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| Altri autori (Persone) | ClarkeR. J (Ronald James) VitzthumO. G |
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| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | COFFEE Recent Developments; Contents; Preface; List of Contributors; 1 Chemistry I: Non-volatile Compounds; 1A Carbohydrates; 1.1 Introduction; 1.2 Green coffee; 1.2.1 Low molecular weight carbohydrate; 1.2.2 High molecular weight carbohydrate; 1.3 Roast coffee; 1.3.1 Low molecular weight carbohydrate; 1.3.2 High molecular weight carbohydrate; 1.4 Soluble coffee; 1.4.1 Low molecular weight carbohydrate; 1.4.2 High molecular weight carbohydrate; 1.5 Reactions of carbohydrates on roasting; 1.6 Functional properties of coffee carbohydrates; 1.6.1 Role in soluble coffee processing; 1.6.2 Foam 1.6.3 Coffee fiberReferences; 1B Acids in Coffee; 1.7 Quantitative data on organic acids in green coffee; 1.8 Determination of organic acids in roasted coffee; 1.9 Acid formation mechanisms; 1.9.1 Acetic, formic, lactic, glycolic and other carbohydrate derived acids; 1.9.2 Quinic acid; 1.9.3 Citric and malic acid; 1.9.4 Phosphoric acid; 1.10 Acid increase on storage; 1.11 Volatile acids; 1.12 Acid content and sensory characteristics; 1.12.1 Total acidity and sour taste; 1.12.2 Acid content |

and acidity; 1.12.3 Roast kinetics References; 1C Lipids; 1.13 Introduction; 1.14 Coffee oil
 1.14.1 Determination of total oil content 1.14.2 Isolation of coffee oil for detailed analysis; 1.15 Fatty acids; 1.15.1 Total fatty acids and fatty acids in triglycerides; 1.15.2 Free fatty acids; 1.16 Diterpenes in the lipid fraction of robusta and arabica coffees; 1.16.1 Free diterpenes; 1.16.2 Diterpene fatty acid esters; 1.16.3 Diterpenes in the lipid fraction of roasted coffees; 1.16.4 Diterpenes in coffee: health aspects; 1.17 Sterols; 1.18 Tocopherols; 1.19 Other compounds; 1.20 Coffee wax; References; 2 Chemistry II: Non-volatile Compounds, Part II; 2.1 Amino acids and Protein
 2.1.1 Amino acids 2.1.2 Amino acid derivatives; 2.1.3 Protein; 2.2 Fate of chlorogenic acid derivatives during roasting; 2.2.1 Quinic acid moiety; 2.2.2 Cinnamic acid derivative moiety; 2.3 Antioxidative compounds in coffee brew; 2.3.1 Compounds occurring naturally in green beans; 2.3.2 Effect of roasting on antioxidative activity; 2.4 Colored macromolecular compounds; 2.4.1 Characterization of colored polymers; 2.4.2 Characterization of the zinc-chelating compounds in coffee brews; References; 3 Chemistry III: Volatile Compounds; 3.1 Introduction; 3.2 Methodology
 3.2.1 Isolation of the volatile fraction 3.2.2 Screening for potent odorants; 3.2.3 Enrichment and identification; 3.2.4 Quantification; 3.2.5 Aroma models and omission experiments; 3.3 Raw coffee; 3.3.1 First studies; 3.3.2 Potent odorants; 3.3.3 Content and OAVs of odorants; 3.3.4 Contaminants causing off-flavour; 3.4 Roasted coffee; 3.4.1 Concentration of important odorants; 3.4.2 Evaluation of key odorants; 3.4.3 Arabica versus robusta coffee; 3.4.4 Influence of degree of roast; 3.4.5 Aroma changes during storage; 3.5 Coffee brew; 3.5.1 Extraction yield of potent odorants
 3.6 Formation of odorants

Sommario/riassunto

Coffee, one of the most commercially important crops grown, is distributed and traded globally in a multi-million dollar world industry. This exciting new book brings together in one volume the most important recent developments affecting the crop. Contributions from around 20 internationally-respected coffee scientists and technologists from around the world provide a vast wealth of new information in the subject areas in which they are expert. The book commences with three cutting-edge chapters covering non-volatile and volatile compounds that determine the flavour of coffee. Chapters c