techniques are described. The book then turns to mass spectrometry, explaining the most important terms with great clarity and concentrating on the most important aspects. The final chapter contains examples of applications, a large number of which come from analysts in industry, research institutes and universities. This handbook also features a glossary of terms and a substance index that helps the reader find information for his particular analytical problem.

This is the first comprehensive reference work for GC/MS. It offers broad coverage, from sample preparation to the evaluation of MS-data, including library searches. Fundamentals, techniques, and applications are described. The author presents his experience from numerous user workshops which he has organised. This is a thoroughly revised and updated English edition based on a highly successful German edition.

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