Record Nr. UNINA9910298623303321 Antifouling Surfaces and Materials: From Land to Marine Environment / **Titolo** / edited by Feng Zhou Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, . 2015 **ISBN** 3-662-45204-9 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (179 p.) 541.2254 Disciplina 620.11 620.44 660.6 Soggetti Materials—Surfaces Thin films **Polymers Biomaterials** Biotechnology Surfaces and Interfaces, Thin Films **Polymer Sciences** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Antifouling Self-Cleaning Surface -- Antifouling Surfaces of Selfassembled Thin Layer -- Anti-fouling Surfaces Based on Polymer Brushes -- Antifouling of Micro/nano Structural Surfaces -- Antifouling Based on Biocides: from Toxic to Green -- Development of Marine Antifouling Coatings -- Effect of Boundary Slippage on Foul Release. This book reviews the development of antifouling surfaces and Sommario/riassunto materials for both land and marine environments, with an emphasis on marine antibiofouling. It explains the differences and intrinsic relationship between antifouling in land and marine environments, which are based on superhydrophobicity and superhydrophilicity respectively. It covers various topics including biomimetic antifouling and self-cleaning surfaces, grafted polymer brushes and

micro/nanostructure surfaces with antifouling properties, as well as

marine antibiofouling. Marine antibiofouling includes both historical biocidal compounds (tributyltin, copper and zinc) and current green, non-toxic antifouling strategies. This book is intended for those readers who are interested in grasping the fundamentals and applications of antifouling. Feng Zhou is a professor at the State Key Laboratory of Solid Lubrication, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences.