Record Nr. UNINA9910765545703321 Autore Pham Phuong V. Titolo Nature-inspired self-cleaning surfaces in the nantoechnolgy era / / Phuong V. Pham London:,:IntechOpen,,2023 Pubbl/distr/stampa **ISBN** 1-83769-070-7 Descrizione fisica 1 online resource: illustrations Disciplina 620.5 Soggetti Nanotechnology Nanotechnology - Safety measures Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto 1. Biomimetic Superhydrophobic Materials for Environmental Applications -- 2. Plant-Based Sustainable Self-Cleaners in Nanotechnology Era: From Mechanism to Assembling -- 3. Self-Cleaning Surfaces of Polyurethanes -- 4. A Self-Cleaning Approach Utilizing Metal Oxide Thin Films and Nanocomposites -- 5. Plasma Based Approaches to Achieve Self-Cleaning Surfaces -- 6. Nanomachining. Sommario/riassunto This book examines a new field of nature-mimicked nanotechnology and chemical manipulation, focusing on the mechanisms, principles, and manufacturing of self-cleaning surfaces and describing how these materials can be created for scalable production. Self-cleaning ability on the topmost surfaces of materials increases a product's value for applications in microfluidics, lap-on-chip, microreactors, air purification, and more. An easy way to obtain self-cleaning properties is by creating superhydrophobic surfaces so water droplets can roll down, picking up dirt particles on the way. This book provides a comprehensive overview of self-cleaning properties in nanotechnology. It includes six chapters that address such topics as the fabrication and applications of biomimetic superhydrophobic materials, self-cleaning surfaces of different plants, self-cleaning polyurethane surfaces, selfcleaning approaches using plasma, and laser technology for

superhydrophobic self-cleaning applications.

2. Record Nr. UNINA9910439056003321 World cancer research journal **Titolo** Miami, FL:,: Verduci International LLC,, 2014-Pubbl/distr/stampa Disciplina 616 Soggetti Cancer - Research Periodicals. Lingua di pubblicazione Inglese Formato Materiale a stampa Livello bibliografico Periodico Note generali Refereed/Peer-reviewed