1. Record Nr. UNINA9910155528603321 Autore Pagano Giovanni (Biochemist) Titolo Rare earth elements in human and environmental health: at the crossroads between toxicity and safety / / by Giovanni Pagano Pubbl/distr/stampa Singapore: .: Pan Stanford Publishing, an imprint of Pan Stanford. . 2016 **ISBN** 1-315-34106-9 1-315-36473-5 981-4745-01-4 Edizione [First edition.] Descrizione fisica 1 online resource (293 pages): illustrations, tables 546.41 Disciplina Soggetti Rare earth metals Rare earth metals - Toxicology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each each chapters and index. Nota di contenuto chapter Introduction to Rare Earth Elements: Novel Health Hazards or Safe Technological Devices? -- chapter 1 Trends in Occupational Toxicology of Rare Earth Elements -- chapter 2 Rare Earth Elements, Oxidative Stress, and Disease -- chapter 3 Cerium Oxide Nanoparticles? Associated Oxidant and Antioxidant Effects and Mechanisms -- chapter 4 Rare Earth Elements and Plants -- chapter 5 Rare Earth Elements and Microorganisms -- chapter 6 Rare Earth Element Toxicity to Marine and Freshwater Algae -- chapter 7 Exposure to Rare Earth Elements in Animals: A Systematic Review of Biological Effects in Mammals, Fish, and Invertebrates -- chapter 8 Hazard Assessment and the Evaluation of Rare Earth Element Dose? Response Relationships -- chapter 9 Rare Earth Elements as Phosphate Binders: From Kidneys to Lakes -- chapter 10 Rare Earth Elements: Modulation of Calcium-Driven Processes in Epithelium and Stroma -- chapter 11 Rare Earth Elements Equilibria in Aqueous Media. This book presents the multifaceted aspects of rare earth elements Sommario/riassunto (REEs), focusing on both their potential benefits and adverse health effects. The adverse impacts of REEs on human and environmental

health raise a growing concern not only in the scientific community but

also among a number of stakeholders, potentially including students, media workers, and decision makers. The recognized and potential benefits arising from REE-related technological applications may envisage their further advantages.