



# Curriculum Vitae

## Personal info

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**BIRTHDAY** 26/10/1990



## Experiences & Personal Profile

- **Research fellow** from March 2018 to October 2018
- **PhD - Chemistry** from November 2018 to October 2021

### **Postdoctoral researcher at CNR - IMM**

Currently engaged in the study of nanostructured materials for energy conversion applications in the group of Dr. Vittorio Morandi at the Institute for Microelectronics and Microsystems of CNR-Bologna. Large part of the activities concerned the synthesis, the functionalization and the optical and structural characterization of the above mentioned materials. In particular, photophysical and structural (made by transmission electron microscopy) characterisation represent the main point of interest. The in-situ TEM activities started in the last year of the PhD represent the final intersection point of the different competences and know-how acquired and activities carried out, and the starting point of new activities and perspectives.

## EDUCATION

### **PHD**

16 JUNE 2022 (TO BE DISCUSSED)

CHEMISTRY

UNIVERSITY OF BOLOGNA

### **MASTER DEGREE (110/110 CUM LAUDE)**

SEP. 2015-DEC. 2017

PHOTOCHEMISTRY AND MOLECULAR MATERIALS

UNIVERSITY OF BOLOGNA

### **BACHELOR DEGREE (102/110)**

SEP. 2009-JUL. 2015

CHEMISTRY

UNIVERSITY OF SALERNO

## SKILLS

### English



### Teamwork



### Problem solving



### Computer skills



### Technical skills



## PUBLICATIONS

- *Hybrid silicon nanocrystals for color-neutral and transparent luminescent solar concentrators*, ACS Photonics **2019**, 6 (9), 2303-2311
- *Au-Decorated Ce-Ti Mixed Oxides for Efficient CO Preferential Photooxidation*, ACS applied materials & interfaces **2020**, 12 (34), 38019-38030
- *Two step synthesis of TiO<sub>2</sub>-Co<sub>3</sub>O<sub>4</sub> composite for efficient oxygen evolution reaction*, International journal of hydrogen energy **2021**, 46 (13), 9110-9122
- *In Situ-Generated Oxide in Sn-Doped Nickel Phosphide Enables Ultrafast Oxygen Evolution* ACS Catalysis **2021**, 11 (8), 4520-4529
- *Nanostructured Co<sub>3</sub>O<sub>4</sub> electrocatalyst for OER: The role of organic polyelectrolytes as soft templates*, Electrochimica Acta **2021**, 398, 139338
- *Reduced graphene oxide-ZnO hybrid composites as photocatalysts: The role of nature of the molecular target in catalytic performance*, Ceramics International, **2021**, 47 (14), 19346-19355
- *Luminescent silicon nanocrystals appended with photoswitchable azobenzene units*, Nanoscale **2021**, 13 (29), 12460-12465
- *Light-harvesting antennae based on copper indium sulfide (CIS) quantum dots*, Nanoscale **2022**, 14 (8), 3013-3019
- *Facile deposition of palladium oxide (PdO) nanoparticles on CoNi<sub>2</sub>S<sub>4</sub> microstructures towards enhanced oxygen evolution reaction*, Nanotechnology **2022**, 33 (27), 275402
- *MgO as promoter for electrocatalytic activities of Co<sub>3</sub>O<sub>4</sub>-MgO composite via abundant oxygen vacancies and Co<sup>2+</sup> ions towards oxygen evolution reaction*, International Journal of Hydrogen Energy **2022**,

## SEMINARS

- *In-Situ TEM: transition from static to dynamic in nanoworld observation* | CNR-IMM Bologna 9 April **2021**
- *In-Situ TEM: transition from static to dynamic in nanoworld observation* | Chemistry Department "G.Ciamician" - Unibo, Bologna 22 April **2021**
- *IMM-3D printing lab: materials and applications*, CNR - IMM, Bologna 17 May **2021**
- *In-Situ TEM: transition from static to dynamic in nanoworld observation* | Webinar: IMM Characterization tools, 12 May **2022**