

Matteo Verdi

Curriculum Vitae

General information

Born 23/04/95 Place of birth Pavullo Nel Frignano (MO) Nationality Italy Address Via Giardini Sud 1599, 41028 Serramazzoni (MO)

Education

2017-current	Master of Physics, Alma Mater Studiorum-Università di Bologna, Bologna, Italy. Curriculum: Material Physics and Nanoscience (MANO) Age at graduation: 24 Official duration: 2 years Final degree mark: 110/110 e lode Graduation date: 25/10/2019
2014–2017	 Bachelor of Physics, Alma Mater Studiorum-Università di Bologna, Bologna, Italy. Age at graduation: 22 Official duration: 3 years Final degree mark: 106/110 Graduation date: 01/12/2017
2009–2014	Technical High School Degree , <i>ITIS Enrico Fermi</i> , Modena, Italy. Chemistry specialization Leaving mark: 100/100

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Master Thesis

Title	Fabrication and characterization of ultra-flexible organometallic lead-
	halide perovskite based X-ray detectors

Supervisor	Beatrice Fraboni	
Description	Fabrication of ultra-flexible perovskite photodiode with solution based technique. Electrical and optical characterization in order to study their performance as X-ray detectors.	
Application	Medical imaging and public security.	
Collaboration 1	SoMaP-Soft Matter Physics, JKU Linz, Autsria	
Collaboration 2	LIOS-Linz Institute of Organic Solar cell, JKU Linz, Autsria	

Bachelor Thesis

Title Caratterizzazione di detector di raggi X basati su perovskiti-Perovskite X-ray detector characterization

Supervisors Beatrice Fraboni

- Description Electrical characterization of different types of devices, photoconductors and solar cells, based on perovskites to assess their X-ray detection capability.
- Application Medical imaging and public security.

Experience

- 2019-current **Intern/Trainee**, Johannes Kepler University JKU, Linz, Austria. Spin-coating technique and metal evaporation for the fabrication of perovskite solar cell. Duration: 4 month
- 2019-current **Intern/Trainee**, Alma Mater Studiorum-Università di Bologna, Bologna, Italy.

Use of a X-ray tube for testing perovskite solar cells as ionizing radiation detectors. Source meter unit and electrometer for electronic characterization of the devices. Nitrogen atmosphere chamber with a PID temperature controller for electronic characterization at low temperature. Use of a photocurent apparatus for studying optical and charge transport properties of the devices.

Duration: 2 month

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2018 **NANO-BIS**, Alma Mater Studiorum-Università di Bologna, Bologna, Italy.

International summer school organized by the University of Bologna and the State University of Saint Petersburg. The lectures cover all the aspects of the nano-world: growth, characterization and the applications.

2018 Workshop, Alma Mater Studiorum-Università di Bologna, Bologna, Italy.

Topic 1:Tailored and tunable properties of nano-materials, introduction and applications-Prof.Horst Hahn

Topic 2:Crystallization of silicon ingots for solar cells: processes, methods and measurements-Prof. Marisa Di Sabatino Lundberg

Other activities:Power Point presentation entitled:"X-ray photocurrent measurement"

2017 Workshop, Alma Mater Studiorum-Università di Bologna, Bologna, Italv.

Topic 1:Organic materials for next-generation radiation detectors-Professor Paul Sellin

Topic 2:Atomically resolved neutron diffraction studies on the nanoscale. New instrumentation for complex structural problems in physics, chemistry and materials science-Dr. Daniel Browon

Other activities: Presentation of a poster entitled :"Data storage: beyond Feynman"

2017 Intern/Trainee, Alma Mater Studiorum-Università di Bologna, Bologna, Italy.

Calibration of a molibdenum X-ray tube used, combined with a suorce meter unit for the characterization of ionizing radiation detectors. Duration: 150 hours

- 2013 Intern/Trainee as Chemist, Policlinico di Modena, Modena, Italy. Chemist at the forensic toxcology laboratory, analysis of blood and tissues by gas chromatography, HPLC and mass spectrometry Duration: 2 weeks
- 2013 Intern/Trainee as Chemist, Vetriceramici, Fiorano Modenese (MO), Italy.

Chemist at the laboratory of the ceramic paint factory for the preparation of glazes.

Duration: 1 month

Languages

Italian Native English B2

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Computer skills

OS Windows Programming C/C++ Measuring LabVIEW

Typography IAT_EX, Word Presentation Power Point Data analysis Origin Lab

Interests

Electronics I'm interested in the world of Arduino and in microcontrollers. Minerology Mineral collection and searching.

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