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Nota di contenuto	2 - Plant Oil-Based Derivatives2.1 - Introduction; 2.2 - Plant Oil-Based Derivatives; 2.2.1 - Fatty Acids; 2.2.2 - Fatty Amides/Nitriles/Amines; 2.2.3 - Alcohols; 2.2.4 - Ester Derivatives; 2.2.5 - Epoxy Derivatives; 2.2.6 - Conjugates; 2.2.7 - Other Derivatives; 2.3 - Conclusions; References; 3 - Plant Oil-Based Polyurethanes; 3.1 - Polyurethane Chemistry; 3.2 - Plant Oil-Based Polyurethanes; 3.3 - Developing New Sources of Vegetable Oils; 3.4 - Polyol Methods; 3.4.1 - Epoxidation/Ring-Opening; 3.4.2 - Ozonolysis; 3.4.3 - Amidation; 3.5 - Flame Retardant Polyols 4.4.3.2 - Glycerol4.4.3.3 - Terpenes; 4.4.3.4 - Hybrid PHUs and Composites; 4.5 - Alternative Systems; 4.6 - Conclusions; References; 5 - Plant Oil-Based Polyester; 5.1 - Introduction; 5.2 - Processes and Monomers; 5.3 - Thermoplastic Polyesters; 5.4 - Biodegradable Polyesters; 5.5 - Unsaturated Polyester Resin (UPR); 5.6 - Other Applications; 5.7 - Applications of Plant Oil-Based Polyester as an Alternative for Petroleum-Based Polyester; Acknowledgments; References; 6 - Plant Oil-Based Polyether; 6.1 - Background; 6.1.1 - Introduction; 6.1.2 - Molecular Weight and Networks; 6.2 - Methods 7.3.4 - Epoxy Ring Opening with Halogen Reagents
Sommario/riassunto	Bio-based Plant Oil Polymers and Composites provides engineers and materials scientists a useful framework to help take advantage of the latest research conducted in this rapidly advancing field-enabling them to develop and commercialize their own products quickly and more successfully. Plant oil is one of the most attractive options as a

substitute for non-renewable resources in polymers and composites, and is producing materials with very promising thermomechanical properties relative to traditional, petroleum-based polymers. In addition to critical processing and characterization infor
