Record Nr. UNINA9911004722903321 Improving the thermal processing of foods / / edited by Philip **Titolo** Richardson Pubbl/distr/stampa Boca Raton, FL, : CRC Press Cambridge, England, : Woodhead Pub., 2004 **ISBN** 9786610373055 1-280-37305-9 1-85573-907-0 1-61344-406-0 Descrizione fisica 1 online resource (527 p.) Collana Woodhead Publishing Series in Food Science, Technology and Nutrition Altri autori (Persone) RichardsonP Disciplina 664.028 Soggetti Food - Preservation Food industry and trade Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Front Cover; Improving the Thermal Processing of Foods; Copyright Page; Table of Contents; Contributor contact details; Part I: Opimising thermal processes; Chapter 1. Optimising the safety and quality of thermally processed packaged foods; 1.1 Introduction: reconciling safety and quality; 1.2 The kinetics of microbial inactivation during heat treatment; 1.3 Setting the limits for sterilisation and pasteurisation processes: 1.4 Setting thermal process parameters to maximise product quality: C-values; 1.5 Optimising thermal process conditions for product safety and quality; 1.6 Future trends 1.7 Sources of further information and advice1.8 References; Chapter 2. Optimising the efficiency and productivity of thermal processing: 2.1 Introduction: the role of thermal processing in extending shelf-life; 2.2 Setting commercial objectives for thermal processes: process optimisation; 2.3 Assessing the potential of in-container, aseptic and HTST processing; 2.4 Techniques for optimising the efficiency of thermal processes; 2.5 Future trends; 2.6 References; Chapter 3. Optimising the efficiency of batch processing with retort systems in

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Sommario/riassunto

The application of heat is both an important method of preserving foods and a means of developing texture, flavour and colour. It has long been recognised that thermal technologies must ensure the safety of food without compromising food quality. Improving the thermal processing of foods summarises key research both on improving particular thermal processing techniques and measuring their effectiveness.Part one examines how best to optimise thermal processes, with chapters addressing safety and quality, efficiency and productivity and the application of computational fluid dynamics. Part two f