

Seyed Javad Rezvani

Date of birth: [REDACTED]

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EDUCATION

- 2011-2014 PhD in physics, University of Camerino, **Italy**.
First class with excellency | Major: Nanophysics
Thesis: "Synthesis and characterization of novel nanostructures based on Si and Ge."
Advisor: Prof. Nicola Pinto.
- 2007-2009 M. Sc. in Physics, University of Pune, **India**.
Grade B First class.
Thesis: "Synthesis and characterization of the metal nanoparticles for model catalyst."
Advisor: Prof. S. D Sartale.
- 2000-2004 B. Sc. in atomic Physics, Azad University of Tehran, **Iran**.
Specialization: Laser physics.

WORK EXPERIENCE

- [July 2020-present Assegno di Ricerca at University of Camerino](#).
Fundamental studies with fine analysis techniques of advanced functional materials (in particular low dimensional systems) specially ionic and super-ionic materials, superconductors, nano-phase dynamics, phase transitions, catalysts and interfaces.
- [July 2018-June 2020 Assegno di Ricerca at National Frascati Laboratory, INFN](#).
Working on the project TERA (INFN 5th group national call), in the fabrication and characterization of the Josephson proximity junction arrays as the Terahertz (and low energy particle) detectors.
- [Dec 2016-July 2018 TRIL Fellow at Institute of material science, CNR, Elettra, Italy](#).
Working as a beam line scientist in investigation of dynamics of the secondary electron reactions within the soft matter. Responsible of the construction and initiation of the soft X-ray photoluminescence beam line.
- [Dec 2014-Dec 2016 PostDoc fellow in European project SIRBATT, University of Camerino, Camerino, Italy](#).
Working on the formation and dynamics of the solid electrolyte interfaces using advanced spectroscopies such as XAFS and XANES. The group now is one of the pioneers in the field of the interface dynamic studies.
- [Jun-Dec 2014 Research assistant at University of Camerino/ INRiM Torino, Italy](#).
Working on the engineering of the semiconducting one dimensional systems and their electronic properties modulation and characterization.
- [Mar 2010-Dec 2010 Visiting researcher Fellow at National Central University, Taiwan](#).
Working as a Junior researcher in construction of the metallic monolayer synthesis in ultra clean ambient as a model catalysts.
- [Jul 2009-Feb 2010 Junior researcher Fellow at Pune University, India](#).
Working as a Junior researcher in synthesis of the transition metal oxide nano-particles

Collaborations and Projects

- 2019-present: SIMP project, single microwave particle detectors, LNF (Italy) and CNR IFN, Italy.
- 2019-present: Vortex dynamics in proximity arrays under radiation in engineered superconducting structures, (LNF (Italy) and Leibniz institute, Dresden (Germany)).
- 2019-Present: In-situ investigation of the Solid electrolyte dynamics via synchrotron radiation, University of Camerino, CNR-IOM (Italy), Ulm university (Germany).
- 2018-present: Investigation of the diffraction and collimation properties of the micro channel plates for the synchrotron radiation convergence (LNF (Italy) -MePhi (Russia)- IOM (Trieste)
- 2018-present: Collaborator of the Eupraxia project (plasma free electron laser) at national laboratory of Frascati, Italy.
- 2018-2020: 3D Graphene project, Project of ministry of foreign affairs, LNF(Italy), University of Sapienza (Italy), USTC (China).



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- 2018-present: Scientific collaborator of the CiPO beam-line (future MOST beam line, Italy), Strain induced phase transition in metal oxides.
- 2016-present: Fundamental electron dynamics under radiation at BEAR beam-line, Elettra, Trieste.
- 2014 -2019: FAR CESMAN project on the superconductivity at low dimensions. University of Camerino (Italy), INRiM (Torino, Italy) and university of Antwerp (Belgium).
- 2012 -present: Semi metallic and metal alloy nanowire fabrication and characterization. University of Camerino (Italy), University of Marseilles (France) and CNRS (France).
- 2012- present: Semiconducting one dimensional system, fabrication, characteristics and applications. University of Camerino (Italy) and INRiM (Torino, Italy).
- 2010- 2011: Synthesis and characterization of metallic nanoparticles for model catalysts. National central university, Taiwan.

National and international projects

- PRINCIPAL INVESTIGATOR of the project doping induced structural dynamics in NMC electrodes, With awarded 18 shifts of measurement at SOLEIL synchrotron radiation center (with estimated value of 115 KEuros).
- PRINCIPAL INVESTIGATOR of the project Structural dynamics and electronic structure of MoO₃ film on Cu substrates, With awarded 14 shifts of measurement at BEAR Elettra synchrotron radiation center (with estimated value of 100 KEuros)-waiting for allocation.
- Co-Proposer of the project Solid-electrolyte interphase study in Na-ion full cell using ionic liquids as electrolyte, With awarded 18 shifts of measurement at CiPo beamline elettra synchrotron radiation center (with estimated value of 115 KEuros).
- Co-Proposer of the project Focusing properties of spherical bent and double flat MCP-devices and coherence characteristics of transmitted X-ray radiation, With awarded 21 shifts of measurement at CiPo beamline elettra synchrotron radiation center (with estimated value of 135 KEuros).
- Co-Proposer of the project : Comprehensive ex situ soft X-ray absorption study on the anionic redox activity of Li-substituted Na_xLi_yNi_{1/3}Mn_{2/3}O₂ upon de-/lithiation , With awarded 14 shifts of measurement at Elettra synchrotron radiation center (with estimated value of 100 KEuros).
- Local PRINCIPAL INVESTIGATOR of the European project RISE with 7 partners from Italy, Sweden (Lund), Iran (Tehran), Kenya, Slovenia and Croatia on Synthesis of organic small-molecules as novel donor (D) and acceptor (A) moieties useful for photo-polymerization processes and their structural, electronic and photo-activities. (The project is evaluated with 80% score and is going to be resubmitted in the coming year). The project value is 700 KEuros.
- PRINCIPAL INVESTIGATOR of FISIR project 2020: The project aims at the fabrication and characterization of the ultrasensitive bio sensors using complex network of porous nanowires. The project value is 75 KEuros. (Under evaluation).
- PRINCIPAL INVESTIGATOR of the project TERAPAD: TeraHz Imaging using proximity junction arrays with high spatial resolution. The project will be in collaboration with LNF-INFN, IFW germany, CNR-IFN, INRiM and university of Camerino. The project value is 150 KEuros. (Under evaluation of 5th scientific INFN group).
- PRINCIPAL INVESTIGATOR of the project Measuring probing depths of soft x-ray absorption techniques (TEY, TFY, EAY) with 18 shifts of experiment awarded on elettra (with an estimated value of 115 KEuros).
- CO-PROPOSER of the project Test of compact wide band meta-lenses for spectral imaging. The project was awarded 21 shifts of the beamtime on CiPo beamline elettra (with an estimated value of 135 KEuros).
- CO-PROPOSER of the project of XANES and Res PES study of Metal Insulator Transition in VO₂ thin films. The project was awarded 18 shifts of measurement on the ALOISA beamline (with an estimated value of 115 KEuros).
- PRINCIPAL INVESTIGATOR of the project Soft x-ray validation of coated LMO cathodes for lithium batteries .The project was awarded 15 shifts of the beam-time on BEAR beamline elettra (with an estimated value of 95 KEuros).
- CO-PROPOSER of the project Interplay of irreversible vs reversible formation of Li titanate at Li₇Ti₅O₁₂ nanoparticles boundaries during lithiation. The proposal was awarded with 8 shifts of the measurement at elettra (with an estimated value of 51 KEuro).



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- PRINCIPAL INVESTIGATOR of the project Soft x-ray study of structure-dependent electronic transport in Si nanowires . The project was awarded with 18 shift of the measurements allocated at BEAR beamline at Elettra (with an estimated value of 115 KEuros).

AWARDS AND RECOGNITIONS

- 2019 Best young researcher Award, Italian synchrotron radiation society.
- 2018 Post-Doc Fellowship Grant, National Frascati Laboratory, Italy.
- 2016 TRIL fellowship Grant, International institute of theoretical physics (ICTP), Italy.
- 2014 Post-Doc fellowship Grant, SIRBATT, University of Camerino, Italy.
- 2014 Borsa di studio, Regional project FAR, Regione Marche, University of Camerino, Italy.
- 2011 PhD scholarship, University of Camerino, Italy.
- 2010 Visiting researcher Fellowship, National central university, Taiwan.
- 2009 M.R. Bhide best paper presentation award, Raman memorial symposium, India

TEACHING

- 2021-2022: Professor at University of Camerino, Camerino, Italy.
Course: Experimentla methods in Nanotechnology. Course language: Italian
- 2021-2022: Professor at University of Camerino, Camerino, Italy.
Course: Advanced laboratory of physics. Course language: Italian
- 2020-2021: Professor at University of Camerino, Camerino, Italy.
Course: Material science using avanced radiation sources. Course language: English
- 2014-2015: TFA Professor at University of Camerino, Camerino, Italy.
Course: Sensors and Data acquisition laboratory. Course language: Italian
- 2013- 2014 Teaching assistant at University of Camerino, Camerino, Italy.
Course: General Physics. Course language: English
- 2012- 2013 Teaching assistant at University of Camerino, Camerino, Italy.
Course: General Physics. Course language: English
- 2011- 2012 English language teacher at EduLingua School of language, Castelraimondo, Italy.

PROFESSIONAL ACTIVITIES

- Member of the PhD selection committee of the university of Camerino; (2018)
- Member of scientific organizers of BEAR beam line (Elettra); (2016-present)
- Member of Italian synchrotron radiation society; (2014-present)
- Referee of Journal of Crystal Growth, Elsevier.
- Referee of Journal of Nanoresearch letters, Springer.
- Referee of Journal of Physics D, Applied Physics, IOP.
- Referee of Journal of Applied surface science, Elsevier.
- Referee of Applied materials and interfaces, ACS.
- Referee of Energy storage materials, Elsevier.
- Referee of Journal of Radiation Physics and Chemistry, Sciencedirect.

AFFILIATIONS

- Istituto Officina dei Materiali (IOM), Italian National Research Council (CNR), Trieste, Italy; (2016-present)
- International institute of theoretical physics, Trieste, Italy;(2016-2019)
- National Laboratory of Frascati, INFN, Frascati, Italy; (2018-present)
- Istituto nazionale di Ricerca metrologica (INRiM), Torino, Italy; (2012-present)
- Istituto Nazionale di Fisica Nucleare (INFN), sezione Perugia , Italy; (2012-2018)

CONFERENCES AND PRESENTATIONS

- TALKS



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- 2021 European optical society annual meeting, EOSAM, Rome, Italy.
Optical properties of porous silicon nanowires at high pressures
Invited speaker.
- 2020 Russian-Italian Meeting "Frontiers in Quantum Materials for Quantum Computing", Online.
Tunneling from vibrating barriers in a quantum dot network of porous Si nanowires.
Invited speaker.
- 2020 Quantum Complex Matter, Rome, Italy.
Endotaxial shape transition of Mn₅Ge₃ islands to long nanowires
Invited speaker.
- 2019 Second 3D graphene Workshop, USTC, Hefei, China.
Structural and electronic properties of 3D graphene observed via XANES and Raman Spectroscopy
Invited speaker.
- 2019 Spectroscopy and Imaging with THz Radiation using Ultimate Radiation Sources, Rome , Italy.
Proximity junction arrays: A new generation of the THz detectors
Invited speaker.
- LIV Zakopane School of Physics, Breaking frontiers; submicron structures in physics and biology. Institute of nuclear physics PAN, Zakopane, Poland.
A novel detector based on the vortex Mott insulator-to-metal transition.
Invited speaker.
- 2018 High Precision X-ray Measurements, Rome, Italy.
A novel approach to a non-destructive depth profiling using soft x-ray spectroscopies.
Contributed talk.
- 2018 SuperFluctuations, San Benedetto, Italy.
A novel approach to low dimensional superconducting Nb film properties and their potential applications
Invited speaker.
- 2018 Seminar at University of Camerino, Italy.
Advances in functional nanomaterials.
Invited speaker.
- 2017 SILS workshop, Trieste, Italy.
Reversible interface formed on metal alloy oxide nanoparticles via lithiation.
Contributed talk.
- 2016 SILS workshop, Bari, Italy.
SEI dynamics in metal alloying anodes by soft x-ray absorption and photoemission spectroscopy.
Contributed talk.
- 2016 SIRBATT semester meeting, Warsaw, Poland.
Progress in understanding of solid electrolyte inter-phase.
Invited speaker on behalf of Prof. A. DiCicco.
- 2016 Ultrathinsuper conference, University of Camerino, Camerino, Italy.
Structurally induced density of states in porous Si nanowires.
Invited speaker.
- 2015 Understanding Lithium Battery Interfaces, Bilbao, Spain.
Structural evolution of SEI in ZFO and graphite electrodes.
Invited speaker.
- 2014 Functional and advanced materials FNMA14 workshop, Camerino, Italy.
Temperature dependence of diffusion induced Ge nanowire grown by MBE.
Contributed talk.
- 2014 Nanosea 2014, Marseilles, France.
Effect of deposition parameters on Diffusion Induced Germanium Nanowires by MBE.
Contributed talk.
- 2012 Nanosea 2012, Sardinia, Italy.
Growth of diluted magnetic germanium nanowires using manganese nano-droplets.
Contributed talk.

• POSTER PRESENTATIONS



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- 2019 SILS 2019, Camerino, Italy.
Structurally induced electronic properties of the semiconducting nanowires.
 - 2019 SILS 2019, Camerino, Italy.
Tuning electronic properties of MoO₃ films on copper substrate: Toward high efficiency cavities.
 - 2018 Quantum Complex Matters, Rome, Italy.
Substrate induced proximity effect in superconducting niobium nanofilms.
 - 2018 International Conference on Multi-Condensate Superconductivity and Superfluidity in Solids and Ultra-cold Gases, Trieste, Italy.
Dimensional crossover and incipient quantum size effects in superconducting niobium nanofilms.
 - 2017 ECOSS 2017, Szeged, Hungary.
Reversible interface formed on metal alloy oxide nanoparticles via lithiation.
 - 2015 SILS 2015 Workshop, Trento, Italy.
SEI formation in Li-ion electrodes probed by As K-edge X-ray absorption spectroscopy.
 - 2015 8th conference in advanced batteries for automotive applications, Bilbao, Spain. Probing the evolution of the SEI in Li-ion cells by As K-edge X-ray absorption spectroscopy.
 - 2014 Multi-Condensate Superconductivity and Superfluidity in Solids and Ultra-cold Gases, Camerino, Italy.
Control and enhancement of superconductivity by engineering materials at the nanoscale.
 - 2013 Scientific Day of university of Camerino, Italy.
Sub 100 nm Si nanowires by colloidal lithography and metal assisted chemical etching.
 - 2012 Scientific Day of university of Camerino, Italy.
Germanium nanowires grown by molecular beam epitaxy.
- **Schools ATTENDANCE**
 - 2017 Time resolved photoelectrons spectroscopy, NFFA, Area science park, Trieste, Italy.
 - 2016 EUSpec Training School on Multiple Scattering Codes, Rene, France.
 - 2013 International school on simulation of nanomaterials, ICCMNM, Frankfurt Institute for advanced studies, Germany.
 - 2013 Workshop on Semiconductor detectors for medical applications, INFN, Florence, Italy.
 - 2013 International conference on radiation effect on semiconductor detector and devices, INFN, Florence, Italy.

TECHNICAL SKILLS AND COMPETENCE

- Ultra High Vacuum systems operation, preparation and maintenance.
- Fabrication techniques
 - * Molecular Beam Epitaxy.
 - * Endotaxial fabrication.
 - * Vapour liquid solid fabrication.
 - * DC/RF magnetron sputtering systems.
 - * Thermal evaporation deposition.
 - * Electroless nano-fabrication
 - * CBD nano-fabrication.
 - * Electron beam deposition.
- Low dimension semiconductor/superconductor systems (2D,1D) electrical measurements.
- Low temperature electrical measurements.
- Lithography
 - * Nanolithography.
 - * Electron beam lithography.
 - * Optical lithography.
- Microscopies and spectroscopies
 - * X-Ray spectroscopy such as XPS, XRD.
 - * Hard/Soft X-Ray absorption spectroscopy (@ Synchrotron).



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- * Scanning Electron Microscopy.
- * Raman and UV-Vis Spectroscopy.
- * Atomic Force Microscopy.

SOFTWARE SKILLS

- o Windows, Linux.
- o Programming in C++, NI-Labview, Python (Data Processing certificate).
- o Mathematica, Matlab.
- o Latex, MS Office.
- o COMSOL.
- o AutoCAD (Industrial design certificate).
- o Muffintin potential EXAFS cross section calculations: GNXAS
- o Charge transfer multiplet cross section calculations: CTM4XAS
- o Full potential XANES Calculations: MXAN

LANGUAGES

- o Italian:Intermediate.
- o English:Advanced (IELTS certificate).
- o French:Basic.
- o Arabic:Basic.
- o Persian:Native.

LIST OF PUBLICATIONS

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- [1] S Javad Rezvani, Luc Favre, Gabriele Giuli, Yiming Wubulikasimu, Isabelle Berbezier, Augusto Marcelli, Luca Boarino, Nicola Pinto Spontaneous shape transition of Mn_xGe_1-x islands to long nanowires *Beilstein Journal of Nanotechnology* 12 (1), 366-374, 2021.
 - [2] MI Mazuritskiy, AM Lerer, A Marcelli, SB Dabagov, M Coreno, A D'Elia, SJ Rezvani Wave propagation and focusing of soft X-rays by spherical bent microchannel plates *Journal of Synchrotron Radiation* 28 (2), 2021.
 - [3] A D'Elia, C Grazioli, A Cossaro, BW Li, CW Zou, SJ Rezvani, N Pinto, A Marcelli, M Coreno Strain mediated Filling Control nature of the Metal-Insulator Transition of VO₂ and electron correlation effects in Nanostructured films *Applied Surface Science* 540, 148341, 2021.
 - [4] Andrea Di Cicco, Seyed Javad Rezvani, Stefano Nannarone Revisiting the Probing Depths of Soft X-ray Absorption Techniques by Constant Initial State Photoemission Experiments *Synchrotron Radiation Science and Applications*, 85-97, 2021.
 - [5] Seyed Javad Rezvani, Yimin Mijiti, Federico Galdenzi, Luca Boarino, Roberto Gunnella, Augusto Marcelli, Nicola Pinto, Andrea Di Cicco Structural Properties of Porous Silicon Nanowires: A Combined Characterization by Advanced Spectroscopic Techniques *Synchrotron Radiation Science and Applications*, 191-201, 2021.
 - [6] Alessandro D'Elia, SJ Rezvani, Nicola Zema, F Zuccaro, Mattia Fanetti, Blaž Belec, BW Li, CW Zou, Carlo Spezzani, Maurizio Sacchi, Augusto Marcelli, Marcello Coreno Stoichiometry and disorder influence over electronic structure in nanostructured VO_x films *Journal of Nanoparticle Research* 23 (1), 1-9, 2021.
 - [7] Tobias Eisenmann, Jakob Asenbauer, Seyed Javad Rezvani, Thomas Diemant, Rolf Jürgen Behm, Dorin Geiger, Ute Kaiser, Stefano Passerini, Dominic Bresser Impact of the Transition Metal Dopant in Zinc Oxide Lithium-Ion Anodes on the Solid Electrolyte Interphase Formation *Small Methods*, 2001021, 2021.
 - [8] S.J. Rezvani, A. D'Elia, S. Macis, S. Nannarone, S. Lupi, F. Schutt, F. Rasch, R. Adelung, B. Lu, Z. Zhang, L. Qu, X. Feng, A. Romani Vazquez, and A. Marcelli Structural anisotropy in three dimensional macroporous graphene: A polarized XANES investigation *Diamond and Related Materials* 111, 108171, 2020.
 - [9] A Di Cicco, G Polzoni, R Gunnella, A Trapananti, M Minicucci, SJ Rezvani, D Catone, L Di Mario, JS Pelli Cresi, S Turchini, F Martelli Broadband optical ultrafast reflectivity of Si, Ge and GaAs *Scientific reports*, 10(1) 1-9, 2020.
 - [10] Alessandro D'Elia, Cesare Grazioli, Albano Cossaro, Bowen Li, Chongwen Zou, S. Javad Rezvani, Augusto Marcelli and Marcello Coreno Detection of Spin Polarized Band in VO₂/TiO₂(001) Strained Films via Orbital Selective Constant Initial State Spectroscopy *Condensed matter*, 5, 72, 2020.
 - [11] Alessandro D'Elia, Cesare Grazioli, Albano Cossaro, Bowen Li, Chongwen Zou, S. J. Rezvani, Nicola Pinto, Augusto Marcelli, Marcello Coreno. Strain mediated Filling Control nature of the Metal-Insulator Transition of VO₂ and electron correlation effects in Nanostructured films *Applied surface science*, 148341, 2020.
 - [12] Rahul Parmar, SJ Rezvani, Francesco Nobili, Andrea Di Cicco, Angela Trapananti, Marco Minicucci, Stefano Nannarone, Angelo Giglia, Fabio Maroni, Roberto Gunnella. Electrochemical response and structural stability of the Li⁺ ion battery cathode with coated LiMn₂O₄ nanoparticles. *ACS Applied Energy Materials*, 3(9), 8356-8365, 2020.



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- [13] S.J. Rezvani, N. Pinto, R. Gunnella, A. D'Elia, A. Marcelli and A. Di Cicco. Engineering porous silicon nanowires with tuneable electronic properties. *Condensed matter*, 5 (4), 57, 2020.
- [14] S Javad Rezvani, Daniele Di Gioacchino, Claudio Gatti, Carlo Ligi, Mariangela Cestelli Guidi, Sara Cibella, Matteo Fretto, Nicola Poccia, Stefano Lupi, Augusto Marcelli. Proximity Array Device: A Novel Photon Detector Working in Long Wavelengths. *Condensed Matter*, 5 (2), 33, 2020.
- [15] S. J. Rezvani, D. Di Gioacchino, S. Tofani, A. D'Arco, C. Ligi, S. Lupi, C. Gatti, M. Cestelli Guidi and A. Marcelli. A cryogenic magneto-optical device for long wavelength radiation. *Review of Scientific Instruments*, 91:075103, 2020.
- [16] J. Rezvani, D. Di Gioacchino, C. Gatti, N. Poccia, C. Ligi, S. Tocci, M. Cestelli Guidi, S. Cibella, S. Lupi, A. Marcelli. Tunable vortex dynamics in proximity junction arrays: a possible accurate and sensitive 2D THz detector. *Acta Physica Polonica A*, 1(137):17–17, 2020.
- [17] Salvatore Macis, Luca Tomarchio, Silvia Tofani, S Javad Rezvani, Luigi Faillace, Stefano Lupi, Akinori Irizawa, Augusto Marcelli. Angular dependence of copper surface damage induced by an intense coherent thz radiation beam. *Condensed Matter*, 5(1):16–16, 2020.
- [18] A D'Elia, SJ Rezvani, A Cossaro, M Stredansky, C Grazioli, BW Li, CW Zou, M Coreno, A Marcelli. Strain induced orbital dynamics across the metal insulator transition in thin VO₂/TiO₂ (001) films. *Journal of Superconductivity and Novel Magnetism*, pages 1–6, 2020.
- [19] SJ Rezvani, Y Mijiti, R Gunnella, F Nobili, A Trapananti, M Minicucci, M Ciambezi, D Bresser, S Nannarone, S Passerini, A Di Cicco. Structure rearrangements induced by lithium insertion in metal alloying oxide mixed spinel structure studied by x-ray absorption near-edge spectroscopy. *Journal of Physics and Chemistry of Solids*, 136:109172–109172, 2020.
- [20] Salvatore Macis, Javad Rezvani, Ivan Davoli, Giannantonio Cibin, Bruno Spataro, Jessica Scifo, Luigi Faillace, Augusto Marcelli. Structural evolution of moo3 thin films deposited on copper substrates upon annealing: An x-ray absorption spectroscopy study. *Condensed Matter*, 4(2):41–41, 2019.
- [21] Roberto Fallica, Seyed Javid Rezvani, Stefano Nannarone, Sergei Borisov, Danilo De Simone, Sergey Babin, Gian Lorusso, Geert Vandenberghe. The hidden energy tail of low energy electrons in EUV lithography. *Advances in Patterning Materials and Processes XXXVI*, 10960:1096009–1096009, 2019.
- [22] Antonella Balerna, Javad Rezvani, Francesco Stellato, Giuseppe Fumero, Héctor Jorge Sánchez, Enrico Perfetto, Marcello Coreno, José Ignacio Robledo, Rosa Manca, Sultan Dabagov, Giancarlo Rossi, Silvia Morante, Massimo Petrarca, Gianluca Stefanucci, Marco Minicucci, Luca Giannessi, Roberto Gunnella, Juan José Leani, Alessandro Cianchi, Samanta Bartocci, Tullio Scopigno, Stefano Lupi, Carino Ferrante, Salvatore Macis, Claudio Masciovecchio, Fabrizio Pusceddu, Giovanni Batignani, Massimo Faiferri, Angela Trapananti, Augusto Marcelli, Andrea Di Cicco, Antonio Cricenti, Fabio Villa, Enrica Chiadroni, Massimo Ferrario. The potential of EUPRAXIA at SPARC Lab for radiation based techniques. *Condensed Matter*, 4(1):30–30, 2019.
- [23] SJ Rezvani, Andrea Perali, Matteo Fretto, Natascia De Leo, Luca Flammia, Milorad Milošević, Stefano Nannarone, Nicola Pinto. Substrate-induced proximity effect in superconducting niobium nanofilms. *Condensed Matter*, 4(1):4–4, 2019.
- [24] M Ciambezi, A Trapananti, SJ Rezvani, F Maroni, D Bresser, M Minicucci, F Nobili, R Gunnella, S Passerini, A Di Cicco. Initial lithiation of carbon-coated zinc ferrite anodes studied by in-situ x-ray absorption spectroscopy. *Radiation Physics and Chemistry*, 108468, 2019.
- [25] Salvatore Macis, Javad Rezvani, Ivan Davoli, Giannantonio Cibin, Bruno Spataro, Jessica Scifo, Luigi Faillace, Augusto Marcelli. Structural on copper evolution substrates of upon moo annealing: 3 thin films an deposited x-ray absorption spectroscopy study. *High Precision X-Ray Measurements*, 4:22–22, 2019.
- [26] Millan F Diaz-Aguado, John W Bonnell, Stuart D Bale, SJ Rezvani, Konstantin Koshmak, Angelo Giglia, Stefano Nannarone, Mike Gruntman. Experimental investigation of total photoemission yield from new satellite surface materials. *Journal of Spacecraft and Rockets*, 56(1):248–258, 2019.
- [27] N Pinto, SJ Rezvani, A Perali, L Flammia, MV Milošević, M Fretto, and ... Dimensional crossover and incipient quantum size effects in superconducting niobium nanofilms. *Scientific reports*, 8(1):1–12, 2018.
- [28] M. Coreno A. Marcelli, M.I. Mazuritskiy, S.B. Dabagova, D. Hampai, A.M. Lerer, E.A. Izotova, A. D'Elia, S. Turchini, N. Zema, F. Zuccaro, M. de Simone, S. Javad Rezvani. A new xuv optical end-station to characterize compact and flexible photonic devices using synchrotron radiation. *Journal of Instrumentation* 13 (C03035), 2018.
- [29] SJ Rezvani, R Gunnella, A Witkowska, F Mueller, M Pasqualini, F Nobili, and ... Is the solid electrolyte interphase an extra-charge reservoir in Li-ion batteries? *ACS applied materials & interfaces*, 9(5):4570–4576, 2017.
- [30] J Rezvani, F Nobili, R Gunnella, M Ali, R Tossici, S Passerini, and A Di Cicco. Sei dynamics in metal oxide conversion electrodes of li ion batteries. *The Journal of Physical Chemistry C*, 121:26379–26379, 2017.
- [31] M Pasqualini, S Calcaterra, F Maroni, SJ Rezvani, A Di Cicco, and ... Electrochemical and spectroscopic characterization of an alumina-coated LiMn₂O₄ cathode with enhanced interfacial stability. *Electrochimica Acta*, 258:175–181, 2017.
- [32] SJ Rezvani, M Pasqualini, A Witkowska, R Gunnella, A Birrozzi, and ... Binder-induced surface structure evolution effects on Li-ion battery performance. *Applied Surface Science*, 435:1029–1036, 2017.
- [33] SJ Rezvani, A Di Cicco, R Gunnella, F Nobili, S Passerini, L Pasquali, and ... Solid electrolyte interface formed on metal alloy oxide nanoparticles via lithiation. *Interfaces*, 9:4570–4576, 2017.
- [34] M Secchiaroli, S Calcaterra, HY Tran, SJ Rezvani, F Nobili, R Marassi, and ... Development of non-fluorinated cathodes based on Li₃V_{1.95}Ni_{0.05} (PO₄)₃/C with prolonged cycle life: A comparison among na-alginate, n-carboxymethyl cellulose and poly ... *Journal of The Electrochemical Society* 164 (4), A672-A, 683, 2017.
- [35] M Minicucci, L Tabassam, R Natali, G Mancini, SJ Rezvani, and A Di Cicco. Double-edge x-ray absorption study of LiFe_{1-x}Ni_xPO₄ cathode materials. *Journal of Materials Science*, 52(9):4886–4893, 2017.
- [36] DR Napoli, G Maggioni, P Cocconi, R Gunnella, E Napolitani, and ... New developments in hpgc detectors for



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- high resolution detection. *Acta Phys. Polon.*, 48:387–387, 2017.
- [37] SJ Rezvani, M Ciambezi, R Gunnella, M Minicucci, MA Munoz, F Nobili, and ... Local structure and stability of SEI in graphite and ZFO electrodes probed by as K-edge absorption spectroscopy. *The Journal of Physical Chemistry C*, 120(8):4287–4295, 2016.
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