Record Nr. UNINA9910822490703321 Photocatalysis and water purification: from fundamentals to recent **Titolo** applications / / edited by Pierre Pichat Pubbl/distr/stampa Weinheim,: Wiley-VCH, 2013 **ISBN** 3-527-64540-3 3-527-64542-X 3-527-64541-1 Edizione [1st ed.] Descrizione fisica 1 online resource (440 p.) Collana Materials for sustainable energy and development, , 2194-7813 **PichatPierre** Altri autori (Persone) Disciplina 628.162 Soggetti **Photocatalysis** Water - Purification Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto pt. I. Fundamentals: active species, mechanisms, reaction pathways -pt. II. Improving the photocatalytic efficacy -- pt. III. Effects of photocatalysis on natural organic matter and bacteria -- pt. IV. Modeling, reactors, pilot plants. From the fundamentals to recent developments, this book introduces Sommario/riassunto scientists and engineers to photocatalysis and demonstrates its potential for improving water quality. It also points out strategies to increase the photocatalytic efficacy: synthesis of better photocatalysts, combination of photocatalysis with other technologies, and the correct design of photocatalytic reactors. Applications and a chapter on design approaches for photocatalytic reactors round off the book. A must-have read for materials scientists, water chemists, environmental scientists and chemical engineers, whether es