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Titolo	Physical Modifications of Starch / / edited by Zhongquan Sui, Xiangli Kong
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Edizione	[2nd ed. 2023.]
Descrizione fisica	1 online resource (VI, 291 p. 1 illus.)
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Soggetti	Biochemistry Food science Biophysics Food Science
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Molecular Structure of Starch -- Granular Structure of Starch -- Physicochemical Properties of Starch -- Heat-Moisture Treatment of Starch -- Annealing -- Pre-gelatinized Modification of Starch -- Gamma Irradiation of Starch -- Microwave Treatment -- Ultrahigh Pressure Treatment -- Ultrasonic Treatment -- Milling Process of Starch -- Dry heating -- Pulsed electric fields -- Physical Treatments that Produce Chemical Changes.
Sommario/riassunto	This book provides comprehensive information on starch modification using physical approaches – a field that has attracted increasing interest in recent years due to the fact that it is no longer desirable to label starch as modified. The required functionalities can be conveniently achieved by physical methods that are less expensive and more environmentally friendly. In the second edition, chapters are updated according to the recent research progress. Three new chapters are added including pulsed electric fields, dry heating and physical treatments that produce chemical changes. Chapter one is rewritten into three individual chapters including Molecular Structure of Starch, Granular Structure of Starch and Physicochemical Properties of Starch, aiming to help the readers better understand the structure of starch. This book summarizes recent developments in the areas of starch

physical modifications and reviews the structure, function and potential industrial applications of modified starch. It provides valuable information for researchers and product developers to work on starch.
