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Soggetti	Food science Botanical chemistry Nutrition Pharmaceutical chemistry Security systems Food Science Plant Biochemistry Pharmaceutics Security Science and Technology
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Livello bibliografico	Monografia
Nota di contenuto	Eating and aging -- Antioxidant activity of food constituents -- Health-promoting components of fruits and vegetables -- the Healthy Eating Index -- Banana source of bioactive compounds and human health -- Chemistry and Pharmacology of Citrus sinensis -- Functional Foods, Nutraceuticals, and Health -- Diet and Cancer : epidemiological studies and chemoprevention by dietary phytochemicals -- Fruit and vegetable consumption and cardiovascular disease risks -- Intake of Mediterranean foods -- Can rapeseed oil replace olive oil as part of a Mediterranean-style diet? -- Role of omega-3 fatty acids and olive oil polyphenols -- Mediterranean diet and cancer risk -- The French Paradox -- Moderate wine consumption and health -- Dairy products and the French paradox -- Plant proteins from legumes -- Nutritional and Phytochemical Content of High-Protein Crop -- Phytochemistry of

Beans/pulses (mung, French bean, Faba, cowpea, lentil, chickpea) --
Pea proteins: chemistry, technology of production, and utilization --
Plant protein for food: opportunities and bottlenecks -- Phytochemical
composition and bioactivities of lupin -- Design of Foods with bioactive
Lipids for Improved Health -- Rapeseed, sunflower meal nutraceuticals
-- Sunflower protein for -tocopherol -- Two Faces of Vitamin E in the
Lung -- Tocopherol/antioxidant/edible plants -- Inulin-type fructans
application in gluten-free products -- Nutritional Profile of Gluten-Free
Cereals and Pseudocereals -- Wheat Cultivars : Phytochemical Profile
and Nutraceutical Value -- Quinoa (*Chenopodium quinoa* W.) and
amaranth (*Amaranthus caudatus* L.) -- Chemical composition,
antioxidant capacity, and sensory quality of dried jujube fruits --
Analysis and characterisation of phytochemicals in mulberry (*Morus
alba* L.) -- Nutritional composition, physiological functions and
processing of lotus (*Nelumbo nucifera* Gaertn.) seeds -- Hibiscus
sabdarriffa (Roselle) Extracts and Wine: Phytochemical Profile,
Physicochemical Properties, and Carbohydrase Inhibition -- Vegetarians
and vegans diet and its effects -- Low- and High-protein diet and
metabolic regulation -- Nutritional value of rapeseed proteins and
prevention of metabolic syndrome -- Production of Omega-3 Fatty
Acids -- Metabolism and functional effects of plant-derived Omega-3
fatty acids in humans -- Omega-3 fatty acids and vegetarian diets --
Composition of virgin olive oil -- Olive Oil Polyphenols cholesterol
management/chemopreventive, pharmacol -- Olive oil phenolic
compounds affect the release of aroma compounds -- Omega-3 Fatty
Acids EPA and DHA: Health Benefits -- Composition of rapeseed oils
(fatty acids, tocopherols) -- Comparable health benefits of rapeseed
and olive oils -- Natural estrogenic substances Origins and Effects --
Carotenoids, vitamin C, tocopherols, and retinol and
cancer/carcinogenesis -- Triacylglycerols, fatty acids and tocopherols
in hazelnut /nuts -- Lipid derivatives from avocado (*Persea americana*)
pulp and biological activities -- Linseed/sunflower: a valuable feedstuff
for meat production/ruminant -- Canola Oil in lactating dairy cow diets
-- Total dietary fiber intakes / whole grain consumption/ biological
effects -- Novel trends in development of dietary fiber rich meat
products -- Whole grains fibre: metabolomics -- Cereal grain fructans
-- Dietary fiber structures and their potential effect on the gut
microbiota -- Evolution of biosynthetic pathways for vitamin c in plants
-- In vitro bioaccessibility of carotenoids, flavonoids, and vitamin c
from differently processed oranges and orange juices -- Polyphenols,
vitamin c and antioxidant activity in wines -- Plants probiotics as a tool
to produce highly functional fruits -- Carotenoids in food/pulses --
Vitamin and carotenoid concentrations of food products -- Natural
food pigments and colorants -- Carotenoids from fruits and
vegetables: Chemistry, analysis, occurrence, bioavailability and
biological activities -- Carotenoids and health- pharmacology --
Metabolic engineering for the microbial production of carotenoids --
Protective effect of anthocyanins and xanthophylls -- Carotenoid
oxidation products as stress signals in plants -- Chemical composition,
functional properties and processing of carrot -- Carrots, tomatoes and
cocoa: Research on dietary antioxidants -- Astaxanthin -- Purple-
fleshed sweet potato -- Chemistry and biological properties of berries:
straw-, rasp-, black-, blackcurrant, plum -- Polyphenols and Health --
Antioxidant properties of seaweed polyphenol -- Nutrigenomic
modulations in mediating the cardiovascular protective effect of fruit
polyphenols -- Bound phenolics in foods -- Tea Polyphenol and Purine
Alkaloid Composition -- Theobroma: chemistry -- Wine, beer and cider
and health -- Health benefits of wine -- Metabolomic approaches in

the study of wine benefits in human health -- Whey-based beverage -- Polyphenol variability in the fruits and juices of a cider apple -- Tea, coffee and health benefits -- Benefits of polyphenols on gut microbiota and implications in human health -- Green tea and cancer chemoprevention -- Natural estrogenic substances origins and effects (isoflavonoids, Lignans, Coumestans). Understanding genistein in cancer -- Functional foods and dietary supplements: regulatory aspects -- Flax and flaxseed potential functional food -- Prebiotics as functional foods -- Probiotics as functional foods and dietary supplements -- Impacts of genetically engineered crops on pesticide use -- Pesticide use in France -- Pesticide use in crops -- Fertilizer use, pesticide application and cereal yields -- How to significantly reduce pesticide use -- Antibiotic residues in commercial cow's milk -- Veterinary antibiotics in animal diet: effects on waste/environment -- Organic and conventionally produced milk-factors influencing milk composition -- Organically- versus conventionally-grown winter wheat effect on nutrients -- Composition differences between organic and conventional meat -- Phytochemical variations in selected (Greek) varieties of table olives, tomatoes and legumes from conventional and organic farming -- Sustainability of organic food production: challenges and innovations -- Phytochemical analysis of organic and conventionally cultivated fruits/lemons -- Health and dietary traits of organic food consumers -- Dietary intakes and diet quality according to levels of organic food consumption by French adults -- Comparison of milk composition from organic and conventional farms (fatty acids) -- Methods for the determination of biogenic amines in foods -- HPLC methods for determination of vitamin C -- Sudan dyes in adulterated saffron (*Crocus sativus* L.): Identification and quantification by ¹H NMR -- Rheology of food gum -- Amino acid assay in beverages -- Determination of certified color additives in food products using liquid chromatography -- Biosensors in food processing -- Detection of Botulinum Neurotoxin in food -- Separation and determination of fructose, sorbitol, glucose and sucrose in fruits -- The evolution of analytical chemistry methods in foodomics -- Method for the prediction of acrylamide content in French-fried potato -- Encapsulation technologies for food industry -- Current challenges in polyphenol analytical chemistry -- GLC/HPLC method for saffron (*Crocus sativus* L.) -- Isoflavones and anthocyanins analysis in soybean -- Multiclass determination of phytochemicals in vegetables and fruits by ultra HPLC.

Sommario/riassunto

This reference work provides comprehensive information about the bioactive molecules presented in our daily food and their effect on the physical and mental state of our body. Although the concept of functional food is new, the consumption of selected food to attain a specific effect existed already in ancient civilizations, namely of China and India. Consumers are now more attentive to food quality, safety and health benefits, and the food industry is led to develop processed- and packaged-food, particularly in terms of calories, quality, nutritional value and bioactive molecules. This book covers the entire range of bioactive molecules presented in daily food, such as carbohydrates, proteins, lipids, isoflavonoids, carotenoids, vitamin C, polyphenols, bioactive molecules presented in wine, beer and cider. Concepts like French paradox, Mediterranean diet, healthy diet of eating fruits and vegetables, vegan and vegetarian diet, functional foods are described with suitable case studies. Readers will also discover a very timely compilation of methods for bioactive molecules analysis. Written by highly renowned scientists of the field, this reference work appeals to a wide readership, from graduate students, scholars, researchers in the

field of botany, agriculture, pharmacy, biotechnology and food industry to those involved in manufacturing, processing and marketing of value-added food products.
