

*Biological Separations in Iodinated Density Gradient Media*

Edited by D. Rickwood

Information Retrieval Ltd; London and Washington D.C., 1976

205 pages. £ 5.50, \$ 12.00

The Proceedings of the Colloquium on the Use of Iodinated Density-Gradient Media for Biological Separations (Glasgow, 1975) adequately cover the new developments in density-gradient centrifugation technique. Sucrose, ficoll and CsCl are widely used density-gradient media for ultracentrifugation of biological materials. However, some disadvantages, such as their narrow density-range and high viscosity have led to search for new alternatives. The derivatives of iodinated organic compounds used as X-ray contrast media have already established themselves as such.

The major theoretical and practical aspects of using these gradient materials for the fractionation of a wide range of biological systems are surveyed. The effort of the editor may not be praised enough. Separations of nucleic acids, ribonucleoprotein par-

ticles, chromatin, chromosomes, blood cells, viruses and many other subcellular particles are discussed by acknowledged experts in this field.

Although the exact nature of the interaction between separated particles and the iodinated compounds is not yet clearly known, these materials, particularly metrizamide, seem to be the most useful density-gradient media. It is easy to handle them and they are the least deleterious to biological material.

Useful practical advice, such as the mode of recovering the rather expensive gradient media, is also included. This book can serve as a handbook of the new gradient separation technique for specialists and for biologists newly joining this field, since nobody can avoid its application.

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*Biology of Radiation Carcinogenesis*

Edited by J. M. Yuhas, R. W. Tennant and J. D. Regan

Raven Press; New York, 1976

xxiii + 347 pages. \$ 30.00

This volume is based on a Symposium held at Gatlinburg, Tennessee in April 1975 and consists of an Introduction and 28 short articles by 53 different contributors. Each author has presented the most recent investigations in his specific area and the field covered ranges over a wide spectrum of organisational levels, subcellular, cellular, viral, tissue, organ, whole animal and population studies.

Inevitably a book of this type must fail to present any coherent story, but the articles are of particular

interest in that throughout there is a co-ordinating theme in an attempt to analyse the mechanisms involved in radiation carcinogenesis, rather than simply to add to the already existing mass of empirical fact, since any rational predictions of potential radiation hazards to man can only be made on this basis. It is not claimed that a final solution to this problem has been achieved, but the general impression is that such a solution is rapidly coming much nearer.

The work described is particularly concerned with