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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Layered double hydroxides and the environment : an overview / Amita Jaiswal, Ravindra Kumar Gautam, and Mahesh Chandra Chattopadhyaya -- Improvement of the corrosion resistance of aluminium alloys applying different types of silanes / Anca-Iulia Stoica, Norica Carmen Godja, Andje Stankovi, Matthias Pilzler, Erich Kny, and Christoph Kleber -- New generation material for the removal of arsenic from water / Dinesh Kumar and Vaishali Tomar -- Prediction and optimization of heavy clay products quality / Milica Arsenovi, Lato Pezo, Lidija Mani, and Zagorka Radojevi -- Enhancement of physical and mechanical properties of sugar palm fiber via vacuum resin impregnation / M.R. Ishak, Z. Leman, S.M. Sapuan, M.Z.A. Rahman, and U.M.K. Anwar -- Environmentally-friendly acrylates-based polymer latices / Sweta Shukla and J.S.P. Rai -- Nanoparticles for trace analysis of toxins : present and future scenario / Anupreet Kaur and Shivender Singh Saini -- Recent developments in gold nanomaterial catalysts for oxidation reaction through green and sustainable routes / Biswajit Chowdhury, Chiranjit Santra, Sandip Mandal, and Rawesh Kumar -- Nanosized

metal oxide-based adsorbents for heavy metal removal : a review / Deepak Pathania and Pardeep Singh -- Future prospects of phytosynthesized transition metal nanoparticles as novel functional agents for textiles / Shahid-ul-Islam, Mohammad Shahid, and Fageer Mohammad -- Functionalized magnetic nanoparticles for heavy metal removal from aqueous solutions : kinetics and equilibrium modeling / Ravindra Kumar Gautam, Amita Jaiswal, and Mahesh Chandra Chattopadhyaya -- Potential application of nanoparticles as antipathogens / Pratima Chauhan, Mini Mishraand, Deepika Gupta -- Gas barrier properties of biopolymer-based nanocomposites : application in food packaging / Sarat Kumar Swain -- Application of zero-valent iron nanoparticles for environmental clean up / Ritu Singh and Virendra Misra -- Typical synthesis and environmental application of novel TiO<sub>2</sub> nanoparticles / Tanmay Kumar Ghorai -- Zinc oxide nanowire films : solution growth, defect states, and electrical conductivity / Ajay Kushwaha and M. Aslam.

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#### Sommario/riassunto

The levels of toxic and microbial contamination in the food and environment are influenced by harvesting or slaughtering technologies and by the processes applied during food manufacture. With current cultivation methods, it is impossible to guarantee the absence of pesticides and pathogenic microorganisms in raw foods, both of plant and animal origin. Widespread and increasing incidence of foodborne diseases and the resulting social and economic impact on the world population have brought food and environmental safety to the forefront of ecological safety and public health concerns. The emer

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