

# Curriculum Vitae

## INFORMAZIONI PERSONALI

**Nome** LEONARDO  
**Cognome** PALMISANO  
**Recapiti** Facoltà di Ingegneria Edificio 6, Dipartimento di Energia, ingegneria dell'Informazione e Modelli Matematici (DEIM)  
**Telefono** 091-23863746  
**E-mail** leonardo.palmisano@unipa.it

## FORMAZIONE TITOLI

Vedi Curriculum

## ATTIVITA' DIDATTICA

Vedi Curriculum

## RICERCHE FINANZIATE

PON FOTORIDUCO2.

PON STI-TAM.

## ASSOCIAZIONI SCIENTIFICHE

Membro Società Chimica Italiana

Membro ACS (American Chemical Society)

FRSC (Fellow Royal Society of Chemistry)

## PUBBLICAZIONE

### ELENCO DELLE PUBBLICAZIONI DEL PROF. LEONARDO PALMISANO RECENSITE E PUBBLICATE SU RIVISTE

1- G. Silvestri, S. Gambino, G. Filardo, G. Spadaro and L. Palmisano

*The Electrochemistry of Carbon Monoxide Reductive*

*Cyclotetramerization to Squarate Anion*

Electroch. Acta 23 (1978) pp. 413-418

- 2- V. Augugliaro, L. Palmisano, M. Schiavello and A. Sclafani

*Photodecomposition of Adsorbed Ethanoic Acid over Silica*

*Gel Catalyst in a Flow System*

J. Catal. 99 (1986) pp. 62-71

- 3- V. Augugliaro, L. Palmisano, A. Sclafani, C. Minero and E. Pelizzetti

*Photocatalytic Degradation of Phenol in Aqueous Titanium*

*Dioxide Dispersion*

Toxicol. Environ. Chem. 16 (1988) pp. 89-109

- 4- A. Sclafani, L. Palmisano, M. Schiavello, V. Augugliaro, S. Coluccia and

L. Marchese

*The Photodecomposition of Ethanoic Acid Adsorbed over Semiconductor*

*and Insulator Oxides. Part 1. Pure Oxides*

New J. Chem. 12 (1988) pp. 129-135

- 5- L. Palmisano, A. Sclafani, M. Schiavello, V. Augugliaro, S. Coluccia and

L. Marchese

*The Photodecomposition of Ethanoic Acid Adsorbed over Semiconductor*

*and Insulator Oxides. Part 2. Mixed Insulator Oxides*

New J. Chem. 12 (1988) pp. 137-141

- 6- V. Augugliaro, L. Palmisano and A. Sclafani

*Temperature Dependence of Diffusional Kinetics of Zinc into Solid*

*Copper*

Chem. Biochem. Eng. Q. 2 (1988) pp. 7-12

- 7- A. Sclafani e L. Palmisano

*Attività Fotocatalitica del TiO<sub>2</sub> nei processi di Demolizione di Molecole*

*Organiche Inquinanti*

La Chimica e L'Industria 10 (1988) pp. 94-95

- 8- L. Palmisano, M. Schiavello, A. Sclafani, S. Coluccia and L. Marchese

*The Photodecomposition of Ethanoic Acid Adsorbed over Semiconductor*

*and Insulator Oxides. Part 3. Mixed Insulator-Semiconductor Oxides*

New J. Chem. 12 (1988) pp. 847-852

- 9- L. Palmisano, V. Augugliaro, A. Sclafani and M. Schiavello

*Activity of Chromium Ions Doped Titania for the Dinitrogen*

*Photoreduction to Ammonia and for the Phenol Photodegradation*

J. Phys. Chem. 92 (1988) pp. 6710-6713

10- M.D. Grillone and L. Palmisano

*Interesting Synthetic Routes from the Reinvestigation of the Reaction*

*of the  $M(\text{CO})_6$  ( $M = \text{Cr}, \text{Mo}$  and  $\text{W}$ ) Species with  $\text{KOH}$*

Transition Metal Chem. 14 (1989) pp. 81-89

11- L. Palmisano, V. Augugliaro, M. Schiavello and A. Sclafani

*Influence of Acid-Base Properties on Photocatalytic and Photochemical*

*Processes*

J. Mol. Catal. 56 (1989) pp. 284-295

12- A. Sclafani, L. Palmisano and M. Schiavello

*The Influence of the Preparation Methods of  $\text{TiO}_2$  on the Photocatalytic*

*Degradation of Phenol in Aqueous Dispersions*

J. Phys. Chem. 94 (1990) pp. 829-832

13- A. Sclafani, L. Palmisano and E. Davì

*Photocatalytic Degradation of Phenol by  $\text{TiO}_2$  Aqueous Dispersions:*

*Rutile and Anatase Activity*

New J. Chem. 14 (1990) pp. 265-268

14- A. Sclafani and L. Palmisano

*Phenol Photooxidation over TiO<sub>2</sub> Aqueous Dispersions Mediated by*

*Fe<sup>3+</sup>/Fe<sup>2+</sup> Redox System*

Gazz. Chim. It. 120 (1990) pp. 599-601

15- V. Augugliaro, E. Davì, L. Palmisano, M. Schiavello and A. Sclafani

*Influence of Hydrogen Peroxide on the Kinetics of*

*Phenol Photodegradation in Aqueous Titanium Dioxide Dispersion*

Appl. Catal. 65 (1990) pp. 101-116

16- A. Sclafani, L. Palmisano and E. Davì

*Photocatalytic Degradation of Phenol in Aqueous Polycrystalline TiO<sub>2</sub>*

*Dispersions: The Influence of Fe<sup>3+</sup>, Fe<sup>2+</sup> and Ag<sup>+</sup> on the Reaction Rate*

J. Photochem. Photobiol. A: Chem. 56 (1991) pp. 113-123

17- J. Soria, J. Conesa, V. Augugliaro, L. Palmisano, M. Schiavello and

A. Sclafani

*Dinitrogen Photoreduction to Ammonia over Titanium Dioxide Powders*

*doped with Ferric Ions*

J. Phys. Chem. 95 (1991) pp. 274-282

18- M. Schiavello, V. Augugliaro and L. Palmisano

*An Experimental Method for the Determination of the Photon Flow*

*Reflected and Absorbed by Aqueous Dispersions Containing*

*Polycrystalline Solids in Heterogeneous Photocatalysis*

J. Catal. 127 (1991) pp. 332-341

19- R.I. Bickley, T. González-Carreño, J.S. Lees, L. Palmisano and

R.J.D. Tilley

*A Structural Investigation of Titanium Dioxide Photocatalysts*

J. Solid State Chem. 92 (1991) pp. 178-190

20- V. Augugliaro, L. Palmisano, M. Schiavello, A. Sclafani, L. Marchese,

G. Martra and F. Miano

*Photocatalytic Degradation of Nitrophenols in Aqueous Titanium*

*Dioxide Dispersion*

Appl. Catal. 69 (1991) pp. 323-340

21- V. Augugliaro, L. Palmisano and M. Schiavello

*Photon Absorption by Aqueous TiO<sub>2</sub>*

*Dispersion Contained in a Stirred Photoreactor*

AIChE J. 37 (1991) pp. 1096-1100

22- R.I. Bickley, T. González-Carreño and L. Palmisano

*A Study of the Interaction Between Iron(III) Oxide and Titanium(IV) Oxide at Elevated Temperatures*

Mater. Chem. Phys. 29 (1991) pp. 475-487

23- R.I. Bickley, J.S. Lees, L. Palmisano, M. Schiavello and R.J.D. Tilley

*Characterisation of Iron-Titanium Oxide Photocatalysts Part 1.*

*Structural and Magnetic Studies*

J. Chem. Soc. Faraday Trans. 88 (1992) pp. 377-383

24- C. Martin, I. Martin, V. Rives, L. Palmisano and M. Schiavello

*Structural and Surface Characterization of the Polycrystalline System*

*Cr<sub>x</sub>O<sub>y</sub>/TiO<sub>2</sub> Employed for Photoreduction of Dinitrogen and Photode-*

*gradation of Phenol*

J. Catal. 134 (1992) pp. 434-444

25- V. Augugliaro, F. Inglese, L. Palmisano and M. Schiavello

*Annular Flow Photoreactor for Phenol Degradation in Aqueous*

*Titanium Dioxide Dispersion*

Chem. Biochem. Eng. Q. 6 (1992) pp. 63-70

26- V. Augugliaro and L. Palmisano

*Kinetics of Diffusion of Zinc into Solid Brass with Contemporary*

*Transformation of the Alloy Phase*

Chem. Biochem. Eng. Q. 6 (1992) pp. 89-95

27- A. Sclafani, L. Palmisano and M. Schiavello

*N<sub>2</sub> Photoreduction and Phenol and Nitrophenol Isomers Photooxidation*

*as Examples of Heterogeneous Photocatalytic Reactions*

Res. Chem. Intermed. 18 (1992) pp. 211-226

28- L. Palmisano, M. Schiavello and A. Sclafani

*Concerning "An Opinion on the Heterogeneous Photoreduction*

*of N<sub>2</sub> with H<sub>2</sub>O"*

Angew. Chem. 105 (1993) p. 580

Angew. Chem. Int. Ed. Engl. 32 (1993) p. 551

29- E. Pramauro, M. Vincenti, V. Augugliaro and L. Palmisano

*Photocatalytic Degradation of Monuron in TiO<sub>2</sub> Aqueous Dispersions*

Envir. Sci. Technol. 27 (1993) pp. 1790-1795



**30-** L. Palmisano, V. Augugliaro, R. Campostrini and M. Schiavello

*A Proposal for the Quantitative Assessment of Heterogeneous*

*Photocatalytic Processes*

J. Catal. 143 (1993) pp. 149-154

**31-** V. Augugliaro, M.J. López-Muñoz, L. Palmisano and J. Soria

*Influence of pH on the Degradation Kinetics of Nitrophenol Isomers*

*in Heterogeneous Photocatalytic System*

Appl. Catal. A: General 101 (1993) pp. 7-13

**32-** V. Augugliaro, M. Schiavello and L. Palmisano

*Rate of Photon Absorption and Turnover Number: Two Parameters*

*for the Comparison of Heterogeneous Photocatalytic Systems in a*

*Quantitative Way*

Coord. Chem. Rev. 125 (1993) pp. 173-182

**33-** V. Augugliaro, G. Marci, L. Palmisano, E. Pramauro and A. Bianco-Prevot

*Kinetics of Heterogeneous Photocatalytic Decomposition of*

*Monuron over Anatase Titanium Dioxide Powder*

Res. Chem. Intermed. 19 (1993) pp. 839-853

- 34- L. Palmisano, M. Schiavello, A. Sclafani, G. Martra, E. Borello and  
S. Coluccia

*Photocatalytic Oxidation of Phenol on TiO<sub>2</sub> Powders. A Fourier*

*Transform Infrared Study*

Appl. Catal. B: Environmental 3 (1994) pp. 117-132

- 35- A.M. Venezia, L. Palmisano, M. Schiavello, C. Martin, I. Martin and

## **V. Rives**

*Characterisation of Chromium Ions-Doped Titania by FT-IR and XPS*

J. Catal. 147 (1994) pp. 115-122

- 36- L. Palmisano, M. Schiavello, A. Sclafani, C. Martin, I. Martin and V. Rives

*Surface Properties of Iron-Titania Photocatalysts Employed for*

*4-Nitrophenol Photodegradation in Aqueous TiO<sub>2</sub> Dispersion*

Catal. Letters 24 (1994) pp.303-315

- 37- R. Camprostrini, G. Carturan, L. Palmisano, M. Schiavello and A. Sclafani

*Sol-Gel Derived Anatase TiO<sub>2</sub>: Morphology and Photoactivity*

Mater. Chem. Phys. 38 (1994) pp. 277-283

- 38- H. Yamashita, H. Nishiguchi, N. Kamada, M. Anpo, Y. Teraoka, H. Hatano,

S. Ehara, K. Kikui, L. Palmisano, A. Sclafani, M. Schiavello and M.A. Fox

*Photocatalytic Reduction of CO<sub>2</sub> with H<sub>2</sub>O on TiO<sub>2</sub> and Cu/TiO<sub>2</sub> Catalysts*

Res. Chem. Intermed. 20 (1994) pp. 815-823

**39-** R.I. Bickley, T.G. González-Carreño, A.R. Gonzalez-Elipé, G. Munuera and

L. Palmisano

*Characterisation of Iron/Titanium Oxide Photocatalysts Part 2. Surface*

*Studies*

J. Chem. Soc. Faraday Trans. 90 (1994) pp. 2257-2264

**40-** A.M. Venezia, L. Palmisano and M. Schiavello

*Structural Changes of Titanium Oxide Induced by Chromium Addition*

*as Revealed by an X-Ray Study*

J. Solid State Chem. 114 (1995) pp. 364-368

**41-** J.A. Navio, M. Macias, G. Colon, P.J. Sanchez-Soto, V. Augugliaro and

L. Palmisano

*Combined Use of XPS, IR and EDAX Techniques for the Characterization*

*of ZrO<sub>2</sub> Powders Prepared by a Sol-Gel Process*

Appl. Surf. Sci. 81 (1994) pp. 325-329

42- V. Augugliaro, V. Loddo, L. Palmisano and M. Schiavello

*Performance of Heterogeneous Photocatalytic Systems: Influence of Operational Variables on Photoactivity of Aqueous Suspension of TiO<sub>2</sub>*

J. Catal. 153 (1995) pp. 32-40

43- E. Pramauro, A. Bianco-Prevot, V. Augugliaro and L. Palmisano

*Photocatalytic Treatment of Laboratory Wastes Containing Aromatic Amines*

Analyst 120 (1995) pp. 237-242

44- G. Marci, A. Sclafani, V. Augugliaro, L. Palmisano and M. Schiavello

*Influence of Some Aromatic and Aliphatic Compounds on Photodegradation Rate of Phenol in Aqueous Suspensions of TiO<sub>2</sub>*

J. Photochem. Photobiol., A: Chem. 89 (1995) pp. 69-74

45- V. Augugliaro, V. Loddo, G. Marci, L. Palmisano and M. Schiavello

*Performance of a continuous flat reactor for phenol degradation in heterogeneous photocatalytic system.*

Chem. Biochem. Eng. Quart. 9 (1995) pp. 133-139

46- V. Augugliaro, V. Loddo, L. Palmisano and M. Schiavello

*Heterogeneous Photocatalytic Systems: Influence of Some Operational*

*Variables on Actual Photons Absorbed by Aqueous Dispersions of TiO<sub>2</sub>*

Solar Energy Mat. and Solar Cells 38 (1995) pp. 411-419

47- A. Sclafani, V. Augugliaro and L. Palmisano

*Influenza di Fe<sup>3+</sup> e di H<sub>2</sub>O<sub>2</sub> sulla Fotodegradazione dei Nitrofenoli in*

*Sospensione Acquosa di TiO<sub>2</sub>*

Inquinamento n. 6 Giugno 1996 pp. 54-59

48- M. Schiavello, V. Augugliaro, L. Palmisano, A. Sclafani and A.M. Venezia

*Comments on the Paper "Spectroscopic, Photoconductivity, and Photocata-*

*lytic Studies of TiO<sub>2</sub> Colloids: Naked and with the Lattice Doped with Cr<sup>3+</sup>, Fe<sup>3+</sup>, and V<sup>5+</sup> Cations"*

Langmuir 11 (1995) p. 3278

49- G. Marci, L. Palmisano, A. Sclafani, A.M. Venezia, R. Campostrini,

G. Carturan, C. Martin, V. Rives and G. Solana

*Influence of Tungsten Oxide on Structural and Surface Properties of Sol-Gel Nitrophenol Photodegradation*

*Prepared TiO<sub>2</sub> Employed for 4-*

J. Chem. Soc., Faraday Trans. 92 (1996) pp. 819-829

50- J.A. Navio, G. Colon, M. Macias, P.J. Sanchez Soto, V. Augugliaro and

L. Palmisano

*ZrO<sub>2</sub>-SiO<sub>2</sub> Mixed Oxides: Surface Aspects, Photophysical Properties and*

*Photoreactivity for 4-Nitrophenol Oxidation in Aqueous Phase*

J. Mol. Catal. 109 (1996) pp. 239-248

- 51- V. Augugliaro, V. Loddo, G. Marcì, L. Palmisano and M.J. López-Muñoz

*Photocatalytic Oxidation of Cyanides in Aqueous Titanium Dioxide*

*Suspensions*

J. Catal. 166 (1997) pp. 272-283

- 52- A. Di Paola, L. Palmisano, M. Derrigo and V. Augugliaro

*Preparation and Characterization of Tungsten Chalcogenides Photo-*

*catalysts*

J. Phys. Chem. B 101 (1997) pp. 876-883.

- 53- A. Sclafani, L. Palmisano and G. Farneti

*Synthesis of 2-hydroxybenzoic acid by CO<sub>2</sub> and phenol in aqueous*

*heterogeneous photocatalytic systems*

Chem. Commun. 1997 pp.529-530

- 54- V. Augugliaro, V. Loddo, G. Marcì, L. Palmisano, M. Schiavello and

A. Sclafani

*Heterogeneous Photocatalysis: Fundamentals and Applications*

La Chimica e L'Industria 79 (1997) pp. 473-481

55- R.I. Bickley, T. González-Carreño, L. Palmisano, R.J.D. Tilley and

J.M. Williams

*Relative Proportions of Rutile and Pseudo-Brookite Phases in the*

*Fe(III)-TiO<sub>2</sub> System at Elevated Temperature*

Mat. Chem. & Phys. 51 (1997) pp. 47-53

56- C. Martin, I. Martin, V. Rives, G. Solana, V. Loddo, L. Palmisano and

A. Sclafani

*Physicochemical Characterization of WO<sub>3</sub>/ZrO<sub>2</sub> and WO<sub>3</sub>/Nb<sub>2</sub>O<sub>5</sub> Catalysts*

*and their photoactivity for 4-nitrophenol Photo-oxidation in Aqueous*

*Dispersion*

J. Mat. Science 32 (1997) pp. 6039-6047

57- A. Sclafani, L. Palmisano, G. Marci and A.M. Venezia

*Influence of Platinum on Catalytic Activity of Polycrystalline WO<sub>3</sub> Employed*

*for Phenol Photodegradation in Aqueous Suspension*

Solar Energy Mat. & Solar Cells 51 (1998) pp. 203-219

58- V. Loddo, G. Marci, L. Palmisano and A. Sclafani

*Preparation and Characterisation of Al<sub>2</sub>O<sub>3</sub> Supported TiO<sub>2</sub> Catalysts*

*Employed for 4-Nitrophenol Photodegradation in Aqueous Medium*

Mat. Chem. Phys. 53 (1998) pp. 217-224

**59-** F. Anfuso, V. Augugliaro, R. Ceraulo, V. Loddo, G. Marci, S. Messina,

S. Natoli, A. Orecchio, L. Palmisano, M. Schiavello and A. Sclafani

*Analytical Assessment of Oreto River Water and Photocatalytic Degradation*

*Tests of Dissolved Organic Pollutants*

Annali di Chimica 88 (1998) pp. 483-494

**60-** C. Martin, G. Solana, V. Rives, G. Marci, L. Palmisano and A. Sclafani

*Physico-Chemical Properties of WO<sub>3</sub>/TiO<sub>2</sub> Systems Employed for*

*4-Nitrophenol Photodegradation in Aqueous Medium*

Catal. Letters 49 (1997) pp. 235-243

**61-** F. Anfuso, V. Augugliaro, R. Ceraulo, V. Loddo, G. Marci, S. Messina,

S. Natoli, A. Orecchio, L. Palmisano, M. Schiavello and A. Sclafani

*Physico-Chemical Parameters of Oreto River Water Determined under*

*Various Seasonal Atmospheric Conditions and Photocatalytic Tests*

*to Degrade Dissolved Organic Pollutants*

Fresenius Environ. Bull. 7 (1998) pp. 841-848



62- G. Alonzo, N. Bertazzi, P. Galli, G. Marci, M.A. Massucci, L. Palmisano

P. Patrono and F. Saiano

*In Search of Layered Antimony(III) Materials. Synthesis and Characterization of Oxo-antimony(III) Catecholate and Further Studies on*

*Antimony(III) Phosphate*

Mat. Res. Bull. 33 (1998) pp. 1233-1240

63- M. Schiavello, V. Augugliaro, V. Loddo, M.J. López-Muñoz and

L. Palmisano

*Quantum Yield of Heterogeneous Photocatalytic Systems:*

*Revisiting an Experimental Method for Determining the Absorbed*

*Photon Flow*

Res. Chem. Intermed. 25 (1999) pp. 213-227

64- V. Loddo, G. Marci, C. Martín, L. Palmisano, V. Rives and A. Sclafani

*Preparation and Characterisation of TiO<sub>2</sub> (anatase) Supported on TiO<sub>2</sub>*

*(Rutile) Catalysts Employed for 4-Nitrophenol Photodegradation in*

*Aqueous Medium and Comparison with TiO<sub>2</sub> (anatase) Supported on Al<sub>2</sub>O<sub>3</sub>*

Appl. Cat. B: Environ. 20 (1999) pp. 29-45

65- V. Augugliaro, E. García-López, V. Loddo, G. Marci and L. Palmisano

*Degradation Kinetics of Iron(III) Cyanocomplexes in Irradiated Systems*

Adv. Environ. Res. 3 (1999) pp. 179-188

66- V. Augugliaro, S. Coluccia, V. Loddo, L. Marchese, G. Martra,

L. Palmisano and M. Schiavello

*Photocatalytic Oxidation of Gaseous Toluene on Anatase TiO<sub>2</sub> Catalyst:*

*Mechanistic Aspects and FTIR Investigation*

Appl. Cat. B: Environ. 20 (1999) pp. 15-27

67- V. Augugliaro, A. Bianco Prevot, V. Loddo, G. Marci, L. Palmisano,

E. Pramauro and M. Schiavello

*Photodegradation Kinetics of Aniline, 4-Ethylaniline, and 4-Chloroaniline*

*in Aqueous Suspension of Polycrystalline Titanium Dioxide*

## **Res. Chem. Intermed. 26 (2000) pp. 413-426**

68- V. Augugliaro, E. García-López, V. Loddo, M.J. López-Muñoz, G. Marci,

L. Palmisano and M. Schiavello

*Photodegradation of Free and Complex Cyanides in Irradiated*

*Homogeneous and Heterogeneous Systems*

Fresenius Environ. Bull. 8 (1999) pp. 350-357

**69-** V. Augugliaro, J. Blanco-Gálvez, J. Cáceres-Vázquez, E. García-López,

V. Loddo, M.J. López-Muñoz, S. Malato-Rodríguez, G. Marci,

L. Palmisano, M. Schiavello and J. Soria-Ruiz

*Photocatalytic Oxidation of Cyanide in Aqueous TiO<sub>2</sub> Suspensions*

*Irradiated by Sunlight in Mild and Strong Oxidant Conditions*

Catal. Today 54 (1999) pp. 245-253

**70-** V. Augugliaro, A. Di Paola, V. Loddo, G. Marci, L. Palmisano and

M. Schiavello

*Perspective and Potential Application of Heterogeneous Photocatalysis:*

*Case Studies in Gas-Solid and Liquid Solid Systems*

Catalysts and Catalysis 41 (1999) pp. 73-75

**71-** R. Molinari, M. Mungari, E. Drioli, A. Di Paola, V. Loddo,

L. Palmisano and M. Schiavello

*Study on a Photocatalytic Membrane Reactor for Water Purification*

Catal. Today 55 (2000) pp. 71-78

**72-** A. Di Paola, L. Palmisano and V. Augugliaro

*Photocatalytic Behavior of Mixed WO<sub>3</sub>/WS<sub>2</sub> Powders*

## Catal. Today 58 (2000) pp. 141-149

73- G. Martra, S. Coluccia, L. Marchese, V. Augugliaro, V. Loddo,

L. Palmisano and M. Schiavello

*The Role of H<sub>2</sub>O in the Photocatalytic Oxidation of*

*Toluene in Vapour Phase on Anatase TiO<sub>2</sub> Catalyst: A FTIR study*

Catal. Today 53 (1999) pp. 695-702

74- A. Di Paola, L. Palmisano, A. M. Venezia and V. Augugliaro

*Coupled Semiconductor Systems for Photocatalysis. Preparation and  
Mixed WO<sub>3</sub>/WS<sub>2</sub> Powders*

*Characterization of Polycrystalline*

**J. Phys. Chem. B 103 (1999) pp.8236-8244**

75- G. Facchin, G. Carturan, R. Campostrini, S. Gialanella, L. Lutterotti,

L. Armelao, G. Marci, L. Palmisano and A. Sclafani

*Sol-gel Synthesis and Characterisation of TiO<sub>2</sub>-anatase Powders*

*Containing Nanometric Platinum Particles Employed as Catalysts for*

*4-Nitrophenol Photodegradation*

J. Sol-Gel Science Technol. 18 (2000) pp. 29-59.

76- S. Ikeda, N. Sugiyama, B. Pal, G. Marci, L. Palmisano, H. Noguchi,

K. Uosaki and B. Ohtani

*Photocatalytic Activity of Transition-Metal-Loaded Titanium(IV)*

*Oxide Powders Suspended in Aqueous Solutions: Correlation with Electron-Hole Recombination Kinetics*

Phys. Chem. Chem. Phys. 3 (2001) pp. 267-273

**77-** G. Marci, V. Augugliaro, M.J. Lopez-Munoz, C. Martin, L. Palmisano,

V. Rives, M. Schiavello, R.J.D. Tilley and A.M. Venezia

*Preparation Characterisation and Photocatalytic Activity of*

*Polycrystalline ZnO/TiO<sub>2</sub> Systems. 1 Surface and Bulk*

*Characterisation*

J. Phys. Chem. B 105 (2001) pp. 1026-1032

**78-** G. Marci, V. Augugliaro, M.J. Lopez-Munoz, C. Martin, L. Palmisano,

V. Rives, M. Schiavello, R.J.D. Tilley and A.M. Venezia

*Preparation Characterisation and Photocatalytic Activity of*

*Polycrystalline ZnO/TiO<sub>2</sub> System. 2 Surface, Bulk*

*Characterisation and 4-Nitrophenol Photodegradation in Liquid-Solid*

*Regime*

J. Phys. Chem. B 105 (2001) pp. 1033-1040

**79-** M.A. Artale, V. Augugliaro, E. Drioli, G. Golemme, C. Grande, V. Loddo, R. Molinari, L. Palmisano and M. Schiavello

*Preparation and Characterization of Membranes with Entrapped TiO<sub>2</sub> and preliminary Photocatalytic Tests*

**80-** A. Bianco Prevot, C. Baiocchi, M.C. Brussino, E. Pramauro,

P. Savarino, V. Augugliaro, G. Marci and L. Palmisano

*Photocatalytic Degradation of Acid Blue 80 in Aqueous Solutions*

*Containing TiO<sub>2</sub> Suspensions*

Environ. Sci. Technol. 35 (2001) pp. 971-976

**81-** R. Molinari, M. Borgese, E. Drioli, L. Palmisano and M. Schiavello

*Photocatalytic Membrane Processes for Degradation of Various Types*

*of Organic Pollutants in Water*

## **Annali di Chimica 91 (2001) pp. 197-202**

**82- R. Molinari, C. Grande, E. Drioli, L. Palmisano and M. Schiavello**

*Photocatalytic Membrane Reactors for Degradation of Organic Pollutants*

*in Water*

Catalysis Today 67 (2001) pp. 273-279

**83-** M.A. Artale, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo,

G. Marci, L. Palmisano and M. Schiavello

*Heterogeneous Photocatalysis for Environment Remediation: Case*

*Studies and Gas-Solid and Liquid-Solid Regimes*

Fresenius Environ. Bull. 10 (2001) pp. 310-313

**84-** A. Di Paola, S. Ikeda, G. Marci, B. Ohtani and L. Palmisano

*Transition Metal Doped TiO<sub>2</sub>: Physical Properties and Photocatalytic*

*Behaviour*

Intern. J. Photoenergy 3 (2001) pp. 171-176

**85-** V. Augugliaro, J.C. Conesa, E. García-López, V. Loddo, M.J. López-Muñoz,

G. Marci, L. Palmisano, M. Schiavello and J. Soria

*Pilot Photoreactor for Cyanides Degradation*

**La Chimica e L'Industria 83 (2001) p. 34 (www.bias-net.com)**

**86-** A. Di Paola, G. Marci, L. Palmisano, M. Schiavello, K. Uosaki, S. Ikeda

and B. Ohtani

*Preparation of Polycrystalline TiO<sub>2</sub> Photocatalysts Impregnated with Various Transition Metal Ions: Characterisation and Photocatalytic Activity for the Degradation of 4-Nitrophenol*

J. Phys. Chem. B 106 (2002) pp. 637-645

**87-** R. Molinari, L. Palmisano, E. Drioli and M. Schiavello

*Studies on Various Reactor Configurations for Coupling Photocatalysis*

*and Membrane Processes in Water Purification*

## **J. Membrane Science 206 (2002) pp. 399-415**

88- K. Movassaghi and L. Palmisano

*Optimization of Cyanide Elimination from an Industrial Wastewater on a*

*Pilot Plant Scale*

Annali di Chimica 92 (2002) pp. 53-60

89- A. Di Paola, E. García-López, S. Ikeda, G. Marci, B. Ohtani and

L. Palmisano

*Photocatalytic Degradation of Organic Compounds in Aqueous Systems*

*by Transition Metal Doped Polycrystalline TiO<sub>2</sub>*

## **Catalysis Today 75 (2002) pp. 87-93**

90- R. Molinari, M. Borgese, E. Drioli, L. Palmisano and M. Schiavello

*Hybrid Processes Coupling Photocatalysis and Membrane for Degradation*

*of Organic Pollutants in Water*

Catal. Today 75 (2002) pp. 77-85

91- V. Augugliaro, G. Ciardelli, L. Corsi, E. García-López, V. Loddo, G. Marci,



L. Palmisano and M. Schiavello

*Photocatalytic Degradation of Actual Textile Industrial Wastewater in Aqueous Suspensions of Polycrystalline TiO<sub>2</sub>*

Annali di Chimica 92 (2002) pp. 761-936

**92-** V. Augugliaro, E. García-López, V. Loddo, L. Palmisano and M. Schiavello

*Photooxydation Catalytique en Phase Vapeur de L'Étanol et du Toluéne en un Photoréacteur À Panier Tournant*

Entropie 237 (2002) pp. 32-35

**93-** R. Molinari, M. Borgese, E. Drioli, L. Palmisano and M. Schiavello

*Photocatalytic Membrane Processes for Degradation of Various Types*

*of Organic Pollutants and Micropollutants in Water*

Entropie 237 (2002) pp. 28-30

**94-** C. Baiocchi, M.C. Brussino, E. Pramauro, A. Bianco Prevot, L. Palmisano

and G. Marci

*Characterisation of methylorange and its photocatalytic degradation products by HPLC-UV VIS Diode array and Atmospheric Pressure Ionisation Quadrupole Ion Trap Mass Spectrometry*

Int. J. Mass Spectrometry 214 (2002) pp. 247-256

**95-** G. Mele, G. Ciccarella, G. Vasapollo, E. García-López, L. Palmisano and M. Schiavello

*Photocatalytic Degradation of 4-Nitrophenol in Aqueous Suspension by Using Polycrystalline TiO<sub>2</sub> Samples Impregnated with Cu(II)-Phthalocyanine*

Appl. Catal. B: Environmental 38 (2002) pp. 309-319

- 96-** V. Augugliaro, C. Baiocchi, A. Bianco Prevot, M.C. Brussino, E. García-López, V. Loddo, S. Malato-Rodríguez, G. Marci, L. Palmisano and E. Pramauro

*Sunlight Photocatalytic Degradation of Azo-dyes in Aqueous Suspension of Polycrystalline TiO<sub>2</sub>*

Fresenius Environ. Bull. 11 (2002) pp. 459-465

- 97-** V. Augugliaro, C. Baiocchi, A. Bianco Prevot, E. García-López, V. Loddo, S. Malato, G. Marci, L. Palmisano, M. Pazzi and E. Pramauro

*Azo-dyes Photocatalytic Degradation in Aqueous Suspension of TiO<sub>2</sub> under Solar Irradiation*

Chemosphere 49 (2002) pp. 1223-1230

- 98-** A. Di Paola, V. Augugliaro, L. Palmisano, G. Pantaleo and E. Savinov

*Heterogeneous Photocatalytic Degradation of Nitrophenols*

J. Photochem. Photobiol., A: Chem. 155 (2003) pp. 207-214

- 99-** R. Camprostrini, M. Ischia and L. Palmisano

*Pyrolysis Study of Sol-gel Derived TiO<sub>2</sub> powders Part I. TiO<sub>2</sub>-anatase*

*Prepared by reacting titanium(IV) isopropoxide with formic acid*

J. Therm. Anal. Cal. 71 (2003) pp. 997-1009

- 100-** R. Camprostrini, M. Ischia and L. Palmisano

*Pyrolysis Study of Sol-gel Derived TiO<sub>2</sub> powders Part II. TiO<sub>2</sub>-anatase*

*Prepared by reacting titanium(IV) isopropoxide with oxalic acid*

J. Therm. Anal. Cal. 71 (2003) pp. 1011-102

**101-** G. Mele, R. Del Sole, G. Vasapollo, E. García-López, L. Palmisano and M. Schiavello

*Photocatalytic degradation of 4-nitrophenol in aqueous suspension by using polycrystalline TiO<sub>2</sub> impregnated with functionalized Cu(II)-porphyrin or Cu(II)-phthalocyanine*

J. Catal. 217 (2003) pp. 334-342

**102-** G. Marci, M. Addamo, V. Augugliaro, S. Coluccia, E. García-López, V. Loddo, G. Martra, L. Palmisano and M. Schiavello

*Photocatalytic Oxidation of Toluene on Irradiated TiO<sub>2</sub>: Comparison of Degradation Performance in Humidified Air, in Water and in Water Containing a Zwitterionic Surfactant*

J. Photochem. Photobiol. A: Chem. 160 (2003) pp. 105-114

**103-** P. Davit, G. Martra, S. Coluccia, V. Augugliaro, E. García-López, V. Loddo, G. Marci, L. Palmisano and M. Schiavello

*Adsorption and Photocatalytic Degradation of Acetonitrile: FTIR Investigation*

J. Mol. Catalysis A: 204-205 (2003) pp. 693-701

**104-** G. Marci, V. Augugliaro, A. Bianco Prevot, C. Baiocchi, E. García-López, V. Loddo, L. Palmisano, E. Pramauro and M. Schiavello

*Photocatalytic Oxidation of Methyl-Orange in Aqueous Suspension: Comparison of the Performance of Different Polycrystalline Titanium Dioxide*

Annali di Chimica 93 (2003) pp. 639-648

**105-** A. Di Paola, M. Addamo and L. Palmisano

*Mixed oxide/sulfide systems for photocatalysis*

Res. Chem. Intermed. 29 (2003) pp. 467-475

**106-** T. Caronna, C. Gambarotti, L. Palmisano, C. Punta and F. Recupero

*Sunlight induced functionalisation of some heterocyclic bases in the presence of polycrystalline TiO<sub>2</sub>*

Chem. Commun. 2003 pp. 2350-2351

**107-** V. Augugliaro, A. Bianco Prevot, J. Cáceres Vázquez, E. García-López, A. Irico, V. Loddo, S. Malato-Rodríguez, G. Marci, L. Palmisano and E. Pramauro

*Photocatalytic Oxidation of Acetonitrile in Aqueous Suspension of Titanium Dioxide Irradiated by Sunlight*

Adv. Environ. Res. 8 (2004) pp. 329-335

**108-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, R. Molinari, L. Palmisano and M. Schiavello

*Preparation, Characterization and Photoactivity of Polycrystalline Nanostructured TiO<sub>2</sub> Catalysts*

J. Phys. Chem. B 108 (2004) pp. 3303-3310

**109-** R. Molinari, F. Pirillo, M. Falco, V. Loddo and L. Palmisano

*Photocatalytic Degradation of Dyes by Using a Membrane Reactor*

Chem. Eng. Proc. 43 (2004) pp. 1103-1114

**110-** A. Bianco Prevot, A. Basso, C. Baiocchi, M. Pazzi, G. Marci, V. Augugliaro, L. Palmisano, E. Pramauro

*Analytical Control of Photocatalytic Treatments: Degradation of a Sulfonated Azo-Dye*

Anal. Bioanal. Chem. 378 (2004) pp. 214-220

**111-** R. Campostrini, M. Ischia and L. Palmisano

*Pyrolysis Study of Sol-Gel Derived TiO<sub>2</sub> Powders Part III. TiO<sub>2</sub>-anatase Prepared by Reacting Titanium(IV) Isopropoxide with Acetic Acid*

J. Therm. Anal. Cal. 75 (2004) pp. 13-24

**112-** R. Campostrini, M. Ischia and L. Palmisano

*Pyrolysis Study of Sol-Gel Derived TiO<sub>2</sub> Powders Part IV. TiO<sub>2</sub>-anatase Prepared by Reacting Titanium(IV) Isopropoxide without Chelating Agents*

J. Therm. Anal. Cal. 75 (2004) pp. 25-34

**113-** A. Di Paola, E. García-López, G. Marci, C. Martín, L. Palmisano, V. Rives and A. M. Venezia

*Surface Characterization of Metal Ions Loaded TiO<sub>2</sub> Photocatalysts: Structure-Activity Relationship*

Appl. Catal. B: Environmental 48 (2004) pp. 223-233

**114-** G. Mele, R. Del Sole, G. Vasapollo, E. García-López, L. Palmisano, S.E. Mazzetto, O.A. Attanasi, P. Filippine

*Polycrystalline TiO<sub>2</sub> Impregnated with Cardanol-based Porphyrins for the Photocatalytic Degradation of 4-Nitrophenol*

Green Chem. 6 (2004) pp. 604-608

**115-** L. Palmisano

*Applicazioni della Fotocatalisi*

La Chimica e l'Industria 86 (2004) pp. 56-58

- 116-** A. Di Paola, M. Addamo, V. Augugliaro, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Photolytic and TiO<sub>2</sub>-Assisted Photodegradation of Aqueous Solutions of Tetracycline*

Fresenius Environ. Bull., 13 (2004) pp. 1275-1280

- 117-** M. Ischia, R. Camprostrini, L. Lutterotti, E. García-López, L. Palmisano, M. Schiavello, F. Pirillo and R. Molinari

*Synthesis, Characterisation and Photocatalytic Activity of TiO<sub>2</sub> Powders Prepared Under Different Gelling and Pressure Conditions*

J. Sol-Gel Sci. Technol. 33 (2005) pp. 201-213

- 118-** T. Caronna, C. Gambarotti, L. Palmisano, C. Punta, F. Recupero

*Sunlight Induced Reactions of some Heterocyclic Bases with Ethers in the Presence of TiO<sub>2</sub>. A Green Route for the Synthesis of Heterocyclic Aldehydes*

J. Photochem. Photobiol., A: Chem. 171 (2005) pp. 241-246

- 119-** R. Molinari, G. Scicchitano, F. Pirillo, V. Loddo, L. Palmisano

*Preparation, Characterisation and Testing of Photocatalytic Polymeric Membranes with Entrapped or Suspended TiO<sub>2</sub>*

Int. J. Environment and Pollution 23 (2005) pp.140-152

- 120-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Removal of Drugs in Aqueous Systems by Photoassisted Degradation*

J. Applied Electrochem. 35 (2005) pp. 765-774

**121-** G. Mele, R. Del Sole, G. Vasapollo, G. Marci, E. García-López, L. Palmisano, J. Coronado, M.D. Hernández-Alonso, C. Malitesta, M.R. Guascito

*TRMC, XPS, EPR Characterisations of Polycrystalline TiO<sub>2</sub> Porphyrin Impregnated Powders and their Catalytic Activity for 4-Nitrophenol Photodegradation in Aqueous Suspension*

J. Phys. Chem. B 109 (2005) pp. 12347-12352

**122-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Preparation and Photoactivity of Nanostructured TiO<sub>2</sub> Particles Obtained by Hydrolysis of TiCl<sub>4</sub>*

Colloids Surf., A: Physicochem. Eng. Aspects 265 (2005) pp. 23-31

**123-** V. Augugliaro, E. García-López, V. Loddo, S. Malato-Rodriguez, I. Maldonado, G. Marci, R. Molinari, L. Palmisano

*Degradation of Lincomycin in Aqueous Medium: Coupling of Solar Photocatalysis and Membrane Separation*

Solar Energy 79 (2005) pp. 402-408

**124-** M. Addamo, V. Augugliaro, S. Coluccia, M.G. Faga, E. García-López, V. Loddo, G. Marci, G. Martra, L. Palmisano

*Photocatalytic Oxidation of Acetonitrile in Gas-Solid and Liquid-Solid Regimes*

J. Catal. 235 (2005) pp. 209-220

**125-** V. Augugliaro, S. Coluccia, E. García-López, V. Loddo, G. Marci, G. Martra, L. Palmisano, M. Schiavello

*Comparison of Different Photocatalytic Systems for Acetonitrile Degradation in Gas-Solid Regime*

Top. Catal. 35 (2005) pp. 237-244

- 126-** M. Addamo, V. Augugliaro, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Oxidation of Oxalate Ion in Aqueous Suspensions of TiO<sub>2</sub> by Photocatalysis and Ozonation*

Catal. Today 107-108 (2005) pp. 612-618

- 127-** G. Palmisano, M. Addamo, V. Augugliaro, T. Caronna, E. García-López, V. Loddo, L. Palmisano

*Influence of the Substituent on Selective Photo-catalytic Oxidation of Aromatic Compounds in Aqueous TiO<sub>2</sub> Suspensions*

Chem. Commun. 2006 pp. 1012-1014

- 128-** G. Marci, G. Mele, L. Palmisano, P. Pulito, A. Sannino

*Environmentally Sustainable Production of Cellulose-Based Superadsorbent Hydrogels*

Green Chemistry 8 (2006) pp. 439-444

- 129-** V. Loddo, M. Addamo, V. Augugliaro, E. Garrone, L. Palmisano, M. Schiavello

*Optical Properties and Quantum Yields Determination in Photocatalytic Suspensions*

AIChE J. 52 (2006) pp. 2565-2574

- 130-** R. Molinari, F. Pirillo, V. Loddo, L. Palmisano

*Heterogeneous Photocatalytic Degradation of Pharmaceuticals in Water by Using Polycrystalline TiO<sub>2</sub> and a Nanofiltration Membrane Reactor*

Catal. Today 118 (2006) pp. 205-213



**131-** M. Addamo, M. Bellardita, A. Di Paola, L. Palmisano

*Preparation and Photoactivity of Nanostructured Anatase, Rutile and Brookite TiO<sub>2</sub> thin films*

Chem. Commun., 2006 pp. 4943-4945

**132-** M. Addamo, V. Augugliaro, S. Coluccia, A. Di Paola, E. García-López, V. Loddo, G. Marci, G. Martra, G. Martra, L. Palmisano

*The Role of Water in the Photocatalytic Degradation of Acetonitrile and Toluene in Gas-Solid and Liquid-Solid Regimes*

Int. J. Photoenergy 8 (2006), Number 1, ID 39182, pp.1-12

**133-** A. Di Paola, M. Addamo, V. Augugliaro, E. García-López, V. Loddo, G. Marci

*Photodegradation of Lincomycin in Aqueous Solution*

Int. J. Photoenergy 8 (2006), Number 1, ID 47418, pp.1-6

**134-** V. Augugliaro, M. Litter, L. Palmisano, J. Soria

*The Combination of Heterogeneous Photocatalysis with Chemical and Physical Operations: a Tool for Improving the Photoprocess Performance*

J. Photochem. Photobiol. C: Reviews 7 (2006) pp. 127-144

**135-** G. Mele, R. Del Sole, G. Vasapollo, E. García-López, L. Palmisano, L. Jun, R. Słota, G. Dyrda

*TiO<sub>2</sub>-based Photocatalysts Impregnated with Metallo-Porphyrins Employed for Degradation of 4-Nitrophenol in Aqueous Solutions: Role of Metal and Macrocycle*

Res. Chem. Intermed. 33 (2007) pp. 433-448

**136-** M. Addamo, M. Del Arco, M. Bellardita, D. Carriazo, A. Di Paola, E. García-López, G. Marci, C. Martín, L. Palmisano, V. Rives

*Photoactivity of Nanostructured TiO<sub>2</sub> Catalysts in Aqueous System and their Surface Acid-Base, Bulk and Textural Properties*

Res. Chem. Intermed. 33 (2007) pp. 465-479

**137-** M.J. Cantavenera, I. Catanzaro, V. Loddo, L. Palmisano, G. Sciandrello

*Photocatalytic Degradation of Paraquat and Genotoxicity of its Intermediate Products*

J. Photochem. Photobiol. A: Chemistry 185 (2007) pp. 277-282

**138-** A. Di Paola, M. Addamo, M. Bellardita, E. Cazzanelli, L. Palmisano

*Preparation of Photocatalytic Brookite Thin Films*

Thin Solid Films 515 (2007) pp. 3527-3529

**139-** G. Palmisano, V. Loddo, S. Yurdakal, V. Augugliaro, L. Palmisano

*Reaction Pathways and Kinetics of Photocatalytic Oxidation of Nitrobenzene and Phenylamine in Aqueous TiO<sub>2</sub> Suspensions*

AIChE J. 53 (2007) pp. 961-968

**140-** G. Palmisano, V. Augugliaro, M. Pagliaro, L. Palmisano

*Photocatalysis: A Promising Route for 21st Century Organic Chemistry*

Chem. Commun., 2007 pp. 3425-3437

**141- G. Palmisano, M. Addamo, V. Augugliaro, T. Caronna, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello**

***Selectivity of Hydroxyl Radical in the Partial Oxidation of Aromatic Compounds in Heterogeneous Photocatalysis***

Catal. Today 122 (2007) pp. 118-127

**142-** G. Palmisano, S. Yurdakal, V. Augugliaro, V. Loddo, L. Palmisano

*Photocatalytic Selective Oxidation of 4-Methoxybenzyl Alcohol to Aldehyde in Aqueous Suspension of Home-Prepared TiO<sub>2</sub> Catalyst*

Adv. Synth. Catal. 349 (2007) pp. 964-970

**143-** G. Mele, E. García-López, L. Palmisano, G. Dyrda, R. Stota

*Photocatalytic Degradation of 4-Nitrophenol in Aqueous Suspension by Using Polycrystalline TiO<sub>2</sub> Impregnated with Lanthanide Double-Decker Phthalocyanine Complexes*

J. Phys. Chem. C 111 (2007) pp. 6581-6588

**144-** G. Marci, E. García-López, A. Di Paola, L. Palmisano

*Photocatalytic Oxidation Mechanism of Benzonitrile in Aqueous Suspensions of Titanium Dioxide*

Catal. Today 129 (2007) pp. 16-21

**145-** S. Yurdakal, V. Loddo, V. Augugliaro, H. Berber, G. Palmisano, L. Palmisano

*Photodegradation of Pharmaceutical Drugs in Aqueous TiO<sub>2</sub> Suspensions: Mechanism and Kinetics*

Catal. Today 129 (2007) pp. 9-15

- 146-** T. Caronna, C. Gambarotti, L. Palmisano, C. Punta, M. Pierini, F. Recupero

*Sunlight-Induced Functionalisation Reactions of Heteroaromatic bases with aldehydes in the presence of TiO<sub>2</sub>: A Hypothesis on the Mechanism*

J. Photochem. Photobiol. A: Chemistry 189 (2007) pp. 322-328

- 147-** V. Loddo, S. Yurdakal, G. Palmisano, G. E. Imoberdorf, H.A. Irazoqui, O.M. Alfano, V. Augugliaro, H. Berber, L. Palmisano

*Selective Photocatalytic Oxidation of 4-Methoxybenzyl Alcohol to p-Anisaldehyde in Organic-Free Water in a Continuous Annular Fixed Bed Reactor*

Int. J. Chem. Reactor Eng. 5 (2007) Article A57 (15 pages)

- 148-** M. Bellardita, M. Addamo, A. Di Paola, L. Palmisano

*Photocatalytic Behaviour of Metal Loaded TiO<sub>2</sub> Aqueous Dispersions and Films*

Chem. Phys. 339 (2007) pp. 94-103

- 149-** C. Wang, J. Li, G. Mele, G.-M. Yang, F.-X. Zhang, L. Palmisano, G. Vasapollo

*Efficient Degradation of 4-Nitrophenol by Using Functionalized Porphyrin-TiO<sub>2</sub> Photocatalysts under Visible Irradiation*

Appl. Catal. B.: Environmental 76 (2007) pp. 218-226

- 150-** S. Yurdakal, V. Loddo, B. Bayarri-Ferrer, G. Palmisano, V. Augugliaro, J. Giménez-Farreras, L. Palmisano

*Optical Properties of TiO<sub>2</sub> Suspensions: Influence of pH and Powder Concentration on Mean Particle Size*

Ind. Eng. Chem. Res. 46 (2007) pp. 7620-7626

- 151-** H. Hidaka, E. García-López, L. Palmisano, N. Serpone

*Photoassisted Mineralization of Aromatic and Aliphatic N Heterocycles in Aqueous Titanium Dioxide Suspensions and the Fate of the Nitrogen Heteroatoms*

Appl. Catal. B: Environmental 78 (2008) pp. 139-150

- 152-** M. Venezia, G. Alonzo, L. Palmisano

*Determination of Cr(III) as Cr(III)/EDTA Complex by EDTA Excess Back-Titration with Zn(II) in Presence of 4-(2-Pyridylazo)-Resorcinol Indicator and Naphthol Green as Inert Dye*

J. Hazard. Mat. 151 (2008) pp. 356-363

- 153-** A. Di Paola, G. Cufalo, M. Addamo, M. Bellardita, R. Campostrini, M. Ischia, R. Ceccato, L. Palmisano

*Photocatalytic Activity of Nanocrystalline TiO<sub>2</sub> (brookite, rutile and brookite-based) Powders Prepared by Thermohydrolysis of TiCl<sub>4</sub> in Aqueous Chloride Solutions*

Colloid Surf., A: Physicochem. Eng. Aspects 317 (2008) pp. 366-376

- 154-** S. Yurdakal, G. Palmisano, V. Loddò, V. Augugliaro, L. Palmisano

*Nanostructured Rutile TiO<sub>2</sub> for Selective Photocatalytic Oxidation of Aromatic Alcohols to Aldehydes in Water*

J. Am. Chem. Soc. 130 (5) (2008) pp.1568-1569

- 155-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddò G. Marci, L. Palmisano

*Photocatalytic Thin Films of TiO<sub>2</sub> Formed by Sol-Gel Process Using Titanium Tetraisopropoxide as the Precursor*

Thin Solid Films 516 (2008) pp. 3802-3807

**156-** V. Augugliaro, T. Caronna, V. Loddò, G. Marci, G. Palmisano, L. Palmisano, S. Yurdakal

*Oxidation of Aromatic Alcohols in Irradiated Aqueous Suspensions of Commercial and Home-Prepared Rutile TiO<sub>2</sub>: A Selectivity Study*

Chemistry A European Journal 14 (2008) pp. 4640-4646

**157-** M. Addamo, A. Di Paola, M. Bellardita, E. García-López, G. Marci, L. Palmisano

*Preparation of Photocatalytic Nanostructured TiO<sub>2</sub> Thin Films*

Materials Science Forum Vols. 587-588 (2008) pp. 795-799

**158-** M. S. A. Abdel-Mottaleb, V. Augugliaro and L. Palmisano

*Doped TiO<sub>2</sub> Nanomaterials and Applications (Editorial)*

Int. J. Photoenergy, vol. 2008, Article ID 419096, 1 page, doi:10.1155/2008/419096

**159-** G. Marci, E. García-López, L. Palmisano

*Mechanistic Aspects of Oxalic Acid Oxidation by Photocatalysis and Ozonation*

J. Appl. Electrochemistry 38 (2008) pp. 1029-1033

**160-** S. Yurdakal, V. Loddò, G. Palmisano, V. Augugliaro, H. Berber, L. Palmisano

*Photocatalytic Degradation of 4-Nitrophenol in a Continuous Reactor Containing Titanium Dioxide*

*Supported on Glass Beads*

J. Adv. Oxid. Technol. 11 (2008) pp. 501-509

**161-** M. Addamo, M. Bellardita, D. Carriazo, A. Di Paola, S. Milioto, L. Palmisano, V. Rives

*Inorganic Gels as Precursors of TiO<sub>2</sub> Photocatalysts Prepared by Low Temperature Microwave or Thermal Treatment*

Appl. Catal. B: Environmental 84 (2008) pp. 742-748

**162-** V. Augugliaro, H. Kisch, V. Loddo, M.J. López-Muñoz, C. Márquez-Álvarez, G. Palmisano, L. Palmisano, F. Parrino, S. Yurdakal

*Photocatalytic Oxidation of Aromatic Alcohols to Aldehydes in Aqueous Suspension of Home Prepared Titanium Dioxide 1. Selectivity Enhancement by Aliphatic Alcohols*

Appl. Catalysis A: General 349 (2008) pp. 182-188

**163-** V. Augugliaro, H. Kisch, V. Loddo, M.J. López-Muñoz, C. Márquez-Álvarez, G. Palmisano, L. Palmisano, F. Parrino, S. Yurdakal

*Photocatalytic Oxidation of Aromatic Alcohols to Aldehydes in Aqueous Suspension of Home Prepared Titanium Dioxide 2. Intrinsic and Surface Features of Catalysts*

Appl. Catalysis A: General 349 (2008) pp. 189-197

**164-** M. Addamo, V. Augugliaro, M. Bellardita, A. Di Paola, V. Loddo, G. Palmisano, L. Palmisano, S. Yurdakal

*Environmentally Friendly Photocatalytic Oxidation of Aromatic Alcohol to Aldehyde in Aqueous suspension of Brookite TiO<sub>2</sub>*

Catal. Letters 126 (2008) pp. 58-62

**165-** D. Carriazo, M. Addamo, G. Marci, C. Martín, L. Palmisano, V. Rives

*Tungstophosphoric Acid Supported on Polycrystalline TiO<sub>2</sub> for the Photodegradation of 4-Nitrophenol in Aqueous Solution and Propan-2-ol in Vapour Phase*

Appl. Catalysis A: General 356 (2009) pp. 172-179

**166-** S. Yurdakal, V. Loddo, G. Palmisano, V. Augugliaro, L. Palmisano

*A Quantitative Method of Photoadsorption Determination for Irradiated Catalyst in Liquid-Solid System*

Catal. Today 143 (2009) pp.189-194

**167-** V. Loddo, V. Augugliaro, L. Palmisano

*Photocatalytic Membrane Reactors: Case Studies and Perspectives*

Asia-Pacific Journal of Chemical Engineering 4 (2009) pp. 380-384 DOI:10.1002/apj.254

**168-** S. Yurdakal, G. Palmisano, V. Loddo, O. Alagöz, V. Augugliaro, L. Palmisano

*Selective Photocatalytic Oxidation of 4-Substituted Aromatic Alcohols in Water with Rutile TiO<sub>2</sub> Prepared at Room Temperature*

Green Chemistry 11 (2009) pp. 510-516

**169** G. Marci, E. García-López, G. Mele, L. Palmisano, G. Dyrda, R. Słota

*Comparison of the Photocatalytic Degradation of 2-Propanol in Gas.Solid and Liquid-Solid Systems by Using TiO<sub>2</sub>-LnPc<sub>2</sub> Hybrid Powders*

Catal. Today 143 (2009) pp. 203-210

**170** V. Augugliaro, L. Palmisano, Sixto Malato



*Introduction by Guest Editors*

Photochem. Photobiol. Sci. 8 (2009) p. 581

**171** V. Augugliaro, V. Loddo, M.J. López-Muñoz, C. Márquez-Álvarez, G. Palmisano, L. Palmisano, S. Yurdakal

*Home-Prepared Anatase, Rutile, and Brookite TiO<sub>2</sub> for Selective Photocatalytic Oxidation of 4-Methoxybenzyl Alcohol in Water: Reactivity and ATR-FTIR Study*

Photochem. Photobiol. Sci. 8 (2009) pp. 663-669

**172** Vincenzo Augugliaro, Leonardo Palmisano, Sixto Malato, Wolfgang Gernjak

*Preface*

Catal. Today 144 (2009) p. 1

**173** G. Marcì, E. García-López, L. Palmisano

*Photo-assisted Degradation of 2-Propanol in Gas-Solid Regime by Using TiO<sub>2</sub> Impregnated with Heteropolyacids H<sub>3</sub>PW<sub>12</sub>O<sub>40</sub>*

Catalysis Today 144 (2009) pp. 42-47

**174** M. Bellardita, M. Addamo, A. Di Paola, L. Palmisano, A.M. Venezia

*Preparation of N-Doped TiO<sub>2</sub>: Characterisation and Photocatalytic Performance under UV and Visible Light*

Phys. Chem. Chem. Phys. 11 (2009) pp. 4084-4093

1. G. Marcì, E. García-López, L. Palmisano, D. Carriazo, C. Martín, V. Rives

*Preparation, Characterization and Photocatalytic Activity of TiO<sub>2</sub> Impregnated With the Heteropolyacid H<sub>3</sub>PW<sub>12</sub>O<sub>40</sub> : Photo-assisted Degradation of 2-Propanol in Gas-Solid Regime*

Appl. Catal. B: Environmental 90 (2009) pp. 497-506

**176-** A. Di Paola, M. Bellardita, R. Ceccato, L. Palmisano, F. Parrino

*Highly Active Photocatalytic TiO<sub>2</sub> Powders Obtained by Thermohydrolysis of TiCl<sub>4</sub> in water*

J. Phys Chem. C 113 (2009) pp. 15166-15174

**177-** V. Augugliaro, S. Yurdakal, V. Loddo, G. Palmisano, L. Palmisano

*Determination of Photoadsorption Capacity of Polycrystalline TiO<sub>2</sub> Catalyst in Irradiated Slurry*

Adv. Chem. Eng. 36 (2009) pp. 1-35

**178-** C. Wang, J. Li, G. Mele, M. Duan, X. Lü, L. Palmisano, G. Vasapollo, F. Zhang

*The Photocatalytic Activity of Novel, Substituted Porphyrin/TiO<sub>2</sub>-Based Composites*

Dyes and Pigments 84 (2010) pp. 183-189

**179-** M. Bellardita, M. Addamo, A. Di Paola, G. Marci, L. Palmisano, L. Cassar, M. Borsa

*Photocatalytic Activity of TiO<sub>2</sub>/SiO<sub>2</sub> Systems*

J. Hazardous Materials 174 (2010) pp. 707-713

**180-** B. Zhao, G. Mele, I. Pio, J. Li, L. Palmisano, G. Vasapollo

*Degradation of 4-nitrophenol (4-NP) using Fe-TiO<sub>2</sub> as a heterogeneous photo-Fenton catalyst*

J. Hazardous Materials 176 (2010) pp. 569-574

- 181-** V. Augugliaro, H.H. El Nazer, V. Loddo, A. Mele, G. Palmisano, L. Palmisano, S. Yurdakal

*Partial Photocatalytic Oxidation of Glycerol in TiO<sub>2</sub> Water Suspensions*

Catal. Today 151 (2010) pp. 21–28.

- 182-** C. Gambarotti, C. Punta, F. Recupero, T. Caronna, L. Palmisano

*TiO<sub>2</sub> in Organic Photosynthesis: Sunlight Induced Functionalization of Heterocyclic Bases in the Presence of TiO<sub>2</sub>*

Current Org. Chem. 14 (2010) pp. 1153-1169

- 183-** V. Loddo, S. Yurdakal, G. Palmisano, V. Augugliaro, H. Berber, L. Palmisano

*Kinetics of 4-Methoxybenzyl Alcohol Oxidation in Aqueous Solution in a Fixed Bed Photocatalytic Reactor*

Ind. & Eng. Chem. Res. 49 (2010) pp. 6699-6708

- 184-** J. Matos, E. García-López, L. Palmisano, A. García, G. Marci

*Influence of Activated Carbon in TiO<sub>2</sub> and ZnO Mediated Photo-assisted Degradation of 2-Propanol in Gas-Solid Regime*

Applied Catalysis B: Environmental 99 (2010) pp. 170-180

- 185-** G. Palmisano, E. García-López, G. Marci, V. Loddo, S. Yurdakal, V. Augugliaro, L. Palmisano

*Advances in Selective Conversion by Heterogeneous Photocatalysis*

Chem. Commun. 46 (2010) pp. 7074-7089

**186-** V. Augugliaro, L. Palmisano

*Green Oxidation of Alcohols to Carbonyl Compounds by Heterogeneous Photocatalysis*

ChemSusChem 3(10) (2010) pp. 1135–1138

**187-** I. Catanzaro, G. Avellone, G. Marci, M. Saverini, L. Scalici, G. Sciandrello, L. Palmisano

*Biological Effects and Photodegradation by TiO<sub>2</sub> of Terpenes Present in Industrial Wastewater*

J. Hazard. Mat. 185 (2011) pp. 591-597

**188-** G. Di Marco, L. Palmisano

*Thin-Film Photovoltaics 2010 (Editorial)*

Int. J. Photoenergy vol. 2010, Article ID 528512, 2 pages,

Doi:10.1155/2010/528512

**189-** G.L. Chiarello, A. Di Paola, L. Palmisano, E. Selli

*Effect of Titanium Dioxide Crystalline Structure on the Photocatalytic Production of Hydrogen*

Photochem. Photobiol. Sci. 10 (2011) pp. 355-360

**190-** G. Camera Roda, F. Santarelli, V. Augugliaro, V. Loddo, G. Palmisano, L. Palmisano, S. Yurdakal

*Photocatalytic Process Intensification by Coupling with Pervaporation*

Catal. Today 161 (2011) pp. 209-213

**191-** A. Di Paola, M. Bellardita G. Marci, L. Palmisano, F. Parrino,

R. Amadelli

*Preparation of Sm-loaded brookite TiO<sub>2</sub> photocatalysts*

Catal. Today 161 (2011) pp. 35-40

**192-** INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

PHYSICAL AND BIOPHYSICAL

AND

ORGANIC AND BIOMOLECULAR CHEMISTRY DIVISIONS

*Glossary of Terms Used in Photocatalysis and Radiation Catalysis (IUPAC Recommendations 2011)*

*Prepared for publication by:* S.A. Braslavsky, A.M. Braun, A.E. Cassano, A.V. Emeline, M. Litter, L. Palmisano, V.N. Parmon, N. Serpone

*The working party included also:* D. Bahnemann, J.R. Bolton, L.K. Koopal, V.K. Ryabchuk, E. Savinov

*In addition to the members of the working party, the following scientists collaborated with this Glossary:* O.M. Alfano, M. Anpo, V. Augugliaro, C. Bohne, S. Esplugas, E. Oliveros, C. von Sonntag, R.G. Weiss, M. Schiavello

Pure Appl. Chemistry 83 (2011) pp. 931-1014

**193-** M. Bellardita, A. Di Paola, L. Palmisano, F. Parrino, G. Buscarino, R. Amadelli

*Preparation and Photoactivity of Samarium Loaded Anatase, Brookite and Rutile catalysts*

J. Appl. Catal. B: Environ. 104 (2011) pp. 291-299

**194-** D. Carriazo, M. del Arco, E. García-López, G. Marci, C. Martín, L. Palmisano, V. Rives

*Zn,Al Hydrotalcites Calcined at Different Temperatures: Preparation, Characterisation and Photocatalytic Activity in Gas-Solid Regime*

J. Mol. Catal. A: Chemical 342-343 (2011) pp. 83-90

1. L. Palmisano, V. Augugliaro, M. Bellardita, A. Di Paola, E. García-López, V. Loddo, G. Marci, G. Palmisano, S. Yurdakal

*Titania Photocatalysts for Selective Oxidations in Water*

ChemSusChem 4 (2011) pp.1431-1438

**196-** V. Augugliaro, G. Camera Roda, V. Loddo, G. Palmisano, L. Palmisano, F. Parrino, M. A. Puma

*Synthesis of Vanillin in Water by TiO<sub>2</sub> Photocatalysis*

Applied Catalysis B: Environmental 111-112 (2012) pp. 555-561

**197-** L. Palmisano, G. Di Marco

*Thin-Film Photovoltaics 2011 (Editorial)*

Int. J. Photoenergy vol. 2012, Article ID 419715, 2 pages,

Doi:10.1155/2012/419715

**198-** A. Di Paola, E. García-López, G. Marci, L. Palmisano

*A Survey of Photocatalytic Materials for Environmental Remediation*

J. Hazard. Mat. 211-212 (2012) pp. 3-29

**199-** M. Saverini, I. Catanzaro, G. Sciandrello, G. Avellone, S. Indelicato, G. Marci, L. Palmisano

*Genotoxicity of Citrus Wastewater in Prokaryotic and Eukaryotic Cells and Efficiency of Heterogenous Photocatalysis by TiO<sub>2</sub>*

J. Photochem. Photobiol B: Biology, 108 (2012) pp. 8-15

**200-** G. Marci, E. García-López, L. Palmisano

*Comparison between Catalytic and Catalytic Photo-Assisted Propene Hydration by Using Supported Heteropolyacid*

Applied Catalysis A: General, 421-422 (2012) pp. 70-78

**201-** V. Augugliaro, M. Bellardita, V. Loddo, G. Palmisano, L. Palmisano, S. Yurdakal

*Overview on Oxidation Mechanisms of Organic Compounds in Heterogenous Photocatalysis*

J. Photochem. Photobiol. C: Reviews 13 (2012) pp. 224-245

**202-** M. Bellardita, V. Augugliaro, V. Loddo, B. Megna, G. Palmisano, L. Palmisano, M. A. Puma

*Selective Oxidation of Phenol and Benzoic Acid in Water via Home-Prepared TiO<sub>2</sub> Photocatalysts: Distribution of Hydroxylation Products*

Appl. Catal. A: General 441-442 (2012) pp. 79-89

**203-** S. Yurdakal, V. Augugliaro, V. Loddo, G. Palmisano, L. Palmisano

*Synthesis of p-Anisaldehyde in Water by N-Doped TiO<sub>2</sub> Photocatalyst under Solar Light Irradiation*

New J. Chem. 36 (2012) pp. 172-178

**204-** F. Parrino, V. Augugliaro, G. Camera Roda, V. Loddo, M.J. López-Muñoz, C. Márquez-Álvarez, G. Palmisano, L. Palmisano, M.A. Puma

*Visible Light Induced Oxidation of trans-Ferulic Acid by TiO<sub>2</sub> Photocatalysis*

J. Catal. 295 (2012) pp. 254-260

**205-** V. Loddo, G. Marci, G. Palmisano, S. Yurdakal, M. Brazzoli, L. Garavaglia, L. Palmisano

*Extruded Expanded Polystyrene Sheets Coated by TiO<sub>2</sub> as New Photocatalytic Materials for Foodstuffs Packaging*

Appl. Surf. Science 261 (2012) pp. 783-788

**206-** L. Özcan, S. Yurdakal, V. Augugliaro, V. Loddo, S. Palma, G. Palmisano, L. Palmisano

*Photoelectrocatalytic selective oxidation of 4-methoxybenzyl alcohol in water by TiO<sub>2</sub> supported on titanium anodes*

Appl. Catalysis B: Environmental 132-133 (2013) pp. 535-542

**207-** A. Di Paola, M. Bellardita, L. Palmisano

*Brookite, the least known TiO<sub>2</sub> photocatalysts*

Catalysts 3 (2013) pp. 36-73

**208-** G. Mele, I. Pio, A. Scarlino, E. Bloise, R. Del Sole, L. Palmisano, G. Vasapollo



*New Porphyrin/Fe-Loaded TiO<sub>2</sub> Composites as Heterogeneous Photo-Fenton Catalysts for the Efficient Degradation of 4-Nitrophenol*

Journal of Catalysts, vol. 2013, Article ID 376078, 7 pages, 2013

**209-** R. Amadelli, L. Samiolo, M. Borsa, M. Bellardita, L. Palmisano

*N-TiO<sub>2</sub> Photocatalysts Highly Active under Visible Irradiation for NO<sub>x</sub> Abatement and 2-Propanol Oxidation*

Catal. Today 206 (2013) pp. 19-25

**210-** P. Conte, V. Loddo, C. De Pasquale, V. Marsala, G. Alonzo, L. Palmisano

*Nature of interactions at the interface of two water-saturated commercial TiO<sub>2</sub> polymorphs*

Journal of Physical Chemistry C 117 (2013) pp. 5269-5273

**211-** S. Yurdakal, B.S. Tek, O. Alagöz, V. Augugliaro, V. Loddo, G. Palmisano, L. Palmisano

*Photocatalytic selective oxidation of 5-(hydroxymethyl)-2-furaldehyde to 2,5-furandicarbaldehyde in water by using anatase, rutile and brookite TiO<sub>2</sub> nanoparticles*

ACS Sustainable Chemistry & Engineering 1 (2013) pp. 456-461

**212-** G. Camera Roda, V. Augugliaro, A. Cardillo, V. Loddo, G. Palmisano, L. Palmisano

*A pervaporation photocatalytic reactor for the green synthesis of vanillin*

Chem. Eng. J, 224 (2013) pp. 136-143

**213-** A. Di Paola, M. Bellardita, L. Palmisano, R. Amadelli, L. Samiolo

*Preparation and photoactivity of nanocrystalline TiO<sub>2</sub> powders obtained by thermohydrolysis of TiOSO<sub>4</sub>*

**Catalysis Letters, in press**

**214-** G. Marci, E. García-López, M. Bellardita, F. Parisi, C. Colbeau-Justin, S. Sorgues, L.F. Liotta, L. Palmisano

*Keggin heteropolyacid H<sub>3</sub>PW<sub>12</sub>O<sub>40</sub> supported on different oxides for catalytic and catalytic photoassisted propene hydration*

**Phys. Chem. Chem. Phys., in press**

**215-** M. Bellardita, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Photocatalytic CO<sub>2</sub> reduction in gas-solid regime in the presence of bare, SiO<sub>2</sub> supported or Cu-loaded samples*

**Current Organic Chemistry, submitted**



## BREVETTI

1- M. Borsa, R. Amadelli, L. Samiolo, L. Palmisano, M. Bellardita,

*Metodo per la Preparazione di un Biossido di Titanio Avente Attività Fotocatalitica per Irradiazione con Luce Visibile*

A nome ITALCEMENTI S.p.A., Depositato il 05/12/2008 (MI2008A002158).

Depositato inoltre il 03/12/2009 presso l'Ufficio Brevetti Francese

(09 58619)

2- G. Camera Roda, V. Augugliaro, V. Loddo, L. Palmisano, G. Palmisano

*Production of Aldehydes by Oxidation in Aqueous Medium with Selective Recovery of the Product by Means of Pervaporation*

In the name of: ALMA MATER STUDIORUM – UNIVERSITÀ DI BOLOGNA, Depositato l'11/06/2010 (RM2010A000319)

G. Camera Roda, V. Augugliaro, V. Loddo, L. Palmisano, G. Palmisano

*Production of Aldehydes by Oxidation in Aqueous Medium with Selective Recovery of the Product by Means of Pervaporation*

In the name of: ALMA MATER STUDIORUM – UNIVERSITÀ DI BOLOGNA, Depositato presso European Patent Office (11729741.6 – 1451)

3- L. Garavaglia, M. Brazzoli, G. Palmisano, L. Palmisano, V. Loddo, G. Marci, S. Yurdakal

*Polymer Leaf of Expanded Material Coated with Titanium Dioxide Exhibiting Photocatalytic Activity, Container and Package for Foodstuffs Obtained from Said Polymer Leaf*

Depositato da Sirap-Gema l'11/10/2010 (EP10425272.1)

**PUBBLICAZIONI DEL PROF. LEONARDO PALMISANO SU LIBRI O LAVORI COMPLETI SU ATTI DI CONGRESSI**

1- V. Augugliaro, L. Palmisano, M. Schiavello and A. Sclafani

*Photolysis of Adsorbed Phases: Ethanoic Acid-Insulators and*

*Semiconductors Systems. Influence of Acid-Base Properties*

"Homogeneous and Heterogeneous Photocatalysis", E. Pelizzetti and

N. Serpone (Eds.), D. Reidel Publishers Company, Dordrecht,

The Netherlands 1986, pp. 567-580

2- R.I. Bickley, T. González-Carreño and L. Palmisano

*The Preparation and the Characterisation of Some Ternary*

*Titanium Oxide Photocatalysts*

"Preparation of Catalysts IV", B. Delmon, P. Grange, P.A. Jacobs and,

G. Poncelet (Eds.), Elsevier Science Publishers B.V., Amsterdam, The

Netherlands 1987, pp. 297-306

- 3- V. Augugliaro and L. Palmisano

*Reduction of Dinitrogen to Ammonia in Irradiated Heterogeneous System*

"Photocatalysis and Environment. Trends and Applications" M. Schiavello  
Kluwer Academic Publishers, Dordrecht,

(Ed.) NATO ASI SERIES,

The Netherlands 1988, pp. 425-444

- 4- V. Augugliaro, E. Davì, L. Palmisano, M. Schiavello and A. Sclafani,

*The Photocatalytic Degradation of Phenol in Aqueous Titanium Dioxide*

*Dispersions: The Influence of Hydrogen Peroxide*

"Environmental Contamination", A.A. Orio (Ed.), CEP Consultants Ltd,

Edinburgh (U.K.) 1988 pp. 206-208

- 5- V. Augugliaro, L. Palmisano, M. Schiavello, A. Sclafani, J. Conesa and

J. Soria

*Fotoreduccìon de Nitrògeno a Amoniaco con Catalizadores de Fe/TiO<sub>2</sub>*

Proc. XI Simp. Iberoam. Cat. Guanajuato (Mexico), Junio 12-17 1988,

pp. 217-224

- 6- V. Augugliaro and L. Palmisano

*Kinetics of Photodegradation of Phenol and Nitrophenols in*

*Heterogeneous Catalytic System*

Proc. 2nd Intern. Conf. on Environment Protection, S. Angelo, Ischia (Italy),

5-7 October 1988, Vol I, 2 A pp. 59-66

- 7- M. Schiavello, V. Augugliaro, S. Coluccia, L. Palmisano and A. Sclafani

*Photolytic and Redox Mechanisms for the Photodecomposition of*

*Ethanoic Acid over Pure and Mixed Oxides*

"Photochemistry on Solid Surfaces", M. Anpo and T. Matsuura (Eds.),

Elsevier Science Publishers B.V., Amsterdam, The Netherlands 1989,

pp. 149-168

- 8- J.C. Conesa, J. Soria, V. Augugliaro and L. Palmisano

*Photoreactivity of Iron Doped Titanium Dioxide Powders for Dinitrogen*

*Reduction to Ammonia*

"Structure and Reactivity of Surfaces", C. Morterra, A. Zecchina and

G. Costa (Eds.), Elsevier Science Publishers B.V., Amsterdam,

The Netherlands 1989, pp. 307-317

- 9- L. Marchese, S. Coluccia, E. Borello, L. Palmisano, A. Sclafani and M.

Schiavello

*Photoassisted Mechanisms in Heterogeneous Catalysis: The Role*

*of Surface OH in the Decomposition of Ethanoic Acid on*

*Magnesium Oxide*

"Structure and Reactivity of Surfaces", C. Morterra, A. Zecchina and G. Costa (Eds.), Elsevier Science Publishers B.V., Amsterdam, The Netherlands 1989, pp. 643-652

10- R.I. Bickley, L. Palmisano, M. Schiavello and A. Sclafani

*Heterogeneous Photocatalysis: Mechanistic Considerations of Photocatalytic Reductions and Photocatalytic Oxidations on Semiconductors*

*Oxide Surfaces*

"New Frontiers in Catalysis", L. Guzzi, F. Solymosi and P. Tetenyi (Eds.)

Elsevier Science Publishers B.V., Amsterdam, The Netherlands, 1993

pp. 2151-2154

11- A. Sclafani, L. Palmisano and M. Schiavello

*Phenol and Nitrophenols Photodegradation Using Aqueous*

*TiO<sub>2</sub> Dispersions*

"Aquatic and Surface Photochemistry", G.R. Heltz, R.G. Zepp and

D.G. Crosby (Eds.), Lewis Publishers, Boca Raton, U.S.A. 1994,

pp. 419-425

12- V. Augugliaro, L. Cavallero, G. Marci, L. Palmisano and E. Pramauro



*Influence of Operational Variables on the Photodegradation Kinetics*

*of Monuron in Aqueous Titanium Dioxide Dispersions*

"New Developments in Selective Oxidation II", V. Cortès

Corberan and S. Vic Bellon (Eds.), Elsevier Science Publishers B.V.,

Amsterdam, The Netherlands 1994, pp. 713-720

**13-** R.I. Bickley, L.T. Hogg, T. González-Carreño and L. Palmisano

*A Comparative Study of the Photocatalytic Activities of Iron-Titanium (IV) Various Methods; Spray Pyrolysis,*

*Oxide Photocatalysts Prepared by*

*Impregnation and Co-Precipitation*

"Preparation of Catalysts VI. Scientific Bases for the Preparation of Martens, B. Delmon, P.A. Jacobs

Heterogeneous Catalysts", G. Poncelet, J.

and P. Grange (Eds.), Elsevier Science Publishers B.V., Amsterdam,

The Netherlands, 1995 pp. 589-596

**14-** V. Augugliaro, G. Marci, L. Palmisano, A. Sclafani and M. Schiavello

*Kinetics*

"The Detoxification of Effluents by Photocatalytic Science and Engineering"

R.I. Bickley (Ed.), Office for Official Publications of the European

Communities, Luxembourg, 1996, Chap. 4, pp. 40-51

**15-** L. Palmisano and A. Sclafani

*Thermodynamics and Kinetics for Heterogeneous Photocatalytic Processes*

"Heterogeneous Photocatalysis", Vol. 3, Series in Photoscience and  
Photoengineering, M. Schiavello (Ed.), Wiley, Chichester, U.K.,  
1997, pp. 109-132

**16-** V. Augugliaro, S. Coluccia, V. Loddo, L. Marchese, G. Martra, L.  
Schiavello

Palmisano, M. Pantaleone and M.

*VOC's Abatement: Photocatalytic Oxidation of Toluene in Vapour Phase on*

*Anatase TiO<sub>2</sub> Catalyst*

Studies in Surface Science and Catalysis, 3rd World Congress on Oxidation

Catalysis, R.K. Grasselli, S.T. Oyama, A.M. Gaffney and J.E. Lyons (Eds.),

Elsevier Science Publishers B.V., Amsterdam., The Netherlands, 1997,

pp. 663-672

**17-** A. Di Paola, L. Palmisano and V. Augugliaro

*Photoinduced Charge-Transfer Processes in Mixed WO<sub>3</sub>/WS<sub>2</sub>*

*Systems*

"Photoelectrochemistry", K. Rajeshwar, L.M. Peter and A. Fujishima,

D. Meissner, M. Tomkiewich (Eds.), The Electrochemical Society INC.,

Pennington, USA, 1997, pp. 321-330

**18-** V. Augugliaro, V. Loddo, L. Palmisano and M. Schiavello

*Bestimmung der Quantenausbeute von heterogenen photokatalytischen*

*Systemen. Bestimmung des absorbierten und reflektierten Photonenflusses*

*in wäßrigen Suspensionen von polykristallinem Titandioxid*

“Photochemie Konzepte, Methoden, Experimente”, D. Wöhrle, M.W Tausch,

W.D.Stohrer (Hrsg.), Wiley-VCH, Weinheim, Germany, 1998 pp. 459-465

**19-** G. Martra, V. Augugliaro, S. Coluccia, E. García-López, V. Loddo,

L. Marchese, L. Palmisano and M. Schiavello

*Photocatalytic Oxidation of Gaseous Toluene on Polycrystalline TiO<sub>2</sub>:*

*FT-IR Investigation of Surface Reactivity of Different Types of*

*Catalysts*

“Studies in Surface Science and Catalysis, 130<sup>A</sup>”, A. Corma, F.V.

Melo, S. Mendioroz, J.L.G. Fierro (Eds.), Elsevier Science B.V.,

Amsterdam, The Netherlands, 2000, pp. 665-670

**20-** V. Augugliaro, V. Loddo, G. Marci, L. Palmisano, C. Sbriziolo, M.

Schiavello and M.L. Turco Liveri

*Photocatalytic Degradation of Toluene in Aqueous Suspensions of*

*Polycrystalline TiO<sub>2</sub> in the Presence of the Surfactant*

*Tetradecyldimethylamino-oxide*

“Studies in Surface Science and Catalysis, 130<sup>B</sup>”, A. Corma, F.V.

Melo, S. Mendioroz, J.L.G. Fierro (Eds.), Elsevier Science B.V.,

Amsterdam, The Netherlands, 2000, pp. 1973-1978

21- A. Di Paola, G. Marci, L. Palmisano and M. Schiavello

*Trattamenti Innovativi delle Acque mediante l'Utilizzo di Radiazioni*

*UV e Catalizzatore: la Fotocatalisi Eterogenea*

"Processi e metodologie per il Trattamento delle Acque", a cura di

Leonardo Palmisano, Edizioni Spiegel, Milano, Italia, 2000,

Capitolo 13, pp. 237-260

22- V. Augugliaro, E. García-López, V. Loddo, S. Malato-Rodriguez, I. Maldonado, G. Marci, R. Molinari, L. Palmisano

*Degradation of Lincomycin in Aqueous Medium: Coupling of Solar Photocatalysis and Membrane Separation*

Improving Human Potential Programme. Access to Research Infrastructures Activity. Research Results at Plataforma Solar de Almería Within the Year 2003 Access Campaign. D. Matinez Plaza (Ed.), Editorial CIEMAT, Madrid (Spain), pp. 43-52

23- V. Augugliaro, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Efecto de la Fotocatálisis Heterogénea y la Ozonización sobre la Oxidación de Ion Oxalato en Suspensión Acuosa de TiO<sub>2</sub>*

Acta Full Papers, XIX Simposio Iberoamericano de Catálisis, Septiembre 5-11, 2004, Mérida, Yucatán, México, pp. 1920-1927

24- V. Augugliaro, S. Coluccia, E. García-López, V. Loddo, G. Marci, G. Martra, L. Palmisano, M. Schiavello

*Oxidación Fotocatalítica del Acetonitrilo en Régimen Gas-Sólido y Líquido-Sólido*

Acta Full Papers, XIX Simposio Iberoamericano de Catálisis, Septiembre 5-11, WWSW2004, Mérida, Yucatán, México, pp. 2868-2875

25- R. Molinari, L. Giorno, E. Drioli, L. Palmisano and M. Schiavello

*Photocatalytic nanofiltration reactors*

In "Nanofiltration – Principles and Applications", A.I. Schäfer, A.G. Fane and T.D. Waite (Eds.), Elsevier, Oxford, U.K., 2005, Cap. 18, pp. 435-458

26- R. Molinari, L. Palmisano

*Photocatalytic Membrane Reactors in Water Purification*

In "Water Encyclopedia: Domestic, Municipal and Industrial Water Supply and Waste Disposal", Jay H. Lehr, Jack Keeley, J. Lehr (Eds), Wiley, Germany, 2005, pp. 791-797 ISBN: 0-471-73687-2

27- E. García-López, M. Addamo, A. Di Paola, G. Marci, L. Palmisano

*Preparation in mild condition of photocatalitically active nanostructured TiO<sub>2</sub> rutile*

Scientific Bases for the preparation of heterogeneous catalysts, "Studies in Surface Science and Catalysis, 162", E. M. Gaigneaux, M. Devillers, D. E. De Vos, S. Hermans, P. A. Jacobs, J. A. Martens, P. Ruiz (Eds.), Elsevier Science, Amsterdam, 2006, pp. 689-696

28- M. Bellardita, M. Addamo, A. Di Paola, L. Palmisano

*Characterization of TiO<sub>2</sub> Thin Films for Photocatalytic Applications*

Photocatalysis, Environment and Construction Materials, TDP 2007,

Edited by P. Baglioni and L. Cassar, RILEM Publications S.A.R.L.,

Bagneux, France, pp. 57-64, ISBN: 978-2-35158-056-1

29- L. Palmisano, G. Marci, E. García-López, A. Di Paola

*Photocatalytic Activity of TiO<sub>2</sub> Thin Films Prepared in the Presence of Organic and Inorganic Additives*

Photocatalysis, Environment and Construction Materials, TDP 2007,

Edited by P. Baglioni and L. Cassar, RILEM Publications S.A.R.L., Bagneux, France, pp. 273-280, ISBN: 978-2-35158-056-1

**30-** E. García-López, H. Hidaka, G. Marci, L. Palmisano

*Mineralización fotocatalítica de heterocícllos aromáticos y alicícllos que contienen nitrógeno: relación entre productos de reacción que contienen nitrógeno y estructura del substrato*

Proceeding Simposio Iberoamericano de Catálisis, XXI SICAT, Málaga, España, Junio de 2008, Vol. VI, pp. 1319-1328

**31-** V. Augugliaro, V. Loddo, M. J. López-Muñoz, C. Márquez-Álvarez, G. Palmisano, L. Palmisano, S. Yurdakal

*Oxidación fotocatalítica de alcoholes aromáticos. Influencia de la adición de atrapadores de huecos en la selectividad a aldehídos*

Proceedings Simposio Iberoamericano de Catalisis, XXI SICAT, Málaga, España, Junio de 2008, Vol. V, pp. 1124-1131

**32-** G. Palmisano, S. Yurdakal, V. Loddo, V. Augugliaro, L. Palmisano

*Ossidazione Selettiva di Alcolo Aromatici ad Aldeidi in Sospensioni Acquose di TiO<sub>2</sub> Anatasio e Rutilo*

Atti GRICU Convegno 2008, Lacastella (Kr), 14-17 Settembre 2008, pp. 685-688

**33-** Vittorio Loddo, Vincenzo Augugliaro, Raffaele Molinari, Leonardo Palmisano

*Photocatalytic Membrane Reactors*

In "Simulation of Membrane Reactors", A. Basile and F. Gallucci (Eds.), Nova Science Publishers, 2008, ISBN: 978-1-60692-425-9, pp. 417-461

**34-** R. Molinari, A. Caruso, L. Palmisano

*Photocatalytic Membrane Reactors in the Conversion or Degradation of Organic Compounds*

In "Membrane Operations, Innovative Separations and Transformations",

E. Drioli and L. Giorno (Eds.), WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim (Germany), 2009, Cap. 15, pp. 335-361, ISBN: 978-3-527-32038-7

**35-** L. Palmisano

*Heterogeneous Photocatalysis Coupled with other Technologies for the Purification of Aqueous Effluents*

In: Environmental Applications of TiO<sub>2</sub> Photocatalysis, COST Actions 540, 543 and P19 Training School, Keiski Riitta, Huuhtanen Mika & Kangasharju Liisa (Eds.)

Department of Process and Environmental Engineering Report 336, Oulu,

2009, pp. 67-74, ISBN 978-951-42-9194-4, ISSN 1458-6177

**36-** L. Palmisano

*Selective Heterogeneous Photocatalysis by TiO<sub>2</sub> for Green Innovative Organic Syntheses: Achievements and Challenges*

In: Environmental Applications of TiO<sub>2</sub> Photocatalysis, COST Actions 540, 543 and P19 Training School, Keiski Riitta, Huuhtanen Mika & Kangasharju Liisa (Eds.)

Department of Process and Environmental Engineering Report 336, Oulu,

2009, pp. 75-82, ISBN 978-951-42-9194-4, ISSN 1458-6177

**37-** A. Di Paola, M. Bellardita, L. Palmisano, Francesco Parrino

*Junction effect on the photocatalytic activity of mixed-phase TiO<sub>2</sub> nanoparticles*

- 38-** A. Di Paola, M. Bellardita, L. Palmisano

*TiO<sub>2</sub> photocatalysts prepared by thermohydrolysis of TiCl<sub>4</sub> in aqueous solutions*

“Scientific Bases for the Preparation of Heterogeneous Catalysts” E.M. Gaigneaux, M. Devillers, S. Hermans, P. A. Jacobs, J. A. Martens, P. Ruiz, (Eds.), Elsevier Science Publishers B.V., Amsterdam, The Netherlands, 2010, pp. 225-228

- 39-** R. Molinari, A. Caruso, L. Palmisano

*Photocatalytic Processes in Membrane Reactors*

In “Comprehensive Membrane Science and Engineering” E. Drioli and L. Giorno (Eds.), Elsevier B.V., U.S.A., 2010, pp. 165-193

- 40-** V. Augugliaro, T. Caronna, A. Di Paola, G. Marci, M. Pagliaro, G. Palmisano, L. Palmisano

*TiO<sub>2</sub>-based photocatalysis for organic synthesis*

In [Environmentally Benign Catalysts](#): Applications of Titanium Oxide-based Materials. Series Nanostructure Science and Technology, M. Anpo and P. Kamat (Eds.), Springer, U.S.A., 1<sup>st</sup> Edition, 2010, pp. 623-646

ISBN: 978-0-387-48441-9

- 41-** V. Loddo, L. Palmisano, T. Marino, R. Molinari

*Membranes for photocatalysis in wastewater treatment*

In “Advanced Membrane Science and Technology for Sustainable Energy and Environmental Applications” A. Basile and S.P. Nunes (Eds.), Woodhead Publishing, Cambridge, UK, 2011, pp. 746-768

- 42-** G. Camera Roda, V. Augugliaro, V. Loddo, L. Palmisano



*Pervaporation membrane reactors*

In "Handbook of Membrane Reactors", Volume 1, A. Basile (Ed.), Woodhead Publishing, Cambridge, UK, 2013, pp. 107-149

43- S. Mozia, A.W. Morawski, R. Molinari, L. Pamisano, V. Loddo

*Photocatalytic membrane reactors: fundamentals, membrane materials and operational issues*

In "Handbook of Membrane Reactors", Volume 1, A. Basile (Ed.), Woodhead Publishing, Cambridge, UK, 2013, pp. 236-293

44- R. Molinari, L. Pamisano, V. Loddo, S. Mozia, A.W. Morawski,

*Photocatalytic membrane reactors: configurations, performance and applications in water treatment and chemical production*

In "Handbook of Membrane Reactors", Volume 1, A. Basile (Ed.), Woodhead Publishing, Cambridge, UK, 2013, pp. 808-843

**LIBRI**

1. "Processi e metodologie per il Trattamento delle Acque", a cura di  
Leonardo Palmisano, Edizioni Spiegel, Milano, Italia, 2000, 318 pagine

2- M. Schiavello e L. Palmisano

*Fondamenti di Chimica*

I Edizione: EdiSES, Napoli, 2002, 776 pagine

II Edizione: EdiSES, Napoli, 2006, 844 pagine

3- V. Rives, M. Schiavello y L. Palmisano

*Fundamentos de Química*

Ariel Ciencia, Barcellona (Spagna), 2003, 844 pagine

1. L. Palmisano e M. Schiavello

*Elementi di Chimica*

I Edizione: EdiSES, Napoli, 2007, 509 pagine

5- Vincenzo Augugliaro, Vittorio Lodo, Mario Pagliaro, Giovanni Palmisano, Leonardo Palmisano

*Clean by Light Irradiation*

RSC Publishing, Cambridge, U.K., 2010, 267 pagine

## ELENCO DELLE PARTECIPAZIONI A CONGRESSI NAZIONALI E INTERNAZIONALI

C1- M.D. Grillone and L. Palmisano

*On the Reaction of Group VI Metal Carbonyl with Potassium Hydroxide*

Proc. XXI Int. Conf. on Coord. Chem., Toulouse (France), July 7-11

1980, p. 238

**C2-** V. Augugliaro, L. Palmisano, M. Schiavello and A. Sclafani

*A Study on the Photodecomposition of Ethanoic Acid Adsorbed on*

*Oxides Catalysts with Different Acid-Base Properties*

Proc. 5th Czechoslovak-Italian Symposium on Catalysis, Bechyne

(Czechoslovakia), September 16-20 1985, pp. 4-7

**C3-** A. Sclafani, S. Coluccia, V. Augugliaro e L. Palmisano

*Fotodecarbossilazione dell'Acido Acetico su Ossidi Isolanti Puri e Misti*

*con Differenti Proprietà Acido-Base*

Atti XX Congresso dell'Associazione Italiana di Chimica-Fisica, Torino (Italy), 21-24 Ottobre 1985, pp. 368-369

**C4-** V. Augugliaro, L. Palmisano, M. Schiavello and A. Sclafani

*The Photodecomposition of Ethanoic Acid Adsorbed on Insulating and*

*Semiconducting Oxides at Different Acid-Base Properties*

Proc. V Int. Symp. on Relations Between Homogeneous and

Heterogeneous Catalysis, Novosibirsk (U.S.S.R.), July 15-19 1986,

pp. 18-19

**C5-** A. Sclafani, V. Augugliaro, L. Palmisano and M. Schiavello

*Photodecarboxylation of Ethanoic Acid Adsorbed over Insulator and*

*Semiconductor Oxides*

Proc. The Sixth Int. Conf. on Photochemical Conversion and Storage

of Solar Energy, Parigi (France), July 21-25 1986, C46

**C6-** R.I. Bickley, T. González-Carreño and L. Palmisano

*The Preparation and the Characterisation of Some Ternary Titanium*

*Oxide Photocatalysts*

Proc. Fourth International Symposium "Scientific Bases for the

Preparation of Heterogeneous Catalysts",

Louvain-La-Neuve (Belgium), September 1-4 1986, C5

**C7-** S. Coluccia, L. Marchese, K. Mohana-Rao, L. Palmisano e A. Sclafani

*Meccanismi Fotoassistiti in Catalisi Eterogenea su Ossidi: Ruolo degli*

*Ossidrili Superficiali nella Decomposizione di Acido Acetico su MgO*

Atti XXII Congresso Nazionale di Chimica Fisica, Como, 20-23

Ottobre 1987, pp. 171-172

**C8-** L. Palmisano, M. Schiavello and A. Sclafani

*Photolytic and Photocatalytic Phenol and Nitrophenols Photodegradation*

*in TiO<sub>2</sub> (Anatase) Aqueous Dispersions*

Proc. XII IUPAC Symposium on Photochemistry, Bologna

(Italy), July 17-22 1988, pp. 204-205

**C9-** A. Sclafani, L. Palmisano and M. Schiavello

*Influence of the Physico-Chemical Properties of TiO<sub>2</sub> Powders on*

*Phenol Photodegradation*

Proc. Seventh Int. Conf. on Photochemical Conversion and

Storage of Solar Energy (I.P.S. 7), Evanston, Illinois,

(USA), July 31-August 5 1988, p. 112

**C10-** S. Coluccia, L. Marchese, F. Miano, L. Palmisano, M. Schiavello e

A. Sclafani

*Fotodegradazione di nitrofenoli su TiO<sub>2</sub> in dispersione acquosa*

Atti "1° Convegno Nazionale di Chimica Fisica Ambientale",

Venezia (Italy), 2-4 Ottobre 1988, pp. 95-97

**C11-** A. Sclafani, L. Palmisano e M. Schiavello

*Influenza dei Metodi di Preparazione sulle Proprietà Fotocatalitiche del*

*TiO<sub>2</sub> nel Processo di Fotodegradazione del fenolo in Sospensione Acquosa*

Atti "Bononiachem 88" XVI Congresso Nazionale della Società

Chimica Italiana, Bologna (Italy), 9-14 Ottobre 1988, p. 251

**C12-** M.D. Grillone e L. Palmisano

*Sulla Formazione delle Specie  $[HCr(CO)_5]^-$  e  $[Cr_2(CO)_{10}]^{2-}$*

*dalla Interazione  $Cr(CO)_6-KOH$*

Atti "Bononiachem 88" XVI Congresso Nazionale della Società

Chimica Italiana, Bologna (Italy), 9-14 Ottobre 1988, p. 352

**C13-** L. Marchese, S. Coluccia, E. Borello, L. Palmisano, A. Sclafani

and M. Schiavello

*Photoassisted Mechanisms in Heterogeneous Catalysis: The Role of*

*Surface OH in The Decomposition of Ethanoic Acid on Magnesium Oxide*

Proc. Eur. Conf. on Structure and Reactivity of Surface, Trieste (Italy),

September 13-16 1988, b22

**C14-** J.C. Conesa, J. Soria, V. Augugliaro and L. Palmisano

*Photoreactivity of Iron Doped Titanium Dioxide Powder for Dinitrogen*

*Reduction to Ammonia*

Proc. Eur. Conf. on Structure and Reactivity of Surface, Trieste (Italy),

September 13-16 1988, b10

**C15-** L. Palmisano, A. Sclafani and M. Schiavello

*Fundamentals of the Heterogeneous Photocatalytic Processes:*

*Photoreduction and Photooxidation Reactions in Gas-Solid and*

*Liquid-Solid Regime*

Proc. Int. Symposium on "Photochemistry in Synthesis and Catalysis",

Ferrara (Italy), 6-8 Giugno 1989, pp. 42-44

**C16-** L. Palmisano, M. Schiavello and A. Sclafani

*Iron and Chromium Ions Doped Titania for the Dinitrogen Photoreduction*

*to Ammonia in Gas-Solid Regime and for the Phenol Photodegradation*

*in Liquid-Solid Regime: XRD, DRS, SEM Characterization and Role*

*of the Interfaces*

Proc. Int. Symposium on "Photochemistry in Synthesis and Catalysis",

Ferrara (Italy), 6-8 Giugno 1989, pp. 99-100

**C17-** A. Sclafani e L. Palmisano

*Influenza del TiO<sub>2</sub> (rutilo ed anatasio) sulla Fotoossidazione*

*di Materiali Organici*

Atti del Convegno ASMI "Il Degradato Dei Materiali",

Palermo 19-20 Settembre 1989, p. 40

**C18-** L. Palmisano, V. Augugliaro, M. Schiavello and A. Sclafani

*The Influence of Acid-Base Properties on Photocatalytic and*

*Photochemical Processes*

Proc. VI Int. Symp. on Relations Between Homogeneous and

Heterogeneous Catalysis,

Pisa (Italy), September 25-29 1989, J. Mol. Catal.,

Booklet of Abstracts, p. 54

**C19-** M. Schiavello, V. Augugliaro, E. Davì and L. Palmisano

*An Experimental Method for the Determination of the Photons Flow*

*Reflected and Absorbed by Aqueous Dispersions Containing*

*Polycrystalline Solids*

Atti Congresso Interdivisionale della Società Chimica Italiana,

Perugia (Italy), 7-11 Ottobre 1989, p. 556

**C20-** A. Sclafani and L. Palmisano



*Phenol Photooxidation over TiO<sub>2</sub> Aqueous Dispersions Mediated*

*by Fe<sup>3+</sup>/Fe<sup>2+</sup> Redox System*

Atti Congresso Interdivisionale della Società Chimica

Italiana, Perugia (Italia), 7-11 Ottobre 1989, p. 577

**C21-** R.I. Bickley, T. González-Carreño, J.S. Lees, L. Palmisano and R.J.D. Tilley

*Structural Studies of P25 Titanium Dioxide*

Proc. Eighth Int. Conf. on Photochemical Conversion and Storage

of Solar Energy (I.P.S. 8), Palermo (Italy), July 15-20th 1990, p. 197

**C22-** S. Coluccia, L. Marchese, F. Miano, L. Palmisano, M. Schiavello and

A. Sclafani

*Photocatalytic Degradation of Nitrophenols in Aqueous Titanium*

*Dioxide Dispersions*

Proc. Eighth Int. Conf. on Photochemical Conversion and Storage

of Solar Energy (I.P.S. 8), Palermo (Italy), July 15-20th, 1990, p. 243

**C23-** V. Augugliaro, A. Franco, F. Inglese, L. Palmisano and M. Schiavello

*Quantum Yield and Turnover Number Determination in Heterogeneous*

*Photocatalytic System*

Proc. Eighth Int. Conf. on Photochemical Conversion and Storage

of Solar Energy (I.P.S. 8), Palermo (Italy), July 15-20th 1990, p. 274

**C24-** V. Augugliaro, A. Franco, F. Inglese, L. Palmisano and M. Schiavello

*Performance of a Continuous Slurry Photoreactor Containing*

*Titanium Dioxide Powder for Phenol Degradation*

Proc. Eighth Int. Conf. on Photochemical Conversion and Storage

of Solar Energy (I.P.S. 8), Palermo (Italy), July 15-20th 1990, p. 275

**C25-** V. Augugliaro, A. Franco, F. Inglese, L. Palmisano and M. Schiavello

*Photocatalytic Degradation of Phenol in a Continuous Slurry*

*Reactor Containing Titanium Dioxide Powder*

Atti Congresso Interdivisionale della Società Chimica Italiana,

San Benedetto del Tronto (Italy), 30 Settembre-5 Ottobre 1990, p. 179

**C26-** V. Augugliaro and L. Palmisano

*Kinetics of Multiphase Diffusion of Zinc into Solid Brass with*

*Contemporary Phase Transformation*

Atti Congresso Interdivisionale della Società Chimica Italiana,

San Benedetto del Tronto (Italy), 30 Settembre-5 Ottobre 1990, p. 180

**C27-** R.I. Bickley, L. Palmisano, J. Lees and R.J.D. Tilley

*Structural Characterization of Fe-Ti-O Photocatalysts*

Atti Congresso Interdivisionale della Società Chimica Italiana,

San Benedetto del Tronto (Italy), 30 Settembre-5 Ottobre 1990, p. 160

**C28-** S. Coluccia, L. Marchese, F. Miano, L. Palmisano, M. Schiavello and

A. Sclafani

*Photocatalytic Degradation of Nitrophenols in Aqueous Titanium*

*Dioxide Dispersions*

Atti Congresso Interdivisionale della Società Chimica Italiana

San Benedetto del Tronto (Italy), 30 Settembre-5 Ottobre 1990, p. 182

**C29-** R.I. Bickley, T. González-Carreño and L. Palmisano

*A Study of the Interaction Between Iron(III) Oxide and Titanium(IV)*

*Oxide at Elevated Temperatures*

Proc. Workshop on "Clusters and Surfaces", Torino (Italy), 9-11 January 1991, p. 54

**C30-** C. Martin, I. Martin, L. Palmisano, V. Rives and M. Schiavello

*Structural and Surface Properties of the Polycrystalline System*

*CryO<sub>y</sub>-TiO<sub>2</sub> and Photocatalytic Behaviour*

Atti Congresso dei Gruppi Interdivisionali Società Chimica Italiana,

Chianciano Terme (Italy), 6-11 Ottobre 1991, pp. 570-571

**C31-** A. Sclafani and L. Palmisano

*Different Photoactivity of TiO<sub>2</sub> (Rutile and Anatase) Towards*

*Organic Compounds Photodegradation*

Atti Congresso dei Gruppi Interdivisionali Società Chimica Italiana,

Chianciano Terme (Italy), 6-11 Ottobre 1991, pp. 138-139

**C32-** V. Augugliaro, L. Palmisano and M. Schiavello

*Determination of the Absorbed Photons in a Heterogeneous Photocatalytic*

*System*

Proc. Mediterranean Meeting on Photochemistry, Acireale (Italy),

28-31 Ottobre 1991, p. 62

**C33-** A. Sclafani, V. Augugliaro and L. Palmisano

*Phenol and Nitrophenols Photocatalytic Oxidation in TiO<sub>2</sub> (anatase)*

*Aqueous Dispersions. The Influence of Fe<sup>3+</sup> on the Reaction Rate*

Proc. Processi Fotochimici su Superfici Solide, Ferrara (Italy), 5-6 Novembre 1991, pp. 51-53

**C34-** V. Augugliaro, L. Palmisano and M. Schiavello

*Determination of Reflected and Absorbed Photon Flow in Heterogeneous*

*Photocatalysis*

Proc. Processi Fotochimici su Superfici Solide, Ferrara (Italy),

5-6 Novembre 1991, pp. 48-50

**C35-** R. Campostrini, R.M. Baraka, G. Carturan, L. Palmisano, M. Schiavello and

A. Sclafani

*Preparation by Sol-Gel Method of TiO<sub>2</sub> used as catalyst in organic*

*pollutants photodegradation*

Proc. Processi Fotochimici su Superfici Solide, Ferrara (Italy),

5-6 Novembre 1991, pp. 54-56

**C36-** A. Sclafani e L. Palmisano

*Abbattimento Fotocatalitico di Inquinanti Organici*

Convegno Nazionale su "Chimica Industriale e Industria Chimica in Sicilia",

Siracusa 18-19 Novembre 1991 (Comunicazione orale)

**C37-** A. Sclafani, L. Palmisano and M. Schiavello

*Phenol and Nitrophenols Photodegradation Carried out using Aqueous*

*TiO<sub>2</sub> Anatase Dispersions*

Preprints of Papers Presented at the 203rd ACS National Meeting

(Symposium on Environmental Aspects of Aquatic and Surface Photo-

chemistry), Vol.32 N° 1 San Francisco (USA), April 5-10 1992,

pp.262-264 (C37)

**C38-** L. Palmisano, V. Augugliaro and M. Schiavello

*Quantum Yield and Turnover Number Determination for the Comparison*

*among Various Heterogeneous Systems*

Proc. Relation Between Homogeneous and Heterogeneous Catalysis,

Tokyo (Japan), May 17-21 1992, pp. 526-527 (P221)

**C39-** R.I. Bickley, L. Palmisano, M. Schiavello and A. Sclafani

*Heterogeneous Photocatalysis: Mechanistic Considerations of Photocatalytic*

*Reductions and Photocatalytic Oxidations on Semiconductor Oxide Surfaces*

Preprint and Abstract Book of 10th International Congress on Catalysis,

Budapest (Hungary), July 19-24 1992, p. 304 (P176)

**C40-** V. Augugliaro, M.J. López-Muñoz, L. Palmisano and J. Soria

*Cinetica de la Degradacion de 2-, 3-, y 4- Nitrofenol en un Sistema*

*Fotocatalítico Heterogeneo*

Proc. XIII Simposio Iberoamericano De Catalisis, Segovia (Spain),

6-10 Julio 1992, Vol. I pp. 549-552

**C41-** R.I. Bickley, L. T. Hogg, T. González-Carreño, L. Palmisano

*Estudio Comparativo de la Actividad Fotocatalítica, Intrínseca a*

*Determinados Sólidos, de Uso Potencial en el Control de la Polución*

*Química en Medio Acuoso*

Proc. XIII Simposio Iberoamericano De Catalisis, Segovia (Spain),

6-10 Julio 1992, Vol. II pp. 633-636

**C42-** R. Camprostrini, G. Carturan, L. Palmisano, F. Pepe, M. Schiavello and

A. Sclafani

*A Comparison Toward the Phenol and Nitrophenols Photodegradation*

*Reactions in Aqueous Medium between a Commercial and a Home*

*Prepared (by Sol-Gel Method) TiO<sub>2</sub> (Anatase) Specimens*

Proc. Ninth Int. Conf. on Photochemical Conversion and Storage of Solar

Energy (I.P.S. 9), Beijing (China), August 23-28th 1992, p. 96

**C43-** T. González-Carreño, L. Palmisano, L. T. Hogg, R.I. Bickley

*Preparation of Homogeneous TiO<sub>2</sub> Doped with Fe<sup>3+</sup> by New Routes*

Proc. Ninth Int. Conf. on Photochemical Conversion and Storage of Solar

Energy (I.P.S. 9), Beijing (China), August 23-28th 1992, p. 111

**C44-** E. Pramauro, M. Vincenti, L. Palmisano and V. Augugliaro

*Photocatalytic Degradation of Monuron in Aqueous TiO<sub>2</sub> Dispersions*

Proc. Ninth Int. Conf. on Photochemical Conversion and Storage of Solar

Energy (I.P.S. 9), Beijing (China), August 23-28th 1992, p.213

**C45-** C. Martin, I. Martin, V. Rives, L. Palmisano and M. Schiavello

*Adsorcion Y Fotosintesis de Amoniacio Sobre TiO<sub>2</sub> Dopado con Cr(III)*

Proc. 24 Reunion Bienal Real Sociedad Española de Quimica

21-24 Septiembre 1992, p. 119

**C46-** E. Pramauro, M. Vincenti, L. Palmisano e V. Augugliaro

*Degradazione Fotocatalitica di Monuron in Presenza di TiO<sub>2</sub> Analisi*

*degli Intermedi e dei Prodotti Finali*

Atti Congresso Nazionale di Chimica Analitica, Pavia (Italy),

22-25 Settembre 1992, p. 227

**C47-** L. Palmisano, M. Schiavello, A. Sclafani, G. Martra and S.Coluccia

*Photocatalytic Decomposition of Phenol on TiO<sub>2</sub> Powders. A FTR Study*

Proc. VIII National Congress on Catalysis and Minisymposium on

Supported Metals, Rimini (Italy), 30 Settembre-2 Ottobre 1992, EF4



**C48-** A.M. Venezia, G. Deganello, L. Palmisano and M. Schiavello

*XPS Study of Chromium Ion Doped Titania Catalysts*

Book of Abstracts "Twelfth International Vacuum Congress" "Eighth

International Conference on Solid Surfaces",

The Hague (The Netherlands), October 12-16th 1992, p. 361

**C49-** L. Palmisano, M. Schiavello, A. Sclafani, S. Coluccia, L. Marchese and

G. Martra

*Photocatalytic Decomposition of Phenol on TiO<sub>2</sub> Powders. A FTIR Study*

Atti del XVII Congresso Nazionale di Chimica, Januachem 92,

Genova (Italy), 25-30 Ottobre 1992, pp. 383-384

**C50-** R.I. Bickley, T. González-Carreño, L. Palmisano and R.J.D. Tilley

*A Study of the Relationship Between the Rutile and Pseudo-brookite*

*Phases in the Fe(III)-TiO<sub>2</sub> System at Elevated Temperatures*

Atti del XVII Congresso Nazionale di Chimica, Januachem 92,

Genova (Italy), 25-30 Ottobre 1992, pp. 436-437

**C51-** V. Augugliaro, V. Loddo, L. Palmisano and M. Schiavello

*The Influence of Particle Size and Surface Area on the Photoactivity*

*of Polycrystalline Titanium Dioxide in Aqueous Dispersions*

Proc. First Conference on Chemical and Process Engineering,

Firenze (Italy), 13-15 May 1993, pp. 783-787

**C52-** M. Anpo, N. Kamada, H. Yamashita, Y. Hatano, K. Kikui, S. Ehara,

L. Palmisano, A. Sclafani and M. Schiavello

*Photocatalytic Reactivities of Well-Defined TiO<sub>2</sub> Catalysts and the*

*Cu-Loading Effects. Photoreduction of CO<sub>2</sub> with H<sub>2</sub>O and Photo-*

*degradation of 4-Nitrophenol*

Proc. "EUROPACAT-I", Montpellier (France), September 12-17th 1993,

p. 717

**C53-** G. Martra, E. Borello, S. Coluccia, L. Palmisano, M. Schiavello and

A. Sclafani

*Photocatalytic Decomposition of Phenol on TiO<sub>2</sub> Powders. A FTIR Study*

Proc. "EUROPACAT-I", Montpellier (France), September 12-17th 1993,

p. 728

**C54-** C. Martin, I. Martin, V. Rives, L. Palmisano, M. Schiavello and

A. Sclafani

*Surface Properties of Iron-Titania Photocatalysts Employed for*

*4-Nitrophenol Photodegradation in Aqueous TiO<sub>2</sub>*

Proc. "EUROPACAT-I", Montpellier (France), September 12-17th 1993,

p. 708

**C55-** V. Augugliaro, L. Cavallero, G. Marcì, L. Palmisano and E. Pramauro

*Influence of Operational Variables on the Photodegradation Kinetics*

*of Monuron in Aqueous Titanium Dioxide Dispersions*

Proc. II World Congress & IV European Workshop Meeting "New

Developments in Selective Oxidation", Benalmadena, Malaga (Spain),

September 20-24th 1993, pp. 91-98

**C56-** G. Marcì, A. Sclafani, V. Augugliaro, L. Palmisano and M. Schiavello

*Fotodegradazione su TiO<sub>2</sub> di Miscela di Fenolo e Pentaclorofenolo in*

*Soluzione Acquosa*

Atti del Convegno Regionale Società Chimica Italiana,

Sezione Sicilia, Acireale (Italy), 16-18 Dicembre 1993, C23

**C57-** G. Marcì, A. Sclafani, V. Augugliaro, L. Palmisano and M. Schiavello

*Influence of 3-Nitrophenol, 4-Nitrophenol, Pentachlorophenol,*

*2-Propanol and Ethanol on Photodegradation Rate of Phenol in*

*Aqueous Dispersion of TiO<sub>2</sub>*

Proc. Tenth International Conference on Photochemical Conversion and  
Storage of Solar Energy (IPS 10), Interlaken (Switzerland), July 24-29 1994,  
pp. 345-346

**C58-** T. González-Carreño, L. Palmisano and R.I. Bickley

*Direct Synthesis by Spray Pyrolysis of TiO<sub>2</sub> Doped Homogeneously  
with Molybdenum Cation*

Proc. Tenth International Conference on Photochemical Conversion and  
Storage of Solar Energy (IPS 10), Interlaken (Switzerland), July 24-29 1994,  
pp. 405-406

**C59-** R.I. Bickley, L.T. Hogg, T. González-Carreño and L. Palmisano

*A Comparative Study of the Photocatalytic Activities of Iron-Titanium (IV)*

*Oxide Photocatalysts Prepared by Various Methods; Spray Pyrolysis,*

*Impregnation and Co-Precipitation*

Preprints Sixth International Symposium "Scientific Bases for the Preparation of Heterogeneous Catalysts",

Louvain La Neuve (Belgium), September 5-8 1994, pp. 183-190

**C60-** A. Sclafani, V. Augugliaro, L. Palmisano and F. Vizzinisi

*Influence of Fe<sup>3+</sup> and H<sub>2</sub> O<sub>2</sub> on Nitrophenols Photodegradation in*

*Aqueous Titanium Dioxide Dispersions*

Atti X Congresso Nazionale di Chimica Industriale, IX Congresso

Nazionale di Catalisi, Pisa (Italy), 25-29 Settembre 1994, pp. 216-217

**C61-** E. Pramauro, A. Bianco Prevot, V. Augugliaro and L. Palmisano

*Degradazione Fotocatalitica di Ammine Aromatiche Presenti in Reflui*

*di Laboratorio*

Convegno Nazionale Colloidi e Interfasi, Cetraro (Italy), 3-5 Ottobre 1994,

p. 29

**C62-** G. Marci, A. Sclafani, V. Augugliaro, L. Palmisano and M. Schiavello

*Influenza del 3-Nitrofenolo, 4-Nitrofenolo, Pentaclorofenolo,*

*Etanolo, 2-Propanolo, Acido Ossalico e Acido Etanoico sulla*

*Velocità di Fotodegradazione del Fenolo in Dispersione Acquosa di TiO<sub>2</sub>*

Atti Convegno Regionale della Società Chimica Italiana Sezione Sicilia,

Palermo (Italy), 20-22 Ottobre 1994, C7

**C63-** V. Augugliaro, V. Loddo, G. Marci, L. Palmisano and M. Schiavello

*Studio di un Fotoreattore Piatto Continuo per la Degradazione del*

*Fenolo in Sistema Fotocatalitico Eterogeneo*

Atti Convegno Regionale della Società Chimica Italiana Sezione Sicilia,

Palermo (Italy), 20-22 Ottobre 1994, C10

**C64-** C. Martin, I. Martin, V. Rives, G. Solana, V. Loddo, L. Palmisano and

A. Sclafani

*Physicochemical Characterization and Photoactivity of WO<sub>3</sub>/ZrO<sub>2</sub>*

*and WO<sub>3</sub>/Nb<sub>2</sub>O<sub>5</sub> Catalysts for 4-Nitrophenol Photo-oxidation in*

*Aqueous Dispersion*

“Environmental Catalysis for a better World and Life”, Proc. of the

1st World Congress Environmental Catalysis, Pisa (Italy), May 1-5, 1995,

G. Centi, C. Cristiani, P. Forzatti and S. Perathoner (Eds.), Società

Chimica Italiana Publisher, Roma (Italy), 1995, pp.511-514

**C65-** S. Coluccia, L. Marchese, G. Martra, L. Palmisano, M. Schiavello and

A. Sclafani

*Photocatalytic Decomposition of Phenols on TiO<sub>2</sub> Powders. A FTIR Study*

“Environmental Catalysis for a better World and Life”, Proc. of the

1st World Congress Environmental Catalysis, Pisa (Italy), May 1-5, 1995,

G. Centi, C. Cristiani, P. Forzatti and S. Perathoner (Eds.), Società

Chimica Italiana Publisher, Roma (Italy), 1995, pp. 507-509

**C66-** J.A. Navio, P.J. Sanchez-Soto, G. Colon, V. Augugliaro and L. Palmisano

*Surface Aspects and Photo-Physical Properties of ZrO<sub>2</sub>-SiO<sub>2</sub> Systems.*

*Photoreactivity for 4-Nitrophenol Oxidation in Aqueous Suspensions*

*of ZrO<sub>2</sub>-SiO<sub>2</sub> Powders*

Proc. "EUROPACAT"-II, Maastricht (The Netherlands), 3-8 September

1995, p. 563

**C67-** A. Di Paola, V. Augugliaro, M. Derrigo, L. Palmisano,

*Fotoossidazione di Fenolo in Sospensioni Acquose di Disolfuro di*

*Tungsteno*

Atti GEI 95 Giornate dell'Elettrochimica Italiana, Riccione (Italy),

24-27 Settembre 1995, P11

**C68-** C. Martín, V. Rives, G. Solana, G. Marcí, L. Palmisano, A. Sclafani,

A.M. Venezia, R. Campostrini, G. Carturan

*Propiedades Estructurales, Superficiales y Catalíticas en la Fotodegradación de 4-Nitrofenol de WO<sub>3</sub>-TiO<sub>2</sub> Preparado via Sol-Gel*

Proc. Reunion Anual del Grupo Especializado de Catalisis, Peñíscola (Spain), 24-28 Septiembre 1995, pp. 135-136

**C69-** V. Augugliaro, V. Loddo, G. Marcì, L. Palmisano, M. Schiavello, A. Sclafani

*Reazioni Catalitiche Fotoassistite e Reazioni Fotocatalitiche su Ossidi Semi-conduttori*

Atti I Convegno Nazionale dei Docenti e Ricercatori di Chimica della Facoltà

di Ingegneria, Ancona (Italy), 28-29 Settembre 1995

**C70-** R. Camprostrini, G. Carturan, G.D. Sorarù, L. Palmisano, A. Sclafani

*Studi di Caratterizzazione di Prodotti Preparati via Sol-Gel per*

*l'Ottenimento di (A) Vetri Ternari SiOC e (B) di Fotocatalizzatori a*

*Base di TiO<sub>2</sub>*

Atti I Convegno Nazionale dei Docenti e Ricercatori di Chimica della Facoltà

di Ingegneria, Ancona (Italy), 28-29 Settembre 1995

**C71-** A. Sclafani, L. Palmisano and G. Farneti

*Inserzione Fotocatalitica di CO<sub>2</sub> nel Fenolo*

Secondo Convegno Nazionale Congiunto di Fotobiologia e

Fotochimica, Maratea (Italy), 2-4 Giugno 1996, p. 19

**C72-** A. Sclafani, L. Palmisano, G. Marci, V. Mannino and A.M. Venezia

*Influence of Platinum on Catalytic Activity of Polycrystalline WO<sub>3</sub>*

*Employed for Phenol Photodegradation in Aqueous Suspension*

Atti XXIV Congresso di Chimica Inorganica, Mondello (Italy),

25-29 Giugno 1996, PS37

**C73-** A. Di Paola, L. Palmisano, M. Derrigo and V. Augugliaro

*Preparation and Photochemical Properties of Tungsten Chalcogenides*



*Powders*

Proc. Eleventh International Conference on Photochemical Conversion and

Storage of Solar Energy (IPS 11), Bangalore (India), July 28 - Aug. 2 1996,

pp. 107-108

**C74-** T. González-Carreño, R.I. Bickley, L. Palmisano and C.J. Serna

*Preparation of TiO<sub>2</sub> Particles with Nanometer Size by Spray*

*Pyrolysis*

Proc. Eleventh International Conference on Photochemical Conversion and

Storage of Solar Energy (IPS 11), Bangalore (India), July 28 - Aug. 2 1996,

pp. 183-184

**C75-** V. Augugliaro, V. Loddo, M.J. López-Muñoz, G. Marci and

L. Palmisano

*Kinetics of Heterogeneous Photocatalytic Oxidation of Cyanides*

*in Aqueous Suspensions of Polycrystalline Titanium Dioxide*

2nd European Meeting on Chemical Industry and Environment

(EMChIE) 96, Alghero (Italy), September 11-13 1996, Vol 1 pp. 147-156

**C76-** A. Di Paola, V. Augugliaro, M. Derrigo and L. Palmisano

*Processi di Trasferimento di Cariche in Sospensioni Acquose di Polveri*

*di Calcogenuri di Tungsteno*

Atti GEI 96 Giornate dell'Elettrochimica italiana, Palermo (Italy),

18-21 Settembre 1996, pp. 18-19

**C77-** V. Augugliaro, S.Coluccia, V. Loddo, L. Marchese, G. Martra, L. Palmisano,

M. Pantaleone, M. Schiavello

*Fotoossidazione Catalitica di Toluene su TiO<sub>2</sub> anatasio*

Atti Convegno Regionale della Società Chimica Italiana Sezione Sicilia,

Catania (Italy), 19-20 Dicembre 1996, N. 15

**C78-** G. Alonzo, N. Bertazzi, P. Galli, G. Marci, M.A. Massucci, L. Palmisano,

P. Patrono, F. Saiano

*Synthesis and Characterization of Antimony (III) Catecholate. A*

*New Layered Material?*

Atti Convegno Regionale della Società Chimica Italiana Sezione Sicilia,

Catania (Italy), 19-20 Dicembre 1996, N. 16

**C79-** A. Di Paola, L. Palmisano, V. Augugliaro

*Impiego di Calcogenuri di Tungsteno in Fotocatalisi*

Atti Convegno Regionale della Società Chimica Italiana - Sezione Sicilia

Catania (Italy), 19-20 Dicembre 1996, N. 18

**C80-** A. Di Paola, L. Palmisano, V. Augugliaro

*Attività Fotocatalitica di Sistemi Misti WS<sub>2</sub>/WO<sub>3</sub>*

Atti XXVIII Congresso Nazionale della Divisione di Chimica-Fisica

della S.C.I., Pisa (Italy), 10-14 Febbraio 1997, pp. 194-195

**C81-** V. Augugliaro, A. Bianco Prevot, G. Marci, L. Palmisano, E. Pramauro,

E. Pramauro, M. Schiavello

*Cinetica di Degradazione di Anilina, 4-Cloroanilina e 4-Etilanilina in fase*

*Acquosa in Sistema Fotocatalitico Eterogeneo*

Atti 1° Congresso Nazionale del Consorzio Interuniversitario "La Chimica per L'Ambiente", Ferrara (Italy), 26-28 Febbraio 1997, P77

**C82-** V. Augugliaro, S. Coluccia, V. Loddo, L. Marchese, G. Martra,

L. Palmisano, M. Pantaleone, e M. Schiavello

*Abbattimento di Composti Organici Volatili: Ossidazione Fotocatalitica di*

*Toluene su Biossido di Titanio in Regime Gas-Solido*

Atti 1° Congresso Nazionale del Consorzio Interuniversitario "La Chimica per L'Ambiente", Ferrara (Italy), 26-28 Febbraio 1997, P78

**C83-** V. Loddo, G. Marci, V. Augugliaro and L. Palmisano

*Kinetics of Ethanol Oxidation in Gas Phase via Heterogeneous*

*Photocatalysis*

Atti TCC-97, Tecnologie Chimiche Compatibili, XII Congresso Nazionale  
di Chimica Industriale e Simposio di Catalisi, Giardini Naxos (Italy),  
22-25 Giugno 1997, pp. 135-138

**C84-** V. Augugliaro, S. Coluccia, V. Loddo, L. Marchese, G. Martra,

L. Palmisano, M. Pantaleone e M. Schiavello

*Fotoossidazione Catalitica di Toluene su TiO<sub>2</sub> Anatasio*

Atti Seminario Nazionale di Chimica Fisica 1997 "Fotochimica", Torino

(Italy), 22-27 giugno 1997, P10

**C85-** F. Anfuso, V. Augugliaro, R. Ceraulo, V. Loddo, G. Marci, S. Messina,

S. Natoli, A. Orecchio, L. Palmisano, M. Schiavello and A. Sclafani

*Physico-Chemical Parameters of Oreto River Water and Photocatalytic*

*Degradation of Organic Pollutants Dissolved in its Water*

Atti 2nd International Conference "Catalysis on the Eve of the XXI Century.

Science and Engineering", Novosibirsk (Russia), July 7-11, 1997,

pp. 375-376

**C86-** A. Di Paola, L. Palmisano and V. Augugliaro

*Photoinduced Charge-Transfer Processes in Mixed WO<sub>3</sub>/WS<sub>2</sub> Systems*

Meeting Abstracts of "The 1997 Joint International Meeting of The

Electrochemical Society and The International Society of Electrochemistry”,

Paris (France), August 31 - September 5, 1997, Volume 97-2, p. 1261

**C87-** V. Augugliaro, S. Coluccia, V. Loddo, G. Martra, L. Palmisano,

M. Pantaleone, M. Schiavello

*VOC's Abatement: Toluene Photocatalytic Oxidation on Anatase TiO<sub>2</sub>*

*Catalyst*

Book of Abstracts of “Third European Congress on Catalysis EuropaCat 3”,  
September 6<sup>th</sup>, 1997, Vol.2, p. 482

Kraków (Poland), August 31<sup>st</sup> -

**C88-** V. Loddo, G. Marci, L. Palmisano, A. Sclafani

*Photocatalytic Degradation of Pollutants Dissolved in Water: Bulk and*

*Surface Properties of Al<sub>2</sub>O<sub>3</sub> Supported TiO<sub>2</sub> Photocatalysts*

Book of Abstracts of “Third European Congress on Catalysis EuropaCat 3”,  
September 6<sup>th</sup>, 1997, Vol.2, p. 497

Kraków (Poland), August 31<sup>st</sup> -

**C89-** F. Anfuso, V. Augugliaro, R. Ceraulo, V. Loddo, G. Marci, S. Messina,

S. Natoli, A. Orecchio, L. Palmisano, M. Schiavello and A. Sclafani

*Physico-Chemical Parameters of Oreto River Water and Photocatalytic*

*Degradation of Organic Pollutants Dissolved in its Water*

Book of Abstracts 9th International Symposium on “Environmental Pollution  
Mediterranean Region”

and its Impact on Life in the

S. Agnello di Sorrento (Italy), October 4-9, 1997, p. 254 (D28)

**C90-** R. Molinari, M. Mungari, E. Drioli, A. Di Paola, V. Loddo, L. Palmisano,

M. Schiavello

*Performance of a Photocatalytic Membrane Reactor with Immobilized TiO<sub>2</sub>*

Book of Abstracts International Conference on Green Chemistry: Challenging Perspectives

Venezia (Italy), September 28 - October 1, 1997 (O5)

**C91-** R. Molinari, M. Mungari, E. Drioli, A. Di Paola, V. Loddo, L. Palmisano,

M. Schiavello

*Photodegradation of Organic Pollutants in a Membrane Reactor*

Proc. 1<sup>st</sup> Italy-Korea Workshop on Membranes and Membranes Operations

12-14 November 1997, Cetraro (Italy), p. 1

**C92-** R. Molinari, M. Mungari, E. Drioli, A. Di Paola, V. Loddo, L. Palmisano,

M. Schiavello

*Study on Two Photocatalytic Reactors Using TiO<sub>2</sub> Particles Suspended in*

*Solutions or Immobilized on a Membrane*

Proc. Itinerari di Chimica in Calabria, Società Chimica Italiana, Sezione

Calabria, Rende (Italy), 28-29 Novembre 1997, p. 53

**C93-** V. Augugliaro, V. Loddo, G. Marci, L. Palmisano, M. Schiavello, M.J. López-Muñoz,

*Ossidazione Fotocatalitica di Cianuro Libero in Sospensione Acquosa di*

*Biossido di Titanio Policristallino*

Atti Convegno Regionale della Società Chimica Italiana-Sezione Sicilia

Palermo (Italy), 9-11 Dicembre 1997, C6

**C94-** V. Augugliaro, V. Loddo, M.J. López-Muñoz, L. Palmisano, M. Schiavello

*Limiti di Applicabilità di un Metodo Sperimentale per la Determinazione*

*della Resa Quantica in Sistemi Fotocatalitici Eterogenei*

Atti Convegno Regionale della Società Chimica Italiana-Sezione Sicilia

Palermo (Italy), 9-11 Dicembre 1997, C7

**C95-** G. Martra, L. Marchese, S. Coluccia, V. Augugliaro, V. Loddo, L. Palmisano

and M. Schiavello

*Photo-oxidation of Gaseous Toluene on Anatase TiO<sub>2</sub> Powders: Catalytic*

*Tests and FTIR Investigations*

Abstracts 11° Congresso Nazionale di Catalisi, Tanka Village, Villasimius,

Cagliari (Italy), 4-7 Giugno 1998, O31

**C96-** V. Loddo, G. Marci, L. Palmisano and A. Sclafani

*Preparation and Characterisation of TiO<sub>2</sub> (Anatase) Supported on*

*TiO<sub>2</sub> (Rutile) Catalysts Employed for 4-Nitrophenol Photodegradation in*

*Aqueous Medium and Comparison with TiO<sub>2</sub> (Anatase) Supported on*

$Al_2O_3$

Abstracts 11° Congresso Nazionale di Catalisi, Tanka Village, Villasimius,

Cagliari (Italy), 4-7 Giugno 1998, P27

**C97-** A. Di Paola, L. Palmisano and V. Augugliaro

*Heterogeneous Photocatalysis with Mixed Tungsten Chalcogenide Powders*

Book of Abstracts 9th International Symposium on Relations Between

Homogeneous and Heterogeneous Catalysis, University of Southampton,

Southampton, U.K., 20-24 July 1998, P84

**C98-** V. Augugliaro, M.J. López-Muñoz, G. Marci, L. Palmisano, M. Schiavello,

and R.J.D. Tilley

*Preparation and Characterisation of Polycrystalline  $TiO_2$ -ZnO Photocatalyst*

*Employed for 4-Nitrophenol Oxidation in Aqueous Medium*

Proc. Twelfth International Conference on Photochemical Conversion and

Storage of Solar Energy (IPS 12), Berlin (Germany), August 9-14 1998,

3W55

**C99-** T. González-Carreño, M.J. López-Muñoz, L. Palmisano, and R.I. Bickley

*Synthesis and Characterization of Molybdenum-Titanium Oxide Photo-*

*catalysts Obtained by Spray Pyrolysis Method*



Proc. Twelfth International Conference on Photochemical Conversion and  
Storage of Solar Energy (IPS 12), Berlin (Germany), August 9-14 1998,

3W59

**C100-** A. Di Paola, L. Palmisano and V. Augugliaro

*Mixed Tungsten Chalcogenide Photocatalysts*

Proc. Twelfth International Conference on Photochemical Conversion and  
Storage of Solar Energy (IPS 12), Berlin (Germany), August 9-14 1998,

3W75

**C101-** V. Loddo, V. Augugliaro, L. Palmisano, M. Schiavello

*Gas-solid Photocatalytic Reactions: Oxidation of Ethanol in a Continuous*

*Spinning Basket Photoreactor*

Atti Congresso GRICU 1998, Ferrara (Italy), 23-25 Settembre 1998,

pp. 67-70

**C102-** V. Augugliaro, E. García López, V. Loddo, M.J. López Muñoz, G. Marci,

L. Palmisano, M. Schiavello

*Photodegradation of Free and Complex Cyanides in Irradiated Homo-*  
*Systems*

*geneous and Heterogeneous*

Proc. of 1<sup>st</sup> International Workshop on Environmental Quality and  
East Region, Konya (Turkey),

Environmental Engineering in the Middle

October 5-7 1998, pp. 186-195

**C103-** V. Augugliaro, J.C. Conesa, V. Loddo, M.J. López Muñoz, G. Marci,

L. Palmisano, M. Schiavello, J. Soria

*Pilot Plant Continuous Photoreactor for Cyanide Degradation in Aqueous*

*Suspension of Anatase TiO<sub>2</sub> Powder*

Abstracts of The 1998 European Workshop on Water and Air Treatment by

Advanced Oxidation Technologies: Innovative and Commercial Applications, Lausanne (Switzerland), October 11-14 1998, p. 8

**C104-** V. Augugliaro, E. García López, V. Loddo, M.J. López Muñoz, G. Marci,

L. Palmisano, M. Schiavello

*An Innovative Method for Depollution: Photocatalysis. Photo-Oxidation of*

*Free and Complex Cyanides in Aqueous Irradiated Heterogeneous Systems*

Proc. Conference on Quality and Quantity of Mediterranean Water Resources, Chia Laguna (Italy), October 11-18 1998, WTM-O2

**C105-** Augugliaro, J. Blanco-Gálvez, J. Cáceres-Vázquez, E. García-López,

V. Loddo, M.J. López-Muñoz, S. Malato-Rodríguez, G. Marci,

L. Palmisano, M. Schiavello and J. Soria-Ruiz

*Photocatalytic Oxidation of Cyanide in Aqueous TiO<sub>2</sub> Suspensions*

*Irradiated by Sunlight: Influence of Phenol on the Reaction Rate*

Proc. 2nd Users Workshop Training and Mobility of researchers programme

at Plataforma Solar de Almería,

## Almeria (Spain), November 10-11 1998, pp. 73-79

**C106-** G. Martra, S. Coluccia, L. Marchese, V. Augugliaro, V. Loddo,

L. Palmisano, M. Schiavello

*VOC's Abatement: The Effect of H<sub>2</sub>O on the Photocatalytic Oxidation*

*of Toluene in Vapour Phase on TiO<sub>2</sub> Catalyst*

Proc. 2nd World Congress on Environmental Catalysis, Miami (USA),

November 15-20 1998, 11-5D, pp. 296-297

**C107-** R. Molinari, M. Mungari, E. Drioli, A. Di Paola, V. Loddo, L. Palmisano,

M. Schiavello

*Study on a Photocatalytic Membrane Reactor for Waste Minimization*

Proc. 2nd World Congress on Environmental Catalysis, Miami (USA),

November 15-20 1998, 12-8B, pp. 503-504

**C108-** V. Augugliaro, E. García López, V. Loddo, M.J. López Muñoz, S. Malato

Rodriguez, G. Marci, L. Palmisano and M. Schiavello

*Photocatalytic Oxidation of Free Cyanides in Aqueous Medium by Using*

*Polycrystalline TiO<sub>2</sub> Irradiated by Sunlight*

Atti II Christmas Workshop sulla Qualità della Vita, Palermo (Italy),

Fac. Agraria, 16-17 Dicembre 1998, P12

**C109-** V. Augugliaro, G. Marcì, L. Palmisano, M. Schiavello, F.P. Cavasino,

C. Sbriziolo, M.L. Turco Liveri

*Fotodegradazione di Toluene in Ambiente Acquoso*

Atti Convegno Regionale della Società Chimica Italiana, Sez. Sicilia

Messina (Italy), 16-18 Dicembre 1998, C27

**C110-** V. Augugliaro, E. García López, V. Loddo, M.J. López Muñoz, S. Malato

Rodriguez, G. Marcì, L. Palmisano and M. Schiavello

*Photocatalytic Degradation of Free and Complex Cyanides*

Atti Convegno Regionale della Società Chimica Italiana, Sez. Sicilia

Messina (Italy), 16-18 Dicembre 1998, C25

**C111-** M.A. Artale, V. Augugliaro, E. Drioli, G. Golemme, R. Molinari,

L. Palmisano, M. Schiavello

*Progettazione e Caratterizzazione di Membrane di Supporto per*

*TiO<sub>2</sub> da Applicare in Reattori Fotocatalitici*

Atti Convegno Regionale della Società Chimica Italiana, Sez. Sicilia

Messina (Italy), 16-18 Dicembre 1998, C26

**C112-** G. Rizzo, F. Di Fede, L. Palmisano, B. Pizzo, G. Napoli

*Il Degrado dei Monumenti Dovuto alla Presenza dei Sali Solubili.*

*Casi Studio di Edifici Monumentali nel Centro Storico di Palermo*

Atti 20° Congresso Nazionale "Metodi Chimici, Fisici e Biologici

per la Salvaguardia dei Beni Culturali" Roma (Italy), 18 Dicembre 1998,

III P15

**C113-** V. Augugliaro, E. García-López, V. Loddo, M. J. López Muñoz, S. Malato

Rodriguez, G. Marcì, L. Palmisano and M. Schiavello

*Photocatalysis at Work for Cyanides Abatement: Laboratory Studies and*

*Pilot Plants Applications*

Atti II Congresso Nazionale del Consorzio Interuniversitario Nazionale

"La Chimica per l'Ambiente",

Venezia (Italy), 22-24 Febbraio 1999, A21

**C114-** A. Di Paola, L. Palmisano and V. Augugliaro

*Photocatalytic Degradation of Pollutants by Mixed WS<sub>2</sub>/WO<sub>3</sub> Systems*

Proc. The Fifth International Conference on "Solar Energy Storage

and Applied Photochemistry [SOLAR '99]", Cairo (Egypt),

30 March-4 April 1999

**C115-** V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci,

L. Palmisano, M. Schiavello

*Applications of Heterogeneous Photocatalysis to Environment*

*Remediation: Case Studies in Gas-Solid and Liquid-Solid Regimes*

Atti II Convegno Nazionale dei Docenti delle Facoltà di Ingegneria

Catania (Italy), 4-5 Giugno 1999, P28, p. 31

**C116-** M.A. Artale, V. Augugliaro, A. Checchetti, E. Drioli, G. Golemme,

C. Grande, R. Molinari, L. Palmisano, M. Schiavello

*Progettazione e Caratterizzazione di Membrane di Supporto per TiO<sub>2</sub>*

Da Applicare in Reattori Fotocatalitici

Atti II Convegno Nazionale dei Docenti delle Facoltà di Ingegneria

Catania (Italy), 4-5 Giugno 1999, P29, p. 32

**C117-** V. Augugliaro, E. García-López, V. Loddo, S. Malato Rodríguez, G. Marci,

L. Palmisano, M. Schiavello

*Photocatalytic Oxidation of Free Cyanides in Aqueous Suspensions of*

*Polycrystalline TiO<sub>2</sub>*

Atti del Convegno "Scienza e Tecnologia Chimica per il Rinnovamento

Industriale", XII Congresso Nazionale della Divisione di Chimica Industriale, Napoli (Italy), 20-23 Giugno 1999, pp. 142-143

C118- V. Augugliaro, A. Di Paola, E. García-López, V. Loddo,

G. Marci, L. Palmisano, M. Schiavello

Heterogeneous Photocatalysis for Environment Remediation: Case Studies in Gas-Solid and Liquid-Solid Regimes and Pilot Plant

Applications

Proc. International Memorial K.I. Zamaraev Conference "Physical Methods for Catalytic Research at the Molecular Level",

Novosibirsk (Russia), 28 June – 2 July 1999, pp. 83-85

C119 G. Facchin, G. Carturan, R. Campostrini, S. Gialanella, L. Lutterotti,

L. Armelao, E. Tondello, G. Marci, L. Palmisano, A. Sclafani

*Sol-gel Synthesis and Characterisation of TiO<sub>2</sub>-anatase Powders Containing Nanometric Platinum Particles Employed as Catalysts for*

*4-nitrophenol Photodegradation*

Book of Abstract EUROPA-CAT-IV, Rimini (Italy), September 5-10 1999, p. 785

C120- M.A. Artale, V. Augugliaro, A. Checchetti, E. Drioli, G. Golemme, C. Grande, R. Molinari, L. Palmisano, M. Schiavello

*Preparation and Characterisation of TiO<sub>2</sub> Membrane Supports for Photocatalytic Reactors*

Proc. Italy-Japan Workshop on "Catalytic Membrane Reactors and Integrated Membrane Operations", Cetraro (Italy), September 23-27, 1999, pp. 92-94

C121- G. Martra, S. Coluccia, L. Marchese, V. Augugliaro, V. Loddo,

L. Palmisano, and M. Schiavello

*The role of H<sub>2</sub>O in the Photocatalytic Oxidation of Toluene in Vapour*

*Phase on Anatase TiO<sub>2</sub> Catalyst*

Book of Abstracts 6° Workshop on Selective Oxidation,

Rimini (Italy), September 10-11, 1999, pp. 67-68

**C122-** A. Bianco-Prevot, C. Baiocchi, M.C. Brussino, E. Pramauro,

V. Augugliaro, G. Marci, L. Palmisano

*Trattamento Fotocatalitico dei Reflui Colorati: Aspetti Analitici ed*

*Applicativi*

Atti del XV Congresso Nazionale di Chimica Analitica, Mondello,

Palermo (Italy), 27 Settembre – 1 Ottobre 1999, pp. 167-168

C123- V. Augugliaro, G. Marci, L. Palmisano, M. Russo, M. Schiavello, F.P. Cavasino, C. Sbriziolo and M.L. Turco Liveri

*Toluene Photocatalytic Oxidation in the Presence of Tetradecyl-dime-thylamino-oxide in Aqueous Suspensions of TiO<sub>2</sub> (Anatase)*

Proc. 10<sup>th</sup> International Symposium on "Environmental Pollution and its Impact on Life in the Mediterranean Region",

Alicante (Spain), October 2<sup>nd</sup> to 6<sup>th</sup>, 1999, p. 190

**C124-** A. Di Paola, L. Palmisano and V. Augugliaro

*Mixed WO<sub>3</sub>/WS<sub>2</sub> Powders: Coupled Semiconductor Systems for*

*Photocatalysis*

Proc. 196<sup>th</sup> Meeting of the Electrochemical Society and 1999 Fall

Meeting of the Electrochemical Society of Japan,



Honolulu (USA), October 17-22, 1999, p. 1438

**C125-** S. Ikeda, N. Sugiyama, B. Pal, B. Ohtani, G. Marci and L. Palmisano

*Photocatalytic Activity of Transition-Metal Doped Titanium(IV)*

*Oxide Powders*

Proc. 10<sup>th</sup> CRC International Symposium on Fabrication of Nano-ordered Materials and Catalytic Functions

Sapporo (Japan), December 4-7 , 1999 P25

**C126-** V. Augugliaro, A. Di Paola, Elisa García-López, V. Loddo,

G. Marci, L. Palmisano, M. Schiavello

Heterogeneous Photocatalysis: A New Method for Environmen Remediation?

Atti Convegno Regionale della Società Chimica Italiana, Sezione

Sicilia, Catania (Italy), 16 Dicembre 1999, p.14

**C127-** V. Augugliaro, A. Di Paola, E. García-López, V. Loddo,

G. Marci, L. Palmisano, M. Schiavello

Photocatalytic Processes for the Removal of Environmental Pollutants

Atti Convegno del Consorzio Interuniversitario Nazionale "La Chimica per l'Ambiente" Accademia Nazionale dei Lincei, Roma (Italy), 28 Febbraio 2000, p. 43

**C128-** M.A. Artale, V. Augugliaro, A. Checchetti, E. Drioli, G. Golemme, C. Grande, R. Molinari, L. Palmisano, M. Schiavello

Heterogeneous Photocatalysis in Membrane Reactors by using different ways to confine TiO<sub>2</sub>

Atti Convegno del Consorzio Interuniversitario Nazionale "La Chimica per l'Ambiente" Accademia Nazionale dei Lincei, Roma (Italy), 28 Febbraio 2000, p. 61

**C129-** V. Augugliaro, G. Ciardelli, L. Corsi, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Decolorazione e Mineralizzazioni di Acque di Scarico da Industrie Tessili Mediante Tecnologie di Ossidazione Convenzionali e Fotocatalisi Eterogenea*

Atti del XX Congresso Nazionale della Società Chimica Italiana, Rimini (Italy), 4-9 Giugno 2000, ID-PO 020

**C130-** A. Di Paola, E. García-López, G. Marci, L. Palmisano, M. Schiavello

*Attività Fotocatalitica di Polveri di TiO<sub>2</sub> Drogate con Metalli di Transizione*

Atti del XX Congresso Nazionale della Società Chimica Italiana, Rimini (Italy), 4-9 Giugno 2000, ID-PO 021

**C131-** R. Molinari, M. Borgese, E. Drioli, L. Palmisano, M. Schiavello,

*Processi Fotocatalitici a Membrana nella Degradazione di Inquinanti e Microinquinanti Organici*

Atti del Convegno AIDIC, TERSI, Tecnologie Elettrochimiche per il

Recupero di Residui e Scarichi Industriali, E.R.A. 2000, Saline Ioniche

(Italy), 18-21 Giugno 2000, p. 14

**C132-** M. Antonella Artale, V. Augugliaro, E. Drioli, G. Golemme, C. Grande, R. Molinari, L. Palmisano, M. Schiavello,

*Preparazione di Membrane con TiO<sub>2</sub> Intrappolato*

Atti del Convegno AIDIC, TERSI, Tecnologie Elettrochimiche per il

Recupero di Residui e Scarichi Industriali, E.R.A. 2000, Saline Ioniche

(Italy), 18-21 Giugno 2000, p. 18

**C133-** V. Augugliaro, G. Ciardelli, L. Corsi, E. García-López, V. Loddo,

G. Marci, L. Palmisano, M. Schiavello

*Decolorization and Mineralization of Industrial Textile Wastewaters*

*by Using Traditional Oxidation Technologies and Heterogeneous*

*Photocatalysis by TiO<sub>2</sub>*

Proc. The Fifth International Conference on TiO<sub>2</sub> Photocatalytic

Purification and Treatment of Water and Air, London (Canada),

June 26-30, 2000, pp.166-168

**C134-** E. Savinov, G. Pantaleo, V. Loddo, G. Marci, A. Di Paola,

L. Palmisano, V. Augugliaro, M. Schiavello

*Photocatalytic Oxidation of Phenol-Nitrophenol Mixtures in Aqueous*

*Suspensions of TiO<sub>2</sub>. Influence of the Nitrogroup Position on the*

*Process of the Nitrophenol Oxidation*

Proc. The Fifth International Conference on TiO<sub>2</sub> Photocatalytic

Purification and Treatment of Water and Air, London (Canada),

June 26-30, 2000, pp. 189-190

**C135-** R. Molinari, C. Grande, E. Drioli, L. Palmisano, M. Schiavello

*Photocatalytic Membrane Reactors for Degradation of Organic*

*Pollutants in Water*

Book of Abstracts, ICCMR-2000, 4<sup>th</sup> Int. Conf. on Catalysis in

Membrane Reactors, Zaragoza (Spain), July 3-5, 2000, pp. 43-44

**C136-** S. Ikeda, N. Sugiyama, B. Pal, B. Ohtani, G. Marci, L. Palmisano

*Photocatalytic Activity of Transition-Metal Loaded Titanium(IV)*

*Oxide Powders: Correlation with Recombination Kinetics*

Proc. Thirteenth International Conference on Photochemical

Conversion and Storage of Solar Energy (IPS 2000), Snowmass

(USA), July 30 - August 4, 2000, W8-P-27

**C137-** A. Di Paola, E. García-López, G. Marci, L. Palmisano, M. Schiavello

*Effect of Transition Metal Dopants on the Photocatalytic Behaviour*

*of Polycrystalline TiO<sub>2</sub> Powders*

Proc. Thirteenth International Conference on Photochemical

Conversion and Storage of Solar Energy (IPS 2000), Snowmass

(USA), July 30 - August 4, 2000, W8-P-30

**C138-** V. Augugliaro, S. Coluccia, E. García-López, V. Loddo, G. Martra,

L. Palmisano, M. Schiavello

*Photocatalytic Oxidation of Toluene in Vapour Phase: A Comparison*

*between two Polycrystalline TiO<sub>2</sub> Catalysts*

Proc. 5° Congresso Nazionale Nazionale Scienza e Tecnologia delle Zeoliti, 12° Congresso Nazionale di Catalisi, AIZ-GIC 2000, Ravello (Italy), 1-5 Ottobre 2000, pp. 149-152

**C139-** R. Molinari, M. Borgese, E. Drioli, L. Palmisano, M. Schiavello

*Photocatalytic Membrane Processes for Degradation of Various Types*

*of Organic Pollutants and Micropollutants in Water*

Proc. Third International Symposium on Environment, Catalysis and

Process Engineering ECGP'3 Fès (Morocco), 13-14 Nov. 2000, p. 113

**C-140** V. Augugliaro, E. García-López, V. Loddo, L. Palmisano,

M. Schiavello

*Vapour Phase Photocatalytic Oxidation of Ethanol and Toluene in a*

*Continuous Spinning Basket Reactor*

Proc. Third International Symposium on Environment, Catalysis and

Process Engineering ECGP'3 Fès (Morocco), 13-14 Nov. 2000, p. 114

**C141-** M. A. Artale, V. Augugliaro, E. Drioli, G. Golemme, C. Grande,

R. Molinari, L. Palmisano, M. Schiavello

*Preparazione di Membrane da UF con TiO<sub>2</sub> Intrappolato per*

*Applicazioni in Fotocatalisi*

Atti del Convegno Regionale della Società Chimica Italiana, Sezione

Sicilia, Palermo (Italy), 4-5 Dicembre 2000, p. 34

**C142-** V. Augugliaro, S. Coluccia, E. García-López, V. Loddo, G. Martra,

L. Palmisano, M. Schiavello

*Photocatalytic Abatement of Gaseous Toluene: a Comparison between*

*Different Types of Polycrystalline TiO<sub>2</sub> Catalysts*

Atti del Convegno Regionale della Società Chimica Italiana, Sezione

Sicilia, Palermo (Italy), 4-5 Dicembre 2000, pp. 35-36

**C143-** R. Molinari, G. Schicchitano, E. Drioli, M.A. Artale, L. Palmisano,

M. Schiavello

*Preparation of Membranes with Entrapped TiO<sub>2</sub> for Photodegradation of Organic Pollutants in Water*

Atti 4° Convegno Consorzio Interuniversitario Nazionale per l'Ambiente INCA, Santa Margherita Ligure (Italy), 25-28 Febbraio 2001, P24

**C144-** V. Augugliaro, C. Baiocchi, A. Bianco Prevot, M.C. Brussino, J. Cáceres Vásquez, E. García-López, V. Loddo, S. Malato Rodríguez,

G. Marci, L. Palmisano, E. Pramauro

*Photocatalytic Degradation of Organic Dyes under Solar Irradiation: Oxidation of Methyl-Orange and Orange II in aqueous Suspension of Titanium Dioxide Powder*

Improving Human Potential Programme. Proceedings of the 1<sup>st</sup> Users Workshop, Almeria (Spain), pp. 27-34

**C145-** A. Di Paola, G. Marci, B. Ohtani and L. Palmisano

*Transition Metal Doped TiO<sub>2</sub>: Physical Properties and Photocatalytic Behaviour*

Proc. 6<sup>th</sup> International Conference on Solar Energy and Applied Photochemistry combined with 3<sup>rd</sup> International Workshop on Environmental Photochemistry, Cairo (Egypt), 3-8 April 2001, P27

**C146-** M.A. Artale, V. Augugliaro, E. Drioli, G. Golemme, C. Grande, V. Loddo, R. Molinari, L. Palmisano, M. Schiavello

*Realisation of Membranes with Entrapped TiO<sub>2</sub> for Photocatalytic Reactors*

Proc. 6<sup>th</sup> International Conference on Solar Energy and Applied Photochemistry combined with 3<sup>rd</sup> International Workshop on Environmental Photochemistry, Cairo (Egypt), 3-8 April 2001, P98

**C147-** V. Augugliaro, S. Coluccia, E. García-López, V. Loddo, G. Martra,

L. Palmisano, M. Schiavello

*Photocatalytic Oxidation of Gaseous Toluene over Various Polycrystalline TiO<sub>2</sub> Catalysts*

Proc. 3<sup>o</sup> European Workshop on Environmental Catalysis, Maiori (Italy), 2-5 May 2001, pp. 227-228

**C148-** A. Di Paola, G. Marci, L. Palmisano, B. Ohtani

*Photocatalytic degradation of organic compounds by transition metal doped TiO<sub>2</sub> powders*

Proc. 3<sup>o</sup> European Workshop on Environmental Catalysis, Maiori (Italy), 2-5 May 2001, pp. 125-126

**C149-** V. Augugliaro, G. Ciardelli, L. Corsi, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Decolorazione e Mineralizzazione di Acque di Scarico di Industrie Tessili mediante Fotocatalisi Eterogenea*

Atti VI Congresso Nazionale di Chimica Ambientale, Rosignano Solvay (Italy), 5-8 Giugno 2001, p. 101

**C150-** G. Mele, G. Vasapollo, Giuseppe Ciaccarella, E. García-López,

L. Palmisano, M. Schiavello

*Photocatalytic Degradation of 4-Nitrophenol in Aqueous Suspension Using as Catalytic System Polycrystalline TiO<sub>2</sub> Samples Impregnated with a Copper (II)-Phthalocyanine*

Proc. of "38<sup>th</sup> IUPAC World Chemistry Congress 2001", Brisbane (Australia), July 1<sup>st</sup>-6<sup>th</sup> 2001, OE 47, p. 188

**C151-** V. Augugliaro, S. Coluccia, E. García-López, V. Loddo, G. Martra,

L. Palmisano, M. Schiavello

*Photocatalytic Oxidation of Gaseous Toluene by Using Pure and Loaded Polycrystalline TiO<sub>2</sub> in a Fixed Bed Photoreactor*

Proc. of "First International Conference on Semiconductor Photochemistry" University of Strathclyde, Glasgow (U.K.), July 23<sup>rd</sup>-25<sup>th</sup> 2001, P58, p. 124

**C152-** V. Augugliaro, A. Bianco Prevot, E. García-López, V. Loddo, G. Marci, L. Palmisano, E. Pramauro, M. Schiavello

*Photocatalytic Oxidation of Methyl-orange in Aqueous Suspension of Titanium Dioxide Powder*

Proc. of "First International Conference on Semiconductor Photochemistry" University of Strathclyde, Glasgow (U.K.), July 23<sup>rd</sup>-25<sup>th</sup> 2001, P59, p. 125

**C153-** V. Augugliaro, S. Coluccia, E. García-López, V. Loddo, G. Martra,

L. Palmisano, M. Schiavello

*Vapour Phase Photocatalytic Oxidation of Toluene on Polycrystalline TiO<sub>2</sub> in a Carberry Type Reactor*

American Chemical Society "Book of Abstract" 222<sup>nd</sup> National Meeting, Chicago (USA), 26-30 August 2001, Coll 0093.



**C154-** V. Augugliaro, S. Coluccia, E. García-López, V. Loddo, G. Martra,

L. Palmisano, M. Schiavello

*Vapour Phase Photocatalytic Oxidation of Ethanol and Toluene in a Continuous Spinning Basket Reactor*

Proc. EUROPACATV, Limerick (Ireland), 2<sup>nd</sup>-7<sup>th</sup> September 2001,

P-12

**C155-** M. Ischia, R. Campostrini, G. Carturan, E. García-López, G. Marci,

L. Palmisano, M. Schiavello

### ***Fotocatalizzatori TiO<sub>2</sub>-Anatasio Preparati Sotto Vuoto Via Sol-Gel***

Atti del "III Convegno Nazionale dei Docenti e dei Ricercatori di Chimica delle Facoltà di Ingegneria" Trento (Italy), 10-11 Settembre 2001, pp. 96-97

**C156-** V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci,

L. Palmisano, M. Schiavello

*Applicazioni della Fotocatalisi Eterogenea a Sistemi Liquido-Solido e Gas-Solido*

Atti del "III Convegno Nazionale dei Docenti e dei Ricercatori di Chimica delle Facoltà di Ingegneria" Trento (Italy), 10-11 Settembre 2001, pp. 110-112

**C157-** R. Molinari, G. Scicchitano, E. Drioli, V. Loddo, L. Palmisano,

M. Schiavello

*Preparazione di Membrane con TiO<sub>2</sub> Intrappolato per la Fotodegradazione di Inquinanti Organici in Acqua*

Atti del "III Convegno Nazionale dei Docenti e dei Ricercatori di Chimica delle Facoltà di Ingegneria" Trento (Italy), 10-11 Settembre 2001, pp. 127-128

**C158-** R. Molinari, M. Borgese, E. Drioli, L. Palmisano, M. Schiavello

*Degradation of Various Pollutants in a Photocatalytic Membrane*

*Reactor*

Proc. 3<sup>rd</sup> Workshop Italy-Korea, Cetraro (Italy), 23-27 September, 2001, 5 pp.

**C159-** V. Augugliaro, C. Baiocchi, A. Bianco-Prevot, M.C. Brussino, E. García-López, V. Loddo, G. Marci, L. Palmisano, E. Pramauro

*Photocatalytic Degradation of Methyl-Orange and Orange II in Aqueous Suspension of Titanium Dioxide under Solar Irradiation*

Proc. 11<sup>th</sup> International Symposium and its Impact on Life in the Mediterranean Region, Limassol (Cyprus), October 6<sup>th</sup> to 10<sup>th</sup> 2001, B12

**C160-** V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci,

L. Palmisano, M. Schiavello

*Reazioni Fotocatalitiche in Sistemi Gas-Solido e Liquido-Solido*

Atti Incontro Scientifico, Consorzio Interuniversitario Reattività e Catalisi, Parma (Italy), 23 Novembre 2001

**C161-** R. Molinari, M. Borgese, E. Drioli, L. Palmisano, M. Schiavello

*Photocatalytic Membrane Reactors for Water Purification*

Atti Incontri Tecnici di Ricerca, Milano (Italy), 14 Dicembre 2001

**C162-** V. Augugliaro, A. Bianco-Prevot, E. García-López, V. Loddo,

G. Marci, L. Palmisano, E. Pramauro, M. Schiavello

*Ossidazione Fotocatalitica di Metil-Arancio in Sospensioni*

*Acquose di Biossido di Titanio Policristallino*

Convegno Regionale della Società Chimica Italiana, Sezione Sicilia,

Messina (Italy), 3-4 Dicembre 2001, p. 21

**C163-** V. Augugliaro, S. Coluccia, P. Davit, E. García-López, V. Loddo, G. Marci, G. Martra, L. Palmisano, M. Schiavello

*Photocatalytic Degradation of Acetonitrile in gas-solid and liquid-solid regime: Mechanistic aspects and FTIR investigation*

2° European Meeting on: Solar-Chemistry and Photocatalysis: Environmental applications, Saint Avold (France) 29-31 Maggio 2002, O22

**C164-** V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Perspectives of heterogeneous photocatalytic reactions, some case studies.*

2° European Meeting on: Solar-Chemistry and Photocatalysis: Environmental applications, Saint Avold (France) 29-31 Maggio 2002, O24

**C165-** V. Augugliaro, C. Baiocchi, A. Bianco-Prevot, E. García-López, V. Loddo, G. Marci, L. Palmisano, E. Pramauro

*Photocatalytic Degradation of Methyl-Orange and Orange II in Aqueous Suspension of Titanium Dioxide Under Solar Irradiation*

XIII Congresso Nazionale di Catalisi, GIC 2002, Alghero (Italy), 9-13 Giugno 2002, OC37

**C166-** P. Davit, G. Martra, S. Coluccia, L. Palmisano, E. García-López

*FTIR Study of Adsorption and Photo-Oxidation of Acetonitrile on TiO<sub>2</sub>.*

XIII Congresso Nazionale di Catalisi, GIC 2002, Alghero (Italy), 9-13 Giugno 2002, P12

**C167-** A. Di Paola, V. Augugliaro, L. Palmisano, G. Pantaleo, E. Savinov

*Studio sulla Degradazione Fotocatalitica di Nitrofenoli in Sospensioni Acquose di TiO<sub>2</sub>*

Atti Congresso Nazionale di Chimica Ambientale, Venezia (Italy), 11-14 giugno 2002, pp. 316-317

**C168-** G. Mele, R. Del Sole, G. Vasapollo, E. García-López, L. Palmisano, M. Schiavello

*Photodegradation of 4-Nitrophenol in Water in the Presence of Polycrystalline TiO<sub>2</sub> Sensitized by Metal-Phthalocyanine and Metal-Porphyrins*

5° Congresso Nazionale del Consorzio Interuniversitario "La Chimica per l'Ambiente", Tunisi (Tunisia), 26-28 Giugno 2002, O21, p. 73

**C169-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, R. Molinari, L. Palmisano, M. Schiavello

*TiO<sub>2</sub> Nanoparticles: Preparation, Characterisation and Photocatalytic Activity in Liquid-Solid Systems*

5° Congresso Nazionale del Consorzio Interuniversitario "La Chimica per l'Ambiente", Tunisi (Tunisia), 26-28 Giugno 2002, P1, p. 95

**C170-** R. Molinari, G. Scicchitano, F. Pirillo, E. Drioli, V. Loddo, L. Palmisano, M. Schiavello

*Preparation and Characterisation of Photocatalytic membranes Made by Cellulose Triacetate Filled with TiO<sub>2</sub>*

5° Congresso Nazionale del Consorzio Interuniversitario "La Chimica per l'Ambiente", Tunisi (Tunisia), 26-28 Giugno 2002, P37, p. 171

**C171-** V. Augugliaro, C. Baiocchi, A. Bianco-Prevot, E. García-López, V. Loddo, G. Marci, L. Palmisano, E. Pramauro, M. Schiavello

*Photocatalytic Degradation of Methyl-Orange and Orange II in Aqueous Suspension of Titanium Dioxide Under Solar Irradiation*

5° Congresso Nazionale del Consorzio Interuniversitario "La Chimica per l'Ambiente", Tunisi (Tunisia), 26-28 Giugno 2002, P40, p. 177

**C172-** R. Molinari, L. Palmisano, E. Drioli, M. Schiavello

*Photocatalytic Membrane Processes in Water Purification*

International Congress on Membranes and Membranes Processes

Supplementary Book of Abstracts, Toulouse (France), 7-12 July 2002, pp. 338-339

**C173-** R. Molinari, G. Schicchitano, F. Pirillo, E. Drioli, V. Loddo, L. Palmisano, M. Schiavello

*Characterization of Photocatalytic Membrane Reactors with Entrapped and Suspended TiO<sub>2</sub> for Water Purification*

Abstract of 1<sup>st</sup> Workshop Italy-China, State of Research and Applications of Membrane Operations for a Sustainable Growth, San Michele, Cetraro (Italy), July 1-4, 2002, p. 141-145

**C174-** H. Kominami, G. Marci, Y. Kera, L. Palmisano, B. Ohtani

*Photocatalytic Decomposition and Mineralization of 4-Nitrophenol in Aqueous Suspensions of Titanium (IV) Oxide*

Fourth Tokyo Conference on Advanced Catalytic Science and Technology, Tokyo (Japan), 14-19 July 2002, p. 282

**C175-** A. Di Paola, E. García-López, G. Marci, C. Martín, L. Palmisano, V. Rives, A.M. Venezia

*Surface Characterisation by XPS, IR and Acidity Measurements of Metal Loaded Titania Photocatalysts: Structure – Activity Relationship*

Book of Abstracts of 14<sup>th</sup> International Conference on Photochemical Conversion and Storage of Solar Energy (IPS-14), Sapporo (Japan), August 4-9, 2002, W2-P-7

**C176-** V. Augugliaro, A. Bianco Prevot, E. García-López, V. Loddo, S. Malato, G. Marci, L. Palmisano, E. Pramauro

*Photocatalytic Oxidation of Acetonitrile under Solar Irradiation in Aqueous Suspension of Titanium Dioxide Powder*

Book of Abstracts of 14<sup>th</sup> International Conference on Photochemical Conversion and Storage of Solar Energy (IPS-14), Sapporo (Japan), August 4-9, 2002, W2-P-8

**C-177-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Perspectives of Heterogeneous Photocatalytic Reactions. Some Case Studies*

Book of Abstracts of CRC International Symposium on Photochemistry at Interfaces, Sapporo (Japan), August 9-11, 2002, pp. 76-77

**C178-** M. Addamo, V. Augugliaro, E. García-López, V. Loddo, G. Marci, M. Schiavello

*Heterogeneous Photocatalytic Oxidation of Toluene and Cyanide by Using Polycrystalline TiO<sub>2</sub>*

Proc. of "ISAOT 2002" International Seminar on Advanced Oxidation Technologies 24-26 September 2002, Santa Fe (Argentina), p. 1

**C179-** V. Augugliaro, C. Baiocchi, A. Bianco Prevot, E. García-López, V. Loddo, S. Malato, G. Marci, L. Palmisano, M. Pazzi, E. Pramauro

*Azo-dyes Photocatalytic Degradation in Aqueous Suspension of TiO<sub>2</sub> under Solar Irradiation*

Proc. of "ISAOT 2002" International Seminar on Advanced Oxidation Technologies 24-26 September 2002, Santa Fe (Argentina), p. 23

**C180-** V. Augugliaro, A. Bianco Prevot, J. Cáceres Vázquez, E. García-López, A. Irico, V. Loddo, S. Malato, G. Marci, L. Palmisano, E. Pramauro

*Photocatalytic Oxidation of Acetonitrile in Aqueous Suspension of Titanium Dioxide Irradiated by Sunlight*

Improving Human Potential Programme, Proceedings of the 2<sup>nd</sup> Users Workshop, February 26, 2002, Almeria (Spain), pp. 11-18

**C181-** L. Palmisano

*Perspectives of the Coupling of Various Technologies for Water Treatment*

Atti Italian – North African Workshop on Sustainable Chemistry, L. Palmisano, G. Sartori, M. Tawfic and P. Tundo Editors, October 4-5, Rome (Italy), 2002, pp. 31-33

**C182-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, R. Molinari, L. Palmisano, M. Schiavello

*Preparazione e Caratterizzazione di Catalizzatori Nanostrutturati a Base di TiO<sub>2</sub>*

Atti Convegno Regionale della Società Chimica Italiana, Sezione Sicilia, Acireale (Italy), 2-3 Dicembre 2002, C5

**C183-** V. Augugliaro, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Photocatalytic Degradation of Acetonitrile in Liquid-Solid Regime by Using Solar Light*

Atti Convegno Regionale della Società Chimica Italiana, Sezione Sicilia, Acireale (Italy), 2-3 Dicembre 2002, C9

**C184-** V. Augugliaro, M. Addamo, J. Cantavenera, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Heterogeneous Photocatalysis in gas-solid and gas-liquid-solid regimes*

Atti dell'incontro Scientifico del Consorzio Interuniversitario Reattività Chimica e Catalisi (CIRCC), Parma (Italy), 28-29 Novembre 2002

**C185-** R. Molinari, G. Scicchitano, F. Pirillo, E. Drioli, V. Loddo, L. Palmisano, M. Schiavello

*Photocatalytic Membranes Made by Cellulose Triacetate Filled with TiO<sub>2</sub>: Preparation and Characterization*

**C186-** G. Marci, V. Augugliaro, M. Addamo, E. García-López, V. Loddo, L. Palmisano, M. Schiavello

*Photocatalytic Oxidation of Toluene by Using Polycrystalline TiO<sub>2</sub> in Gas-Solid System and in Gas-Liquid-Solid System in the Presence of a Surfactant*

Proc. Seventh International Conference on Solar Energy and Applied Photochemistry (Solar 03), Luxor (Egypt) 23-28 February 2003

**C187-** R. Molinari, F. Pirillo, M. Falco, L. Palmisano

*Photocatalytic Oxidation of Dyes in a Membrane Reactor*

Fourth International Symposium on Environment, Catalysis and Processes Engineering (ECGP'4), Fez (Morocco), April 15-16, 2003,

p. 118

**C188-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, R. Molinari, L. Palmisano, M. Schiavello

*Preparation, Characterization, and Photoactivity of Polycrystalline Nanostructured TiO<sub>2</sub> Catalysts for 4-Nitrophenol Degradation in Aqueous Systems*

Book of Abstracts of 203<sup>rd</sup> meeting of The Electrochemical Society, Paris (France), April 27-May 2, 2003, Abstract No. 2781

**C189-** R. Molinari, F. Pirillo, M. Falco, V. Loddo, L. Palmisano

*Photo-oxidation of Azo-dyes in Water by Means of Suspended and Entrapped TiO<sub>2</sub> in a Membrane Reactor*

Atti del XXI Congresso Nazionale Della Società Chimica Italiana, Torino (Italy), 22-27 Giugno 2003, Vol. 1 ID-CO-015



**C190-** V. Augugliaro, S. Coluccia, P. Davit, E. García-López, V. Loddo, G. Marci, G. Martra, L. Palmisano

*Photocatalytic Degradation of Acetonitrile in Aqueous Suspension of Polycrystalline TiO<sub>2</sub>*

Atti del XXI Congresso Nazionale Della Società Chimica Italiana, Torino (Italy), 22-27 Giugno 2003, Vol. 2 ID-CP-016

**C191-** V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Photolytic and Photocatalytic Degradation of Drugs in Aqueous Systems*

Proc. 2<sup>nd</sup> Mediterranean Meeting on Photochemistry, Giardini Naxos (Italy), 28<sup>th</sup> June – 2<sup>nd</sup> July 2003 P40

**C192-** G. Mele, R. Del Sole, G. Vasapollo, L. Palmisano, E. García-López, M. Schiavello

*Photocatalytic Degradation of 4-Nitrophenol in Aqueous Suspension Using Polycrystalline TiO<sub>2</sub> Samples Impregnated with Porphyrin or Phthalocyanine Derivatives*

Abstracts of The 39<sup>th</sup> IUPAC Congress and the 86<sup>th</sup> Conference of The Canadian Society for Chemistry, August 10-15 2003, p. 26

**C193-** R. Molinari and L. Palmisano

*Photocatalytic Membrane Reactors*

Abstract Booklet 1<sup>st</sup> Workshop Italy-Russia

Cetraro (Italy), 17-20 Settembre 2003, pp. 65-66

**C194-** R. Molinari, F. Pirillo, M. Falco, V. Loddo, L. Palmisano

*Degradation of Dyes in a Photocatalytic Membrane Reactor*

Proceeding of the Conference PERMEA 2003, Tatranské Matliare, Slovakia, 7-11 September, 2003, p. 76

**C195-** R. Del Sole, G. Mele, G. Vasapollo, L. Palmisano, E. García-López, M. Schiavello,

*Polycrystalline TiO<sub>2</sub> Impregnated with Porphyrin or Phthalocyanine Derivatives in the Photocatalytic Degradation of 4-Nitrophenol*

Atti del 6° Convegno del Consorzio Interuniversitario Nazionale La Chimica per l'Ambiente, INCA, Palermo (Italy), 2-4 Ottobre 2003, pp. 23-24

**C196-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, R. Molinari, L. Palmisano, F. Pirillo, M. Schiavello

*Preparazione, Caratterizzazione e Fotoattività di Nanoparticelle di TiO<sub>2</sub> Impiegate in Reattori a Membrana per la Degradazione di Soluzioni Acquose di 4-Nitrofenolo*

Atti del 6° Convegno del Consorzio Interuniversitario Nazionale La Chimica per l'Ambiente, INCA, Palermo (Italy), 2-4 Ottobre 2003, pp. 77-78

**C197-** V. Augugliaro, M. Addamo, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Studio della Fotodegradazione della Tetraciclina in Ambiente Acquoso*

Atti del 6° Convegno del Consorzio Interuniversitario Nazionale La Chimica per l'Ambiente, INCA, Palermo (Italy), 2-4 Ottobre 2003, pp. 101-102

**C198-** V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Photolytic and Photocatalytic Degradation of Tetracycline*

Proc. 12<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in Mediterranean Region, Antalya (Turkey), October 4-8, 2003, p. 214

**C199-** M. J. Cantavenera, V. Loddo, L. Palmisano, G. Alonzo, C. De Pasquale

*Advanced Oxidation Treatments: An Example of Coupling Lombrifiltration and Heterogeneous Photocatalysis*

Proc. 12<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in Mediterranean Region, Antalya (Turkey), October 4-8, 2003, p. 352

**C200-** R. Molinari, F. Pirillo, M. Falco, V. Loddo, L. Palmisano

*Study on a Membrane Photoreactor in the Oxidation of Azo-Dyes in Water Using Suspended TiO<sub>2</sub>*

Atti del Convegno Itinerari di Chimica in Calabria, Società Chimica Italiana – Sezione Calabria, Rende (Italy), 6-7 Novembre 2003, p. 30

**C201-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marcì, L. Palmisano, M. Schiavello

*Photodegradation of Antibiotics in Aqueous Solution*

Book of Abstracts 3<sup>rd</sup> Scientific Meeting of the Spanish Society of Chromatography and Related Techniques, 3<sup>rd</sup> Waste Water Cluster European Workshop, Almeria (Spain), November 19-21, 2003, p. 106

**C202-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marcì, L. Palmisano, M. Schiavello

*Studio della Fotodegradazione di Antibiotici in Ambiente Acquoso*

Atti del Convegno Regionale della Società Chimica Italiana, Sezione Sicilia, Palermo (Italy), 1-2 Dicembre 2003, pp. 27-28

**C203-** A Di Paola, V. Augugliaro, E. García-López, V. Loddo, G. Marcì, L. Palmisano, M. Schiavello

*Photocatalytic Oxidation of CH<sub>3</sub>CN in Aqueous Suspensions of TiO<sub>2</sub>*

Atti del Convegno Regionale della Società Chimica Italiana, Sezione Sicilia, Palermo (Italy), 1-2 Dicembre 2003, pp. 29-30

**C204-** M. Volpe, G. Bombieri, L. Palmisano

*Synthesis and Physico-chemical Characterization of a Polinuclear Series of Hydroxide Ion Acetylacetonate Lanthanide(III) – Dinuclear*

*Group 6 Decacarbonyl Hydride Complexes*

Atti del Convegno Regionale della Società Chimica Italiana, Sezione Sicilia, Palermo (Italy), 1-2 Dicembre 2003, pp. 44-45

**C205-** A. Di Paola, V. Augugliaro, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Photocatalytic Oxidation of Acetonitrile*

Abstracts, The First European Conference on Oxidation and Reduction Technologies for Ex-Situ and In-Situ Treatment of Water, Air and Soil, ECOR-1, Göttingen, Germany, April 25-28, 2004, p. 90

**C206-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Photocatalytic Degradation of Organic Pollutants by Using Polycrystalline TiO<sub>2</sub>: Case Studies for Environment remediation*

Abstract Book The Third International Conference "Interfaces Against Pollution", Jülich (Germany), May 24 to 27, 2004, K2

**C207-** L. Palmisano

*Le Potenzialità della Fotocatalisi Eterogenea alle Interfacce Gas-Solido e Liquido-Solido*

Atti del Convegno "tecniche e Materiali Innovativi in Edilizia per Abbattere l'Inquinamento in Città", Milano (Italy), 25 Maggio 2004, pp. 1-37

**C208-** R. Del Sole, G. Mele, G. Vasapollo, L. Palmisano, E. García-López, M. Schiavello

*Polycrystalline TiO<sub>2</sub> Impregnated with Porphyrin Derivatives in the Photocatalytic Degradation of 4-Nitrophenol*

XIV Congresso Nazionale di Catalisi, GIC2004, Lerici (Italy), Book of Abstracts, Vol. 1, Oral comm., 6-10 Giugno 2004, p. 12

**C209-** T. Caronna, C. Gambarotti, L. Palmisano, C. Punta, F. Recupero

*The Effect of Polycrystalline TiO<sub>2</sub> on Sunlight Induced Functionalisation of Some Heterocyclic Bases*

XIV Congresso Nazionale di Catalisi, GIC2004, Lerici (Italy), Book of Abstracts, Vol. 1, Oral comm., 6-10 Giugno 2004, p. 14

**C210-** V. Augugliaro, E. García-López, V. Loddo, S. Malato-Rodriguez, I. Maldonado, G. Marci, R. Molinari, L. Palmisano, M. Schiavello

*Photodegradation of Lincomycin in Aqueous TiO<sub>2</sub> Suspension by Using Artificial or Solar Light*

XIV Congresso Nazionale di Catalisi, GIC2004, Lerici (Italy), Book of Abstracts, Vol. 1, Oral comm., 6-10 Giugno 2004, p. 20

**C211-** R. Molinari, F. Pirillo, V. Loddo, L. Palmisano

*Study on TiO<sub>2</sub> Photocatalytic Membrane Reactors for Purification of Aqueous Media*

XIV Congresso Nazionale di Catalisi, GIC2004, Lerici (Italy), Book of Abstracts, Vol. 1, Oral comm., 6-10 Giugno 2004, p. 26

**C212-** M. Addamo, V. Augugliaro, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Carbon and Nitrogen-Doped TiO<sub>2</sub>: Preparation, Characterisation and Visible Light Photocatalytic Activity*

XIV Congresso Nazionale di Catalisi, GIC2004, Lerici (La Spezia), Book of Abstracts, Vol. 2, Poster comm., 6-10 Giugno 2004, p. 1

**C213-** R. Campostrini, M. Ischia, L. Palmisano, E. García-López, G. Marci

*TiO<sub>2</sub>-Anatase Powders for Photocatalytic Applications: Sol-Gel Synthesis and Relative Thermal Characterization*

XIV Congresso Nazionale di Catalisi, GIC2004, Lerici (Italy), Book of Abstracts, Vol. 2, Poster comm., 6-10 Giugno 2004, p. 9

**C214-** R. Del Sole, G. Mele, G. Vasapollo, S. E. Mazzetto, E. García-López, L. Palmisano

*Porphyrin Cardanol-Based Impregnated Polycrystalline TiO<sub>2</sub> Samples in the Photocatalytic Degradation of 4-Nitrophenol*

XIV Congresso Nazionale di Catalisi, GIC2004, Lerici (La Spezia), Book of Abstracts, Vol. 2, Poster comm., 6-10 Giugno 2004, p. 11

**C215-** V. Augugliaro, E. García-López, V. Loddo, S. Malato-Rodriguez, I. Maldonado, G. Marci, R. Molinari, L. Palmisano, M. Schiavello

*Degradation of Drugs in Aqueous Medium: Photocatalytic Oxidation of Lincomycin*

3rd European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA 3), Barcellona (Spain), Book of Abstracts, 30June-2July 2004, pp. 141-142

**C216-** V. Augugliaro, S. Coluccia, E. García-López, V. Loddo, G. Marci, G. Martra, L. Palmisano, M. Schiavello

*Photocatalytic Oxidation of Acetonitrile: Degradation Performance in Gas-Solid and Liquid-Solid Systems*

3rd European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA 3), Barcellona (Spain), Book of Abstracts, 30June-2July 2004, pp. 173-174

**C217-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, G. Martra, L. Palmisano, M. Schiavello

*Preparation, Characterisation and Photoactivity of Nanostructured TiO<sub>2</sub> Catalysts*

3rd European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA 3), Barcellona (Spain), Book of Abstracts, 30June-2July 2004, pp. 235-236

**C218-** A. Di Paola, V. Augugliaro, E. García-López, V. Loddo, G. Marci, S. Malato, R. Molinari, L. Palmisano, M. Schiavello

*Photocatalytic Oxidation of Drugs by Using Artificial and Solar Irradiation*

15<sup>th</sup> International Conference on Photochemical Conversion and Storage of Solar Energy", IPS-15, Paris (France), Book of Abstracts, July 4-9, 2004, W6-O-08

**C219-** V. Loddo, V. Augugliaro, A. Di Paola, E. García-López, G. Marci, L. Palmisano, M. Schiavello

*Optical Characterisation of Semiconductors Used as Photocatalysts for the Degradation of Organic Pollutants in Aqueous Medium*

15<sup>th</sup> International Conference on Photochemical Conversion and Storage of Solar Energy", IPS-15, Paris (France), Book of Abstracts, July 4-9, 2004, W6-P-47

**C220-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Preparazione di Fotocatalizzatori Nanostrutturati a Base di TiO<sub>2</sub>*

Atti 7° Congresso Consorzio Interuniversitario Nazionale La Chimica per L'Ambiente (INCA), Venezia (Italy), 2-3 Settembre 2004, P1

**C221-** T. Caronna, F. Fontana, L. Palmisano, C. Gambarotti, C. Punta, F. Recupero

*The Effect of Polycrystalline TiO<sub>2</sub> on Sunlight Induced Functionalisation of Some Heterocyclic Bases*

Atti del I congresso della Associazione Nazionale di Chimica per l'Ingegneria (AICING 04), Perugia (Italy), 12-14 Settembre 2004, CAT1

**C222-** M. Addamo, V. Augugliaro, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Degradazione Fotocatalitica Eterogenea di Acetonitrile a Toluene in Regime Gas-Solido e Liquido-Solido*

Atti del I congresso della Associazione Nazionale di Chimica per l'Ingegneria (AICING 04), Perugia (Italy), 12-14 Settembre 2004, CAT2

**C223-** R. Molinari, F. Pirillo, V. Loddo, L. Palmisano

*Oxidation of Azo-Dyes in Water by Means of Heterogeneous Photocatalysis in a Membrane Reactor*

Atti del I congresso della Associazione Nazionale di Chimica per l'Ingegneria (AICING 04), Perugia (Italy), 12-14 Settembre 2004, CAT19

**C224-** R. Del Sole, E. García-López, G. Marci, G. Mele, L. Palmisano, M. Schiavello, G. Vasapollo

*Polycrystalline TiO<sub>2</sub> Powders Impregnated with Porphyrins Used for the Photocatalytic Degradation of 4-Nitrophenol*

Atti del I congresso della Associazione Nazionale di Chimica per l'Ingegneria (AICING 04), Perugia (Italy), 12-14 Settembre 2004, CAT123

**C225-** V. Loddo, M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, G. Marci, L. Palmisano, M. Schiavello

*Caratterizzazione Ottica di Sospensioni Acquose di Fotocatalizzatori Utilizzati in Processi di Abbattimento di Inquinanti Organici*

Convegno GRICU 2004, Nuove Frontiere di Applicazione delle Metodologie dell'Ingegneria Chimica, Volume II degli Atti, Portod'Ischia (Italy), 12-15 Settembre 2004, pp. 725-728

**C226-** V. Augugliaro, E. García-López, V. Loddo, G. Marci, L. Palmisano, M. Schiavello

*Efecto de la Fotocatálisis Heterogénea y la Ozonización sobre la Oxidación de Ion Oxalato en Suspensión Acuosa de TiO<sub>2</sub>*

Acta XIX Simposio Iberoamericano de Catálisis, Mérida, Yucatán, (México), Septiembre 5-11, 2004, P-045

**C227-** V. Augugliaro, S. Coluccia, E. García-López, V. Loddo, G. Marci, G. Martra, L. Palmisano, M. Schiavello

*Oxidación Fotocatalítica del Acetonitrilo en Régimen Gas-Sólido y Líquido-Sólido*

Acta XIX Simposio Iberoamericano de Catálisis, Mérida, Yucatán, (México), Septiembre 5-11, 2004, P-170

**C228-** R. Molinari, F. Pirillo, M. Falco, V. Loddo, L. Palmisano



*Photo-oxidation of Az-dyes in Water Catalyzed by TiO<sub>2</sub> in a Membrane Reactor*

Atti del Convegno "Itinerari di Chimica in Calabria", Società Chimica Italiana, Sezione Calabria, Rende (Italy), 21-22 Ottobre 2004, P-11

**C229-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano,

*Preparazione di TiO<sub>2</sub> Nanostrutturato a Partire da TiCl<sub>4</sub>*

Atti del Convegno Regionale della Società Chimica Italiana, Sezione Sicilia, Messina (Italy), 2-3 Dicembre 2004, pp. 16-17

**C230-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano,

*Ossidazione Mediante Fotocatalisi e Ozonizzazione dello Ione Ossalato in Soluzione Acquose Contendenti Biossido di Titanio*

Atti del Convegno Regionale della Società Chimica Italiana, Sezione Sicilia, Messina (Italy), 2-3 Dicembre 2004, pp. 14-15

**C231-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Preparazione e Caratterizzazione di Film Fotocatalitici*

Atti del Convegno Nazionale di Fotochimica 2004

Sirmione (Italy), 16-18 Dicembre 2004

**C232-** V. Loddo, M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, G. Marci, L. Palmisano, M. Schiavello

*Heterogeneous Photocatalysis: Optical Characterisation of Polycrystalline Photocatalysts for Pollutant Degradation in Aqueous Medium*

Proc. Eighth International Conference on Solar Energy and Applied Photochemistry (Solar 05), Luxor (Egypt) 20-25 February 2005, pp. 36-37

**C233-** V. Loddo, M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, G. Marcì, L. Palmisano

*Photodegradation of Lincomycin in Aqueous Solutions*

Proc. Eighth International Conference on Solar Energy and Applied Photochemistry (Solar 05), Luxor (Egypt) 20-25 February 2005, p. 84

**C234-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marcì, L. Palmisano

*TiO<sub>2</sub> Thin Films: Preparation, Characterisation and their Photocatalytic Activity*

Proc. XVI Congresso Nazionale di Chimica Industriale, Verbania-Pallanza 14-17 Giugno 2005, pp. 99-100

**C235-** R. Molinari, F. Pirillo, V. Loddo, L. Palmisano

*Photodegradation of Pharmaceuticals in Water Catalyzed by Polycrystalline TiO<sub>2</sub> Powder in a Nanofiltration Membrane Reactor*

Proc. XVI Congresso Nazionale di Chimica Industriale, Verbania-Pallanza (Italy), 14-17 Giugno 2005, pp. 115-116

**C236-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marcì, L. Palmisano

*Preparation, Characterisation and Photocatalytic Activity of TiO<sub>2</sub> Rutile*

Proc. XVI Congresso Nazionale di Chimica Industriale, Verbania-Pallanza (Italy), 14-17 Giugno 2005, pp. 201-202

**C237-** G. Martra, M.G. Faga, M. Addamo, V. Augugliaro, E. García-López, V. Loddo, G. Marcì, L. Palmisano, S. Coluccia

*Adsorption and Photocatalytic Degradation of Acetonitrile on TiO<sub>2</sub>: FTIR and Kinetic Studies*

Riassunti del 34° Congresso Nazionale della Divisione di Chimica Fisica, Società Chimica Italiana, Siena (Italy), 20-24 Giugno 2005, p. 145 (P46)

**C238-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Film di TiO<sub>2</sub> da Idrolisi di TiCl<sub>4</sub>: Preparazione, Caratterizzazione e Fotoattività*

Proc. di E.R.A. 2005 "Elettrochimica per il Recupero dell'Ambiente, Nuovi Materiali e Sistemi Elettrochimici per la Eco-Sostenibilità dei Processi Produttivi", Cagliari (Italy), 14-16 Luglio 2005

**C239-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Preparation and Characterisation of Photocatalytic TiO<sub>2</sub> Films*

Proc. of Jordan International Chemical Engineering Conference V (JICEC 05), Amman (Giordania), 12-15 Settembre 2005, p. 18

**C240-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Preparation and Characterisation of Photocatalytic TiO<sub>2</sub> Films*

Proc. (CD) of Jordan International Chemical Engineering Conference V (JICEC 05), Amman (Giordania), 12-15 Settembre 2005, pp. 31-38

**C241-** M. J. Cantavenera, I. Catanzaro, V. Loddo, L. Palmisano, G. Sciandrello

*Photodegradation of Paraquat in Aqueous Suspension of Polycrystalline TiO<sub>2</sub> : Genotoxicity by Using Ames Test*

Proc. 13<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, (MESAEP), Thessaloniki, (Grecia), 8-12 Ottobre 2005, p. 123

**C242-** M. Addamo, V. Augugliaro, A. Di Paola, E. García-López, V. Loddo, G. Marci, C. Martin, L. Palmisano, V. Rives

*Preparation and Photoactivity of Rutile Obtained by Hydrolysis of TiCl<sub>4</sub>*

Proc. 13<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, (MESAEP), Thessaloniki, (Grecia), 8-12 Ottobre 2005, p. 303

**C243-** R. Molinari, F. Pirillo, V. Loddo, L. Palmisano,

*Heterogeneous Photocatalytic Degradation of Pharmaceuticals in Water by Using Polycrystalline TiO<sub>2</sub> and a Nanofiltration Membrane Reactor*

Proc. 7<sup>th</sup> International Conference on Catalysis in Membrane Reactor, Cetraro (Italy), 11-14 settembre 2005, pp. 311-314

**C244-** L. Palmisano

*Coupling Heterogeneous Photocatalysis with Other Technologies: a Tool for Abatement of Pollutants in Water*

Solar Safe Water, Tecnologías emergentes para estudiar los problemas de tratamiento de agua en países en desarrollo, Puerto Iguazú, Misiones (Argentina), 14-19 Ottobre 2005, p. 16

**C245-** M. Addamo, V. Augugliaro, M. Bellardita, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Photocatalytic Abatement of Organic Compounds Using Home Prepared TiO<sub>2</sub> as Photocatalysts*

Solar Safe Water, Tecnologías emergentes para estudiar los problemas de tratamiento de agua en países en desarrollo, Puerto Iguazú, Misiones (Argentina), 14-19 Ottobre 2005, p. 69

**C246-** M. Addamo, M. del Arco, M. Bellardita, D. Carriazo, A. Di Paola, G. Marci, C. Martin, L. Palmisano, V. Rives

*Characterization and Photoactivity of Nanostructured TiO<sub>2</sub> Obtained by Hydrolysis of TiCl<sub>4</sub>*

Abstract TiO<sub>2</sub>-10 The 10th International Conference on TiO<sub>2</sub> Photocatalysis: Fundamental and Applications, Marriot Chicago O'Hare, Chicago, Illinois (USA), 23-27 October 2005, pp. 105-106

**C247-** M. Addamo, V. Augugliaro, M. Bellardita, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Preparazione, Caratterizzazione e Fotoattività di Film di TiO<sub>2</sub>*

Atti Convegno Congiunto delle Sezioni Calabria e Sicilia, Catania, 5-6 dicembre 2005, C12

**C248-** G. Palmisano, M. Addamo, V. Augugliaro, T. Caronna, A. Di Paola, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Influenza del Sostituente sulla Ossidazione Fotocatalitica Selettiva di Composti Aromatici*

Atti Convegno Congiunto delle Sezioni Calabria e Sicilia, Catania (Italy), 5-6 dicembre 2005, P1

**C249-** R. Molinari, F. Pirillo, V. Loddo, L. Palmisano

*Photodegradation of Pharmaceuticals in Water by Using a Nanofiltration Membrane Reactor*

Atti Convegno Congiunto delle Sezioni Calabria e Sicilia, Catania (Italy), 5-6 dicembre 2005, P26

**C250-** G. Alonzo, M. Venezia, L. Palmisano

*Determinazione Volumetrica di Cr(III) con EDTA in Presenza di Verde Naftolo come Agente Schermante*

Atti Convegno Congiunto delle Sezioni Calabria e Sicilia della SCI, Catania (Italy), 5-6 dicembre 2005, P42

**C251-** G. Marci, M. Addamo, A. Di Paola, E. García-López, V. Loddo, L. Palmisano

*Mechanistic Aspects of Oxalic Acid Oxidation by Photocatalysis and Ozonation*

Proc. 4<sup>th</sup> International Conference on Oxidation Technologies for Water and Waste Water treatment, Goslar (Germany), 15-17 May 2006, pp. 453-457

**C252-** L. Palmisano, A. Di Paola, E. García-López, G. Marci

*Photocatalytic Activity of Titanium Dioxide Thin Films Prepared by a Sol-Gel Method*

Book of Abstracts, 16<sup>th</sup> International Conference on Photochemical Conversion and Storage of Solar

Energy, IPS-16, Uppsala (Sweden), July 2-7, 2006, W5-P38

**C253-** M. Addamo, A. Di Paola, E. García-López, G. Marci, L. Palmisano

*Preparation of Photoactive Polycrystalline Titanium Dioxide*

Atti dell'8° Convegno Nazionale AIMAT Palermo (Italy), 27 giugno-1 luglio 2006, P91

**C254-** E. García-López, G. Marci, L. Palmisano, M. Addamo, V. Augugliaro, A. Di Paola, V. Loddo, M. Schiavello

*Studio di Processi Fotocatalitici: dalla Preparazione del Fotocatalizzatore alla Comprensione della Cinetica e del Meccanismo di Reazione*

Atti del V Convegno nazionale AICIng 2006, Torino (Italy), 3-5 Settembre 2006, p. 43

**C255-** A. Di Paola, E. García-López, G. Marci, L. Palmisano

*Ossidazione Fotocatalitica di Benzonitrile in Sospensioni Acquose di Biossido di Titanio*

Atti del XXII Congresso Nazionale della Società Chimica SCI 2006, Firenze (Italy), 10-15 Settembre 2006, p. 283

**C256-** I. Catanzaro, M.J. Cantavenera, V. Loddo, L. Palmisano, G. Sciandrello

*Photocatalytic Degradation of Paraquat Combined with a Genotoxicity Study of the Intermediate Products*

Atti del 8° Convegno FISV (Federazione Italiana Scienze della Vita),

28 settembre – 1 ottobre 2006, Riva del Garda (Italy), PMS.05 – P.48, D05.12

**C257-** A. Di Paola, E. García-López, G. Marci, L. Palmisano,

*Photocatalytic Oxidation of Benzonitrile in Aqueous Suspension of Titanium Dioxide*

Atti del IV Convegno internazionale SPEA4, Las Palmas de Gran Canaria (Spagna), 8-10 Novembre 2006, pp. 48-49

**C258-** V. Augugliaro, V. Loddo, G. Marci, G. Palmisano, L. Palmisano, S. Yurdakal

*Kinetics of Photocatalytic Degradation of Pharmaceuticals in Aqueous TiO<sub>2</sub> Suspension*

Atti del IV Convegno internazionale SPEA4, Las Palmas de Gran Canaria (Spagna), 8-10 Novembre 2006, pp. 50-51

**C259-** V. Loddo, M. Addamo, V. Augugliaro, E. Garrone, L. Palmisano, M. Schiavello

*A method for determining optical properties of photocatalytic suspensions*

Atti del IV Convegno internazionale SPEA4, Las Palmas de Gran Canaria (Spagna), 8-10 Novembre 2006, pp. 270-271

**C260-** L. Palmisano

*La fotocatalisi eterogenea per l'abbattimento di specie inquinanti*

Atti Convegno Congiunto delle Sezioni Calabria e Sicilia della SCI, Palermo (Italy), 4-5 dicembre 2006,  
PL1

**C261-** M. Addamo, M. Bellardita, A. Di Paola, E. García-López, G. Marci, L. Palmisano

*Sintesi e caratterizzazione di polveri e film di TiO<sub>2</sub>*

Atti Convegno Congiunto delle Sezioni Calabria e Sicilia della SCI, Palermo (Italy), 4-5 dicembre 2006,  
P06

**C262-** L. Palmisano, M. Venezia, G. Alonzo

*4-(2-Piridilazo)Resorcinolo come indicatore metallocromico schermato da verde naftolo b nella retrotitolazione di EDTA in eccesso per determinare Cr(III) come complesso Cr(III)/EDTA*

P08 Atti Convegno Congiunto delle Sezioni Calabria e Sicilia della SCI, Palermo (Italy), 4-5 dicembre 2006,

**C263-** L. Palmisano

*Decontamination of wastewater effluents by heterogeneous photocatalysis coupled with other technologies*

Atti Convegno International Seminar on "Treatment and Recycling of Urban and Industrial Wastewater", AQUATEX, Valencia (Spain), 12-14 Dicembre 2006 p. 20

**C264-** M. Addamo, A. Di Paola, M. Bellardita, E. García-López, G. Marci, L. Palmisano

*Preparation of photocatalytic nanostructured TiO<sub>2</sub> thin films*

Atti Convegno Materiais 2007, Porto (Portugal), 1-4 Aprile 2007 p. 47

**C265-** S. Yurdakal, V. Loddo, B.B. Ferrer, G. Palmisano, V. Augugliaro, J. Giménez. Farreras, L. Palmisano,

*Proprietà ottiche e determinazione della resa quantica per sospensioni fotocatalitiche*

Atti Convegno "Giornate dell'Elettrochimica Italiana – Elettrochimica per il Recupero Ambientale", Cagliari (Italy), 15-20 Luglio 2007 p. F2

**C266-** S. Yurdakal, V. Loddo, B.B. Ferrer, G. Palmisano, V. Augugliaro, J. Giménez. Farreras, L. Palmisano,

*Optical Characterization of TiO<sub>2</sub> Suspensions: Influence of Some Operational Parameter on Mean Particle Size*

Book of Abstracts "Second International Conference on Semiconductor Photochemistry", Aberdeen (UK), 23th-25<sup>th</sup> July 2007, P111

**C267-** J. Li, G. Mele, C. Wang, G.-M. Yang, F.-X. Zhang, L. Palmisano, G. Vasapollo

*Photocatalytic Degradation of 4-Nitrophenol in Aqueous Suspension by Using Functionalized Porphyrin-TiO<sub>2</sub> Photocatalysts Under Visible Irradiation*



41<sup>th</sup> IUPAC conference, Torino (Italy), 5-11 Agosto 2007, p. 78.

**C268-** C. Wang, J. Li, G. Mele, G.-M. Yang, F.-X. Zhang, L. Palmisano, G. Vasapollo

*Efficient Degradation of 4-Nitrophenol by Using Functionalized Porphyrin TiO<sub>2</sub> Photocatalysts Under Visible Irradiation*

EUROPACAT VIII conference, 26-31 Agosto 2007 Turku (Finland), p13-44.

**C269-** V. Loddo, S. Yurdakal, G. Palmisano, G.E. Imoberdorf, H.A. Irazoqui, O.M. Alfano, V. Augugliaro, L. Palmisano,

*Performance of a Continuous fixed Bed Photocatalytic Reactor for Selective Oxidation of 4-Methoxybenzyl Alcohol to Aldehyde in Organic-free Water*

Book of Abstracts "Chemical Reaction Engineering XI, Green Chemical Reactor Engineering", Bilbao (Spain), 26<sup>th</sup>-31<sup>st</sup> August 2007, OAO2-23.

**C270-** Leonardo Palmisano

*The Combination of Heterogeneous Photocatalysis with Chemical and Physical Operations: a Tool for Improving the Photoprocess Performance*

XXXI Reunión Bienal de la Real Sociedad Española de Química, Toledo (Spain), 9th-14th September 2007, G8-I3

**C271-** M. Addamo, M. Bellardita, A. Di Paola, E. García-López, G. Marci, L. Palmisano

*Studio delle proprietà acido-base superficiali e fotoattività di catalizzatori nanostrutturati costituiti da TiO<sub>2</sub>*

Atti II Workshop Nazionale AICing: Principi, Problematiche, Prospettive ed Applicazioni della Fotocatalisi, Messina (Italy), 12-14 Settembre 2007, P11, p. 24

**C272-** M. Bellardita, M. Addamo, A. Di Paola, L. Palmisano

*Characterization of TiO<sub>2</sub> Thin Films for Photocatalytic Applications*

International RILEM Symposium on Photocatalysis, Environment and Construction Materials

Istituto degli Innocenti, Florence (Italy), October 8-9, 2007, p. 10

**C273-** A. Di Paola, E. García-López, G. Marci, L. Palmisano

*Photocatalytic Activity of TiO<sub>2</sub> Thin Films Prepared in the Presence of Organic and Inorganic Additives*

International RILEM Symposium on Photocatalysis, Environment and Construction Materials

Istituto degli Innocenti, Florence (Italy), October 8-9, 2007, P9

**C274-** M. Addamo, M. Bellardita, A. Di Paola, L. Palmisano

*Preparazione e fotoattività di rutilo e brookite ottenuti per termoidrolisi di TiCl<sub>4</sub>*

40 Atti Convegno Congiunto delle Sezioni Calabria e Sicilia della SCI, Messina (Italy), 3-4 dicembre 2007, p.

**C275-** S. Yurdakal, V. Loddo, B. Bayarri Ferrer, G. Palmisano, V. Augugliaro, J. Gimenez Farreras, L. Palmisano

*Optical characterization of TiO<sub>2</sub> suspensions: influence of some operational parameter on mean particle size*

83 Atti Convegno Congiunto delle Sezioni Calabria e Sicilia della SCI, Messina (Italy), 3-4 dicembre 2007, p.

**C276-** M. Addamo, M. Bellardita, A. Di Paola, L. Palmisano

*Photocatalytic Activity of Nanocrystalline TiO<sub>2</sub> (Brookite, Rutile and Brookite-based) Powders*

Proceedings of The International Conference on Molecular/Nano-Photochemistry, Photocatalysis and Solar Energy Conversion, Cairo (Egypt), 24-28 February 2008, p. 58

**C277-** M. Bellardita, M. Addamo, A. Di Paola, L. Palmisano, L. Cassar, M. Borsa

*Synthesis and Characterization of TiO<sub>2</sub> Deposited on Silica*

Atti XVII Congresso Nazionale di Chimica Industriale, Energia, materiali e prodotti da tecnologie e processi eco-sostenibili, Genova (Italy), 30 Giugno - 3 Luglio 2008, CAT-P02

**C278-** V. Loddo, S. Yurdakal, G. Palmisano, G.E. Imoberdorf, H.A. Irazoqui, O.A. Alfano, V. Augugliaro, L. Palmisano

*Photocatalytic Oxidation of 4-Methoxybenzyl Alcohol to*

*p-Anisaldehyde in a Fixed Bed Continuous Reactor*

Book of Abstracts, 17<sup>th</sup> International Conference on Photochemical Conversion and Storage of Solar Energy", IPS-17, Sydney (Australia), 27 July – 1 August 2008, p. 53

**C279-** A. Di Paola, M. Addamo, M. Bellardita, L. Palmisano

*Nanocrystalline TiO<sub>2</sub> Photocatalysts Obtained by Thermohydrolysis of TiCl<sub>4</sub> in Aqueous Solutions*

Book of Abstracts, 17<sup>th</sup> International Conference on Photochemical Conversion and Storage of Solar Energy", IPS-17, Sydney (Australia), 27 July – 1 August 2008, p. 109

**C280-** L. Palmisano, E. García-López, H. Hidaka, N. Serpone

*Photoassisted Mineralization of N-Heterocycles in TiO<sub>2</sub> Aqueous Suspensions: Fate of the N-Heteroatoms*

Book of Abstracts, 17<sup>th</sup> International Conference on Photochemical Conversion and Storage of Solar Energy", IPS-17, Sydney (Australia), 27 July – 1 August 2008, p. 110

**C281-** G. Marci, L. Palmisano, G. Sciandrello, I. Catanzaro, M. Subrahmanyam, V. Durgakumari, B. Srinivas

*TiO<sub>2</sub> Supported over Hb and HZSM-5 Photocatalysts for Salmonelle and Escherichia Coli Disinfection*

Book of Abstracts, 17<sup>th</sup> International Conference on Photochemical Conversion and Storage of Solar Energy", IPS-17, Sydney (Australia), 27 July – 1 August 2008, p. 110

**C282-** G. Marci, E. García-López, L. Palmisano

*Ossidazione del 2-Propanolo Fotocatalizzata da Sistemi Ibridi Bis-Ftalocianina Lantanide-TiO<sub>2</sub>:Confronto tra Processi Gas-Solido e Liquido-Solido*

Atti del Convegno AICING 2008, Ischia (Italy), 25-27 Settembre 2008, pp. 88-89

**C283-** G. Mele, L. Palmisano, G. Vasapollo

*Renewable Organic Resources for Fine Chemicals and Photo-sensitizers in TiO<sub>2</sub> Based Photocatalytic Processes*

Atti del Convegno AICING 2008, Ischia (Italy), 25-27 Settembre 2008, pp. 95-96

**C284-** C. Gambarotti, C. Punta, F. Recupero, L. Palmisano, T. Caronna

*Sunlight Induced Functionalisation of Heterocyclic Bases in the Presence of TiO<sub>2</sub>*

Book of Abstracts 5th European Conference on Solar Chemistry & Photocatalysis: Environmental Applications, Palermo (Italy), October 4-8, 2008, PP1.8

**C285-** D. Carriazo, M. Addamo, G. Marci, C. Martin, L. Palmisano, V. Rives

*Tungstophosphoric Acid Supported on TiO<sub>2</sub> for the Photodegradation of 4-Nitrophenol in Liquid Phase and of 2-Propanol in gas Phase*

Book of Abstracts 5th European Conference on Solar Chemistry & Photocatalysis: Environmental Applications, Palermo (Italy), October 4-8, 2008, PP2.6

**C286-** M. Addamo, M. Bellardita, D. Carriazo, A. Di Paola, S. Milioto, L. Palmisano, V. Rives

*Hyperactive TiO<sub>2</sub> Photocatalyst Obtained by Microwave Treatment*

Book of Abstracts 5th European Conference on Solar Chemistry & Photocatalysis: Environmental

Applications, Palermo (Italy), October 4-8, 2008, PP3.3

**C287-** G. Mele, J. Li, S.E. Mazzetto, E. García-López, L. Palmisano, G. Vasapollo

*Photodegradation of 4-Nitrophenol in Aqueous Suspension by Using Polycrystalline TiO<sub>2</sub> Samples Impregnated with Lipophilic Porphyrins Obtained from Renewable Resources*

Book of Abstracts 5th European Conference on Solar Chemistry & Photocatalysis: Environmental Applications, Palermo (Italy), October 4-8, 2008, PP3.23

**C288-** R. Słota, G. Mele, G. Dyrda, E. García-López, G. Marci, L. Palmisano

*Lanthanide Diphthalocyanine – Photosensitizers in TiO<sub>2</sub> Hybrid Catalytic Systems: Green Chance for the Nature*

Book of Abstracts 5th European Conference on Solar Chemistry & Photocatalysis: Environmental Applications, Palermo (Italy), October 4-8, 2008, PP3.46

**C289-** E. García-López, L. Palmisano, G. Marci

*TiO<sub>2</sub> Impregnated with Polyoxometallate as Photomediator in 2-Propanol Gas-Solid Regime Photocatalytic Degradation*

Book of Abstracts 5th European Conference on Solar Chemistry & Photocatalysis: Environmental Applications, Palermo (Italy), October 4-8, 2008, PP3.61

**C290-** M. Bellardita, M. Addamo, A. Di Paola, G. Marci, L. Palmisano, L. Cassar, M. Borsa

*Photocatalytic Activity of TiO<sub>2</sub>/SiO<sub>2</sub> Systems*

Book of Abstracts 5th European Conference on Solar Chemistry & Photocatalysis: Environmental Applications, Palermo (Italy), October 4-8, 2008, PP3.62

**C291-** M. Bellardita, M. Addamo, A. Di Paola, L. Palmisano, A.M. Venezia

*Preparation of N-doped TiO<sub>2</sub>: Characterization and Photocatalytic Performance under UV and Visible Light*

Book of Abstracts 5th European Conference on Solar Chemistry & Photocatalysis: Environmental Applications, Palermo (Italy), October 4-8, 2008, PP3.65

**C292-** V. Augugliaro, V. Loddo, M.J. López-Muñoz, C. Márquez-Álvarez, G. Palmisano, L. Palmisano, S. Yurdakal

*Home-Prepared Anatase, Rutile, and Brookite TiO<sub>2</sub> Catalysts for Selective Photocatalytic Oxidation of p-Methoxybenzyl Alcohol in Water: Reactivity and ATR-FTIR Study*

Book of Abstracts 5th European Conference on Solar Chemistry & Photocatalysis: Environmental Applications, Palermo (Italy), October 4-8, 2008, PP4.21

**C293-** S. Yurdakal, V. Loddo, G. Palmisano, V. Augugliaro, H. Berber, L. Palmisano

*Photoadsorption Determination for Irradiated Catalyst in Liquid-Solid System*

Book of Abstracts 5th European Conference on Solar Chemistry & Photocatalysis: Environmental Applications, Palermo (Italy), October 4-8, 2008, PP5.19

**C294-** I. Catanzaro, L. Ceraulo, G. Marci, L. Palmisano, M. Saverini, L. Scalici, G. Sciandrello

*Evaluation of Biological Effects and Heterogeneous Photodegradation of Terpenes Present in Wastewater from a Citrus Fruit Transformation Factory*

Book of Abstracts 5th European Conference on Solar Chemistry & Photocatalysis: Environmental Applications, Palermo (Italy), October 4-8, 2008, PP4.23

**C295-** Marianna Bellardita, Agatino Di Paola, Leonardo Palmisano

*Fotocatalizzatori Ottenuti per Termoidrolisi di TiCl<sub>4</sub>*

Atti IV Convegno Congiunto delle Sezioni Sicilia e Calabria della Società Chimica Italiana, Rende (Italy), 1-3 Dicembre 2008, O05

**C296-** Leonardo Palmisano, Giuseppe Marci, E. García-López

*TiO<sub>2</sub> Impregnato con Poliossometallato Utilizzato come Fotocatalizzatore nella Degradazione di 2-Propanolo in Fase Vapore*

Atti IV Convegno Congiunto delle Sezioni Sicilia e Calabria della Società Chimica Italiana, Rende (Italy), 1-3 Dicembre 2008, P56

**C297-** V. Augugliaro, M. Bellardita, A. Di Paola, E. García-López, V. Loddo, G. Marci, G. Palmisano, L. Palmisano, S. Yurdakal

*Selective Heterogeneous Photocatalysis: Achievements and Challenges*

Abstracts VIII International Conference "Mechanisms of Catalytic Reactions", Novosibirsk (Russia), 29 June 2 July 2009, Volume I KL-3, pp. 21-22

**C298-** D. Carriazo, M. del Arco, C. Martin, V. Rives, G. Marci, E. García-López, L. Palmisano

*Preparation, Characterisation and Photocatalytic Activity of Zn, Al Oxides Derived from Zn,Al LDHs*

Abstracts of The 10<sup>th</sup> International meeting in Inorganic Chemistry (FIGIPAS), Palermo, July 1-4, 2009  
PO100

**C299-** G. Mele, I. Pio, G. Vasapollo, E. García-López, G. Marci, L. Palmisano

*New TiO<sub>2</sub> Based Photocatalysts for the Degradation of Organic Pollutants in Water*

Abstracts SCI 2009, XXIII Congresso Nazionale della Società Chimica Italiana, Sorrento, 5-10 Luglio 2009

**C300-** G. Marci, E. García-López, L. Palmisano, A. García, J. Matos

*Influence of activated carbon in the TiO<sub>2</sub> mediated photo-assisted*

*degradation of 2-propanol in gas-solid regime*

Book of Abstracts of the EUROPACAT IX congress, 30<sup>th</sup> August- 4<sup>th</sup> September 2009, Salamanca (Spain), P5-29

**C301-** D. Carriazo, M. del Arco, C. Martín, V. Rives, G. Marci, E. García-López, L. Palmisano

*Zn,Al hydrotalcites calcined at different temperature: Characterisation and photocatalytic activity for the degradation of 2-propanol in gas-solid regime*

Book of Abstracts of the EUROPACAT IX congress, 30<sup>th</sup> August- 4<sup>th</sup> September 2009, Salamanca (Spain), P5-118.

**C302-** E. García-López, H. Hidaka, G. Marci, L. Palmisano

*Photocatalytic Mineralization of N-containing alicyclic and aromatic heterocycles: Relationship Between Products Containing Nitrogen and Structure of the Substrate*

Proceedings 2<sup>nd</sup> European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP-2), Nicosia (Cyprus), 9-11 Sept. 2009, pp. 1-6, N4

**C303-** S. Yurdakal, V. Loddo, G. Palmisano, V. Augugliaro, H. Berber, L. Palmisano

*4-Nitrophenol Oxidation in a Continuous Fixed Bed Photoreactor Containing Titanium Dioxide Supported on Glass Beads*

Book of Abstracts First International Workshop on Application of Redox Technologies in the Environment, Istanbul, Turkey, September 14-15, 2009 pp. 37-39

**C304-** M. Bellardita, A. Di Paola, L. Palmisano

*Photocatalytic Properties of TiO<sub>2</sub> Doped with Metal and non Metal Species*

Book of Abstracts First International Workshop on Application of Redox Technologies in the Environment, Istanbul, Turkey, September 14-15, 2009 pp. 142-144

**C305-** A. Di Paola, M. Bellardita, L. Palmisano, F. Parrino

*Junction Effect on the Photocatalytic Activity of Mixed-Phase TiO<sub>2</sub> Nanoparticles*



**C306-** L. Palmisano, V. Augugliaro, M. Bellardita, A. Di Paola, E. García-López, V. Loddo, G. Marci, G. Palmisano, S. Yurdakal

*Selective Heterogeneous Photocatalysis: Examples of Green Photosyntheses*

Livro de Resumos V EPOA, Encontro sobre Aplicações Ambientais de Processos Oxidativos Avançados, São Paulo, Brasil, 26-29 Ottobre 2009, CONF 13

**C307-** S. Yurdakal, G. Palmisano, V. Loddo, O. Alagöz, V. Augugliaro, L. Palmisano

*Room Temperature Home Prepared TiO<sub>2</sub> Rutile Used for Selective Photocatalytic Oxidation of Aromatic Alcohols to Aldehydes in Aqueous Medium*

Atti Convegno Congiunto delle Sezioni Calabria e Sicilia della Società Chimica Italiana, Aci Castello (CT), 1-2 Dicembre 2009, O15

**C308-** G.L. Chiarello, A. Di Paola, L. Palmisano, E. Selli

*Effect of the TiO<sub>2</sub> Crystalline Structure on the Photocatalytic Production of Hydrogen*

Proc. 6<sup>th</sup> European Meeting on Solar Chemistry & Photocatalysis: Environmental Applications, Prague (Czech Republic), June 13<sup>th</sup>-16<sup>th</sup> 2010, OP1.12, pp. 61-62

**C309-** A. Di Paola, M. Bellardita, G. Marci, L. Palmisano, F. Parrino, R. Amadelli

*Preparation of Sm-Loaded-Brookite Nanoparticles and Thin Films*

Proc. 6<sup>th</sup> European Meeting on Solar Chemistry & Photocatalysis: Environmental Applications, Prague (Czech Republic), June 13<sup>th</sup>-16<sup>th</sup> 2010, PP1.2, pp. 77-78

**C310-** L. Palmisano, E. García-López, G. Marci, A. Garcia, J. Matos

*Binary Materials TiO<sub>2</sub> or ZnO-Activated Carbon Used as Photomediators in the Photocatalytic*

*Degradation of 2-Propanol in Gas-Solid Regime*

Proc. 6<sup>th</sup> European Meeting on Solar Chemistry & Photocatalysis: Environmental Applications, Prague (Czech Republic), June 13<sup>th</sup>-16<sup>th</sup> 2010, PP1.5, pp. 83-84

**C311-** L. Palmisano, V. Loddo, A. Mele, G. Palmisano, S. Yurdakal, V. Augugliaro

*Glycerol Partial Oxidation in Aqueous Solution by Home Prepared TiO<sub>2</sub> Photocatalyst*

Proc. 6<sup>th</sup> European Meeting on Solar Chemistry & Photocatalysis: Environmental Applications, Prague (Czech Republic), June 13<sup>th</sup>-16<sup>th</sup> 2010, PP1.37, pp. 136-137

**C312-** G. Camera-Roda, F. Santarelli, V. Augugliaro, V. Loddo, G. Palmisano, L. Palmisano, S. Yurdakal

*Removal of Intermediate Compounds in a Photocatalytic Process*

Proc. 6<sup>th</sup> European Meeting on Solar Chemistry & Photocatalysis: Environmental Applications, Prague (Czech Republic), June 13<sup>th</sup>-16<sup>th</sup> 2010, OP3.2, pp. 343-344

**C313-** A. Prusova, C. De Pasquale, V. Loddo, L. Palmisano

*TiO<sub>2</sub>-H<sub>2</sub>O Interactions by Fast Field Cycling (FFC) NMR Relaxometry*

Geophysical Research Abstracts, Vol. 12, EGU2010,

EGU General Assembly, Viena (Austria) 2<sup>nd</sup>-7<sup>th</sup> May, 2010, p. 15355

**C314-** L. Palmisano, V. Augugliaro, M. Bellardita, A. Di Paola, E. García-López,

V. Loddo, G. Marci, G. Palmisano, S. Yurdakal

*Green Production of Aldehydes from Alcohols by Heterogeneous Photocatalysis*

Proc. 18<sup>th</sup> International Conference on Photochemical Conversion and Storage of Solar Energy (I.P.S. 18), Seoul (South Korea), July 25<sup>th</sup>-30<sup>th</sup> 2010, p. 49, IS6

**C315-** L. Palmisano, G. Marci, E. García-López, A. García, J. Matos

*A Study on the Influence of the Presence of Activated Carbon in TiO<sub>2</sub> and ZnO Photo-Assisted Degradation of 2-Propanol*

Atti VII Convegno Nazionale AICInG 2010, Bressanone 5-8 Settembre 2010, P34, pp. 169-171

**C316-** G.L. Chiarello, A. Di Paola, L. Palmisano, M. Pedroni, E. Selli

*Photocatalytic Performance of Brookite in Hydrogen Production by Photo-Steam Reforming*

Abstracts XXXIX Congresso Nazionale di Chimica Fisica, Stresa 20-24 Settembre 2010, P101, p. 171

**C317-** G. Marci, E. García-López, L. Palmisano, A. García, J. Matos

*Degradacion fotocatalítica de 2-propanol en régimen gas-sólido utilizando como fotocatalizadores materiales binarios TiO<sub>2</sub>-carbón activo y ZnO- carbón activo*

Libro De Resúmenes XXII Congreso Iberoamericano de Catálisis, Cón-Cón, Vina del Mar, Chile, 5-10 septiembre 2010, OX-P-17

**C318-** G. Marci, E. García-López, L. Palmisano

*TiO<sub>2</sub>-H<sub>3</sub>PW<sub>12</sub>O<sub>40</sub> binary solids prepared in different conditions: A comparison of their photocatalytic activity*

Abstracts XVI Congresso Nazionale di Catalisi GIC 2010, Mondello (Palermo) 19-23 Settembre 2010, P42

**C319-** L. Palmisano, V. Augugliaro, M. Bellardita, A. Di Paola, E. García-López, V. Loddo, G. Marci, G. Palmisano, S. Yurdakal

*TiO<sub>2</sub> Nanocrystalline Samples Used to Photo-oxidize Aromatic Alcohols to Aldehydes*

Proc. 6<sup>th</sup> IUPAC International Symposium on Novel Materials and their Sythesis (NMS-VI) & 20<sup>th</sup> International Symposium on Fine Chemistry and Functional Polymers (FCFP-XX), Wuhan (China), 10-14 October 2010, p. 19

**C320-** L. Palmisano, V. Augugliaro, M. Bellardita, A. Di Paola, E. García-López, V. Loddo, G. Marci, G. Palmisano, S. Yurdakal

*TiO<sub>2</sub> Nanocrystalline Samples Used to Photo-oxidize Aromatic Alcohols to Aldehydes*

Proc. International Materials Forum "Materials for Sustainable Energy and Environment", Wuhan (China), 14 October 2010, IL7

**C321-** L. Palmisano, V. Augugliaro, M. Bellardita, A. Di Paola, E. García-López, V. Loddo, G. Marci, G. Palmisano, S. Yurdakal

*TiO<sub>2</sub> Heterogeneous Photocatalysis as a Selective Tool for Organic Green Syntheses*

Abstracts The 16<sup>th</sup> International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil, San Diego, California, November 15-18, 2010 p. 23

**C322-** G. Marci, E. García-López, J. Matos, L. Palmisano

*Studio dell'Influenza del Carbonio Attivo sulla Degradazione Fotocatalitica del 2-Propanolo Condotta in Presenza di Biossido di Titanio o di Ossido di Zinco*

Atti Convegno congiunto delle sezioni Calabria e Sicilia della Società Chimica Italiana, Palermo 2-3 dicembre 2010, p. 30

**C323-** M. Bellardita, A. Di Paola, G. Marci, L. Palmisano, F. Parrino, R. Amadelli

*Preparazione di Fotocatalizzatori a Base di TiO<sub>2</sub> Brookite Drogati con Samario*

Atti Convegno congiunto delle sezioni Calabria e Sicilia della Società Chimica Italiana, Palermo 2-3 dicembre 2010, p. 53

**C324-** L. Palmisano

*Fundamentals of Heterogeneous Photocatalysis and its Application for Environmental and Synthetic Purposes*

Book of Abstracts 4<sup>th</sup> International Conference "Chemical Industries: Role and Future Aspects, Nov 30<sup>th</sup> – Dec 2<sup>nd</sup>, 2010, Cairo (Egypt), PL1, p. 1

**C325-** Marghereth Saverini, G. Avellone, F. Caradonna, I. Catanzaro, Ceraulo, S. G. Indelicato, G. Marci, L. Palmisano, G. Sciandrello

*Genotoxicity of Terpenes Present in Wastewater of a Citrus Transformation Factory in Bacterial and Mammalian Cells and Effectiveness of Photocatalytic Degradation*

Atti dell'VIII Congresso del Dipartimento di Biologia Cellulare e dello Sviluppo Università di Palermo, Palermo, 20-21 Dicembre 2010, pp. 2-3

**C326-** L. Palmisano, V. Augugliaro, M. Bellardita, A. Di Paola, E. García-López, V. Loddo, G. Marci, G. Palmisano and F. Parrino,

*TiO<sub>2</sub> Nanomaterials Used as Photocatalysts for Selective Heterogeneous Syntheses of Alcohols to Aldehydes in Water*

Proceedings MRS Materials Research Society, Symposium GC: Titanium Dioxide Nanomaterials, San Francisco (USA), April 26-29, 2011, GG9.2

**C327-** L. Garavaglia, M. Brazzoli, G. Palmisano, L. Palmisano, V. Loddo, G. Marci, S. Yurdakal

*Photocatalytic Active Polymer Expanded Materials Coated with TiO<sub>2</sub> Used as Package for Foodstuffs*

Book of Abstracts 2011 Alimed, Palermo, 22-25 Maggio 2011, p.43 (O 18)

**C328-** V. Augugliaro, M. Bellardita, A. Di Paola, E. García-López, V. Loddo, G. Marci, G. Palmisano, L. Palmisano, F. Parrino

*Nanomateriali a Base di TiO<sub>2</sub> come Fotocatalizzatori per Sintesi Selettive di Alcoli ad Aldeidi in Fase Acquosa*

Libro degli Atti del IV Workshop Nazionale AICING "Tecnologie chimiche per uno sviluppo sostenibile", Modena, 16-17 giugno 2011

**C329-** D. Carriazo, M. del Arco, E. García- López, G. Marci, C. Martin, L. Palmisano, V. Rives

*Photocatalytic Activity in Gas-Solid Regime of ZnO-ZnAl<sub>2</sub>O<sub>4</sub> Composites*

Book of Abstracts Photocatalytic and Advanced Oxidation Technologies for Treatment of Water, Air, Soli and Surfaces (PAOT), Gdansk (Polonia), University of Technology, July 4-8, 2011

**C330-** L. Palmisano

*Selective Oxidation of Alcohols to Aldehydes by TiO<sub>2</sub> Photocatalysis*

Abstract Booklet "Advances in Photovoltaics and Photocatalysis",

Technische Universität München, Munich, Germany, July 21-22, 2011, p.22

**C331-** V. Augugliaro, G. Camera Roda, V. Loddo, G. Palmisano, L. Palmisano, F. Parrino, M. A. Puma

*Synthesis of Vanillin in Water by TiO<sub>2</sub> Photocatalysis*

Atti Convegno congiunto delle sezioni Calabria e Sicilia della Società Chimica Italiana, Palermo 1-2 dicembre 2011, C7

**C332-** M. Bellardita, V. Augugliaro, V. Loddo, G. Palmisano, L. Palmisano, M. A. Puma

*Hydroxylation of Benzoic Acid and Phenol in the Presence of TiO<sub>2</sub> Photocatalysts: Selectivity and Kinetics*

Atti Convegno congiunto delle sezioni Calabria e Sicilia della Società Chimica Italiana, Palermo 1-2 dicembre 2011, P4

**C333-** G. Marci, E. García-López, L. Palmisano

*H<sub>3</sub>PW<sub>12</sub>O<sub>40</sub> Supportato per l'Idratazione di Propene in Regime Gas-Solido: Attività Catalitica e Catalitica Fotoassistita*

Atti Convegno congiunto delle sezioni Calabria e Sicilia della Società Chimica Italiana, Palermo 1-2 dicembre 2011, P30

**C334-** M. Bellardita, A. Di Paola, L. Palmisano, F. Parrino

*Preparation and Characterization of Brookite TiO<sub>2</sub> Photocatalysts for Pollutants Degradation and Organic Synthesis*

Book of Abstracts of Symposium on Heterogeneous Catalysis for Fine Chemicals, Palermo 18-19 April, 2012, SL 4

**C335-** R. Ceccato, S. Cristoforetti, S. Dirè, L. Palmisano

*Thermal Evolution of Titania Nanostructured Powders Obtained from Reverse Micelle Method*

Book of Abstracts of XXXIV National Congress on Calorimetry, Thermal Analysis and Applied Thermodynamics, Rome June 5-8, 2012, p.31-32

**C336-** M. Bellardita, V. Augugliaro, V. Loddo, B. Megna, G. Palmisano, L. Palmisano, M.A. Puma

*Preparation, Thermal Analysis and Photoactivity of TiO<sub>2</sub> Samples*

Book of Abstracts of XXXIV National Congress on Calorimetry, Thermal Analysis and Applied Thermodynamics, Rome June 5-8, 2012, p.107-108

**C337-** G. Camera Roda, V. Augugliaro, A. Cardillo, V. Loddo, G. Palmisano, L. Palmisano

*A Pervaporation Photocatalytic Reactor for the Green Synthesis of Vanillin*

Book of Proceedings of 7<sup>th</sup> European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA 7), Porto, Portugal, 17-20 June, 2012, OC07

**C338-** F. Parrino, V. Augugliaro, G. Camera Roda, V. Loddo, G. Palmisano, L. Palmisano, M. A. Puma

*Visible Light Induced Oxidation of Ferulic Acid by TiO<sub>2</sub>*

Book of Proceedings of 7<sup>th</sup> European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA 7), Porto, Portugal, 17-20 June, 2012, OC10

**C339-** G. Mele, I. Pio, A. Scarlino, E. Bloise, L. Palmisano, G. Vasapollo

*Photocatalytic Degradation of 4-Nitrophenol by Using Porphyrin/Fe-Loaded TiO<sub>2</sub> Composites Under Heterogeneous Photo Fenton Process*

Book of Proceedings of 7<sup>th</sup> European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA 7), Porto, Portugal, 17-20 June, 2012, P46

**C340-** L. Palmisano, A. Di Paola, M. Bellardita, R. Amadelli, L. Samiolo

*Photocatalytic Properties of Nanostructured TiO<sub>2</sub> Powders Obtained by Thermohydrolysis of TiOSO<sub>4</sub>*

Book of Proceedings of 7<sup>th</sup> European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA 7), Porto, Portugal, 17-20 June, 2012, P159

**C341-** G. Marci, E. García-López, L. Palmisano

*2-Propanol Formation by Propene Hydration: Catalytic and Catalytic Photo-assisted Reaction Using H<sub>3</sub>PW<sub>12</sub>O<sub>40</sub> Supported on TiO<sub>2</sub> and SiO<sub>2</sub>*

Book of Proceedings of 7<sup>th</sup> European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA 7), Porto, Portugal, 17-20 June, 2012, P160

**C342-** G. Marci, E. García-López, L. Palmisano

*Comparison Between Catalytic and Catalytic Photo-Assisted Propene Hydration by Using Supported Polyoxometalate*

Abstract 15<sup>th</sup> International Congress on Catalysis (ICC) Munich July 1-6, 2012, 1.09--1451

**C343-** V. Augugliaro, G. Camera Roda, V. Loddo, G. Palmisano, L. Palmisano, M.A. Puma

*Ferulic Acid Oxidation through Visible Light Induced TiO<sub>2</sub> Photocatalysis*

19<sup>th</sup> International Conference on Photochemical Conversion and Storage of Solar Energy (IPS-19).



**C344-** M. Bellardita, A. Di Paola, L. Palmisano

*Photocatalytic activity of TiO<sub>2</sub> in its polymorphic forms Anatase, Brookite and Rutile*

VIII Convegno Nazionale dell'Associazione di Chimica per Ingegneria (AICIng 2012). Aci Castello, Catania, 16-19 Settembre 2012, P76

ISBN: 978-88-7051-226-7.

**C345-** G. Marci, E. García-López, L. Palmisano

*A study on the catalytic performances of H<sub>3</sub>PW<sub>0</sub><sub>4</sub> supported on TiO<sub>2</sub> and SiO<sub>2</sub> for propene hydration in the presence and in the absence of UV light*

VIII Convegno Nazionale dell'Associazione di Chimica per Ingegneria (AICIng 2012). Aci Castello, Catania, 16-19 Settembre 2012, O11

ISBN: 978-88-7051-226-7.

**C346-** S. Dirè, S. Cristoforetti, R. Ceccato, L. Palmisano

*TiO<sub>2</sub> nanocrystalline powders by W/O microemulsion synthesis*

VIII Convegno Nazionale dell'Associazione di Chimica per Ingegneria (AICIng 2012). Aci Castello, Catania, 16-19 Settembre 2012, P2

ISBN: 978-88-7051-226-7.

**C347-** G. Mele, I. Pio, A. Scarlino, E. Bloise, L. Palmisano, G. Vasapollo

*Design of new porphyrin/Fe-loaded TiO<sub>2</sub> composites for the efficient degradation of 4-nitrophenol by heterogeneous photo Fenton process*

VIII Convegno Nazionale dell'Associazione di Chimica per Ingegneria (AICIng 2012). Aci Castello, Catania, 16-19 Settembre 2012, P20

ISBN: 978-88-7051-226-7.

**C348-** G. Marci, E. García-López, M. Bellardita, L. Palmisano

*H<sub>3</sub>PW<sub>12</sub>O<sub>40</sub> supported on different oxides: influence of the support on the catalytic and catalytic photo-assisted propene hydration*

V International Workshop OXIDES 2012 & AIZ Day 2012. Torino, 23-27 Settembre 2012, O17PHOTO

**C349-** E. García-López, G. Marci, M. Bellardita, F. Parisi, L. Palmisano

*Selective (photo)catalytic formation of 2-propanol from propene by using an heteropolyacid supported on different oxides*

Frontiers in Metal Oxide Cluster Science 2012, Lanzarote, Spain, November 18<sup>th</sup>-22<sup>th</sup>

**C350-** M. Bellardita, E. García-López, V. Loddo, G. Marci, L. Palmisano

*Riduzione Fotocatalitica di CO<sub>2</sub> in Sistemi Gas-Solido in Presenza di TiO<sub>2</sub> Puro e Drogato con Rame*

Atti VIII Convegno Congiunto delle sezioni Calabria e Sicilia (SCI, Arcavacata di Rende (Cs), 6-7 dicembre 2012, O03

## RICONOSCIMENTI

**R1-** M.D. Grillone

*Chemistry of  $\mu$ -Hydridobis pentacarbonylchromium(0) Species. Part III*

*Redox Reactions with Mercury(II) Compounds and Iodine*

Transition Met. Chem. 6 (1981) pp. 93-96

(vedi Acknowledgement)

**R2-** W.H. Slabaugh and T.D. Parsons

*Chimica Generale con elementi di sistematica inorganica e organica*

Edizione italiana a cura di F. Pepe e M. Schiavello, Editoriale Grasso,

Bologna 1986

(vedi Acknowledgement nella "Prefazione" all'edizione italiana)

**R3-** *Photocatalysis and Environment. Trends and Application"*

M. Schiavello (Ed.), NATO ASI SERIES, Kluwer Academic Publishers,

Dordrecht, The Netherlands 1988

(vedi riconoscimento in "Foreword")

**R4-** *"Photochemical Conversion and Storage of Solar Energy"*

E. Pelizzetti and M. Schiavello (Eds), Kluwer Academic Publishers,

Dordrecht, The Netherlands 1990

(vedi riconoscimento in "Foreword")

**R5-** Ralph W. Matthews

*Environment: Photochemical and Photocatalytic Processes. Degradation*

*of Organic Compounds,*

in E. Pelizzetti and M. Schiavello (Eds.), Kluwer Academic Publishers,

Dordrecht, The Netherlands 1990 pp. 427-443

(vedi Acknowledgements)

**R6-** Ralph W. Matthews

*Photooxidative Degradation of Coloured Organics in Water Using Supported Catalysts. TiO<sub>2</sub> on Sand*

Wat. Res. 25 (1991) pp. 1169-1176

(vedi Acknowledgements)

**R7-** Giovanni M. Mura, Maria L. Ganadu, Paolo Lombardi, Giuseppe Lubino, Mario Branca, Valeria Maida

*A Preliminary Comparison Between Hydrogenase and Oxygen as Electron Acceptors in Irradiated Aqueous Dispersion of Titanium Dioxide*

J. Photochem. Photob. A: Chem., 148 (2002) pp. 199-204

(vedi Acknowledgements)

## **ATTIVITA' SCIENTIFICHE**

Vedi Curriculum

## **AMBITI DI RICERCA**

Il Prof. Leonardo Palmisano, nato a Termini Imerese (PA) il 13/4/1950, il 5/12/1973 ha conseguito la laurea in Chimica con voti 110/110 e la lode discutendo la tesi sperimentale: "Derivati pseudoalogenidrici di organo-stagno(IV) e di organo-piombo(IV)". Subito dopo ha svolto le esercitazioni del corso di "Analisi Chimica Qualitativa" per l'anno accademico 1973-1974, presso l'Istituto di Chimica Generale ed Inorganica dell'Università di Palermo.

Dal 23/4/1974 al 16/7/1975 ha ottemperato agli obblighi di leva come ufficiale di complemento.

Nell'anno accademico 1975-1976 ha svolto le esercitazioni del corso di "Chimica 2 (Organica)" presso l'Istituto di Ingegneria Chimica dell'Università di Palermo.

Nel 1976 è risultato vincitore di una delle borse di studio annuali messe a concorso dal Consiglio Nazionale delle Ricerche nel campo delle discipline afferenti al Comitato Nazionale per le Scienze Chimiche; borsa da usufruirsi presso l'Istituto di

Ingegneria Chimica dell'Università di Palermo a decorrere dal 1/5/1976. La suddetta borsa gli viene confermata per l'anno successivo (fino al 30/4/1978), ed ulteriormente riconfermata fino al 30/4/1979.

Dall'anno accademico 1977-1978 all'anno accademico 1982-1983 ha svolto presso la Facoltà di Ingegneria dell'Università di Palermo, le esercitazioni del corso di "Applicazioni di Chimica e Chimica Analitica".

Nell'anno 1979 gli è stata attribuita la qualifica di studioso per l'insegnamento di Chimica, giudizio espresso dalla Facoltà di Ingegneria dell'Università di Palermo per un concorso nell'anno accademico 1979-1980.

A seguito del DPR 382 dell'11/7/1980 ha partecipato alla prima tornata dei giudizi di idoneità a ricercatore nel raggruppamento di discipline n.105 (Chimica per ingegneria) risultando idoneo.

Dal 1/1/1982 al 31/10/1992 ha prestato servizio in qualità di ricercatore confermato presso il Dipartimento di Ingegneria Chimica dei Processi e dei Materiali dell'Università di Palermo (già Istituto di Ingegneria Chimica).

Nell'anno accademico 1982-1983 ha svolto le esercitazioni e cicli di lezioni nell'ambito del corso di "Chimica" per allievi ingegneri aeronautici, chimici, meccanici e nucleari. Dall'anno accademico 1983-1984 all'anno accademico 1990-1991 ha svolto le esercitazioni e cicli di lezioni nell'ambito del corso di Chimica già citato e del corso di "Chimica" per allievi elettronici ed elettrotecnici (lettere N-Z)".

Dall'anno accademico 1982-1983 ha partecipato, come membro di commissione agli esami di profitto delle seguenti materie: 1) Applicazioni di Chimica e Chimica Analitica, 2) Reattori Chimici; 3) Principi di Ingegneria Chimica I; ha partecipato inoltre come membro di commissione o presidente di commissione agli esami di profitto di: 1) Chimica (per allievi ingegneri). E' stato inoltre relatore o correlatore di numerose tesi di Laurea in Ingegneria Chimica.

Dal 20/5/1984 al 2/6/1984 ha partecipato in qualità di attendant al "NATO Advanced Study Institute on Fundamentals and Developments of Photocatalytic and Photoelectrochemical Processes" svoltosi ad Erice (TP) e dal 26/5/1985 al 5/6/1985 alla "Scuola Nazionale di Chimica Fisica delle Superfici" svoltasi a Pracatinat, Fenestrelle (TO).

Dal 1/3/1986 al 31/8/1986 ha lavorato come ricercatore presso la School of Studies in Chemistry and Chemical Technology dell'Università di Bradford (UK) in collaborazione con il Dr. R.I. Bickley usufruendo di una borsa di studio CNR-NATO (bando n. 215.18/03 del 24/9/1984) e ottenendo il premio finale previsto dal bando. La collaborazione con il Dr. R.I. Bickley è continuata in modo informale negli anni successivi e dal 1/9/1991 fino al 31/8/1994 è stato finanziato dal British Council e dal Ministero dell'Università e della ricerca scientifica e tecnologica un progetto di ricerca bilaterale italo-inglese dal titolo "Preparazione, caratterizzazione e reattività di fotocatalizzatori efficienti per la degradazione di sostanze inquinanti nell'aria e nell'acqua". I responsabili nazionali sono stati il Prof. Leonardo Palmisano e il Dr. R.I. Bickley.

Dal 6/9/1987 al 18/9/1987 ha partecipato in qualità di lecturer al "NATO ASI DJ" intitolato "New Trends and Applications of Photocatalysis and Photoelectrochemistry for Environment Problems" svoltosi a Cefalù (PA), collaborando anche alla sua organizzazione.

Dal 1987 è socio della Società Chimica Italiana, (divisioni di Chimica Fisica, Chimica Inorganica e Chimica Industriale) e dal 2007 è "fellow" della Royal Society of Chemistry (FRSC) e membro dell'American Chemical Society e membro dell'American Chemical Society..

Dal 1995 è membro del Consorzio Nazionale "Chimica per l'Ambiente" con sede a Venezia. Dall'anno 2009 fa parte del Direttivo come rappresentante dell'Università degli studi di Palermo ed è stato eletto come membro della Giunta.

Durante l'anno accademico 1988-1989 ha collaborato, svolgendo lezioni di "Elementi di Chimica", ad un corso di formazione professionale per diplomati, nell'ambito di una convenzione stipulata tra il Dipartimento di Ingegneria Chimica dei Processi e dei Materiali dell'Università di Palermo e l'Enichem.

Nell'anno 1990 ha collaborato, come membro del Comitato Organizzatore, all'organizzazione dei "Giochi della Chimica 1990". Ha collaborato anche, come membro del "National Organizing Committee", all'organizzazione dell'"Eighth International Conference on Photochemical Conversion and Storage of Solar Energy" (I.P.S. 8) che si è svolta a Palermo dal 15 al 20 Luglio 1990.

Negli anni accademici 1991-1992 e 1992-1993 il Consiglio della Facoltà di Ingegneria dell'Università di Palermo gli ha attribuito la supplenza del corso di Chimica per allievi ingegneri elettrici, nucleari, civili (lettere P-Z) ed edili (lettere P-Z).

Nell'A.A. 1992-1993 (dal 1° Novembre 1992), essendo risultato vincitore del concorso a posti di professore universitario di ruolo di IIa fascia bandito con D.M. 28/7/1990 per il raggruppamento C060 Chimica, è stato titolare di un corso di Chimica per allievi ingegneri civili e ambientali presso la Facoltà di Ingegneria dell'Università della Calabria.

Dall'A.A. 1993-1994 (dal 1° Novembre 1993) è stato trasferito presso la Facoltà di Ingegneria dell'Università di Palermo, dove è stato titolare di un corso di Chimica (raggruppamento C060) per allievi ingegneri ed ha avuto attribuita la supplenza di un secondo corso di Chimica dall'A.A. 1994-1995.

Dall'A.A. 2000-2001 (dal 1° Novembre 2000) è stato professore straordinario di Chimica (raggruppamento CHIM/07) presso la Facoltà di Ingegneria dell'Università di Palermo dove è stato chiamato essendo stato giudicato idoneo in un concorso bandito presso l'Università di Pavia.

Dal 1° Agosto 2001 al 2 Ottobre 2001 è stato "Visiting Professor" presso il "Catalysis Research Center", Hokkaido University, Sapporo (Giappone).

Dal 1° Novembre 2003 è professore ordinario di Chimica (raggruppamento CHIM/07) presso la Facoltà di Ingegneria dell'Università di Palermo.

E' inoltre vice-coordinatore del Dottorato di Ricerca in "Tecnologie per la sostenibilità e il risanamento ambientale", Sede Amministrativa: Palermo.

E' stato ed è attualmente responsabile o collaboratore di ricerche finanziate in ambito nazionale (60 e 40%) ed Europeo (ECSC Project 7220-ED/052).

Ha collaborato in qualità di membro del "National Scientific Committee" e di "Chairman" all'organizzazione del "1st World Congress on Environment Catalysis" che si è svolto a Pisa dal 1° al 5 Maggio 1995. E' stato Chairman della 5th European Conference on "Solar Chemistry & Photocatalysis: Environmental Applications" svoltosi a Palermo dal 4 all'8 ottobre 2008. E' stato co-chairman del congresso internazionale FIGIPAS tenuto a Palermo dall'1 al 4 Luglio del 2008.

Nel 1998 è stato membro dello "Technical Advisory Committee" dell'European Workshop on Waters and Air Treatment by Advanced Oxidation Technologies and Commercial Applications".

E' attualmente coinvolto (iniziativa IUPAC), insieme ad altri esperti, in un gruppo di lavoro che si sta occupando della

preparazione di un "Glossario" sulla terminologia da usare in Fotocatalisi e nella Chimica delle radiazioni.

Ha presentato oralmente durante vari congressi nazionali ed internazionali i risultati di ricerche in cui è coinvolto ed è stato invitato a tenere delle conferenze presso le Università di Bradford, Berlino, Madrid, Osaka, Salamanca, Sapporo, Tokyo.

E' stato il responsabile italiano di un progetto triennale (1997-1999) di ricerca finanziato dal governo giapponese il cui coordinatore era il Prof. Bunsho Ohtani dell'Università di Sapporo. Il titolo del progetto era "Design and Development of Hyper Active Photocatalyst".

E' stato, inoltre il responsabile italiano di molti progetti bilaterali con Spagna, India, Egitto.

E' rappresentante italiano (designazione Ministeriale del 24 Ottobre 2005), insieme al Prof. Claudio Minero dell'Università di Torino, nella "Management Committee" del "COST Action 540 PHONASUM (Photocatalytic Technologies and Novel Nanosurfaces). Il Prof. Palmisano è stato Chairman, co-chairman o membro delle commissioni scientifiche internazionali di molti congressi. Nell'Ottobre 2008 (4-8) ha organizzato come Chairman la conferenza internazionale SPEA 5 (European Conference on Solar Chemistry & Photocatalysis: Environmental Applications) a Palermo.

E' inoltre tra i "referees" della casa editrice "Wiley Interscience" e delle seguenti riviste internazionali:

- 1) Phys. Chemistry-Chem. Physics. A Journal of the European Chemical Societies (già J. Chem. Soc. Faraday Trans)
- 2) J. Materials Chemistry
- 3) J. Catalysis
- 4) J. Am. Chem Soc.
- 5) J. Phys. Chem.
- 6) Mat. Chem. Phys.
- 7) J. Can. Chem. Engin.
- 8) Appl. Catal. A
- 9) Appl. Catal. B
- 10) Res. Chem. Intermediat.
- 11) J. Electrochem. Society
- 12) Langmuir
- 13) Inorganic Chemistry
- 14) Chem. Commum.
- 15) Solar Energy
- 16) Catalysis Today
- 17) Topics in Catalysis
- 18) J. Photochem. Photobiol. A: Chemistry
- 19) J. Membrane Science
- 20) Int. J. Photoenergy (membro dell'Advisory Board)
- 21) Current Organic Chemistry (membro dell'Advisory Board),  
ecc. ecc.

E' stato il responsabile dell'organizzazione di un Corso di specializzazione per neolaureati, dottorandi e giovani ricercatori dal titolo: "Trattamenti innovativi delle acque" (30/8/1999-4/9/1999) sponsorizzato dal Consorzio "Chimica per l'Ambiente" e dal Centro Studi e Ricerche "Francesco Cupane" del Comune di Mirto (ME).

E' stato editore e coautore di un capitolo del libro "Processi e metodologie per il trattamento delle acque", casa editrice Spiegel, Milano ed è coautore di due testi didattici di Chimica: M. Schiavello, L. Palmisano, Fondamenti di Chimica, Edises, Napoli e L. Palmisano, M. Schiavello, Elementi di Chimica, Edises, Napoli. Il libro "Fondamenti di Chimica è stato tradotto in lingua spagnola e pubblicato dalla casa editrice Ariel

#### RIASSUNTO DELL'ATTIVITA' SCIENTIFICA DEL PROF. LEONARDO PALMISANO

Ha collaborato con molti colleghi italiani e stranieri pubblicando più di 200 lavori scientifici su riviste internazionali e circa 40 capitoli su libri scientifici. Ha partecipato, inoltre a più di 300 congressi nazionali ed internazionali pubblicando negli atti memorie estese o brevi riassunti dei lavori presentati.

#### **Citazioni su SCOPUS ad agosto 2015: 9900; h index: 52.**

L'attività scientifica del candidato si è svolta e si svolge in quattro campi diversi.

I) L'attività iniziale si è svolta nel campo delle sintesi elettrochimiche organiche.

In questo campo lo studio è stato rivolto in direzione della messa a punto di sintesi di potenziale interesse industriale, ed in particolare della riduzione elettrochimica dell'ossido di carbonio ad anione squarato (C<sub>4</sub>O<sub>4</sub><sup>2-</sup>), che potrebbe essere un potenziale utile monomero nella sintesi di alcuni tipi di polimeri poliammidici.

II) Un altro campo di interesse ha riguardato lo studio di processi di cinetica di diffusione allo stato solido.

In particolare è stato studiato il fenomeno della diffusione dello zinco nel rame, utilizzando una tecnica sperimentale elettrochimica.

III) Un terzo campo di interesse è stato quello riguardante la sintesi chimica di particolari complessi carbonilici.

Lo scopo, in questo campo, è stato quello di preparare e caratterizzare mediante spettroscopia IR una serie di composti potenziali catalizzatori in fase omogenea.

IV) L'attività scientifica di maggiore interesse in cui si è orientata preponderantemente l'attività di ricerca del candidato è quella riguardante la fotocatalisi eterogenea.

Gli obiettivi principali di tale ricerca sono stati e continuano ad essere tuttora:

IVa) l'ottenimento in condizioni blande di prodotti "nobili", come ad es. l'ammoniaca, da azoto e vapore d'acqua;

IVb) la fotodegradazione o la foto-ossidazione parziale di molecole organiche inquinanti come ad esempio l'acido etanoico, l'etanolo ed il toluene in regime gas-solido;

IVc) la fotodegradazione di molecole organiche inquinanti come ad esempio il fenolo, i tre isomeri del nitrofenolo, il pesticida "Monuron" (3-(4-clorofenil)-1-1-dimetilurea), l'anilina e alcuni suoi derivati in regime gas-liquido-solido (dispersioni acquose saturate con ossigeno);

IVd) la foto-ossidazione di cianuri liberi e complessati in regime gas-liquido-solido (dispersioni acquose saturate con ossigeno);

IVe) la fotoreduzione di CO<sub>2</sub> in presenza di vapor d'acqua a metanolo e formaldeide in presenza di TiO<sub>2</sub> o di TiO<sub>2</sub> drogato con rame in regime gas-solido;

IVf) la messa a punto di un metodo di misurazione dei fotoni assorbiti e riflessi durante un processo fotocatalitico condotto in sistemi eterogenei gas-liquido-solido e la definizione e la scelta di alcune grandezze essenziali per il confronto dell'attività fotocatalitica di diversi sistemi;

IVg) L'ottenimento di composti di interesse industriale in condizioni di ossidazione blanda mediante sintesi fotocatalitiche selettive, ad esempio da alcoli ad aldeidi.