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	International situation: JECFA; 2.5 Council of Europe; 2.6 European community; 2.6.1 Background - national to EU legislation; 2.6.2 The 1988 Council Directive 2.6.3 Smoke flavourings 2003 Directive2.6.4 Developments 2008 onwards; 2.7 Current EU Situation and the future; References; 3 Basic chemistry and process conditions for reaction flavours with particular focus on Maillard-type reactions; 3.1 Introduction; 3.2 General aspects of the Maillard reaction cascade; 3.2.1 Intermediates as flavour precursors; 3.2.2 Carbohydrate fragmentation; 3.2.3 Strecker degradation; 3.2.4 Interactions with lipids; 3.3 Important aroma compounds derived from Maillard reaction in food and process flavours; 3.3.1 Character-impact compounds of thermally treated foods 3.3.2 Character-impact compounds of thermally treated foods 3.3.2 Character-impact compounds of process flavours; 3.4.4 Preparation of process flavours; 3.4.1 General aspects; 3.4.2 Factors influencing flavour formation; 3.4.3 Savoury process flavours; 3.4.4 Sweet process flavours; 3.5 Outlook; References; 4 Biotechnological flavour generation; 4.1 Introduction; 4.2 Natural flavours: market situation and driving forces; 4.3 Advantages of biocatalysis; 4.4 Micro-organisms; 4.4.1 Biotransformation and bioconversion of monoterpenes; 4.4.2 Bioconversion of C13-norisoprenoids and sesquiterpenes; 4.4.3 Generation of oxygen heterocycles 4.4.4 Generation of vialilin, benzaldehyde and benzoic compounds4. 4.5 Generation of volatiles from bound precursors; 4.5.2 Biotransformations; 4.5.3 Kinetic resolution of racemates; 4.6 Plant catalysts; 4.6.1 Plant cell, tissue and organ cultures; 4.6.2 Callus and suspension cultures; 4.6.3 Organ cultures; 4.6.4 Plant cell biotransformations; 4.7 Flavours through genetic engineering; 4.7.1 Genetically modified micro-organisms; 4.7.2 Isolated enzymes from genetically modified micro-organisms; 4.7.3 Plant rDNA techniques 4.8 Advances in bioprocessing
Sommario/riassunto	Food flavour technology is of key importance for the food industry. Increasingly, food products must comply with legal requirements and conform to consumer demands for "natural" products, but the simple fact is that, if foods do not taste good, they will not be consumed and any nutritional benefit will be lost. There is therefore keen interest throughout the world in the production, utilisation and analysis of flavours. The second edition of this successful book offers a broad introduction to the formulation, origins, analysis and performance of food flavours, updating the original chapter