

1. Record Nr.	UNINA9910254054203321
Titolo	Advanced Dairy Chemistry : Volume 1B: Proteins: Applied Aspects // edited by Paul L. H. McSweeney, James A. O'Mahony
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2016
ISBN	1-4939-2800-7
Edizione	[4th ed. 2016.]
Descrizione fisica	1 online resource (508 p.)
Disciplina	540
Soggetti	Food—Biotechnology Proteins Microbiology Food Science Protein Science Applied Microbiology
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 and index.
Nota di contenuto	Preface -- 1. Manufacture and properties of dairy powders -- 2. Functional milk proteins production and utilization: casein-based ingredients -- 3. Functional Milk Proteins: Production and Utilization. Whey-Based Ingredients -- 4. Rehydration and solubility characteristics of high-protein dairy powders -- 5. Emulsions and foams stabilised by milk proteins -- 6. Heat-induced denaturation, aggregation and gelation of whey proteins -- 7. Heat stability of milk -- 8. Sensory Properties of Milk Protein Ingredients -- 9. Ethanol Stability and Milk Composition -- 10. Protein stability in sterilised milk and milk products -- 11. Enzymatic Coagulation of Milk -- 12. Acid coagulation of milk -- 13. Milk Proteins in Ice Cream -- 14. Protein in cheese and cheese products: structure-function relationships -- 15. Milk protein hydrolysates and bioactive peptides -- Index.
Sommario/riassunto	The chemistry and physico-chemical properties of milk proteins are perhaps the largest and most rapidly evolving major areas in dairy chemistry. Advanced Dairy Chemistry-1B; Proteins: Applied Aspects covers the applied, technologically-focused chemical aspects of dairy proteins, the most commercially valuable constituents of milk. This

fourth edition contains most chapters in the third edition on applied aspects of dairy proteins. The original chapter on production and utilization of functional milk proteins has been split into two new chapters focusing on casein- and whey-based ingredients separately by new authors. The chapters on denaturation, aggregation and gelation of whey proteins (Chapter 6), heat stability of milk (Chapter 7) and protein stability in sterilised milk (Chapter 10) have been revised and expanded considerably by new authors and new chapters have been included on rehydration properties of dairy protein powders (Chapter 4) and sensory properties of dairy protein ingredients (Chapter 8). This authoritative work describes current knowledge on the applied and technologically-focused chemistry and physico-chemical aspects of milk proteins and will be very valuable to dairy scientists, chemists, technologists and others working in dairy research or in the dairy industry.

Paul L.H. McSweeney MA, PhD, DSc is Professor of Food Chemistry in the School of Food and Nutritional Sciences, University College, Cork, Ireland. The overall theme of his research is dairy biochemistry with particular reference to cheese. He is co-author or co-editor of 10 books on dairy chemistry and cheese science, in addition to numerous research papers and reviews. He was awarded the Marschall Danisco International Dairy Science Award of the American Dairy Science Association in 2004 and in 2009 a higher doctorate (DSc) on published work by the National University of Ireland.

James (Seamus) A. O'Mahony, PhD, is a Lecturer in Food Science at University College, Cork, Ireland. He graduated from University College Cork with a BSc in Food Science and a PhD in Food Science and Technology in 2001 and 2005, respectively. He conducted part of his PhD studies at the University of Wisconsin-Madison, USA in the area of milk protein ingredient development using membrane filtration technology which was funded by a National University of Ireland travel bursary. On completing his PhD, he was awarded a Government of Ireland postdoctoral researcher position at the Teagasc Food Research Centre, Moorepark. Before joining the academic staff of University College Cork in 2010, he worked in a number of industrial research and development positions with Nestle (formerly Wyeth and Pfizer) Nutrition specialising in the development of infant nutritional products for 5 years. He currently has a large research group working in the area of food ingredients, structure, functionality and processing focused on infant, elderly and clinical nutrition applications.
