

1. Record Nr.	UNINA9910816819503321
Autore	Cirkva Vladimir <1968->
Titolo	Photocatalysis on titania-coated electrode-less discharge lamps [[electronic resource] /] / Vladimir Cirkva and Hana Zabova
Pubbl/distr/stampa	Hauppauge, N.Y., : Nova Science Publishers, c2010
ISBN	1-61470-578-X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (88 p.)
Collana	Chemical engineering methods and technology series
Altri autori (Persone)	ZabovaHana <1982->
Disciplina	621.32/5
Soggetti	Electric discharge lighting Photocatalysis Titanium dioxide - Electric properties Titanium dioxide films
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 (p. [63]-70) and index.
Nota di contenuto	Intro -- PHOTOCATALYSIS ON TITANIA-COATED ELECTRODE-LESS DISCHARGE LAMPS -- PHOTOCATALYSIS ON TITANIA-COATED ELECTRODE-LESS DISCHARGE LAMPS -- CONTENTS -- PREFACE -- Chapter 1 INTRODUCTION -- Chapter 2 UV/VIS DISCHARGES IN ELECTRODELESS LAMPS -- 2.1. THEORY OF THE DISCHARGE -- 2.2. CONSTRUCTION OF ELECTRODELESS LAMPS -- 2.3. SPECTRAL CHARACTERISTICS OF ELECTRODELESS LAMPS -- 2.4. PERFORMANCE OF ELECTRODELESS LAMPS -- Chapter 3 THIN TITANIA FILMS ON ELECTRODELESS LAMPS -- 3.1. PREPARATION OF THE THIN TITANIA FILMS -- 3.2. TRANSITION METAL DOPED THIN TITANIA FILMS -- 3.3. CHARACTERIZATION OF THIN TITANIA FILMS -- 3.3.1. X-ray Diffraction (XRD) -- 3.3.2. Raman Spectroscopy -- 3.3.3. X-ray Photoelectron Spectroscopy (XPS) -- 3.3.4. Scanning Electron Microscopy (SEM) -- 3.3.5. Atomic Force Microscopy (AFM) -- 3.3.6. UV/Vis Absorption Spectroscopy -- 3.4. PHOTOCATALYTIC ACTIVITY OF THIN TITANIA FILMS -- Chapter 4 INTERACTIONS OF MW RADIATION WITH THE UV/VIS-ILLUMINATED TITANIA -- Chapter 5 NOVEL MICROWAVE PHOTOCATALYTIC REACTORS -- 5.1. BATCH EXPERIMENTAL SET-UP -- 5.2. CONTINUOUS-FLOW EXPERIMENTAL SET-UP -- Chapter 6 MICROWAVE PHOTOCATALYSIS WITH TITANIA-COATED ELECTRODELESS LAMPS -- 6.1. EFFECT OF ELECTRODELESS LAMPS -- 6.1.1. Effect of the

Number of Coating Cycles (in Batch Type) -- 6.1.2. Effect of Light Intensity (in Batch Type) -- 6.1.3. Effect of Number of the Coated EDLs (in Continuous-flow type) -- 6.1.4. Effect of Pure and V-, Zr-, and Ag-doped Titania (in Batch Type) -- 6.2. EFFECT OF REACTION CONDITIONS -- 6.2.1. Effect of Initial pH (in Batch Type) -- 6.2.2. Effect of Air Bubbling (in Batch and Continuous-flow Types) -- 6.2.3. Effect of H<sub>2</sub>O<sub>2</sub> Dosages (in Batch Type) -- 6.2.4. Effect of Flow Rate and Reaction Temperature (in Continuous-flow Type) -- Chapter 7 CONCLUSION -- ACKNOWLEDGMENT -- REFERENCES -- INDEX.

---