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Autore	Ciardelli Francesco
Titolo	Polymers from Fossil and Renewable Resources : Scientific and Technological Comparison of Plastic Properties / / by Francesco Ciardelli, Monica Bertoldo, Simona Bronco, Elisa Passaglia
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ISBN	3-319-94434-7
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Descrizione fisica	1 online resource (216 pages)
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Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Basic Concepts for Plastic Response -- Material Plasticity -- Measurable Fundamental Entities -- Processing Features -- Molecular Structure Requirements -- Oil Derived Macromolecules -- Renewable Macromolecules -- Structure/ to Fundamental Properties -- Preparation of Macromolecules for Plastics -- From Oil to Macromolecules -- Polymerization Processes -- Processing to Materials -- The Obtainment of Bioplastics -- Biopolymers from Natural Sources -- Monomers from Nature -- Products Preparation -- Hybrid Materials and Systems -- Chemical Modification of Molecular Structure -- Blends and Composites -- Functional Materials -- Environmental Impact -- Materials from Oil and Nature -- Production Processes -- Consumer Use -- Disposal, Recycling, Biodegradation -- Response of Society and Market -- Availability of starting materials -- Ultimate Properties for Application -- Evaluation and Future.
Sommario/riassunto	The book describes the development and commercialization of materials with viscoelastic properties, placing particular emphasis on the scientific and technological differences between plastics and

bioplastics. The authors explain how to handle each of the two types of materials and determine the comparative environmental impact of the material life-cycle. The practical values of the overlapping aspects of the two types of materials from technical properties to eco-compatibility are also discussed.
