Record Nr. UNINA9910437821303321 Green Materials for Energy, Products and Depollution [[electronic **Titolo** resource] /] / edited by Eric Lichtfouse, Jan Schwarzbauer, Didier Robert Pubbl/distr/stampa Dordrecht:,: Springer Netherlands:,: Imprint: Springer,, 2013 **ISBN** 94-007-6836-2 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (487 p.) Collana Environmental Chemistry for a Sustainable World, , 2213-7114;; 3 Disciplina 333.7916 Soggetti **Environmental chemistry** Water pollution Climate change Renewable energy resources Electrical engineering **Environmental Chemistry** Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution Climate Change Renewable and Green Energy **Electrical Engineering** 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 1. Biodiesel from microalgal oil extraction -- 2. Electrochemistry and water pollution -- 3. Heterogeneous photocatalysis for pharmaceutical wastewater treatment -- 4. Water depollution using ferrites photocatalysts -- 5. Bioindicators of toxic metals -- 6. Natural dyes and antimicrobials for textiles -- 7. Surfactants in agriculture -- 8. Cheap materials to clean heavy metal polluted waters -- 9. Water quality monitoring by aquatic bryophytes -- 10. Halogenated PAH contamination in urban soils. Using renewable fuels and materials, drinking clean water and food, Sommario/riassunto and breathing safe air are major issues for a sustainable world. This book reviews biodiesel production from microalgae, a promising energy

source that does not compete with food production. Several advanced techniques to clean polluted waters, such as electrochemistry, ferrites

photocatalysis and low-cost filtration are presented. Chapters also show various living organisms used as bioindicators of toxic metals. Decreasing ecotoxicity of pesticides using suitable surfactants is reviewed. The last chapter evidences new pollutants in urban soils, halogenated polycyclic aromatic hydrocarbons.