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On-Column Injection in Capillary Gas Chromatography - Konrad Grob - 1991

Further Experiences with a Home-made Liquid On-column Injection for Capillary Gas Chromatography - A. T. G. Steverink - 1986

Classical Split and Splitless Injection in Capillary Gas Chromatography - Konrad Grob - 1988

Trace Analysis by Cold On-column Injection Capillary Gas Chromatography - Richard Franklin Arrendale - 1988

GC Inlets - Matthew S. Klee - 1990-02-01

Sample Introduction in Capillary Gas Chromatography - Pat Sandra - 1985
Using Large Sample On-column Injection Chromatography - Pat Sandra - 1985

Split and Splitless Injection in Capillary Gas Chromatography - Konrad Grob - 1993

Split and Splitless Injection in Capillary Gas Chromatography - Konrad Grob - 1993


Direct Trace Gas Chromatographic Analysis Using Large Sample On-column Injection with Bonded Phase Open Tubular Capillary Columns - Fusheng Wang - 1983

Direct Trace Gas Chromatographic Analysis

with Bonded Phase Open Tubular Capillary Columns - Fusheng Wang - 1983

The Analysis of Printing Ink Matrices Using High Temperature, High Resolution Capillary Gas Chromatography with Cold-on-column Injection - - 1993

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Split and Splitless Injection for Quantitative Gas Chromatography - Konrad Grob - 2008-11-21

This comprehensive and unique handbook of split and splitless injection techniques has been completely revised and updated. This new edition offers: - New insights concerning sample evaporation in the injector - Information about matrix effects - A new chapter on injector design
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The real processes within the injector are for the first time visualized and explained by the CD-ROM included in the book. Furthermore the reader will understand the concepts of injection techniques and get a knowledge of the sources of error. The handbook also includes many practical guidelines. From reviews of former editions: "This substantial book is on injection techniques alone, which demonstrates this can have many pitfalls no one should be allowed to direct a laboratory doing quantitative analysis by GC without first being thoroughly familiar with this book " The Analyst "This is a detailed reference volume filled with practical suggestions and techniques for managing split and splitless injection in the day-to-day world of the working gas chromatographer. It will be useful for anyone who must work hands-on with GC." Journal of High Resolution Chromatography

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Open Tubular Column Gas Chromatography in Environmental Sciences - Francis Onuska - 2012-12-06

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Analytical Chemistry for Technicians - John Kenkel - 2002-10-29
Surpassing its bestselling predecessors, this thoroughly updated third edition is designed to be a powerful training tool for entry-level chemistry technicians. Analytical Chemistry for chemistry and instrumental analysis principles and how to apply them in the real world. A unique feature of this edition is that it brings the workplace of the chemical technician into the classroom. With over 50 workplace scene sidebars, it offers stories and photographs of technicians and chemists working with the equipment or performing the techniques discussed in the text. It includes a supplemental CD that enhances training activities. The author incorporates knowledge gained from a number of American Chemical Society and PITTCON short courses and from personal visits to several laboratories at major chemical plants, where he determined firsthand what is important in the modern analytical laboratory. The book includes more than sixty experiments specifically relevant to the laboratory technician, along with a Questions and Problems section in each chapter. Analytical Chemistry for Technicians, Third Edition continues to offer the nuts and bolts of
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Chromatography - John K. McFarlane - 1987

Choosing the right column is key in Gas Chromatography. Gas Chromatography (GC) is the most widely used method for separating and analyzing a wide variety of organic compounds and gases. There have been many recent advancements in both packed column and capillary column GC. With numerous options and considerations, selecting the right column can be complicated. This resource provides essential guidance for scientists and technicians, including: Methods of choosing both capillary and packed columns Selection of dimensions (column length, I.D., film thickness, etc.) and type of column Guidelines for proper connections of the column to the injector and detector United States Pharmacopeia and National Formulary chromatographic methods ASTM, EPA, NIOSH, and OSHA column selection specifications.
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**Columns for Gas Chromatography** - Eugene F. Barry, PhD - 2007-04-27

This book offers a comprehensive survey on the possibilities, applications, and new developments of capillary gas chromatography for the complete range of examinations of food and raw material. It is intended for food scientists/chemists, food technologists, and nutritionists.

**Capillary Gas Chromatography in Food Control and Research** - R. Wittkowski - 2020-12-18
This book offers a comprehensive survey on the possibilities, applications, and new developments of capillary gas chromatography for the complete range of examinations of food and raw material. It is intended for food scientists/chemists, food technologists, and nutritionists.

Analysis of Organic Micropollutants in Water - G. Angeletti - 2012-12-06
In this book, the proceedings of the Third European Symposium on "Analysis of Organic Micropollutants in Water", held in Oslo (Norway), from 19 to 21 September 1983, are presented. The symposium was organized within the framework of the Concerted Action COST 64b bis *, which has the same name and is included in the Third R&D Programme on Environment of the Commission of the European Communities - Indirect and Concerted Actions - 1981 to 1985. The aim of the symposium was to review the progress and results achieved during the past two years, since the Second symposium, held in Killarney (Ireland) in November 1981. The programme of the symposium consisted of review papers covering different areas related to the analysis of the organic pollutants in water, including sampling and sample treatment, gas and liquid chromatography, mass spectrometry and specific analytical problems for some types of compounds. We think that the volume gives a rather complete overview of these activities in Europe. Moreover, the paper presented by D. Hunt reviews the development of the new technique mass spectrometry - mass spectrometry in the United States of America. Some special sessions concerned the presentation of original contributions in form of poster, the extended versions of which are published in this volume.

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**Handbook of GC/MS** - Hans-Joachim Hübschmann - 2009

The most important advantage [of this text] is that it has not only been written for the practitioner, but also the analyst who wishes to familiarize himself with any or all the aspects of GC/MS' - AFS - Advances In Food Sciences. This is an updated edition of its bestselling predecessor, Handbook of GC/MS: Fundamentals and Applications that offers broad coverage of the subject, from sample preparation to the evaluation of MS-Data. This edition boasts several new chapters, including Automated Solvent Extraction (ASE), Hyphenation with Isotope Ratio MS, and the TOF-technique.
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Chromatography for the Analysis of Lipids - Eugene W. Hammond - 1993-02-09
Chromatography for the Analysis of Lipids focuses on the three main chromatographic techniques for analyzing lipids: thin layer (TLC), gas liquid (GLC), and high performance liquid chromatography (HPLC). It also covers supercritical fluid chromatography (SFC). Applications for each chromatographic technique are discussed with emphasis on their quantitative aspects and suitability for use, and variations in technique are covered in detail. Figures are used throughout the book to illustrate typical results, which shows end points that can be compared in your own laboratory. This important technical book will be an excellent workbench companion for chromatographers, food scientists, lipid chemists, analytical chemists, and others who use chromatographic techniques for lipid analysis.

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**Analytical Gas Chromatography** - Walter Jennings - 1997-09-25
Gas chromatography remains the world's most widely used analytical technique, yet the expertise of a large proportion of chromatographers lies in other fields. Many users have little real knowledge of the variables in the chromatographic process, the interaction between those variables, how they are best controlled, how the quality of their analytical results could be improved, and how analysis times can be shortened to facilitate the generation of a greater number of more reliable results on the same equipment. An analyst with a
on "Variables" has been completely rewritten. The chromatographic principles and practice, however, can often improve the quality of the data generated, reduce the analytical time, and forestall the need to purchase an additional chromatograph or another mass spectrometer. The Second Edition of Analytical Gas Chromatography is extensively revised with selected areas expanded and many new explanations and figures. The section on sample injection has been updated to include newer concepts of split, splitless, hot and cold on-column, programmed temperature vaporization, and large volume injections. Coverage of stationary phases now includes discussion, applications, and rationale of the increased thermal and oxidative resistance of the newly designed silarylenepolysiloxane polymers. Conventional and "extended range" polyethylene glycol stationary phases are examined from the viewpoints of temperature range and retention index reliabilities, and the chapter ways in which carrier gas velocity influences chromatographic performance is considered in detail, and includes what may be the first rational explanation of the seemingly anomalous effects that temperature exercises on gas viscosity (and gas flow). The practical effects that these changes cause to the chromatography is examined in pressure-, flow-, and "EPC"-regulated systems. "Column Selection, Installation, and Use" has been completely rewritten as well. The accuracy of the Van Deemter plots has been greatly enhanced; a new program corrects for the first time for the changes in gas density and diffusion that occur during the chromatographic process because of solute progression through the pressure drop of the column. A new section has also been added on meeting the special requirements of columns destined for mass spectral analysis. The chapter on "Special Applications" has been expanded to include considerations of "selectivity tuning," of fast
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**Modern Practice of Gas Chromatography** -
Robert L. Grob, PhD - 2004-08-04
The bible of gas chromatography-offering
everything the professional and the novice need
to know about running, maintaining, and
interpreting the results from GC Analytical
chemists, technicians, and scientists in allied
disciplines have come to regard Modern Practice
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in gas chromatography. In addition to serving as
an invaluable reference for the experienced
practitioner, this bestselling work provides the
beginner with a solid understanding of gas
chromatographic theory and basic techniques.
This new Fourth Edition incorporates the most
recent developments in the field, including
entirely new chapters on gas
cromatography/mass spectrometry (GC/MS);

assistance; high speed or fast gas
cromatography; mobile phase requirements: gas
system requirements and sample preparation
techniques; qualitative and quantitative analysis
by GC; updated information on detectors;
validation and QA/QC of chromatographic
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**Glass Capillary Gas Chromatographic Analysis for Trace Amounts of Cyclopropenoid Fatty Acids** - Daberath Ryan - 1987

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Gas Chromatography - C. F. Poole - 2012
Gas Chromatography provides a contemporary picture of the field, including fundamentals and practical applications, in a single source.

This is an easily-accessible two-volume encyclopedia summarizing all the articles in the main volumes Kirk-Othmer Encyclopedia of Chemical Technology, Fifth Edition organized alphabetically. Written by prominent scholars from industry, academia, and research institutions, the Encyclopedia presents a wide scope of articles on chemical substances, properties, manufacturing, and uses; on industrial processes, unit operations in chemical engineering; and on fundamentals and scientific subjects related to the field.
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The Essence of Chromatography - C. F. Poole - 2003
The Essence of Chromatography presents a comprehensive survey of modern chromatography and is intended as a suitable text for graduate level courses in the separation sciences and as a self-study guide for professional chromatographers wishing to refresh their background in this rapidly expanding field. This title is an effective replacement for Chromatography Today, written by the same author with Salwa K. Poole, which is considered to be one of the definitive chromatographic texts of the last decade. Its format is modular, with extensive cross-references to permit rapid location of related material using different separation concepts. Important features are extensive tabulation of extensive bibliography to the most recent literature. · Comprehensive and authoritative coverage of chromatographic techniques · Contains extensive coverage of recent literature on this subject · Ideal text for graduates and suitable for professional chromatographers

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**Advances in Chromatography** - J. Calvin Giddings - 1989-06-12
The Advances in Chromatography series provides the most up-to-date information on a wide range of developments in chromatographic methods and applications. For more than five decades, scientists and researchers have relied upon this series to cover the state of the art in separation science. With contributions from among the leading researchers around the world, this respected series continues to present timely, cutting-edge reviews in the fields of bio-, analytical, organic, polymer, and pharmaceutical chemistry. With contributions from leading authorities, this is an enriching guide for analytical, organic, inorganic, clinical, and physical chemists; chromatographers; biochemists and biotechnologists; scientists in Academia, government, hospitals and industry in both research and quality control. This is Volume 29 originally published in 1989.
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**Gas Chromatography/Mass Spectrometry** - Hans-Ferdinand Linskens - 2012-12-06

Modern Methods of Plant Analysis When the handbook Modern Methods of Plant Analysis was first introduced in 1954 the considerations were: 1. the dependence of scientific progress in biology on the improvement of existing and the introduction of new methods; 2. the difficulty in finding many new analytical methods in specialized journals which are normally not accessible to experimental plant biologists; 3. the fact that in the methods sections of papers the description of methods is frequently so compact, or even sometimes so incomplete that it is considerations still stand today. The series was highly successful, seven volumes appearing between 1956 and 1964. Since there is still today a demand for the old series, the publisher has decided to resume publication of Modern Methods of Plant Analysis. It is hoped that the New Series will be just as acceptable to those working in plant sciences and related fields as the early volumes undoubtedly were. It is difficult to single out the major reasons for success of any publication, but we believe that the methods published in the first series were up-to-date at the time and presented in a way that made description, as applied to plant material, complete in itself with little need to consult other publications. Contributing authors have attempted to follow these guidelines in this New Series of volumes.

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Chromatography - E. Heftmann - 2004-04-16
Chromatography has emerged as the most important and versatile analytical method. The book is not only an updated version of Heftmann's classical text, but it covers areas of future importance, such as microfluidics and computer resources. Under his experienced guidance, authorities in each field have contributed their practical experience to an integrated treatment of modern micro analysis.
Contributed their practical experience to an separation methods is explained and the technical aspects are illustrated. It includes the theory of gas and liquid chromatography as well as specific chromatographic techniques, such as size-exclusion, planar, ion, and affinity chromatography as well as various electrokinetic separation techniques. Microfluidics are covered for the first time and useful sources of analytical instruments are listed and evaluated. 1. Each chapter written by an authority 2. Thorough treatment of the theoretical basis of separation methods 3. Practical guide for performing analyses.

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