

Assia Mauro

CONTACT

Via Terracini 24, 40131, Bologna, Italy (Work)
assia.mauro2@unibo.it
assia.mauro99@gmail.com
(+39) 3491113481
<https://www.unibo.it/sitoweb/assia.mauro2>

EDUCATION

01/11/2024 - CURRENT Bologna, Italy

PhD student in Mechanics and Advanced Engineering Sciences

Alma Mater Studiorum - University of Bologna

PhD project: Study of the processes of atmospheric pressure plasma-assisted deposition of thin films and laser-texturing of surfaces for the production of multi-functional materials

Website: <https://phd.unibo.it/dimsai/en> | EQF level 8

09/2021 - 20/03/2024 Bologna, Italy

Master Degree in Energy Engineering

Alma Mater Studiorum - University of Bologna

Website: <https://corsi.unibo.it/2cycle/EnergyEngineering> | Final grade: 110/110 Cum Laude | EQF level 7 | Thesis: Experimental analysis of the Yasuda parameter in atmospheric pressure plasma-assisted deposition of thin films with organic precursor (HMDSO) and oxygen as reactive gas

09/2017 - 20/04/2021 Reggio Emilia, Italy

Bachelor Degree in Mechatronic Engineering

University of Modena and Reggio Emilia

Website: <https://www.dismi.unimore.it/en/education/bachelors-degree-programmes/mechatronics-engineering> | Final grade: 104 | EQF level 6 | Thesis: Experimental characterization of a cellular culture scaffold in the microfluidic field

WORK EXPERIENCE

01/05/2024 - CURRENT Bologna, Italy

Research fellow

CIRI MAM, Alma Mater Studiorum - University of Bologna

"NEWMAT4CEC - Devices for extracorporeal circulation: new smart membranes to prevent neurological complications" project

- Development of surface activation processes by atmospheric plasmas
- Development of thin film deposition processes by atmospheric plasmas
- Characterization of materials modified by plasma treatments

09/2023 - 01/2024 Bologna, Italy

Intern

Alma Mater Studiorum - University of Bologna

Atmospheric pressure plasma polymerization of HMDSO based thin films on PE substrates

- Electrical characterization of a corona jet plasma source
- Chemical characterization of thin films by ATR-FTIR analysis
- Morphological characterization of thin films by means of SEM analysis

09/2020 - 01/2021 Reggio Emilia, Italy

Intern

University of Modena and Reggio Emilia

Fluid-dynamic characterization of a cell culture scaffold

- Experimental data detection and processing

10/2022 – 04/2023 Gela, Italy

Junior energy designer

DAMA GROUP s.r.l.

- Energy diagnosis of residential buildings
- Design for energy efficiency of residential buildings
- BIM modeling

**TEACHING
EXPERIENCE**

16/09/2025 – CURRENT Bologna, Italy

Teaching tutor

Department of Industrial Engineering – University of Bologna

Numerical Methods for Energetics (Graduate Course)

Second cycle degree programme (LM) in Energy Engineering

**SCHOOLS &
CONFERENCES**

23/06/2025 – 27/06/2025 Madrid, Spain

UNA Europa Summer School Innovative Methods in Future Materials, Blended Intensive Programme

Complutense University of Madrid

07/09/2025 – 11/09/2025 Turin, Italy

ESB 2025 – 34th Annual Conference of the European Society for Biomaterials

Presented poster: Atmospheric pressure plasma polymerization (APPP) of poly(ethylene oxide) (PEO)-like di(ethylene glycol) divinyl ether (DEGDVE) based coatings for biomedical materials

**TECHNICAL
SKILLS**

Material characterization:

Fourier Transform Infrared (FTIR) spectroscopy, Scanning Electron Microscopy (SEM), Energy Dispersive X-ray (EDX) Spectroscopy, Optical Microscopy, Water Contact Angle (WCA) measurement, Optical Interferometry

Data processing:

Excel, Matlab

Atmospheric-pressure plasma technology:

PlasmaSpot Flex (Molecular Plasma Group, Luxembourg)

AlmaPLUS (AlmaPlasma, Italy)

Femto-laser technology:

CARBIDE-CB5

**LANGUAGE
SKILLS**

Mother tongue: Italian

Other language:

English

| Listening | Reading | Writing | Speaking |
|-----------|---------|---------|----------|
| B2 | B2 | B2 | B2 |