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Titolo	Chemistry of renewables : an introduction // Arno Behr and Thomas Seidensticker
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ISBN	3-662-61430-8
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XV, 394 p. 340 illus., 197 illus. in color.)
Disciplina	660
Soggetti	Chemical engineering Biotechnology Green chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Overview/Introduction -- I Fats and Oils -- 2 Plant Oils -- 3 Fat Products/Oleochemicals -- 4 Reactions of fatty acid chains/Special Oleochemical Products -- 5 The by-product of Oleochemistry/Glycerol -- II Carbohydrate -- 6 Sugar Chemistry -- 7 From wood to pulp/Cellulose -- 8 Starch Chemistry -- 9 Carbohydrates from the sea -- 10 Cyclodextrins -- III Lignin -- 11 Woods' essential ingredient/Lignin -- IV Terpenoids -- 12 Tree Balm/Terpenes -- 13 Natural rubber and its processing -- V Other Natural Products -- 14 Building blocks of life/Amino acids and proteins -- 15 Natural Dyes -- 16 Natural Pharmaceuticals -- 17 The essential 'amines' -- 18 Natural Fragrances and Flavours -- 19 Plastics from nature/Biopolymers -- VI Biorefineries -- 20 Smart raw materials -- Answers to the 'Quickies' -- Index.
Sommario/riassunto	This textbook introduces the industrial production and processing of natural resources. It is divided into six major topics (fats and oils, carbohydrates, lignin, terpenoids, other natural products, biorefinery), which are divided into a total of 20 chapters. Each chapter is self-contained and therefore a compact learning unit, which can be worked on by students in self-study or presented by lecturers. Clear illustrations, flow diagrams, apparatus drawings and photos facilitate

the understanding of the subject matter. All chapters end with a succinct summary, the "Take Home Messages". Each chapter is supplemented by ten short test questions, which can be solved quickly after working through the chapter; the answers are at the end of the book. All chapters contain bibliographical references that focus on essential textbooks and reference works. As a prior knowledge, only basic knowledge of chemistry is required.

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