

1. Record Nr.	UNINA9910298621603321
Titolo	Photocatalytic Semiconductors : Synthesis, Characterization, and Environmental Applications // edited by Aracely Hernández-Ramírez, Iliana Medina-Ramírez
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer , 2015
ISBN	3-319-10999-5
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (298 p.)
Disciplina	537.622 54 541395 620.11
Soggetti	Catalysis Materials science Energy systems Ceramics Glass Composite materials Semiconductors Characterization and Evaluation of Materials Energy Systems Ceramics, Glass, Composites, Natural Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Semiconducting materials -- New visible light active semiconductors -- Synthesis methods for photocatalytic materials -- Physicochemical characterization of photocatalytic materials -- Electrochemical characterization of photocatalytic materials -- Semiconductor materials for photocatalytic oxidation of organic pollutants in wastewater -- Application of semiconductor photocatalytic materials for the removal or inorganic compounds from wastewater -- Photocatalytic materials in

water disinfection -- Future and perspectives for photocatalytic materials in environmental photocatalysis.

---

Sommario/riassunto

This critical volume examines the different methods used for the synthesis of a great number of photocatalysts, including TiO<sub>2</sub>, ZnO, and other modified semiconductors, as well as characterization techniques used for determining the optical, structural and morphological properties of the semiconducting materials. Additionally, the authors discuss photoelectrochemical methods for determining the light activity of the photocatalytic semiconductors by means of measurement of properties such as band gap energy, flat band potential, and kinetics of hole and electron transfer. Photocatalytic Semiconductors: Synthesis, Characterization and Environmental Applications provides an overview of the semiconductor materials from first- to third-generation photocatalysts and their applications in wastewater treatment and water disinfection. The book further presents economic and toxicological aspects in the production and application of photocatalytic materials. This book also:

- Provides a broad perspective of semiconductor materials with photocatalytic properties
- Emphasizes the importance of the physicochemical and electrochemical characterization of photocatalytic materials
- Includes synthesis methods that produce photocatalytic materials with suitable properties for environmental applications.

---

2. Record Nr.	UNINA9910962495303321
Autore	Valentine Raymond C
Titolo	Human Longevity
Pubbl/distr/stampa	CRC Press, 2014
ISBN	1-04-021241-7 0-429-16877-2 1-4665-9487-X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (248 p.)
Classificazione	MED008000SCI049000TEC012000
Altri autori (Persone)	ValentineDavid L
Disciplina	612.6/7
Soggetti	Aging - Genetic aspects Mitochondria Oxidative stress Omega-3 fatty acids - Health aspects
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Chapter 5: Remarkable Longevity of Queens of Social Insects Likely Involves Dietary Manipulation to Minimize Levels of Polyunsaturates and Decrease Membrane PeroxidationChapter 6: Membrane Peroxidation Hypothesis Helps Explain Longevity in Birds, Rodents, and Whales; Chapter 7: Did Longevity Help Humans Become Super Humans?; Chapter 8: Mitochondrial Diseases and Aging Have Much in Common; Chapter 9: Revised Mitochondrial Hypothesis of Aging Highlights Energy Deficiency Caused by Errors of Replication (Mutations) of mtDNA; Chapter 10: Benefits of Polyunsaturated Mitochondrial Membranes Chapter 16: Uncoupling Proteins (UCPs) of Mitochondria Purposely Waste Energy to Prevent Membrane DamageChapter 17: Mitochondrial Fission Protects against Oxidative Stress by Minting a Continuous Supply of Cardiolipin and Other Polyunsaturated Phospholipids; Chapter 18: Mitophagy Eliminates Toxic Mitochondria; Chapter 19: Longevity Genes Likely Protect Membranes; Chapter 20: Aging as a Cardiolipin Disease That Can Be Treated; Back Cover
Sommario/riassunto	More than 7 billion people inhabit the earth and all of them are subject to aging. This book is aimed at persons interested in a molecular

explanation of how our cells age. Human Longevity: Omega-3 Fatty Acids, Bioenergetics, Molecular Biology, and Evolution is built on the proposition that we age as our mitochondria age. It suggests a revised version of Harman's famous hypothesis featuring mitochondrial oxidative and energy stresses as the root causes of aging. Human cells are protected from the ravages of aging by a battery of defensive systems including some novel mechanisms against membran

---