

**NEW
1986**

Molecular Biology and Biotechnology

Edited by J.M. Walker and E. B. Gingold, *The Hatfield Polytechnic*

Special Publication No. 54

Softcover 348pp ISBN 0 851 86 985 8

Price £25.00 (\$45.00)

This book covers the recent advances made in the field of biotechnology and is aimed not at expert biotechnologists but at scientific workers with little or no previous experience in this field. The contributions in this book should thus be seen as primarily having a teaching function. The book should prove of interest both to undergraduates studying for biological or chemical qualifications and to scientific workers from other fields who need a basic introduction to this rapidly expanding area.

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Products from Micro-organisms;
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Senior Reporter: N. R. Williams, *Birkbeck College, University of London*

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A review of the literature published during 1983.

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Free Sugars; Glycosides and Disaccharides; Oligosaccharides; Ethers and Anhydro-sugars; Miscellaneous Nitrogen Derivatives; Thio-sugars; Deoxy-sugars; Unsaturated Derivatives; Branched-chain Sugars; Aldosuloses, Dialdososes, and Diuloses; Sugar Acids and Lactones; Inorganic Derivatives; Alditols and Cyclitols; Antibiotics; Nucleosides; N.M.R. Spectroscopy and Conformational Features; Other Physical Methods; Separatory and Analytical Methods; Synthesis of Enantiomerically Pure Non-carbohydrate Compounds.

"This is a thoroughly professional, useful publication." – C. Edwin Weill, *J. Am. Chem. Soc., reviewing Vol. 15 Part I.*

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Edited by:

J. M. V. Blanshard, *University of Nottingham*

P. J. Frazier, *Dalgety Group Research*

T. Galliard, *R. H. M. Research Ltd*

This publication is the result of an international symposium on the Chemistry and Physics of Baking, Materials Processes and Products, held at the School of Agriculture, University of Nottingham, 10-12th April 1985.

The coverage of this book reflects the considerable progress made in this field. The main areas covered are: Basic Constituents of Baked Products; Fundamental Interactions: Consequences, Control; Developments in Processes and Products.

Contents:

Basic Constituents of Baked Products

The Significance of the Structure and Function of the Starch Granule in Baked Products; Flour Proteins: Structure and Functionality in Baked Products; The Significance of Water in the Baking Process; Non-starch Polysaccharides; Functionality of Wheat Lipids in Relation to Gluten Gel Formation; The Role of Fats and Emulsifiers in Baked Products; Protein Functionality in Bakery Products; Enzymes in Baking; The Biotechnology of Baker's Yeast: Old or New Business?

Fundamental Interactions: Consequences, Control

Physicochemical Processes in Mixing; Protein-Lipid and Protein-Carbohydrate Interactions in Flour-Water Mixtures; Redox Systems in Dough; Rheological Aspects of Structural Changes during Baking; Action of Oxidants and Other Improvers; Wholemeal Flour and Baked Products: Chemical Aspects of Functional Properties; Component Interactions during Heating and Storage of Baked Products.

Developments in Processes and Products

Extrusion Cooking versus Conventional Baking; Optimization of Products and Processes; The Way Ahead: Wheat Breeding for Quality Improvement; Baking – The Way Ahead.

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Senior Reporter:
M. C. R. Symons, *University of Leicester*

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Water

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Land Contamination and Reclamation

Soil Contamination – How does it arise? Why does it matter? Human Hazards from Contaminated Soil; Soil Contamination Effects on: Plants, Water, Building Materials; The Investigation of a Contaminated Site; Sampling Strategy; Contamination by Organic Material;

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Edited by M. S. Cresser, *University of Aberdeen* and L. Ebdon, *Plymouth Polytechnic*

This publication reports on current developments in all branches of analytical atomic emission, absorption and fluorescence spectroscopy with reference to papers published and lectures presented during 1984. Much of the information is in tabular form for ease of reference.

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