Record Nr. UNINA9910812896303321 Autore Bart Jan C. J Titolo Biolubricants: science and technology / / Jan C.J. Bart, Emanuele Gucciardi and Stefano Cavallaro Cambridge, UK:,: Woodhead Publishing Limited,, 2013 Pubbl/distr/stampa **ISBN** 0-85709-632-X Descrizione fisica 1 online resource (944 p.) Collana Woodhead Publishing series in energy, , 2044-9364; ; number 46 Altri autori (Persone) GucciardiEmanuele CavallaroStefano Disciplina 621.89 Soggetti Lubrication and lubricants Lubrication and lubricants - Environmental aspects 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 Cover; Biolubricants: Science and technology; Copyright; Contents; Author contact details; About the authors; Woodhead Publishing Series in Energy; Preface; 1Renewable lubricants; 1.1 Introduction; 1.2 Scope; 1.3 Chapter overview; 1.4 Sources of further information and advice; 1.5 References; 2Principles of lubrication; 2.1 Introduction; 2.2 Purpose of lubrication; 2.3 Friction and lubrication conditions; 2.4 Sources of further information and advice; 2.5 References; 3Lubricants: properties

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Sommario/riassunto

Lubricants are essential in engineering, however more sustainable formulations are needed to avoid adverse effects on the ecosystem. Bio-based lubricant formulations present a promising solution. Biolubricants: Science and technology is a comprehensive, interdisciplinary and timely review of this important subject.Initial chapters address the principles of lubrication, before systematically reviewing fossil and bio-based feedstock resources for biodegradable lubricants. Further chapters describe catalytic, (bio) chemical functionalisation processes for transformation of feedstocks into