LUCA SCHIO

PERSONAL INFORMATION

Born in Rome, Italy, August 16, 1990

email schio@iom.cnr.it

Skype luca.schio

RESEARCH EXPERIENCE

Jan 2021–Present **CNR-IOM Postdoctoral Researcher**

CNR-IOM Area Science Park, SS14, Km 163.5, 34149 Basovizza TS

Postdoctoral researcher at the ALOISA Beamline of the Elettra Synchrotron (Trieste) employed in the study of the electronic and structural properties of thin organic and inorganic films on metals and semiconductors.

Jan 2020–Jan 2021 **CNR-IOM Research Fellow**

CNR-IOM Area Science Park, SS14, Km 163.5, 34149 Basovizza TS

Research Fellow at the ALOISA Beamline of the Elettra Synchrotron (Trieste) employed in the study of the electronic and structural properties of thin organic and inorganic films on metals and semiconductors.

2015–2020 **CNR-IOM Associate Member**

CNR-IOM Area Science Park, SS14, Km 163.5, 34149 Basovizza TS

Study of the energetic and dynamical aspects of atomic and molecular species of interest, including radicals and chiral molecules. Attendance in the preparation and implementation of experiments at the GasPhase Photoemission Beamline and Circular Polarization Beamline of the ELETTRA Synchrotron, and LDM beamline at FERMI lightsource, collaborating with international research groups.

2015–Present **ELETTRA Synchrotron Scientific Partner**

ELETTRA Sincrotrone Trieste Area Science Park, SS14, Km 163.5, 34149 Basovizza, TS

Study of the energetic and dynamical aspects of atomic and molecular species of interest, including radicals and chiral molecules. Attendance in the preparation and implementation of experiments at the GasPhase Photoemission Beamline and Circular Polarization Beamline of the ELETTRA Synchrotron, and LDM beamline at FERMI lightsource, collaborating with international research groups.

April 2015 – October 2016 **CNR-IOM Scholarship Fellow (EUROFEL Project)**

CNR-IOM Area Science Park, Trieste

Study of the energetic and dynamical aspects of the interaction of reactive species and free radicals with high-energy radiation. Attendance in the preparation and implementation of experiments at the GasPhase Photoemission Beamline of the ELETTRA Synchrotron, and LDM beamline at FERMI lightsource, collaborating with international research groups.

EDUCATION

2016-2020 **Ph.D in Mathematical Models for Engineering, Electromagnetics and Nanosciences**

Sapienza Universitá di Roma, Piazzale A. Moro, 5, Rome

Ph.D in Mathematical Models for Engineering, Electromagnetics and Nanosciences, curriculum in Material Sciences, at the Department of Basic and Applied Sciences for Engineering. Supervisor: Prof. Stefano Stranges. Dissertation: Studies of molecular photoionization of simple systems by advanced photon sources.

2012-2014 **Master's Degree in Chemistry**

Sapienza Universitá di Roma, Piazzale A. Moro, 5, Rome

Final Grade: 110/110 *with honours*
Dissertation: Studio dell'interazione di molecole gassose altamente reattive con radiazione di alta energia(*Study of the interaction of the highly reactive gaseous species with high energy radiation*).

2009-2012 **Bachelor's Degree in Chemistry**

Sapienza Universitá di Roma, Piazzale A. Moro, 5, Rome

Final Grade: 107/110
Dissertation: Studio dell'interazione del radicale ossidrile con fotoni di alta energia (*Study of the interaction of the hydroxyl radical with high energy photons*).

2004-2009 **High School Diploma**

Liceo Scientifico "Leonardo Da Vinci", Rome

Final Grade: 93/100

INFORMATIC SKILLS

Basic — Origin, HTML

Intermediate — Igor Pro, LABVIEW, LaTeX, OpenOffice, Microsoft Windows

Advanced — Computer Support and data analysis

OTHER INFORMATION

Languages

Italian · Mothertongue

English · Intermediate (conversationally fluent)

Personal Skills

– Analysis and management of experimental data: valence and core photoemission, core level photoabsorbtion spectroscopies, 3D-ion imaging coincidence TOF spectroscopy, Photoemission Circular Dicroism.

– Experiences in the synthesis and handling of highly reactive molecular species.

– Knowledges of gas phase and solid phase spectroscopics techniques (UPS, XPS, TPES, PECD, NEXAFS), and ultra high vacuum systems.

– Experience in the production of effusive and supersonic molecular beams of reactive species in high vacuum systems. .

LIST OF PUBLICATIONS

1 P. Salen et al., *Phys. Rev. A*, **102**, 032817, 2020;
DOI: 10.1103/PhysRevA.102.032817.

2 L. Schio et al., *Inorg. Chem.*, **59**, 7274, 2020;
DOI: 10.1021/acs.inorgchem.0c00683.

3 S. Falcinelli et al., *ACS Earth Space Chem.*, **3**, 1862, 2019;
DOI: 10.1021/acsearthspacechem.9b00115.

4 S. Falcinelli et al., *Front. Chem.*, **7**, 621, 2019;
DOI: 10.3389/fchem.2019.00621.

5 P. Salen et al., *J. Chem. Phys.*, **149**, 164305, 2018;
DOI: 10.1063/1.50472628.

6 S. Falcinelli et al., *J. Chem. Phys.*, **148**, 114302, 2018;
DOI: 10.1063/1.5024408.

7 S. Falcinelli et al., *Computational Science and Its Applications ICCSA 2018. ICCSA 2018. Lecture Notes in Computer Science*, **10961**, 296, 2018;
DOI: 10.1007/978-3-319-42085-1$_2$3.

8 S. Falcinelli et al., *Proceedings*, **1**, 81, 2017;
DOI: 10.3390/ecas2017-04126.

9 K. Hansen et al., *Phys. Rev. Lett.*, **118**, 103001, 2017;
DOI: 10.1103/physrevlett.118.103001.

10 S. Falcinelli et al., *J. Chem. Phys.*, **145**, 114308, 2016;
DOI:10.1063/1.49629152.

11 S. Falcinelli et al., *Chem. Phys. Lett.*, 2016;
DOI: 10.1016/j.cplett.2016.09.003.

12 S. Falcinelli et al., *Atmosphere*, **7**, 112, 2016;
DOI:10.3390/atmos7090112.

13 S. P. Salen et al., *J. Chem. Phys.*, **144**, 244310, 2016.

14 S. Falcinelli et al., *In Proceedings of the 1st Int. Electron. Conf. Atmos. Sci., 1631 July 2016; Sciforum Electronic Conference Series*, Vol. 1, 2016 , B004;
DOI:10.3390/ecas2016-B004.

15 L. Schio et al., *J. Chem. Phys.*, 2015, **143**, 134302,
DOI: 10.1063/1.4931645.

16 P. Salen et al., *J. Phys. Chem. A*, 2016,
DOI: 10.1021/acs.jpca.6b01039.

17 C. Li et al., *Phys. Chem. Chem. Phys.*, 2016, **18**, 2210-2218,
DOI: 10.1039/C5CP06441D.

18 L. Schio et al., *Phys. Chem. Chem. Phys.*, 2015, **17**, 9040-9048,
DOI: 10.1039/C4CP05896H.

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