

# A Guide to the HPLC Literature

VOLUME 2: 1980—1981

HENRI COLIN  
ANTE M. KRSTULOVIC  
JEAN-LOUIS EXCOFFIER  
GEORGES GUIOCHON

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# Preface

During the past decade, high-performance or high-pressure liquid chromatography (HPLC) has been experiencing a phenomenal growth in popularity, as evidenced by the rapidly increasing number of publications dealing with the various aspects of this technique.

HPLC has largely contributed to the development of pharmacology, biology, food research, and the biomedical sciences, as demonstrated by the growing number of meetings dedicated to this topic and by the proliferation of companies offering equipment, products, or services for HPLC users. It is becoming highly difficult to follow the current literature, particularly in the area of applications.

After having performed several tedious, lengthy, and not totally successful literature searches for our own needs, or for those of our colleagues mainly in the biological sciences, we decided to make this effort once and for all and have the whole literature organized in a way that would allow easy retrieval of the papers dealing with a particular area of interest.

This collection of references is dedicated to our 10,000 co-workers without whose contributions it could not have been written. We hope it will prove helpful to those who are still thinking, in spite of the examples to the contrary, that it is easier and faster to find an application already described in the literature, rather than to repeat the work that has already been done.

The first three volumes of this series include references covering the period between 1966 and 1982 inclusive. The citations for the above period are assembled in three volumes: Volume 1 covers the period 1966–1979, Volume 2, 1980–1981, and Volume 3, 1982.

Because of the incredibly high total number of publications dealing with all aspects of HPLC, we found it necessary to limit our choice only to those HPLC modes most commonly used; thus the articles on reversed- and normal-phase chromatography represent the essential part of the references cited. Articles dealing with gel permeation, ion exchange, and affinity chromatography are not included. Likewise, thin-layer chromatography (TLC) is not covered completely: included are only those articles that deal with the correlation between TLC and HPLC, as well as those of fundamental importance. Articles on ion chromatography (IC), very fast chromatographic analyses, and supercritical fluid chromatography will appear in Volume 4. This is justified by the fact that these topics are of rather recent interest and there were practically no references prior to 1980–1981.

## PREFACE

The majority of articles were classified only on the basis of the key words as they appear in the titles. A certain number of fundamental articles which we were familiar with are also classified on the basis of the actual content. In the course of this project we were stricken by the tremendous importance of the titles. Accordingly, we want to stress that they should be as informative as possible, while still being reasonably succinct. Because of the incompleteness of the titles of certain publications and, either the impossibility to obtain the articles, or more importantly, to read all of them, it is possible that some citations have escaped our search. This is inevitable if the titles are not complete and explicit enough, regardless of the sophistication of the search system.

Based on the subject topic, the references are presented in 7 sections, 56 chapters, and 87 categories. The format of the references is illustrated with the following example:

03-81-0009(0133)

RECYCLING IN LIQUID CHROMATOGRAPHY USING MICROBORE COLUMNS

Kucera, Paul; Manius, Gerald

Qual. Control Dep. Hoffmann-La-Roche Inc. Nutley, USA NJ 07110

J. Chromatogr.; (81) P 1-12; Vol 219; No 1

The numbers contain the following information:

03 : chapter number

81 : year of publication

0009 : reference number in a particular year (1981 in this case)

0133 : reference number in a particular chapter

Each citation contains the *title*, *author(s) name(s)*, *affiliation*, *journal title*, *year of publication*, the *first and last pages*, and *journal volume and number* (when indicated). Only languages other than English are indicated.

Sections containing a large number of references (Amino Acids, Biogenic Amines, Food and Food Additives, Metals and Metalloids, Lipids, Nucleic Acid Components, Organic Acids, Peptides, Steroids, Antibiotics, Various Organics, Various Pharmaceuticals, and Vitamins) are indexed. Indexes for these categories appear at the end of each volume and contain the alphabetically listed key words, as they appear in the titles, or abbreviated words (when the original key words were too long). Compounds containing a large number of substituents were listed as the parent compound "deriv." The meaning of the numbers appearing on the right-hand side of each key word in the index is illustrated with the following example:

CREATININE (80), 32, 102

(80) indicates the year of publication

## PREFACE

32 and 102 are reference numbers in a particular year (1980 in this case).

The chapter titles are usually self-explanatory. Several chapter headings with broader, unspecific titles deserve some comments. For example, the section on Hydrodynamics contains articles dealing with the different plate height models, the role of column length, the particle diameter, as well as the hydrodynamic optimization of these parameters. The section Other Detectors includes the articles concerned with detection devices other than UV/VIS spectrophotometry, fluorimetry, electrochemistry, and mass spectrometry. It should be pointed out; however, that the chapters pertaining to the separations of various classes of compounds also contain "related compounds." For example, the chapter on Nucleic Acid Components contains articles dealing not only with nucleotides, poly- and oligonucleotides, nucleosides, and bases, but also nucleoside analogs and various drugs with the purine and pyrimidine structures. Likewise, the section on Biogenic Amines (not including polyamines) also contains articles dealing with the metabolites of these compounds, the chapter on Steroids contains bile acids, and the chapter on Lipids includes prostaglandins.

The authors thank Mrs. Josiane Coyac of the Central Library at École Polytechnique for her helpful assistance in the course of this project.

HENRI COLIN  
ANTE M. KRSTULOVIC  
JEAN-LOUIS ENCOFFIER  
GEORGES GUIOCHON

*Palaiseau, France  
June 1984*

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# SECTION 1



# CHAPTER 1.1

# Books

--- 1980 ---

- 01-80-0001 (0001)  
THE LDC BASIC BOOK ON LIQUID CHROMATOGRAPHY  
Schram, Steven B.  
USA  
BOOK : (80) P 114 pp.; Publisher: Laboratory Data Control, Riviera Beach, Fla.
- 01-80-0002 (0002)  
CROMATOGRAFIA LIQUIDA AD ALTA PRESSIONE HIGH-PRESSURE LIQUID CHROMATOGRAPHY  
Savola, Franco  
Italy  
BOOK : (80) P 230 pp.; In Ital; Publisher: Organ. Ed. Med. Farm., Milav, Italy
- 01-80-0003 (0003)  
ZHIDKOSTNAYA KHROMATOGRAFIYA PRI VYSOKIKH DAVLENIYAKH  
HIGH-PRESSURE LIQUID CHROMATOGRAPHY  
Enaelhardt, Heinz  
USSR  
BOOK : (80) P 245 pp.; In Russ; Translated from Eng; Publisher: Mir, Moscow, USSR
- 01-80-0004 (0004)  
PRACTICAL LIQUID CHROMATOGRAPHY - AN INTRODUCTION  
Yost, R. W.; Ettre, L. S.; Conlon, R. D.  
Can.  
BOOK : (80) P 255 pp.; Publisher: Perkin-Elmer Canada, Montreal, Que.
- 01-80-0005 (0005)  
CHROMATOGRAPHIC SCIENCE, VOL. 13: LIQUID CHROMATOGRAPHY OF POLYMERS AND RELATED MATERIALS, PT. 2  
Cazes, Jack; Delamare, Xavier; Editors  
USA  
BOOK : (80) P 262 pp.; Publisher: Dekker, New York, N. Y.
- 01-80-0006 (0006)  
HIGH-PRESSURE LIQUID CHROMATOGRAPHY AND THERAPEUTIC DRUG MONITORING  
Gerson, Benjamin  
USA  
BOOK : (80) P 300 pp.; Publisher: Am. Soc. Clin. P. ologists, Chicago, Ill.
- 01-80-0007 (0007)  
CLINICAL RESEARCH CENTER SYMPOSIUM, NO. 1: CURRENT DEVELOPMENTS IN THE APPLICATIONS OF HPLC, GC AND MS  
Lanson, A. M.; Lim, C. K.; Richmond, W.; Editors  
BOOK : (80) P 301 pp.; Publisher: Academic Press, London, Engl.
- 01-80-0008 (0008)  
HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY: ADVANCES AND PERSPECTIVES, VOL. 1  
Horvath, Csaba; Editor  
USA  
BOOK : (80) P 330 pp.; Publisher: Academic Press, New York, N. Y.
- 01-80-0009 (0009)  
HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY: ADVANCES AND PERSPECTIVES, VOL. 2  
Horvath, Csaba; Editor  
USA  
BOOK : (80) P 340 pp.; Publisher: Academic Press, New York, N. Y.

# BOOKS

1981

01-80-0010 (0010)

KOATSU EKITAI KUROMATOGURAFUI, SONO SEIKAGAKU TO IKAGAKUE NO OYO  
HIGH-PRESSURE LIQUID CHROMATOGRAPHY, ITS USE IN BIOCHEMISTRY AND MEDICAL  
CHEMISTRY

Ando, Junpei; Ariji, Takashi

Japan

BOOK ; (80) P 410 pp.; In Japan; Publisher: Tokyo Kagaku Dojin, Tokyo, Japan

01-80-0011 (0011)

PHYSIKALISCH-CHEMISCHE TRENN UND MESSMETHODEN, BD. 17:  
POLYMERCHARAKTERISIERUNG DURCH FLUESSIGKEITSCROMATOGRAPHIE PHYSICO-CHEMICAL  
SEPARATION AND MEASURING METHODS, VOL. 17: POLYMER CHARACTERIZATION THROUGH  
LIQUID CHROMATOGRAPHY

Gloeckner, Gottfried

Ger. Dem. Rep.

BOOK ; (80) P 427 pp.; In Ger; Publisher: Dtsch. Verlag Wiss., Berlin, Ger.

Dem. Rep.

01-80-0012 (0012)

FLUORESCENCE DETECTION IN LIQUID CHROMATOGRAPHY

Williams, A. T. Rhys

Engl.

BOOK ; (80) P 86 pp.; Publisher: Perkin-Elmer, Beaconsfield, Engl.

--- 1981 ---

01-81-0001 (0013)

CHROMATOGRAPHIC METHODS SERIES: CHEMICAL REACTION DETECTORS FOR RAPID LIQUID  
CHROMATOGRAPHY. PRINCIPLES AND USES IN TRACE ANALYSIS

Schwedt, Georg

Fed. Rep. Ger.

BOOK ; (81) P 213 pp.; In Ger; Publisher: Huethig, Heidelberg, Fed. Rep. Ger.

01-81-0002 (0014)

CHROMATOGRAPHIC METHODS SERIES: OPTIMIZATION IN HPLC

Kaiser, R. E.; Oelrich, E.

Fed. Rep. Ger.

BOOK ; (81) P 278 pp.; Publisher: Huethig, Heidelberg, Fed. Rep. Ger.

01-81-0003 (0015)

ORGANIC TRACE ANALYSIS BY LIQUID CHROMATOGRAPHY

Lawrence, James F.

USA

BOOK ; (81) P 288 pp.; Publisher: Academic Press, New York, N. Y.

01-81-0004 (0016)

CHROMATOGRAPHIC SCIENCE, VOL. 19: LIQUID CHROMATOGRAPHY OF POLYMERS AND  
RELATED MATERIALS, PT. 3

Cazes, Jack; Editor

USA

BOOK ; (81) P 299 pp.; Publisher: Dekker, New York, N. Y.

01-81-0005 (0017)

CHROMATOGRAPHIC SCIENCE SERIES, VOL. 16: STEROID ANALYSIS BY HPLC: RECENT  
APPLICATIONS

Kautsky, Marie P.; Editor

USA

BOOK ; (81) P 397 pp.; Publisher: Marcel Dekker, Inc., New York, N. Y.

1981

CH. 1.1

01-81-0006 (0018)

CHROMATOGRAPHIC SCIENCE, VOL. 18: BIOLOGICAL/BIOMEDICAL APPLICATIONS OF LIQUID CHROMATOGRAPHY III

Hawk, Gerald L.; Editor

USA

BOOK ; (81) P 420 pp.; Publisher: Dekker , New York, N. Y.

01-81-0007 (0019)

LIQUID CHROMATOGRAPHY IN CLINICAL ANALYSIS

Kabra, Pokar M.; Marton, Laurence J.; Editors

USA

BOOK ; (81) P 466 pp.; Publisher: Humana Press Inc., Clifton, N.J.

01-81-0008 (0020)

MAINTAINING AND TROUBLESHOOTING HPLC SYSTEMS: A USERS GUIDE

Unser, D. J.

USA

BOOK ; (81) P176 pp.; Publisher: Wiley-Interscience, New York, N.Y.

CHAPTER 1.2

# Miscellaneous



--- 1980 ---

02-80-0001 (0001)  
DEVELOPMENT OF HIGH-PRESSURE LIQUID CHROMATOGRAPHY IN THE CHEMICAL INDUSTRY  
Courtier, M.; Thomas, M. J. P.  
Rhône Poulenc Ind. Cent. Rech. Nicolas Grillet Vitry-sur-Seine Fr. 94400  
Actual. Chim.: (80) P 34-8; No 6; In Fr

02-80-0002 (0002)  
THE USE OF HIGH PRESSURE LIQUID CHROMATOGRAPHY IN CLINICAL CHEMISTRY AND BIOMEDICAL RESEARCH  
Hartwick, Richard A.; Brown, Phyllis R.  
Dep. Chem. Univ. Rhode Island Kingston USA RI  
Adv. Clin. Chem.: (80) P 25-99; Vol 21

02-80-0003 (0003)  
PROCESS LIQUID CHROMATOGRAPHY AND ITS APPLICATIONS IN INDUSTRY  
Mowery, R. A., Jr.  
Appl. Autom., Inc. Bartlesville USA OK 74004  
Adv. Instrum.: (80) P 45-57; Vol 35; No 2

02-80-0004 (0004)  
BASIC CONSIDERATIONS IN HPLC  
McNair, Harold M.  
Dep. Chem. Virginia Polytech. Inst. and State Univ. Blacksburg USA VA  
Am. Lab. (Fairfield, Conn.): (80) P 33-4, 36, 39, 41, 43-4; Vol 12; No 5

02-80-0005 (0005)  
USE OF LIQUID-ADSORPTION CHROMATOGRAPHY FOR THE ANALYSIS OF SOME ORGANIC COMPOUNDS IN THE PAPER-AND- PULP INDUSTRY  
Kal'chenko, O. I.  
USSR  
From: Ref. Zh., Khim. 1981, Abstr. No. 96234.  
Analit. i Preparativn. Primenenie Khromatogr., M.; (80) P 12-5; In Russ

02-80-0006 (0006)  
HIGH PERFORMANCE LIQUID CHROMATOGRAPHY AND ITS APPLICATION TO OCCUPATIONAL HEALTH CHEMISTRY  
Nelson, James H.; Holt, John C.; Hearty, Patrick A.  
Res. Inst. Univ. Utah Salt Lake City USA UT 84108  
ACS Symp. Ser.: (80) P 81-113; Vol 120; No Anal. Tech. Occup. Health Chem.

02-80-0007 (0007)  
HIGH PERFORMANCE LIQUID CHROMATOGRAPHY  
Ueda, Suehiro; Ishida, Yasuo  
Shimazu Seisakusho K. K. Japan  
Hokin Bobai; (80) P 167-74; Vol 8; No 4; In Japan

02-80-0008 (0008)  
HPLC: PROPOSALS FOR A GOOD LABORATORY PRACTICE  
Leonardi, S.; Mosconi, L.  
Settore Anal. Chim. Glaxo Lab. Italy  
Boll. Chim. Farm.: (80) P 339-54; Vol 119; No 6; In Ital

02-80-0009 (0009)  
DEVELOPMENT OF MICRO HIGH PERFORMANCE LIQUID CHROMATOGRAPHY AND MINIATURIZATIONS OF ANALYTICAL METHODS  
Ishii, Daido  
Eng. Coll. Nagoya Univ. Nagoya Japan  
Hunseki; (80) P 92-102; No 2; In Japan