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# Packaging technology

Fundamentals,  
materials and  
processes

Edited by Anne Emblem and Henry Emblem

Recommended by the IOM<sup>3</sup> Training Academy  
and endorsed by The Packaging Society

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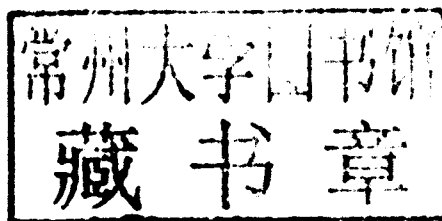
Fundamentals, materials and processes

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## Packaging technology

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### *Emerging food packaging technologies*

(ISBN 978-1-84569-809-6)

*Emerging food packaging technologies* reviews advances in packaging materials, the design and implementation of smart packaging techniques, and developments in response to growing concerns about packaging sustainability. Part I of *Emerging food packaging technologies* focuses on developments in active packaging, reviewing controlled release packaging, active antimicrobial and nanocomposites in packaging, and edible chitosan coatings. Part II goes on to consider intelligent packaging and how advances in the consumer/packaging interface can improve food safety and quality. Developments in packaging material are analysed in Part III, while Part IV explores the use of eco-design and life cycle assessment in the production of smarter, environmentally compatible packaging.

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Food packaging performs an essential function, but packaging materials can have a negative impact on the environment. This collection reviews bio-based, biodegradable and recycled materials and their current and potential applications for food protection and preservation. The first part of the book focuses on environmentally compatible food packaging materials. The second part discusses drivers for using alternative packaging materials, such as legislation and consumer preference, environmental assessment of food packaging and food packaging eco-design.

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## Note about the editors

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Anne and Henry Emblem are packaging professionals of long standing, well-informed in making packaging decisions based on technical, commercial, environmental and legislative requirements. They have first-hand experience across the packaging industry, covering packaging manufacturers (Alcan, British Aluminium, National Adhesives, W R Grace, Morplan), packer/fillers (Merck, Sharp & Dohme Pharmaceuticals, Avon Cosmetics, British Sugar) and the high street retailer Marks and Spencer. They now operate a packaging consultancy, offering advice on all facets of packaging development, including the very important aspect of the effects of environmental legislation on manufacturers, users and sellers of packaging.

They are both Fellows of the former Institute of Packaging (now the Packaging Society part of IOM<sup>3</sup>) and Chartered Scientists. Henry is also a Chartered Environmentalist, Chartered Waste Manager and a Fellow of the Chartered Management Institute. He works as a consultant in the field of packaging and the environment, specialising in Producer Responsibility (packaging, electrical and electronic equipment and batteries). He is one of the original authors of the BRC/IoP Global Food Packaging Hygiene Standard, a previous National Chairman of the Institute of Packaging and is a member of the Packaging Society Board. He is also actively involved in local environmental groups such as the Town Centre Initiative and Cambridgeshire Community Re-use and Recycling Network.

Anne is a Senior Lecturer in Cosmetic Science at the London College of Fashion, having moved into the academic world in 2004. Education and training have always been areas of strong interest, and she was chair of the Institute of Packaging Board of Examiners for many years. More recently, she has chaired the Packaging Industry Awarding Body (PIABC) and, when not engaged in Cosmetic Science, continues to develop and deliver in-house training courses in packaging, tailored to company needs. She is also an examiner for the Society of Cosmetic Scientists' (SCS) Diploma and a speaker at SCS events.

As well as editing *Fundamentals of Packaging Technology*, and this text, Anne and Henry have written *Packaging Prototypes: Closures* and have contributed chapters to several other texts.

This is the second major text we have edited, aimed at providing a learning resource for those studying the Diploma in Packaging Technology. The first, *Fundamentals of Packaging Technology* (FOPT to those in the know) was published in 1996 and was a ‘translation’ of Walter Soroka’s excellent text of the same title, with additional sections to give a European focus. With the development of a new syllabus for the Diploma, clearly a new text is now required.

Finding subject specialists who are both willing and able to write chapters is never easy, but we feel we have a good combination of experiences in the text and are grateful to all the contributors for their hard work. In many cases the chapter contents go beyond the Diploma syllabus, and this is to be commended, as the book is intended to be a useful resource for experienced as well as new practitioners in the industry.

‘Packaging’ is a diverse and complex subject, as all of the contributors to this text will no doubt confirm. Just when you think you’ve got it all covered, along comes another aspect, another facet which should be considered; but at some point a line has to be drawn, otherwise the text would never be ready for publication. In any event, It would be impossible to include all areas of the subject in a single text and that was never the intention. As far as possible, references have been given at the end of each chapter to additional sources of information.

One important point for Diploma students is that, although this is a key resource, it must not be the only text you use: regurgitating its contents is not a guarantee of examination success. You must range both widely and deeply across the many resources available to you, and – again – the reference sections at the end of each chapter give you some guidance here.

Finally, we feel sure that all the authors have done their best to present accurate information, based on their own knowledge and experience. However, any decisions you make must be based on your own careful evaluation after extensive trials, and authors cannot be held responsible for your decisions and their consequences.

*Anne and Henry Emblem*

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