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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Contents; 1 An Overview of the Brewing Process; Abstract ; A Brief History of Brewing; The Ingredients; Water; Malted Barley and Adjuncts; Malting; Hops; Yeast; Wort Production; Milling; Mashing; Wort Boiling; Fermentation and Maturation; References; 2 The Brewing Yeast; Abstract ; Introduction; Yeast Flocculation; Carbohydrate Transport and Metabolism; Main Glucose Repression Pathway; Glucose-Sensing System-RascAMPPKA Pathway; The Impact of the Glucose-Sensing System on Fermentation; Transport of -Glucosides; Nitrogen Metabolism; Target of Rapamycin (Tor) Pathway Nitrogen Catabolite Repression (NCR)General Amino Acid Control (GAAC); Transport and Control of Nitrogen Sources; Alcoholic Fermentation; References; 3 By-products of Beer Fermentation; Abstract ; Introduction; Pleasant By-products; Higher Alcohols; Transamination; Decarboxylation; Reduction to Higher Alcohols; Regulation of Higher Alcohols; The Anabolic Pathway; Esters; Biosynthesis of Acetate Esters; Biosynthesis of Ethyl Esters; Ester Regulation; Esters in Beer Aging; Unpleasant By-products; Vicinal

Diketones (VDKs); Yeast Response to Fermentation Parameters; Yeast Strain; Temperature

Hydrostatic PressureWort Composition; Sugars; Free Amino Nitrogen (FANs); Oxygen and Unsaturated Fatty Acids (UFAs); References

Sommario/riassunto

Beer is the most popular alcoholic beverage in the world. Yet, behind each glass of beer there is an enormous amount of work invested. If the first image that comes to your mind is the lifting of heavy bags of malt or carrying kegs, guess again! Most of the work involved in brewing is carried out by “microworkers” – yeast and their enzymes! These special helpers are responsible for catalyzing the vast majority of the biochemical reactions occurring in all steps that gradually transform the sugary wort into beer. This book not only provides readers with an overview of the whole biochemical process involved in beer fermentation, but also reviews the latest findings in this delightful field, making it essential reading for both scientists and brewing enthusiasts.
