

# CURRICULUM VITAE

Vito Cristino

## POSITION

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	Dates	March 2016 – Dicember 2016
	Position held	Post Doctoral Fellow
	Activities	<i>Elettrodi per degradazione fotochimica e fotoelettrochimica di inquinanti emergenti basati su semiconduttori ad ampio band gap</i>
Name and address of employer		University of Ferrara, Department of Chemical and Pharmaceutical Sciences, Ferrara Italy
Customer and funder of research		Department of Chemical and Pharmaceutical Sciences
	Dates	September 2015 – Dicember 2015
	Position held	Post Doctoral Fellow
	Activities	<i>Elettrodi per la scissione fotoelettrochimica di H<sub>2</sub>O basati su semiconduttori ad ampio band gap</i>
Name and address of employer		University of Ferrara, Chemistry Department, Ferrara Italy
Customer and funder of research		CFR
	Dates	September 2014 – August 2015
	Position held	Post Doctoral Fellow
	Activities	<i>Sintesi e caratterizzazione di materiali semiconduttori nanostrutturati-Studio dei processi fotofisici inter-componenti su fotoelettrodi funzionalizzati</i>
Name and address of employer		University of Ferrara, Chemistry Department, Ferrara Italy
Customer and funder of research		ISOF-CNR
	Dates	April 2011 – April 2014
	Position held	Post Doctoral Fellow
	Activities	<i>Elettrodi per la scissione fotoelettrochimica di H<sub>2</sub>O basati su ossido tungstico</i>
Name and address of employer		University of Ferrara, Chemistry Department, Ferrara Italy
Customer and funder of research		Istituto Donegani –ENI-

	Dates	January 2008 – March 2011
	Position held	Ph.D Student
	Activities	<i>Attività di ricerca su fotoelettrodi per la scissione elettrochimica di H<sub>2</sub>O basati su ossido tungstico</i>
Name and address of employer		University of Ferrara, Chemistry Department, Ferrara Italy
Customer and funder of research		Istituto Donegani –ENI-
	Dates	September 2010 – Dicember 2010
	Position held	Ph.D Student
	Activities	<i>Coating di impianti dentali e impianti ossei con nanomateriali a base di biossido di titanio e fosfati di calcio e di nanotubi di biossido di titanio</i>
Name and address of employer		University of Ferrara, Chemistry Department, Ferrara Italy
Customer and funder of research		Dental Tech
	Dates	April 2010 – May 2010
	Position held	Teacher for the “Scientific degrees project” by the italian Ministry of Education
	Activities	<i>Corso sperimentale di laboratorio di chimica per gli studenti delle Scuole Superiori</i>
Name and address of employer		University of Ferrara, Chemistry Department, Ferrara Italy
Customer and funder of research		Ministero dell’Istruzione
	Dates	September 2007 – December 2007
	Position held	Graduate Student
	Activities	<i>Studio e sperimentazione di tecniche per la produzione fotoelettrochimica di idrogeno</i>
Name and address of employer		University of Ferrara, Chemistry Department, Ferrara Italy
Customer and funder of research		Istituto Donegani –ENI-

## EDUCATION

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Date and structure	2008 – 2010	University of Ferrara	Ferrara
Title of qualification	<b>Ph.D in Chemical Science</b>		
Curriculum	Photochemistry and Photocatalysis		
Title	“Photoelectrochemical hydrogen production from aqueous solution employing nanostructured semiconductors”		
Vote	Excellent		
Tutor	Prof. Carlo Alberto Bignozzi		
Co-tutor	Dr. Stefano Caramori		
Prize	Best Thesis in Chemical Science		
Date and structure	2000–2007	University of Ferrara	Ferrara
Title of qualification	<b>Master Degree in Chemistry</b>		
Title	“Studio di nanomateriali a base di semiconduttori ad ampio band-gap per la produzione di idrogeno”		
Vote	98/110		
Tutor	Prof. Carlo Alberto Bignozzi		
Co-tutor	Dr. Stefano Caramori		
Date and structure	1995–2000	Istituto Tecnico Industriale	Foggia
Title of qualification	<b>Perito chimico</b>		
Vote	Vote: 86/100		

## WORK EXPERIENCE

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Preparative Chemistry	Organic and Inorganic synthesis. Chemistry of coordination compounds. Production of nanostructured semiconductors by Sol-Gel methods ( $\text{TiO}_2$ , $\text{SnO}_2$ , $\text{ZrO}_2$ , $\text{WO}_3$ , $\text{Fe}_2\text{O}_3$ , $\text{BiVO}_4$ ). Preparation of nanoparticles and quantum-dots for oxygen evolving catalysts. Electrodeposition and anodization of valve metals.
Steady state and time resolved optical spectroscopy	UV-VIS Emission and absorption. Fluorescence spectroscopy
Electrochemical techniques	Potential sweep and potential step techniques Impedance spectroscopy

## ACADEMIC ACTIVITIES

Position	<b>Tutor</b>
Activity	<i>Laboratorio di Chimica Inorganica</i>
	<i>Corso laurea in Chimica</i>
Date	March-May 2017
Position	<b>Correlatore</b>
Activity	<i>Master's degree in Chemistry</i>
Title of Thesis	Proprietà fotoeletrochimiche di giunzioni n-n di $\text{WO}_3\text{-BiVO}_4$ per water splitting
Date	October-Dicember 2016
Position	<b>Tutor</b>
Activity	<i>Laboratorio di Chimica Generale ed Inorganica</i>
	<i>Corso laurea in Chimica</i>
Date	October-Dicember 2016
Position	<b>Tutor</b>
Activity	Scientific degrees project
	<i>Corso sperimentale di laboratorio di Chimica per gli studenti delle Scuole Superiori</i>
Date	April 2016
Position	<b>Tutor</b>
Activity	<i>Laboratorio di Chimica generale ed inorganica</i>
	<i>Corso laurea in Chimica e tecnologie farmaceutiche</i>
Date	October-Dicember 2015
Position	<b>Tutor</b>
Activity	Scientific degrees project
	<i>Corso sperimentale di laboratorio di chimica per gli studenti delle Scuole Superiori</i>
Date	April 2015
Position	Correlatore
Activity	Master's Degree in Chemistry
Title of Thesis	<i>Influenza dei cationi sulle dinamiche di separazione di carica a interfacce di ossido tungstico cristallino</i>
Date	March 2014 - Dicember 2014

Position	<b>Tutor</b>
Activity	<i>Laboratorio di Chimica generale ed inorganica - Corso laurea in Biologia</i>
Date	Second Half 2005
Position	<b>Tutor</b>
Activity	Scientific degrees project <i>Corso sperimentale di laboratorio di chimica per gli studenti delle Scuole Superiori</i>
Date	April 2010 – May 2010

## PUBLICATIONS AND PATENTS

AUTHORS	<b>Stefano Caramori, Vito Cristino, Roberto Argazzi, Laura Meda, and Carlo A. Bignozzi</b>		
TITLE	Photoelectrochemical Behavior of Sensitized TiO <sub>2</sub> Photoanodes in an Aqueous Environment: Application to Hydrogen Production.		
JOURNAL VOLUME	<b>Inorganic Chemistry</b> Vol. 49, No. 7, 3320–3328, 2010	DOI: 10.1021/ic9023037	
AUTHORS	<b>Stefano Caramori, Vito Cristino, Rita Boaretto, Roberto Argazzi, Carlo Alberto Bignozzi and Aldo Di Di Carlo</b>		
TITLE	New components for dye-sensitized solar cells		
JOURNAL VOLUME	<b>International Journal of Photoenergy</b> 2010	DOI:10.1155/2010/458614	
AUTHORS	<b>Laura Meda, Gabriella Tozzola, Alessandra Tacca, Gianluigi Marra, Stefano Caramori, Vito Cristino, Carlo Alberto Bignozzi</b>		
TITLE	Photo-electrochemical properties of nanostructured WO <sub>3</sub> prepared with different organic dispersing agents		
JOURNAL VOLUME	<b>Solar Energy Materials &amp; Solar Cells</b> Vol.94 (2010) 788–796	DOI:10.1016/j.solmat.2009.12.025	
AUTHORS	<b>Stefano Caramori, Vito Cristino, Laura Meda, Roberto Argazzi, Carlo Alberto Bignozzi</b>		
TITLE	Hydrogen Production with Nanostructured and Sensitized Metal Oxides		
JOURNAL VOLUME	<b>Topics in current chemistry</b> Vol. (2011) 303: 39-94	DOI: 10.1007/128_2011_137	
AUTHORS	<b>Vito Cristino, Stefano Caramori, Roberto Argazzi, Laura Meda, Gian Luigi Marra, Carlo Alberto Bignozzi</b>		
TITLE	Efficient Photoelectrochemical Water Splitting by Anodically Grown WO <sub>3</sub> Electrodes		
JOURNAL VOLUME	<b>Langmuir</b> Vol (27) 2011, 7276–7284	DOI: 10.1021/la200595x	
AUTHORS	<b>S. Caramori, V. Cristino, L.Meda, A. Tacca, R. Argazzi, C.A. Bignozzi</b>		
TITLE	Efficient Anodically Grown WO <sub>3</sub> for Photoelectrochemical Water Splitting		
JOURNAL VOLUME	<b>Energy Procedia</b> Vol. 22, 2012, 127–136		

AUTHORS	<b>Alessandra Tacca, Laura Meda, Gianluigi Marra, Alberto Savoini, Stefano Caramori, Vito Cristino, Carlo Alberto Bignozzi, Victoria Gonzalez Pedro, Pablo P. Boix, Sixto Gimenez, and Juan Bisquert</b>
TITLE	Photoanodes Based on Nanostructured WO <sub>3</sub> for WaterSplitting
JOURNAL	<b>Chem Phys Chem</b>
VOLUME	<b>Volume 13, Issue 12, pages 3025–3034, August 27, 2012</b>
AUTHORS	<b>Carlo Alberto Bignozzi, Stefano Caramori, Vito Cristino, Roberto Argazzi, Laura Meda and Alessandra Tacca</b>
TITLE	Nanostructured photoelectrodes based on WO <sub>3</sub> : applications to photooxidation of aqueous electrolytes
JOURNAL	<b>Chemical Society Reviews</b>
VOLUME	Vol 42, 2228-2246 2013 DOI: 10.1039/c2cs35373c
AUTHORS	<b>Vito Cristino, Serena Berardi, Stefano Caramori, Roberto Argazzi, Stefano Carli, Laura Meda, Alessandra Tacca and Carlo Alberto Bignozzi</b>
TITLE	Efficient solar water oxidation using photovoltaic devices functionalized with earth-abundant oxygen evolving catalysts
JOURNAL	<b>Phys. Chem. Chem. Phys.</b>
VOLUME	Vol. 15, 13083 2013 DOI: 10.1039/c3cp52237g
AUTHORS	<b>Nicola Dalle Carbonare, Dr. Vito Cristino, Dr. Serena Berardi, Dr. Stefano Carli, Dr. Roberto Argazzi, Dr. Stefano Caramori, Dr. Laura Meda, Dr. Alessandra Tacca and Prof. Carlo Alberto Bignozzi</b>
TITLE	Hematite Photoanodes Modified with an Fe <sup>III</sup> Water Oxidation catalyst
JOURNAL	<b>Chem Phys Chem</b>
VOLUME	Volume 15, Issue 6, pages 1164–1174, 2014 DOI: 10.1002/cphc.201301143
AUTHORS	<b>Federico Ronconi, Zois Syrgiannis, Aurelio Bonasera, Maurizio Prato, Roberto Argazzi, Stefano Caramori, Vito Cristino, and Carlo Alberto Bignozzi</b>
TITLE	Modification of Nanocrystalline WO <sub>3</sub> with a Dicationic Perylene Bisimide: Applications to Molecular Level Solar Water Splitting
JOURNAL	<b>J. Am. Chem. Soc.</b>
VOLUME	Volume 137, Issue 14, pages 4630–4633, 2015 DOI: 10.1021/jacs.5b01519
AUTHORS	<b>Vito Cristino, Sabrina Marinello, Alessandra Molinari, Stefano Caramori, Stefano Carli, Rita Boaretto, Roberto Argazzi, Laura Meda, and Carlo Alberto Bignozzi</b>
TITLE	Some Aspects of the Charge Transfer Dynamics in Nanostructured WO <sub>3</sub> Films
JOURNAL	<b>Journal of Materials Chemistry A</b>
VOLUME	<b>2016, Advance Article</b> DOI: 10.1039/C5TA06887H
AUTHORS	<b>Gelsomina Longobucco, Luisa Pasti, Alessandra Molinari, Nicola Marchetti, Stefano Caramori , Vito Cristino, Rita Boaretto, Carlo Alberto Bignozzi</b>
TITLE	Photoelectrochemical mineralization of emerging contaminants at porous WO <sub>3</sub> interfaces
JOURNAL	<b>Applied Catalysis B: Environmental</b>
VOLUME	Volume 204 pages: 273-282 DOI: 10.1016/j.apcatb.2016.11.007

AUTHORS	<b>Laura Meda, Alessandra Tacca, Carlo Alberto Bignozzi, Stefano Caramori, Vito Cristino</b>	
TITLE	Modified Tungsten oxide and process for this preparation	
PATENT NUMBER	<b>Patent</b>	WO 2011/012238 A1
AUTHORS	<b>Laura Meda, Alessandra Tacca, Carlo Alberto Bignozzi, Stefano Caramori, Vito Cristino</b>	
TITLE	Cella fotoelettrochimica tandem per la foto-ossidazione di solfuri con produzione di idrogeno	
PATENT NUMBER	<b>Patent</b>	CI/135940
AUTHORS	<b>Vito Cristina, Carlo Alberto Bignozzi, Francesco Carinci, Graziano Cavallet, Gabriele Cavallet, Franco Ferrari</b>	
TITLE	Dental implant with nanostructured surface and process for obtaining it	
PATENT NUMBER	<b>Patent</b>	EP 2 495 356 A1

## STAGE AND CONFERENCE

Name location and date	<b>4° Corso Nazionale di Introduzione alla Fotochimica</b> , Bologna, 3-7 September 2007.
Name location and date	<b>2° International School on Organic Photovoltaics</b> , Ventotene (LT), 22-26 October 2008.
Name location and date Comunication type	<b>XXIII IUPAC Symposium on Photochemistry</b> , Ferrara 11-16 July 2010 <b>Poster</b>
Name location and date Comunication type	<b>10° S.A.Y.C.S</b> , Pesaro 10-20 October 2010 <b>Oral communication</b>
Name location and date Comunication type	<b>X Giornata della Chimica dell'Emilia Romagna</b> , Parma 26 November 2010 <b>Poster</b>
Name location and date Comunication type	<b>E-MRS 2011 Spring Meeting</b> , Nice (France), 9-13 May 2011 <b>Poster</b>
Name location and date	<b>INTERNATIONAL WORKSHOP "TOTAL SCATTERING FOR NANOTECHNOLOGY"</b> To.Sca.Lake Como 25-28 May 2015

*Il sottoscritto acconsente, ai sensi del D.Lgs. 30/06/2003 n.196, al trattamento dei propri dati personali  
 Il sottoscritto acconsente alla pubblicazione del presente curriculum vitae sul sito dell'Università degli Studi di Ferrara*

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