1. Record Nr. UNINA9910819459603321

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| Titolo | Biotechnology in flavor production / / edited by Daphna Havkin-Frenkel, Nativ Dudai |
| Pubbl/distr/stampa | Chichester, England : , : Wiley-Blackwell, , 2016<br>©2016 |
| ISBN | 1-118-35404-4<br>1-118-35403-6<br>1-118-35405-2 |
| Edizione | [Second edition.] |
| Descrizione fisica | 1 online resource (341 pages) |
| Collana | THEi Wiley ebooks. |
| Disciplina | 664/.07 |
| Soggetti | Food - Biotechnology<br>Flavor |
| 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 at the end of each chapters and index. |
| Nota di contenuto | Cover; Title Page; Copyright; Contents; Contributors; Preface; Chapter 1 The flavor of citrus fruit; Introduction; Taste components of citrus fruit; Sugars; Acids; Bitter compounds; Aroma compounds of citrus fruit; Terpene hydrocarbons; Aldehydes; Alcohols; Esters; Ketones; Other volatiles; Citrus genes involved in flavor production; The unique flavor of different citrus species; The flavor of oranges; The flavor of mandarins; The flavor of grapefruit; The flavor of lemons; Accumulation of off-flavors in fresh citrus fruit during postharvest storage; Flavor of citrus essential oils<br>AcknowledgmentsReferences; Chapter 2 Aroma as a factor in the breeding process of fresh herbs-the case of basil; The importance of selecting for aroma in breeding of aromatic plants; The importance of genetic factors regarding the essential oil composition in aromatic plants; Sweet basil and the Ocimum genus; Uses of sweet basil; The chemistry of the aroma factors of plants: the essential oil; Essential oil profiles of common commercial basil varieties; Comparison of chemical analysis methods; Variation of the volatile compound composition within the plant |

Variation of aroma compounds within cultivars and the potential for selectionBiosynthetic pathways of basil aroma components; Inheritance of aroma compounds in basil; Interspecific hybridization among Ocimum species; Applications of biotechnology-based approaches to modification of basil aroma; References; Chapter 3 Novel yeast strains as tools for adjusting the flavor of fermented beverages to market specifications; Introduction; Wine; Beer; Sake; Wine, beer, and sake yeasts; Wine yeasts; Beer yeasts; Sake yeasts; Acids; Non-volatile acids; Volatile acids; Alcohols; Ethanol; Glycerol
Higher alcoholsEsters; Carbonyl compounds; Acetaldehyde; Diacetyl; Volatile phenols; Sulfur compounds; Sulfides; Mercaptans; Thiols; Monoterpenoids; Conclusion; References; Chapter 4 Biotechnology of flavor formation in fermented dairy products; Introduction; Biochemistry of dairy fermentations; Biotechnology and flavor; Flavor production from bacteria; Comparative genomics of flavor production; Expression and metabolite analysis; Predictive bioinformatics; Non-culturable lactococci; Translation of omics to biotechnology; Conclusion; References
Chapter 5 Biotechnological production of vanillinIntroduction; Biosynthesis of vanillin; Natural occurrence of vanillin; Site of vanillin production in vanilla beans; Vanillin biosynthetic pathway in Vanilla planifolia; Production of vanillin by biotechnology; Introduction; Use of microorganisms; Use of plant tissue culture; Use of enzymes; Use of physical and mild chemistry methods; Synthetic vanillin; Vanillin from vanilla beans; Regulations; Conclusions and future outlook; References; Chapter 6 Plant cell culture as a source of valuable chemicals; Introduction
Establishment of callus culture