

CURRICULUM VITAE

- Laurea in Chimica conseguita presso la Facoltà di Scienze MFN di Torino il 14 luglio 1994. Titolo della tesi: "Attivazione fotocatalitica di piccole molecole. Ossidazione di composti organici e riduzione del biossido di carbonio".
- Esame di stato per l'abilitazione alla professione di Chimico superato nella sessione invernale 1994/95.
- Titolo di Dottore di ricerca in Scienze Chimiche conseguito presso il Dipartimento di Chimica Analitica nell'anno 1998. Titolo della tesi di dottorato: "Trasformazioni fotoindotte di composti a basso peso molecolare di rilevanza nell'inquinamento atmosferico".
- Stage effettuato presso la Concordia University di Montreal nel periodo febbraio 1997-giugno 1997.
- Contratto a tempo determinato sul programma di ricerca "Messa a punto di metodologie degradative di carbonio organico finalizzate alla misura del carbonio organico totale" svolto presso il Dipartimento di Chimica Analitica dal 1/4/98 al 16/01/99.
- Ricercatrice presso il Dipartimento di Chimica Analitica dell'Università degli Studi di Torino dal 16/02/1999

Interessi

- Studio di processi degradativi riduttivi di composti organici di interesse ambientale
- Effetto della presenza di ioni inorganici sulla superficie del biossido di titanio
- Identificazione di prodotti di trasformazione di contaminanti emergenti nelle acque naturali mediante spettrometria di massa (GC/MS ed LC/MS).
- Studio di processi di foto-trasformazione mediati ioni inorganici ed acidi umici in acqua marina.

Pubblicazioni su riviste internazionali

- C. Minero, P. Piccinini, P. Calza, E. Pelizzetti, "Photocatalytic reduction/oxidation Processes Occurring at the Carbon and Nitrogen of Tetranitromethane", *New J. Chem.*, 1996, 20, 1159-1164
- P. Calza, C. Minero, E. Pelizzetti, "Photocatalytically Assisted Hydrolysis of Chlorinated Methanes under Anaerobic Conditions", *Environ. Sci. Technol.*, 1997, 31, 2198-2203
- C. Minero, V. Maurino, P. Calza, E. Pelizzetti, "Photocatalytic Formation of Tetrachloromethane from Chloroform and Chloride Ions", *New J. Chem.*, 1997, 21, 841-842
- V. Maurino, P. Calza, C. Minero, M. Vincenti, E. Pelizzetti, "Light-Assisted 1,4-Dioxane Degradation", *Chemosphere*, 1997, 35(11), 2675-2688
- P. Calza, C. Minero, E. Pelizzetti, "Photocatalytic Transformations of Chlorinated Methanes in the Presence of Electron and Hole Scavengers", *Faraday Trans.*, 1997, 93(21), 3765-3771
- N. Serpone, P. Calza, A. Salinaro, L. Cai, A. Emeline, H. Hidaka, S. Horikoshi, E. Pelizzetti, "What becomes of Nitrogen in the Photoelectrochemical and Photocatalyzed Mineralization of N-Containing Substances at Titania/Water Interfaces?", *Proc. Electrochem. Soc.*, 1997
- P. Calza, C. Minero, A. Hiskia, E. Papaconstantinou, E. Pelizzetti, "Photolytic and Photocatalytic Decomposition of Bromomethanes in Irradiated Aqueous Solutions", *Appl. Catal. B: Environ.*, 21, 1999, 191-202
- E. Androulaki, A. Hiskia, D. Dimotikali, C. Minero, P. Calza, E. Pelizzetti, E. Papaconstantinou, "Light Induced Elimination of Mono- and Polychlorinated Phenols from Aqueous Solutions by $PW_{12}O_{40}^{3-}$. The Case of 2,4,6-Trichlorophenol", *Environ. Sci. Technol.*, 2000, 34, 2024-2028
- P. Calza, C. Minero, A. Hiskia, E. Papaconstantinou, E. Pelizzetti "Photocatalytic transformations of CCl_3Br , CBr_3F , $CHCl_2Br$ and CH_2BrCl in aerobic and anaerobic conditions", *Appl. Catal. B: Environ.*, 29, 2001, 23-34
- P. Calza, C. Pazè, E. Pelizzetti, A. Zecchina "Shape-selective photocatalytic transformation of phenols in an aqueous medium", *Chem. Comm*, 2001, 20, 2130-2131
- P. Calza, E. Pelizzetti, M. Brussino, C. Baiocchi "Ion Trap tandem mass spectrometry study of dexamethasone transformation products on light activated TiO_2 surface", *J. Am. Soc. Mass Spectrom.*, 2001, 12/12, 1286-1295
- P. Calza, E. Pelizzetti, "Photocatalytic transformation of organic compounds in the presence of inorganic ions", *Pure Appl. Chem.*, 2001, 73(12), 1839-1848
- P. Calza, S. Baudino, R. Aigotti, C. Baiocchi, E. Pelizzetti, P. Branca, "High-performance liquid chromatographic/tandem mass spectrometric identification of the phototransformation products of tebuconazole on titanium dioxide", *J. Mass Spectrom.*, 2002, 37, 566-576
- P. Calza, S. Baudino, R. Aigotti, C. Baiocchi, E. Pelizzetti, "Ion trap tandem mass spectrometric identification of thiabendazole phototransformation products on titanium dioxide", *J. Chromat. A*, 2003, 984 (1), 59-66
- F.X.L.I. Xamena, P. Calza, C. Lamberti, C. Prestipino, A. Damin, S. Bordiga, E. Pelizzetti, A. Zecchina, "Enhancement of the ETS-10 titanosilicate activity in the shape-selective photocatalytic degradation of large aromatic molecules by controlled defect production", *J. Am. Chem. Soc.*, 2003, 125 (8), 2264-2271
- P. Calza, E. Pelizzetti, "Reactivity of chloromethanes with photogenerated hydrated electrons", *J. Photochem. Photobiol. A: Chem.*, 2004, 162/2-3, 609-613
- P. Calza, C. Medana, M. Pazzi, C. Baiocchi, E. Pelizzetti, "The photocatalytic process as a tool to identify metabolic products formed from dopant substances: the case of buspirone" *J. Pharmac. Biomed. Anal.*, 2004, 35/1, 9-19

- E. Pelizzetti, P. Calza, G. Mariella, V. Maurino, C. Minero, H. Hidaka, “*Different photocatalytic fate of amido nitrogen in formamide and urea*”, Chem. Comm., 2004, 13, 1504-1505
- P. Calza, C. Medana, C. Baiocchi, E. Pelizzetti, “*Photocatalytic transformations of aminopyrimidines on TiO₂ in aqueous solution*” Appl. Catal. B: Environ., 2004, 52, 267-274
- P. Calza, C. Medana, M. Pazzi, C. Baiocchi, E. Pelizzetti, “*Photocatalytic transformation of sulphonamides on titanium dioxide*”, Appl. Catal. B: Environ., 2004, 53 (1), 63-69
- P. Calza, C. Medana, C. Baiocchi, P. Branca, E. Pelizzetti, “*Characterization by high performance liquid chromatography/multiple mass spectrometry of intermediate compounds formed from mepanipyrin photoinduced degradation*”, J. Chromat. A, 2004, 1049, 115-125
- P. Calza, V. Maurino, E. Pelizzetti, “*Reductive transformations of halophenols on illuminated ferrocyanide ions*”, J. Photochem. Photobiol. A: Chem., 2004, 168/3, 169-174
- P. Calza, V. Maurino, C. Minero, E. Pelizzetti, M. Segà, M. Vincenti, “*Photoinduced Halophenols Formation in the Presence of Iron(III) Species or Cadmium Sulfide*”, J. Photochem. Photobiol. A: Chem., 2005, 170/1, 61-67
- H. Hidaka, Y. Mitsutsuka, P. Calza, E. Pelizzetti, “*Bond cleavage of nitrogen-bearing organics with "Molecular Scissors" of titania for aquatic remediation*”, Materials Science Forum, 2005, 486-487, 45-48
- C. Medana, P. Calza, C. Baiocchi, E. Pelizzetti, “*Liquid chromatography tandem mass spectrometry as tool to investigate pesticides and their degradation products*” Curr. Org. Chem., 2005, 9 (9), 859-873
- P. Calza, E. Pelizzetti, C. Minero “*The fate of organic nitrogen in photocatalysis: an overview*”, J. Appl. Electrochem., 2005, 35, 665-673
- D. Vione, V. Maurino, C. Minero, P. Calza, E. Pelizzetti, “*Phenol chlorination and photochlorination in the presence of chloride ions in homogeneous aqueous solution*”, Environ. Sci. Technol., 2005, 39(13), 5066-5075
- P. Calza, C. Medana, C. Baiocchi, E. Pelizzetti, “*Identification of degradation products by adopting GC or HPLC/MS techniques*”, Curr. Anal. Chem., 2005, 1, 267-287
- P. Calza, C. Medana, C. Baiocchi, H. Hidaka, E. Pelizzetti, “*Light-induced transformation of alkylurea derivatives in aqueous TiO₂ dispersion*”, Chem.: A European Journal, 2006, 12, 727-736
- P. Calza, C. Medana, C. Baiocchi, E. Pelizzetti, “*Light Induced Transformations of Fungicides on Titanium Dioxide: Pathways and By-products Evaluation using the LC-MS Technique*”, Int. J. Environ. Anal. Chem., 2006, 86 (3-4), 265-275
- P. Calza, C. Medana, C. Baiocchi, E. Pelizzetti, “*Photo-induced Transformation of Methylguanidine Derivatives on Titanium Dioxide*”, Appl. Catal. B: Environ., 2006, 63, 124-130
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- P. Calza, V.A. Sakkas, C. Medana, C. Baiocchi, A. Dimou, E. Pelizzetti, T. Albanis, “*Photocatalytic degradation study of diclofenac over aqueous TiO₂ suspensions*”, Appl. Catal. B: Environ., 2006, 67, 197-205
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- P. Calza, C. Massolino, G. Monaco, C. Medana, C. Baiocchi, “*Study of the photolytic and photocatalytic transformation of amiloride in water*”, J. Pharmac. Biomed. Anal., 2008, 48, 315-320
- P. Calza, C. Massolino, E. Pelizzetti, “*Light Induced Transformations of Selected Organophosphorus Pesticides on Titanium Dioxide: Pathways and By-products Evaluation using LC-MS Technique*” in stampa su J. Photochem. Photobiol A: Chem., 2008, 199, 42-49
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- P. Calza, C. Massolino, E. Pelizzetti, *Photo-induced transformation of hexaconazole and dimethomorph over TiO₂ suspension*, J. Photochem. Photobiol A: Chem, **2008, 200, 356**
- V.A. Sakkas, P. Calza, M. Azharul Islam, C. Medana, C. Baiocchi, K. Panagiotou, T. Albanis, *TiO₂/H₂O₂ mediated photocatalytic transformation of UV filter 4-methylbenzylidene camphor (4-MBC) in aqueous phase: Statistical optimization and photoproduct analysis*, Appl. Catal. B: Environ., 2009, 90, 526–534
- P. Calza, S. Marchisio, C. Medana, C. Baiocchi, *Fate of the Antibacterial Spiramycin in River Waters*, Anal. Bioanal. Chem. in press (doi:10.1007/s00216-009-3318-3)

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- C. Minero, P. Calza, *Il trattamento chimico delle acque naturali e reflue. processi convenzionali*, p. 81-100 in “Processi e metodologie per il trattamento delle acque”, ed. L. Palmisano, Spiegel, Milano, 2000
- E. Pelizzetti, P. Calza, “*Photochemical processes in the euphotic zone of sea water: progress and problems*” p. 83-103 in "Chemistry of marine water and sediments" Gianguzza, Sammartano, Pelizzetti eds., Springer Verlag, 2002

Vanno inoltre aggiunte 49 Comunicazioni a congressi