

1. Record Nr.	UNINA9910819459603321
Titolo	Biotechnology in flavor production // edited by Daphna Havkin-Frenkel, Nativ Dudai
Pubbl/distr/stampa	Chichester, England : , : Wiley-Blackwell, , 2016 ©2016
ISBN	1-118-35404-4 1-118-35403-6 1-118-35405-2
Edizione	[Second edition.]
Descrizione fisica	1 online resource (341 pages)
Collana	THEi Wiley ebooks.
Disciplina	664/.07
Soggetti	Food - Biotechnology 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 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 selection
Biosynthetic 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 alcohols; Esters; 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 vanillin; Introduction; 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
