

## MARIAECILIA PASINI

### Biographical overview

1997 Degree in Chemistry 110/110 cum laude Università degli Studi di Parma Italy  
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, INFN, IMEM-CNR and Istituto di Chimica delle Macromolecole CNR (now SCITEC-CNR) Milano where she has currently a permanent position as researcher (since 2001).

### Main activities

Synthesis characterization and study of optoelectronic properties of advanced conjugated organic and Hybrid materials.  
Laboratory and HSE Responsible  
Project manager  
Supervisor of master and PhD thesis  
Member "Consiglio di Istituto" March 2016-November 2019

### Synthesis of the research activity

I have developed a multidisciplinary competence in polymeric materials science starting from the synthesis of monomers, polymerization methods, chemical characterization and application, and aging studies. Currently 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 or for the development of hybrid smart materials for solar energy conversion and sensing. have a deep interest in to green organic electronics, water soluble conjugated polyelectrolytes, nano and sustainable materials, and smart coatings.

### Current fields of interest

Design and synthesis of p and n-type conjugated polymeric materials (alternated or block copolymers) for organic electronics like OLED and OFET and with high optical gain for photonic application  
Organic Functionalized Carbon Nanostructures for Solar Energy Conversion  
Design and synthesis of molecules and hybrid materials for applications in organic electronics: tailored  $\pi$ -conjugated oligomers with light emitting and charge transport properties to be used as active layer in field effect transistors, light emitting field effect transistors, light emitting diodes, solar concentrators and solar cells  
Development of new semiconducting materials for selective wrapping of semiconducting carbon nanotubes.  
Design synthesis and development of water/alcohol soluble conjugated polymers as highly efficient electron transporting/injection layer in optoelectronic devices;  
Development of sustainable carbon-dots for smart applications  
Development of organic conjugated materials for photonic applications: New lasing materials, Strong coupling or weak coupling regime in organic and hybrid microcavities, Amplified Spontaneous Emission;  
Development of antireflection coatings based on to self-assembled organic materials;  
Development of organic/hybrid materials for 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;  
Substrate functionalization,  
Smart Coatings

### Publications

View my profile on

ResearchGate

ORCID

### Website

<https://www.scitec.cnr.it/personale/corti/mariacecilia-pasini>

### Keywords

conjugated molecules, semiconducting polymers, conjugated polar materials, optoelectronic applications, new lasing materials, OLED, OPV OFET, sensor, Carbon-dots, micro/nanostructured materials, Solar Energy Conversion

24-09-2021