

1. Record Nr.	UNINA9910583368103321
Autore	Berk Zeki
Titolo	Food process engineering and technology // Zeki Berk
Pubbl/distr/stampa	London, : Academic P., 2018
ISBN	0-12-812054-1
Edizione	[3rd ed.]
Descrizione fisica	1 online resource (711 p.) : ill
Disciplina	338.47664 664
Soggetti	Food industry and trade - Technological innovations Food processing plants
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 - Physical properties of food materials -- 2 - Fluid flow -- 3 - Heat and mass transfer, basic principles -- 4 - Reaction kinetics -- 5 - Elements of process control -- 6 - Size reduction -- 7 - Mixing -- 8 - Filtration and expression -- 9 - Centrifugation -- 10 - Membrane processes -- 11 - Extraction -- 12 - Adsorption and ion exchange -- 13 - Distillation -- 14 - Crystallization and dissolution -- 15 - Extrusion -- 16 - Spoilage and preservation of foods -- 17 - Thermal processing -- 18 - Thermal processes, methods, and equipment -- 19 - Refrigeration - Chilling and freezing -- 20 - Refrigeration - Equipment and methods -- 21 - Evaporation -- 22 - Dehydration -- 23 - Freeze drying (lyophilization) and freeze concentration -- 24 - Frying, baking, and roasting -- 25 - Chemical preservation -- 26 - Ionizing irradiation and other nonthermal preservation processes -- 27 - Food packaging -- 28 - Cleaning, disinfection, and sanitation -- 29 - Elements of food plant design -- Appendix -- Index.
Sommario/riassunto	Food Process Engineering and Technology, third edition combines scientific depth with practical usefulness, creating a tool for graduate students and practicing food engineers, technologists and researchers looking for the latest information on transformation and preservation processes and process control and plant hygiene topics. This fully updated edition provides recent research and developments in the area, features sections on elements of food plant design, an introductory

section on the elements of classical fluid mechanics, a section on non-thermal processes, and recent technologies, such as freeze concentration, osmotic dehydration, and active packaging that are discussed in detail.
