1.	Record Nr.	UNINA9910143967603321
	Titolo	Thermal processing of food [[electronic resource]] : potential health benefits and risks : symposium / / editors Gerhard Eisenbrand ... [et al.] ; scientific secretariat Sabine Guth ... [et al.] ; Senate Commission on Food Safety (SKLM)
	Pubbl/distr/stampa	Weinheim, : Wiley-VCH Bonn, : DFG, c2007
	ISBN	1-281-08800-5 1-282-11842-0 9786612118425 9786611088002 3-527-61149-5 3-527-61150-9
	Descrizione fisica	1 online resource (297 p.)
	Collana	Forschungsberichte (DFG)
	Altri autori (Persone)	EisenbrandGerhard
	Disciplina	664 664.028
	Soggetti	Processed foods Food - Thermal properties Food - Preservation Electronic books.
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	At head of title: Deutsche Forschungsgemeinschaft. Symposium held September 25-27 2005, Kaiserslautern, Germany.
	Nota di bibliografia	Includes bibliographical references.
	Nota di contenuto	Thermal Processing of Food: Potential Health Benefits and Risks; Inhalt/Contents; Vorwort; Preface; I Bericht und Schlussfolgerungen; 1 Einleitung; 2 Allgemeine und lebensmitteltechnologische Aspekte; 3 Gesundheitliche Aspekte thermischer Behandlung von Lebensmitteln; 4 Fazit; 5 Forschungsbedarf; II Report and Conclusions; 1 Foreword; 2 General and Food Technological Aspects; 3 Health Aspects of Thermal Food Processing; 4 Conclusions; 5 Research Needs; III Contributions; 1 Thermal Processing of Foods: Technological Aspects; 2 Thermal Processing: More than Extending the Shelf Life of Foods

3 Nutritional Aspects4 Biological Activities of Maillard Reaction Products; 5 Risk Assessment of Acrylamide; 6 An Ex-vivo Approach to Assess Low Dose Effects of Acrylamide; 7 Risk Assessment of Furan; 8 Heterocyclic Aromatic Amines: Potent Genotoxicants Formed in Cooked Meats; 9 Molecular Epidemiology of Food Pyrolysis Products in Relation to Colon, Breast, and Prostate Cancer; 10 The Formation of 3-Monochloropropane-1,2-diol (3-MCPD) in Food and Potential Measures of Control; 11 Minimization Strategies: Acrylamide

12 Deep-fat Frying as Food Heating Process: Product Quality, Safety and Process Control13 Thermal Processing of Food: Allergenicity; 14 The Acrylamide Minimisation Concept - A Risk Management Tool; 15 The Consequences of Cooking: How the Origin of Cuisine Shaped Human Culture, Ecology, and Biology; IV Posters; 1 Formation, Structural Elucidation, Analysis and Toxicity of Thermal Degradation Products of the Fusarium Mycotoxin Nivalenol; 2 Influence of Different Heating Processes on the Formation of Nucleotides, Nucleosides and Free Bases in Vegetables

3 Determination of Free 3-Monochloropropane-1,2-Diol in Coffee and Coffee Surrogates4 Minimisation Concept - A Reaction on the Potential Health Risk of Acrylamide; 5 Isomerisation of Lycopene Due to Thermal Treatment of Carrot Homogenates: Increased Bioavailability of Total Lycopene and Generation of 5-cis-Lycopene in the Human Intestine; 6 Influence of High Hydrostatic Pressure on the Formation of $N()$-Carboxymethyllysine and $N()$-Carboxyethyllysine in Maillard-type Reactions

7 Effect of Acrylamide from a Heated Potato Product on the Acrylamide Content in Eggs, Breast Muscle Meat, Liver and Kidney of Hens8 PAH in Oil and Tocopherols - Analytical Challenges in Complying with EC Recommendations; 9 Acrylamide in Fried Potato Products - Influence of Process Conditions and Precursor Contents; 10 Thermal Stability of Zeaxanthin in Potato Homogenates; 11 Osmotic Treatment as a Pre-Step to Drying and Frying; 12 Influence of Maillard Reaction Products on the Inflammatory Cellular Response of Macrophages

13 Dosimetry of Acrylamide and Glycidamide Binding to Proteins in Human Blood

Sommario/riassunto	This is the latest and most authoritative documentation of current scientific knowledge regarding the health effects of thermal food processing. Authors from all over Europe and the USA provide an international perspective, weighing up the risks and benefits. In addition, the contributors outline those areas where further research is necessary.