1. Record Nr. UNINA9910437803803321

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Titolo	Sonocrystallization of fats / / Silvana Martini
Pubbl/distr/stampa	New York, : Springer, 2013
ISBN	1-4614-7693-3
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (vi, 66 pages) : illustrations
Collana	SpringerBriefs in food, health, and nutrition
Disciplina	664.3
Soggetti	Fatty acids Oils and fats
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	Introduction -- An overview of ultrasound -- Ultrasound process parameters -- Common uses of power ultrasound in the food industry -- Mechanisms involved in sonocrystallization -- Sonocrystallization of fats -- Future trends .
Sommario/riassunto	Sonocrystallization of Fats will summarize the latest research efforts and discoveries in the relatively new area of sonocrystallization of edible lipids. Ultrasound has been used extensively in the past to induce the crystallization of molecules. Until recently, however, very little work has been done using power ultrasound to induce the crystallization of edible lipids and understand how the phenomena applies in these systems. Power ultrasound is used in fats to induce their crystallization and to generate small crystals, which ultimately result in a harder material. Since the elimination of trans-fats from food products, novel processing technologies have been sought to improve the functional properties of low saturated, no-trans lipids. Power ultrasound can be used as a new processing condition to modify the crystallization of fats and tailor their functional properties to specific food uses. This Springer Brief will describe recent research performed in the area of sonocrystallization of fats and the possible application in the food industry. An overview of ultrasound theories will be presented at the beginning of the book followed by a brief description of the uses of power ultrasound in the food industry. Description of recent research in the area of fat sonocrystallization and

detailed information regarding the experimental conditions used, such as type of equipment and ultrasound settings, will be presented. The book will end with a description of the future trends in sonocrystallization of fats in the food industry.