

1. Record Nr.	UNINA9910298597503321
Autore	Singla Rajeev K
Titolo	Analytical Methods for the Assessment of Maillard Reactions in Foods / / by Rajeev K. Singla, Ashok K. Dubey, Sara M. Ameen, Shana Montalto, Salvatore Parisi
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-76923-5
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (vi, 54 pages) : illustrations
Collana	Chemistry of Foods, , 2199-689X
Disciplina	543
Soggetti	Food—Biotechnology Analytical chemistry Medicine - Research Nutrition Food Science Analytical Chemistry Quality of Life Research
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Analytical Methods for the Determination of Maillard Reaction Products in Foods: An Introduction -- The Control of Maillard Reaction in Processed Foods. Analytical Testing Methods for the Determination of 5-Hydroxymethylfurfural -- Analytical Methods for the Determination of Furosine in Food Products -- Analytical Evaluation of Acrylamide in Foods as a Maillard Reaction Product -- Melanoidins and Browning Reactions in Processed Foods. Quantitative Determinations, Color Measurement and Sensorial Assessment.
Sommario/riassunto	This Brief provides an overview of different analytical methods and techniques for the qualitative and quantitative evaluation of Maillard Reactions and their reaction products in foods during processing and storage. Reliable methodology for the investigation of Maillard Reactions and their products are of utmost importance in food analysis: since Maillard Reactions can on the one hand be desirable and advantageous, influencing the colors, flavors and odors of food

products, they can on the other hand also produce detrimental compounds afflicting the consumers' health (e.g. furfurals, furosine, or acrylamide). This Brief introduces different analytical methods, which can be used to investigate and characterize Maillard Reactions and their products in foods, including for example capillary electrophoresis, high performance liquid chromatography, gas chromatography with mass spectrometric detection, UV-VIS spectrophotometry, fluorescence, electronic nose, gravimetric systems, and many more. The chapters exemplify how the analytical techniques can be applied for assessing and evaluating different Maillard Reaction products in foods. Readers will find basic information, as well as practical hints and guidelines for application in their own laboratory.

---