1. Record Nr. UNINA9910824491703321 Titolo Biodegradable green composites / / edited by Susheel Kalia Hoboken, New Jersey:,: Wiley,, [2016] Pubbl/distr/stampa ©2016 **ISBN** 1-5231-1475-4 1-118-91115-6 1-118-91106-7 1-118-91091-5 Descrizione fisica 1 online resource (431 p.) Disciplina 620.1/18 Soggetti Composite materials Green products 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 TITLE PAGE; TABLE OF CONTENTS; CONTRIBUTORS; PREFACE; 1 BIODEGRADABLE GREEN COMPOSITES; 1.1 INTRODUCTION; 1.2 BIODEGRADABLE POLYMERS; 1.3 NANOFILLERS FOR COMPOSITES; 1.4 NANOCOMPOSITES FROM RENEWABLE RESOURCES; 1.5 PROCESSING OF GREEN COMPOSITES; 1.6 APPLICATIONS; 1.7 CONCLUSION; REFERENCES: 2 SURFACE MODIFICATION OF NATURAL FIBERS USINGPLASMA TREATMENT; 2.1 INTRODUCTION; 2.2 MECHANISMS OF PLASMA TREATMENT AND TYPES OF PLASMA MACHINES; 2.3 EFFECTS AND APPLICATIONS OF PLASMA TREATMENT; 2.4 CONCLUSIONS AND INDUSTRIAL IMPLICATIONS; REFERENCES 3 REINFORCING POTENTIAL OF ENZYMATICALLY MODIFIED NATURAL FIBERS3.1 INTRODUCTION; 3.2 ENZYMES; 3.3 NATURAL FIBERS AS ENZYME SUBSTRATES; 3.4 TYPES OF ENZYMES USED IN NATURAL FIBER MODIFICATION; 3.5 EFFECT OF ENZYMATIC TREATMENT ON THE STRUCTURE AND PROPERTIES OF NATURAL FIBERS: 3.6 POLYMER COMPOSITES REINFORCED WITH ENZYMATICALLY MODIFIED NATURAL FIBERS: 3.7 ENZYME-ASSISTED BIOGRAFTING METHODS: 3.8 CONCLUSIONS; REFERENCES; 4 RECENT DEVELOPMENTS IN SURFACE

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