

# CURRICULUM VITAE

## MARIACECILIA PASINI

EUROPEAN FORMAT

### PERSONAL INFORMATION

Name, Surname	Mariacecilia Pasini
Address	Istituto per lo Studio delle Macromolecole (ISMAC)
House number, street name, postcode, city, country	Via Corti15, 20133 Milano Italia
Telephone	<b>+39 0223699361</b>
Fax	<b>+39 02 70636400</b>
E-mail	<b>m.pasini@ismac.cnr.it</b>
Nationality	<b>Italian</b>
Place and Date of birth	<b>Piacenza 12-11-1973</b>

### WORK EXPERIENCE

Current working Position	Permanent position as CNR Researcher since 2001 (Matricola 8924)
Name and address of employer	Istituto per lo Studio delle Macromolecole –ISMAC-
Type of business or sector	Permanent research staff member
Occupation or position held	Researcher
Main activities and responsibilities	Synthesis characterization and study of optoelectronic properties of advanced conjugated organic and Hybrid materials. Laboratory and HSE Responsible

### EDUCATION AND TRAINING

Dates	
1997	Degree in Chemistry 110/110 com laude Università degli Studi di Parma – Parma- Italy
1997-2001	<i>Between 1997 and 2001 she worked in different projects with fellowships in the frameworks of synthesis of organic materials for optoelectronic applications for Università degli Studi di Parma, Istituto Nazionale di Fisica della Materia at the Università of Milano Bicocca(INFM), MASPEC institute now IMEM of CNR Parma and Istituto di Chimica delle Macromolecole CNR Milano where she has currently a permanent position as researcher (since 2001).</i>
2001-2017	<i>Permanent research staff member</i>

### RESEARCH ACTIVITIES

#### Synthesis of the research activity

*My research activity is focused onto Design and synthesis of p and n-type conjugated polymeric materials and molecular compounds for electronics and photonics applications like OLED and OFET and PV.*

*Since 2007 I am responsible of ISMC Laboratory of Development of semiconducting polymers and all the research activity, including the choice of the research line, the proposal of collaborations, and the students research activity have been performed autonomously,*

*My current **fields of interest** as confirmed by the selected publications are as follows*

- Design synthesis and development of water/alcohol soluble conjugated polymers as highly efficient electron transporting/injection layer in optoelectronic devices
- Design and synthesis of p and n-type conjugated polymeric materials and molecular compounds for electronics and photonics applications like OLED and OFET.
- Design synthesis and study of block copolymer ( rod-rod or rod-coil)
- Modulation of electronic properties of smart materials for sensing
- Study of the relationship chemical structure / electronic properties

- Development of antireflection coatings using microlenses based on to self-assembled organic materials.
- Development of luminescent solar concentrators able to convert solar energy in the area of maximum spectral efficiency of the cell.
- Synthesis of organometallic complexes of rare earths basically Eu, Er and Yb metals for emission and telecommunication purposes.
- Synthesis of polyazomethines and polyazines for nanotubes wrapping

## RESEARCH PROJECT

### Coordination of research project

Responsible Research contract RSE s.p.a. "Development of antireflective self-assembled nanocoating (2018-19)  
 Responsible Research contract RSE s.p.a. "Sviluppo di strumentazione elettroottica per celle fotovoltaiche a multi giunzione"  
 PI-ISMAC Milano: KIC RawMaterials –Nol KAVA –"Mineral RAW materials replacement with nanoComposites from renewabLe Resources Ex-ploitation (MiRaCLE)" (2016-2018)..  
<http://eitrawmaterials.eu/project/new-materials-for-substitution-projects/>  
 Responsible Research contract RSE-ENERGY "Development of antireflective self-assembled nanocoating (2014-2015).  
 Main scientific researcher for the ISMAC Research Unit Regione Lombardia Project TIMES (2013-2015)  
 Responsible WP Organic Photovoltaic Accordo Quadro Regione Lombardia-CNR (2013-2015) "Technology and Materials for the Efficient Use of Solar Energy"  
 Responsible Research contract RSE-ENERGY Sviluppo coating nano strutturati con tecniche di self assembly come integratori ottici in Dispositivi (2012-2013) Responsible Research contract REPI s.p.a " Stabilization of UV additives " 2010  
 Main scientific researcher for the ISMAC Research Unit Cariplo Project 2009-2011 "local nanotaylorling"

### Partecipations RESEARCH PROJECTS AND INDUSTRIAL COLLABORATIONS

- Project Regione Lombardia with Sidam per la realizzazione di PFSONDE, piattaforma tecnologica per lo sviluppo di sonde innovative in ambito biomedicale.2017-2019
- Project Accordo Quadro Regione Lombardia CNR " I-ZEB " 2016-2018
- Project FP7–NMP–2009–SMALL-3-246362 Parylens "PARYLENE based artificial smart LENSEs fabricated using a novel solid-on-liquid deposition process"
- Project 2009PRAM8LAQUA-SOL 2012A4Z2RY–MIUR PRIN2012 "Aqueous Processable Polymer Solar Cells: From Materials To Photovoltaic Modules".
- Project della Regione Lombardia IndoLED "LED organici a risparmio energetico per l'illuminazione" 2011-2013.
- Project Cariplo: Electronic DOPed colloidal Nanocrystal Heterostructures for transformational breakthrough in Solid-state lighting (EDONHIST)
- Project Cariplo: Nanostrutture organiche ed ibride per la conversione dell'energia solare (SOLCO) rif. 2010-0528
- POR competitività 2007-2013 Project ATP GREENCOSMETICS
- Europeo Marie Curie NANOMATCH from 2006 to 2010
- Ministeriale FIRB RBNE03R78E\_005 "Nanopack" "Nuovi materiali e film polimerici nanostrutturati a ridotto impatto ambientale, con proprietà di risposta verso agenti chimici e fisici, per il packaging flessibile. Studio di fenomenologia microscopica, modelli e simulazioni, verifiche sperimentali e processi dipolimerizzazione e miscelazione" from 2005 to 2009.
- Project fondazione Cariplo "Polimeri e molecole organiche per tecnologie elettroniche ed optoelettroniche" PROTEO , from 2006 to 2007.
- MIUR FIRB SINERGY" Sintesi di nuovi materiali organici ed architetture supramolecolari per sistemi optoelettronici e fotonici ad elevata efficienza" From 2004 2008
- Europeo RTN EUROFET "Organised molecular films and their use for organic field-effect transistors and related opto-electronic devices" from 2002 to 2006
- Project fondazione Cariplo "Sviluppo di tecnologie a semiconduttori organici per applicazioni optoelettroniche" TESEO from 2004 to 2005,
- Ministeriale FIRB RBNE01P43F\_002 "Nanostrutture molecolari e ibride organiche/inorganiche per fotonica" unità operativa del prof. Pagani, dichiarazione del 6/7/2004, from 2003 to2007,
- Ministeriale FIRB RBNE019H9K "Manipolazione molecolare per macchine nanometriche" con il programma Materiali polimerici per applicazioni in optoelettronica", from 2003 to 2005 .
- Ministeriale MURST-PRIN 2002 "Nuovi emettitori di luce per telecomunicazioni a base di complessi organici di lantanidi" from 2003 to 2006.
- Europeo RTN NANOCHANNEL "Molecules in nanochannels" contratto n. HPRN-CT-2002-0323, 1/9/2002 al 28/2/2006.

-Project Regione Lombardia: FSE 2000/2001 ID Progetto 34484. Azioni integrate di Ricerca e sviluppo tecnologico innovativo di composti polimerici nella realtà produttiva lombarda. 27-01-2003 prot. 19/1.

-Europeo TRM EUROLED "Polymer films evaporated and their use in organic light emitting diodes" from 1997 to 2000 contratto n. ERB-FMRX-CT970106.

-Europeo COST action 518 "Molecular materials and Functional Polymers for Advanced Devices" from 1996 to 2000.

She Was co-responsible of several fellowships ,national and international like NATO and co responsible for the experimental work of several Thesis.

Responsible of master thesis for Università di Milano Bicocca.

**TEACHING and** Supervisor of master thesis and dissertation for UGent University Bruxelles

**DISSEMINATION** Dissemination activity in schools dedicated to young students ( 10-18 years)

Dissemination in society through a wider collaborative dialogue and networking between European and local actors, and strategic partnership between research, schools and industry

She is usually referee for Elsevier, Wiley and ACS journals and for MIUR and ANVUR two Italian research institutions.

**REFeree  
EXPERIENCE**

Editorial team of MAYFEB Journal of Materials Science

<http://mayfeb.com/OJS/index.php/MAT/about/editorialTeam>

Scientific committee: III Scuola Nazionale Sui Materiali Molecolari Per Fotonica Ed Elettronica 20-24/06/2009 Arbatax (Italy);

Congress organizer:VI Convegno Nazionale Materiali Molecolari Avanzati Per Fotonica Ed Elettronica 25-27/06/2009 Arbatax (Italy)

Scientific committee IV School on Advanced Materials for Photonics Electronics and Bioelectronics and XI International school on Hybrid and Organic Photovoltaics, 03-07/09/2017.

Certificate of Appreciation for valuable contribution and dedicated service in the peer review of manuscripts submitted to ACS journals. December 2011.

2012 National Scientific Qualification (ASN)for associate Professor 03/C2-CHIMICA INDUSTRIALE.

2012 National Scientific Qualification (ASN)for associate Professor 03/B2-FONDAMENTI CHIMICI DELLE TECNOLOGIE

**OTHER SCIENTIFIC  
ACTIVITIES AND  
AWARDS:**

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**PUBBLICATIONS**

Last 5 years  
(chronological order)

- Bolis, S., Pasini, M., Virgili, T. (2018) Ultrafast study of inter and intra-chain energy transfer in a core-polymer. *Journal of Polymer Science Part B: Polymer Physics*. DOI: 10.1002/polb.24616
- Giovannella, U., Pasini, M., Lorenzon, M., Galeotti, F., Lucchi, C., Meinardi, F., ... & Brovelli, S. (2018). Efficient solution-processed nanoplatelets-based light emitting diodes with high operational stability in air. *Nano letters*
- Vohra, V., Galeotti, F., Giovannella, U., Mroz, W., Pasini, M., & Botta, C. (2018). Nanostructured light-emitting polymer thin films and devices fabricated by the environment-friendly push-coating technique. *ACS applied materials & interfaces*, 10(14), 11794-11800
- Derenskiy, V., Gomulya, W., Gao, J., Bisri, S. Z., Pasini, M., Loo, Y. L., & Loi, M. A. (2018). Semiconducting SWNTs sorted by polymer wrapping: How pure are they?. *Applied Physics Letters*, 112(7), 072106.
- Carulli, F., Mróz, W., Lassi, E., Sandionigi, C., Squeo, B., Meazza, L., Pasini, M... & Galeotti, F. (2018). Effect of the introduction of an alcohol-soluble conjugated polyelectrolyte as cathode interlayer in solution-processed organic light-emitting diodes and photovoltaic devices. *Chemical Papers*, 1-7.
- Lattante, S., De Giorgi, M. L., Pasini, M., & Anni, M. (2017). Low threshold Amplified Spontaneous Emission properties in deep blue of poly [(9, 9-dioctylfluorene-2, 7-diyil)-alt-p-phenylene] thin films. *Optical Materials*, 72, 765-768.

- Giovannella, U., Cariati, E., Lucenti, E., Pasini, M., Galeotti, F., & Botta, C. (2017). In Situ Electroluminescence Color Tuning by Thermal Deprotonation Suitable for Thermal Sensors and Anti-fraud Labels. *ChemPhysChem*, 18(16), 2157-2161.
- Villafiorita-Monteleone, F., Kozma, E., Pasini, M., Paolino, M., Cappelli, A., Bongiovanni, G., ... & Botta, C. (2017). Polybenzofulvenes-based blends with benzothiadiazole and perylene diimide derivatives emitting from yellow to the deep-red by resonant energy transfer processes. *Applied Physics Letters*, 110(18), 183301.
- Boota, M., Pasini, M., Galeotti, F., Porzio, W., Zhao, M. Q., Halim, J., & Gogotsi, Y. (2017). Interaction of Polar and Nonpolar Polyfluorenes with Layers of Two-Dimensional Titanium Carbide (MXene): Intercalation and Pseudocapacitance. *Chemistry of Materials*, 29(7), 2731-2738.
- Zinna, F., Pasini, M., Galeotti, F., Botta, C., Di Bari, L., & Giovannella, U. (2017). Design of Lanthanide-Based OLEDs with Remarkable Circularly Polarized Electroluminescence. *Advanced Functional Materials*, 27(1).
- Galeotti, F., Trespidi, F., & Pasini, M. (2016). Breath Figure-Assisted Fabrication of Nanostructured Coating on Silicon Surface and Evaluation of Its Antireflection Power. *Journal of Nanomaterials*, 2016.
- Pasini, M., Vercelli, B., Zotti, G., & Berlin, A. (2016). Solid-state Effects in the Cyclovoltammetric HOMO-LUMO Determination: The case of Dinitrophenyl-hydrazone  $\alpha$ ,  $\omega$ -substituted Oligothiophenes. *Electrochimica Acta*, 193, 261-267.
- Kesarkar, S., Mróz, W., Penconi, M., Pasini, M., Destri, S., Cazzaniga, M., ... & Bossi, A. (2016). Near-IR Emitting Iridium (III) Complexes with Heteroaromatic  $\beta$ -Diketonate Ancillary Ligands for Efficient Solution-Processed OLEDs: Structure–Property Correlations. *Angewandte Chemie*, 128(8), 2764-2768.
- Giovannella, U., Pasini, M., & Botta, C. (2016). Organic Light-Emitting Diodes (OLEDs): Working Principles and Device Technology. In *Applied Photochemistry* (pp. 145-196). Springer International Publishing
- Gomulya, W., Derenskiy, V., Kozma, E., Pasini, M., & Loi, M. A. (2015). Polyazines and Polyazomethines with Didodecylthiophene Units for Selective Dispersion of Semiconducting Single-Walled Carbon Nanotubes. *Advanced Functional Materials*, 25(36), 5858-5864.
- Castelli, A., Meinardi, F., Pasini, M., Galeotti, F., Pinchetti, V., Lorenzon, M., ... & Brovelli, S. (2015). High-efficiency all-solution-processed light-emitting diodes based on anisotropic colloidal heterostructures with polar polymer injecting layers. *Nano letters*, 15(8), 5455-5464.
- Vercelli, B., Angella, G., Virgili, T., López, I. S., & Pasini, M. (2015). Photo-Physical Behaviour of CdSe Nanocrystals/Bis (dithiocarbamate) Linker Multilayered Hybrid Systems. *Journal of nanoscience and nanotechnology*, 15(5), 3540-3544.
- Mróz, W., Villafiorita-Monteleone, F., Pasini, M., Grisci, G., Paolino, M., Razzano, V., ... & Botta, C. (2015).  $\pi$ -Stacked polybenzofulvene derivatives as hosts for yellow and red emitting OLEDs. *Materials Letters*, 142, 197-200.
- Trespidi, F., Timò, G., Galeotti, F., & Pasini, M. (2014). PDMS antireflection nano-coating for glass substrates. *Microelectronic Engineering*, 126, 13-18.
- Galeotti, F., Trespidi, F., Timò, G., & Pasini, M. (2014). Broadband and crack-free antireflection coatings by self-assembled moth eye patterns. *ACS applied materials & interfaces*, 6(8), 5827-5834.
- Vercelli, B., Pasini, M., Berlin, A., Casado, J., López Navarrete, J. T., Ortiz, R. P., & Zotti, G. (2014). Phenyl-and Thienyl-Ended Symmetric Azomethines and Azines as Model Compounds for n-Channel Organic Field-Effect Transistors: An Electrochemical and Computational Study. *The Journal of Physical Chemistry C*, 118(8), 3984-3993.
- Cappelli, A., Villafiorita-Monteleone, F., Grisci, G., Paolino, M., Razzano, V., Fabio, G., ... & Pasini, M. (2014). Highly emissive supramolecular assemblies based on  $\pi$ -stacked polybenzofulvene hosts and a benzothiadiazole guest. *Journal of Materials Chemistry C*, 2(37), 7897-7905.

**Autorizzazione al trattamento dei dati personali L. 196 del 30/06/2003**

TRATTAMENTO DEI DATI  
PERSONALI,  
INFORMATIVA  
E  
CONSENSO

Milano 28-05-2018

Firma 

## FABRIZIO FORLINI



### Dati biografici

-Fabrizio Forlini si è laureato in Chimica nel 1982 presso l'Università di Pavia. Lavora presso ISMAC-CNR dal 1987.

Fino al 2013 la sua attività di ricerca si è svolta nel campo dello studio della omo- e copolimerizzazione Ziegler-Natta di  $\alpha$ -olefine concatalizzatori eterogenei ed omogenei (sintesi e caratterizzazione) e dello studio tramite micro-onde di composti biologici (essenzialmente cheratina contenuta nella lana di scarto), allo scopo di ottenere oligomeri che possono essere riutilizzati nella sintesi di nuovi biomateriali. Dal 2014 e al momento attuale la sua attività riguarda i campi della sicurezza, di cui è il referente generale nell'Istituto, e della terza missione (trasferimento tecnologico, diffusione e valorizzazione attraverso il sito web ufficiale dell'ISMAC dei risultati ottenuti relativi alle ricerche ivi svolte).

### Contatto

Mail: [f.forlini@ismac.cnr.it](mailto:f.forlini@ismac.cnr.it);

Tel: 0039 02 236 99 367

Vedile mie pubblicazioni su [www.google scholar.it](http://www.google scholar.it)

## Publications

1) L. Boragno, F. Azzurri, F. Forlini, P. Stagnaro, G.C. Alfonso

The trigonal form of i-PP in random C<sub>3</sub>/C<sub>5</sub>/C<sub>6</sub> terpolymers

*Polymer*, 54, 1656-1662, 2013.

2) M. Zoccola, A. Aluigi, A. Patrucco, C. Vineis, F. Forlini, P. Locatelli, M.C. Sacchi, C. Tonin

Microwave-assisted chemical free hydrolysis of wool keratin

*Textile Research Journal* 82(19), 2006-2018, 2012.

3) S. Losio, F. Forlini, A. C. Boccia, ,

Propene/ 4-methyl-1-pentene copolymers by metallocene based catalysts: first insight in <sup>13</sup>C NMR assignment

*Macromolecules*, 44, 9, 3276-3286, 2011.

4) P. Stagnaro, L. Boragno, M. Canetti, F. Forlini, F. Azzurri, G.C. Alfonso

Crystallization and morphology of the trigonal form in random propene/ 1-Pentene copolymers

*Polymer*, 50, 22, 5242-5249, 2009

5) E. Polo, F. Forlini, V. Bertolasi, A.C. Boccia, M.C. Sacchi.

Self-Immobilizing Precatalysts: Norbornene-Bridged Zirconium *ansa*-Metallocenes

*Advanced Synthesis & Catalysis* 350, 1544-1556, 2008.

## **<b>PERSONAL INFORMATION</b>**

- o Family name, First name: Leone, Giuseppe
- o Researcher unique identifiers: ORCID 0000-0001-6977-2920
- o Google scholar: <https://scholar.google.it/citations?hl=it&user=C5uczvoAAAAJ>
- o Date of birth: 12/01/1979
- o Nationality: Italian

## **<b>EDUCATION</b>**

2007 Master Degree in Project Management and Innovation  
Dep. of Mechanical Engineering and Management/University of Padova/Italy  
2005 Degree in Industrial Chemistry  
Faculty of Science/Dep. of Chemistry/University of Padova/Italy

## **<b>CURRENT POSITION</b>**

2011 - today Permanent Researcher  
CNR – Institute for Study of Macromolecules (ISMAL)/Milano/Italy

## **<b>PREVIOUS POSITIONS</b>**

2009 – 2011 Temporary Researcher  
CNR – Institute for Study of Macromolecules (ISMAL)/Milano/Italy  
2006– 2019 Fellow  
CNR – Institute for Study of Macromolecules (ISMAL)/Milano/Italy  
2004 – 2005 Thesis Master Student  
Dep. of Giulio Natta Research Center/LyondellBasell Industries/Ferrara/Italy

## **<b>SUPERVISION OF GRADUATE STUDENTS, PHD AND POSTDOCTORAL FELLOWS</b>**

- o 1 PhD in Chemical Science: G. Zanchin
- o 1 Master Student in Chemical Science: A. Gavezzoli

## **<b>AWARDS</b>**

2018 Tire Technology International Awards for Innovation and Excellence  
2014 *Eni Innovation Award* of ENIAward2014  
2009 Best Poster Prize sponsored by ELSEVIER SCIENCE at EPF09 - European Polymer Congress - (Graz/Austria).

## **<b>SCIENTIFIC PRODUCTION IN BRIEF</b>**

*Patents* 22 (of which 19 international patents that have already been granted by the United States Patent and Trademark Office – JUSTIA Patents)  
*Reviews* 1 (ISI Journals)  
*Papers* 42 (ISI Journals), which have received about 450 citations  
*H-index* 11 (Scopus), 11 (WOS), 12 (Google Scholar)  
*Books* 7 Chapters as co-author  
*WEB of Science Proceedings* 2  
< *Reviewer activity* I act as referee for the following Peer Reviewed Journals (about 10 papers/year): Advanced Functional Materials; Macromolecules; Solid State Sciences; Journal Applied Polymer Science; Industrial and Engineering Chemistry; Journal of Polymer Science, Part A: Polymer Chemistry; PCCP; RSC Advances; ACS Applied Materials & Interfaces; European Polymer Journal; Journal of Molecular Catalysts, A: Chemical; ChemCatChem; Macromolecular Chemistry & Physics; Reaction Kinetics, Mechanism and Catalysis; Materials Research.

**<b>INVITED CONTRIBUTIONS TO INTERNATIONAL and NATIONAL CONGRESSES</b>**

2018 2th Milan Polymer Days (14-16/02/2018, Milano/Italy) - Branched and block (co)polymers by chain-walking polymerization with late transition metal complexes.

2016 XXII Convegno Nazionale dell'Associazione Italiana di Scienza e Tecnologia delle Macromolecole (AIM) (11-14/09/2016, Genova/Italy)