

1. Record Nr.	UNINA9910298599903321
Autore	Parisi Salvatore
Titolo	Chemistry of Maillard Reactions in Processed Foods // by Salvatore Parisi, Weihui Luo
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-95463-6
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (VI, 59 p. 10 illus., 8 illus. in color.)
Collana	Chemistry of Foods, , 2199-689X
Disciplina	641.3 664
Soggetti	Food—Biotechnology Carbohydrates Nutrition Food Science Carbohydrate Chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	The Importance of Maillard Reaction in Processed Foods -- Maillard Reaction in Processed Foods: Reaction Mechanisms -- Maillard Reaction and Processed Foods: Main Chemical Products.
Sommario/riassunto	This SpringerBrief explains the importance of Maillard reactions in food processing. It underlines that the term “Maillard reaction” actually does not describe one single chemical reaction, but an entire class of chemical reactions, which lead to browning, with a strong impact on visual appearance, odor, and flavor. It emphasizes that the Maillard reactions are still not fully characterized, despite extensive historical studies. While under the right conditions Maillard reactions have many favorable effects (e.g. formation of antioxidants), the Brief discusses that there are also conditions where Maillard reactions can result in toxic or mutagenic reactions. Hence, it emphasizes that the reaction should be viewed as a complex network of various sub-reactions, with a plethora of concomitant reaction mechanisms and kinetics. This Brief thus makes a step toward a holistic evaluation of the complexity of the Maillard reaction scheme, with the aim of making better and more

targeted use in food processing.
