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Chromatography
1970-1973**
and Survey of Applications

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INTRODUCTION

The present volume covers developments in both PC and TLC from 1970 to the middle of 1973 and is a continuation of the previous four volumes:

- I. Macek, K. and Hais, I.M.: *Bibliography of Paper Chromatography 1944-1956 and Survey of Applications*. Publ. House of the Czechoslovak Acad. of Sciences, Prague and Academic Press, London and New York, 1960. 767 pp. (Sold in Western countries with an English introduction.)
Macek, K. and Hais, I.M.: *Bibliographie und Anwendungen*. Vol. II of the serial publication: Hais, I.M. and Macek, K. (Editors): *Handbuch der Papierchromatographie*, Fischer Verlag, Jena 1960, 726 pp.
- II. Macek, K., Hais, I.M., Gasparič, J., Kopecký, J. and Rábek, V.: *Bibliography of Paper Chromatography 1957-1960 and Survey of Applications*. Publ. House of the Czechoslovak Acad. of Sciences, Prague and Academic Press, London and New York, 1962, 706 pp.
Macek, K., Hais, I.M., Gasparič, J., Kopecký, J. and Rábek, V.: *Bibliographie 1957-1960 und Anwendungen*. Vol. III of the serial publication: Hais, I.M. and Macek, K. (Editors): *Handbuch der Papierchromatographie*, Fischer Verlag, Jena 1963, 700 pp.
- III. Macek, K., Hais, I.M., Kopecký, J. and Gasparič, J.: *Bibliography of Paper and Thin-Layer Chromatography 1961-1965 and Survey of Applications*. Elsevier, Amsterdam 1968, 1041 pp. (Supplementary Volume to the *Journal of Chromatography* 1968.)
- IV. Macek, K., Hais, I.M., Kopecký, J., Gasparič, J., Rábek, V. and Churáček, J.: *Bibliography of Paper and Thin-Layer Chromatography 1966-1969 and Survey of Applications*. Elsevier, Amsterdam 1972, 991 pp. (Supplementary Volume 2 to the *Journal of Chromatography* 1972.)

Starting with the January 1974 issue of the *Journal of Chromatography*, all entries published in the Bibliography sections of individual issues of the journal will be indexed at the end of the year. Common indexes will be compiled for the Paper Chromatography and Thin-Layer Chromatography bibliography sections. In future, bibliographies in book form will be limited only to the perspective branches of chromatographic separations or to expanding fields of applications considered to be of special importance.

Before deciding on this new scheme, we have weighed its advantages against the disadvantages. The advantage is prompt delivery of information: Whereas these special bibliographic volumes were published once every few years, with a certain delay after the close of the last year covered, these annual bibliographies will cover entries published in the *Journal of Chromatography* of the immediately preceding year. Taking into account the

necessary delay between the original publication and the publication of its title, this would mean, on the average, that papers published before April of the current year will be included.

The disadvantage, however, is that the index would not name every substance chromatographed. We believe that the advantage of promptness of publication outweighs the disadvantages of the future scheme.

A consequence of the switch-over to the new scheme is the fact that the present volume does not cover all original papers published in 1973, but only those which have found their way into the bibliography sections of the *Journal of Chromatography* by the end of that particular year.

The following changes have been made in the present volume, compared with the preceding ones:

1. The subdivision of the chapter on Pharmaceutical and toxicological applications has been slightly altered and extended. The metabolism of drugs was mostly included under the heading of the particular pharmacological and/or pharmaceutical class of substances.
2. Cannabis constituents have been shifted from the chapter on Compounds containing heterocyclic oxygen to the chapter of Pharmaceutical and toxicological applications under the heading of Hallucinogenic drugs.
3. A new chapter on Applications in clinical chemistry has been added in order to provide a counterpart to the "Biomedical Applications" often referred to in other branches of chromatography. Only cross-references occur in this new chapter, the entries still remaining in chapters based on chemical (or biological) character of the substances undergoing analysis.

Present and earlier trends in the applications of flat-bed chromatography may be apparent from the proportions of papers included in 12 representative chapters, as shown in the following table. As already mentioned in the Introduction to the 1966-1969 bibliography,

	Number of papers (%)				
	1944-56*	1957-60*	1961-65	1966-69	1970-73
Amino acids	19.6	13.3	6.4	4.1	4.2
Carbohydrates	11.9	11.7	6.2	4.9	4.6
Carboxylic acids	6.1	8.0	6.5	4.4	3.8
General techniques	6.0	3.5	6.7	6.8	7.1
Steroids	5.4	4.6	6.3	6.3	5.6
Nucleic acid constituents	4.7	7.3	4.5	6.0	5.3
Inorganic substances	4.4	3.9	5.9	5.4	5.9
Other nitrogen-containing heterocycles	4.2	4.2	3.6	3.0	2.6
Alkaloids	3.3	4.6	5.4	4.7	4.2
Pharmaceutical applications	2.2	2.3	5.6	6.3	9.1
Lipids	0.7	2.0	4.9	7.0	6.7
Pesticides	0.4	0.5	1.7	2.4	4.7

* PC papers only.