

PERSONAL INFORMATION

Fabio Zaza



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WORK EXPERIENCE

Dec 2012–Present

Permanent Researcher

ENEA, Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Rome (Italy)

The research activity is focused on the development of key enabling technologies for environment, industry and cultural heritage. The main activity is focused on the development of chemical and biochemical sensors for remote, continuous and real-time chemical analysis to be used for environmental monitoring, cultural heritage protection and production systems control in order to guarantee sustainable resources management, environmental impact prevention and end-products quality. These activities fall within the scope of funded research projects and collaboration agreements with Universities and National Research Bodies, such as the CNR, the University La Tuscia, La Sapienza and Roma Tre.

- **Director of execution of works for the safety of the laboratories in PROTER Division.**
Disposal P209/2019/SSPT of 23 July 2019.
- **Sole Responsible for the Procedure.** Disposal 316/2019/PRES of 4 October 2019.
- **Principal Investigator and Scientific Coordinator for the "Biosensors for Cultural Heritage"**
Project within the ENEA Proof of Concept internal financing Program, announced as Internal Notice with the Circular n.9/COM-INDAS of 24 June 2019. Admitted to the financing of **€ 43,000.00** with Disposal 17/2020/PRES of 24 January 2020. The Project is focused on the development of innovative electrochemical biosensors dedicated to non-invasive analysis of cultural heritage for monitoring the degradation level: the working electrode, that is made of a biomolecule anchored to nanostructured support material, is protected with a membrane soaked in electrolyte to carry out chemical analysis of solid surfaces for the qualitative and quantitative determination of glucose, the main degradation product of books, carpets and tapestries, which are made up of cellulose and fibers plant. The advanced biosensor, therefore, will perform instantaneous, non-invasive and accurate analysis of cultural heritage, providing information on the evolution of its degradation.
- **Principal Investigator and Scientific Coordinator for the "SENSI- new MEMS Sensori for an Integrated Monitoring System for the conservation, enhancement and use of cultural heritage"** within the POR-FESR Program, announced as Public Notice "Cultural Heritage and Tourism" with the Determination n.G16395 of 28 November 2017. Partners: ENEA, Tecno.el srl and Araundu srl. Consultants: CNR and Fitconsulting srl. The Project was admitted to financing with Determination n. G17443 of 21 December 2018. The whole cost of the Project is **€ 530,012.91** and the obtained finance is € 392,745.29, including **€ 122,599.06** for the activities of ENEA. The Project is focused on the development of integrated systems that monitor the microclimate and air quality into closed or open spaces to promote conservation, enhancement and use of cultural heritage. In addition to developing sensors for gas pollutions monitoring, the aim of the Project is to design advanced biosensor for cultural heritage analysis in order to correlate its degradation levels with air quality. Finally, the Project intends to provide visitors with technological support with various multimedia contents and to promote the safety of the natural person through the geo-location of the visitor both indoors and outdoors. Disposal 316/2019/PRES of 4 October 2019.
- **Principal Investigator and Scientific Coordinator for the "OLIMPOS - Optimum Level Impurities and Pollution Sensors"** within the POR-FESR Program, announced as Public Notice "KETs - Enabling Technologies", Determination n.G13675 of 21 November 2016. Partners: ENEA, Tecno.el srl and Ener-tecna srl. Consultants: CNR, La Tuscia University, Araundu srl. The Project was admitted to financing with Determination n.G07802 of 19 June 2018. The whole cost of the Project is **€ 292,986.20** and the obtained finance is € 218,433.12, including **€ 68,597.13** for the activities of ENEA. The Project is focused on the development of chemical sensors with high sensitivity, reliability and stability for monitoring air quality in museum environments and for

controlling the energy, production and ecological efficiency of sustainable industrial processes. Disposal 373/2018/PRES of 10 December 2018.

- **Knowledge Exchange Officer (KEO)** in the field of Technologies for Cultural Heritage with the duty of promoting connections and interactions between Industry Stakeholders and ENEA Researchers, in order to respond effectively to the needs of the Company in terms of Research and Innovation. Disposal n.173/2019/PRES of 5 June 2019.
- **Technical-Scientific Consultant**, expert in specific subjects of the Territorial Protection Division (PROTER), supporting the Protection and Prevention Service of the Sustainability Department of Production and Territorial Systems (SSPT) for the safety risk management, Disposal 75/2018/SSPT of 26 July 2018.
- **Member of the Health and Safety Task Force**, supporting the Prevention and Prevention Service of the Sustainability Department of Production and Territorial Systems (SSPT) for the safety risk management. Disposal n.1/2018/SSPT of 12 February 2018.
- **Responsible for safety in the laboratories** of SSPT-PROTER-BIOGEOC. Internal Communication ENEA/2018/7967/SSPT-PROTER.
- **Principal Investigator and Scientific Coordinator for the Collaboration Agreement between ENEA and CNR** about the project "Development of sensors and biosensors for environmental monitoring and control of the production processes sustainability" (prot.n.74/2016/SSPT-PROTER).
- **Principal Investigator and Scientific Coordinator for the Collaboration Agreement between ENEA and La Tuscia University** about the project "Research in the sector of functional nanomaterials for developing chemical sensors, sorbents and carriers with controlled release for eco-sustainable productive systems" (prot.n.28881).
- **Principal Investigator and Scientific Coordinator for the Collaboration Agreement between ENEA and La Sapienza University** about the project "Development of functional nanomaterials for environmental, industrial, biomedical and cultural heritage applications" (prot.n.ENEA/2018/0009520/PROTGEN).
- **Principal Investigator and Scientific Coordinator for the Collaboration Agreement between ENEA and Roma Tre University** about the project "Development of Chemical Technologies for the Environment and the Territory" (prot.n.ENEA/2018/0009520/PROTGEN).
- **ENEA Tutor for University Theses and Internships:**
 - Thesis (code 1586): "Sensors based on nanostructured semiconductor oxides ". Student: Jacopo Leoncini from La Sapienza University.
 - Thesis (code 1657): "Synthesis and characterization of nanomaterials for developing resistive sensors". Student: Vanessa Pallozzi from La Sapienza University.
 - Thesis (code 1793): "Design and development of nanostructured materials for technological applications". Student: Giovanna Orio from La Sapienza University.
 - Thesis (code 1794): "Synthesis and characterization of hybrid materials for developing electronic devices". Student: Gabriele Corda from La Sapienza University.
 - Thesis (code 2164): "Chemical gas sensors for the sustainability of production systems". Student: Iannone Valentina from La Sapienza University.
 - Thesis (code 2165): "Nanomaterials and microelectronics for the development of chemical gas sensors for environmental monitoring and sustainable control of production systems". Student: Cocci Riccardo from La Sapienza University.
 - Thesis (code 2193): "Development of perovskite membranes for the production of O2-rich oxidizers to be used in sustainable calcium looping processes". Student: Alfieri Stefano from La Sapienza University.
 - Thesis (code 2163): "Biosensori integrati con nanomateriali ceramici per il monitoraggio di analiti in matrice liquida". Student: Albano David from La Sapienza University.
 - Thesis (code 2161/2016): "Catalytic combustion of light hydrocarbons for production systems with high energy and ecological efficiency". Student: Luca Pitetosanti from La Sapienza University
 - Thesis (codice 2378/2017): "Gas sensors based on semiconducting perovskitic oxides for monitoring the atmospheric pollutants and controlling the environmental impact of production systems". Student: Mara Bartolini from La Sapienza University.
 - Thesis (codice 2388/2018): "Chemical sensors for environmental monitoring and control of sustainable production systems". Student: Flavia Reggiani from La Sapienza University.

- Thesis (code 2460/2018): "Gas sensors based on perovskite oxide nanopowders". Student: Alessia Moresi from La Sapienza University.
- Thesis (code 2417/2018): "Production of oxygen-rich gas by means of Perovskite membranes in order to prevent environmental impact of production processes in closed cycle systems". Student: Marco Colavito from La Sapienza University.
- Thesis (code 2600/2019): "Nanomaterial design for developing chemical sensors based on Perovskite oxide". Student: Filippo Timperi from La Sapienza University.
- Thesis (code 2634/2019) "Network of sensors for territory protection". Student: Simone Bonanni from La Sapienza University.
- Thesis (code 2603/2019) "Biosensors for monitoring the cultural heritage degradation level". Student: Albano David of La Sapienza University.

■ **ENEA Tutor for PhD Theses:**

- Thesis: "Research in the sector of functional nanomaterials for developing chemical sensors, sorbents and carriers with controlled release for eco-sustainable productive systems". Student: Vanessa Pallozzi from La Tuscia University.

Mar 2018–Present

Independent Scientific Expert for the Ministry of Education of the University and Research, registered in the MIUR REPRISSE digital Register as technical-scientific evaluator of Research Projects in the areas of Basic Research, Applied Research and Scientific Dissemination.

Jul 2017–Present

University Adjunct Professor (Professore a contratto)
Guglielmo Marconi University, Rome (Italy)

- **Professor of the 6CFU "Chemistry" official course** for the academic year 2017/2018, 2018/2019 and 2019/2020 at the Faculty of Applied Sciences and Technologies, Degree course in Industrial Engineering.
- **Collaborator within the XXXIV Research Doctorate Cycle** to support the research activities of PhD students.

Nov 2009–Present

University Adjunct Professor (Professore a contratto)
La Sapienza University, Rome (Italy)

- **Professor of the 6CFU "Sustainable Combustion Chemistry"** official course for the academic year 2017/2018, 2018/2019 and 2019/2020 academic years at the Engineering Faculty.
- **Professor of the 6CFU "Combustion Chemistry"** official course for the academic year 2009/2010, 2010/2011, 2013/2014, 2015/2016, 2017/2018 and 2018/2019 academic years at the Engineering Faculty.
- **Title of Expert in Combustion Chemistry (Cultore della Materia)**, received in 2011.
- **University Advisor of Theses:**
 - Thesis: "Development and characterization of layer for protecting materials in high temperature fuel cells". Student: Tommaso Soccio.
 - Thesis: "Feasibility Study on Utilization of Biogas as fuel in molten carbonate fuel cells: poisoning mechanism of biogas impurities and development of highly corrosion resistance anode materials". Student: Daniele Fabbri.
 - Thesis: "Life cycle assessment of biogas production from microalgae". Student: Matteo Gumiero.
 - Thesis: "Thermofluidodynamic simulation of syngas combustion". Student: Luigi Del Moro.
 - Thesis: "Life cycle assessment of fuel cell fed with biogas". Student: Davide Ciarla.
 - Thesis: "Experimental and computational studies of different anode material for solid oxide fuel cell". Student: Giovanna Orio.
 - Thesis: "Sensors based on nanostructured semiconductor oxides ". Student: Jacopo Leoncini from La Sapienza University.
 - Thesis: "Synthesis and characterization of nanomaterials for developing resistive sensors". Student: Vanessa Pallozzi from La Sapienza University.

- Thesis: "Design and development of nanostructured materials for technological applications". Student: Giovanna Orio from La Sapienza University.
- Thesis: "Synthesis and characterization of hybrid materials for developing electronic devices". Student: Gabriele Corda from La Sapienza University.
- Thesis: "Chemical gas sensors for the sustainability of production systems". Student: Iannone Valentina from La Sapienza University.
- Thesis: "Nanomaterials and microelectronics for the development of chemical gas sensors for environmental monitoring and sustainable control of production systems". Student: Cocci Riccardo from La Sapienza University.
- Thesis: "Development of perovskite membranes for the production of O₂-rich oxidizers to be used in sustainable calcium looping processes". Student: Alfieri Stefano from La Sapienza University.
- Thesis: "Catalytic combustion of light hydrocarbons for production systems with high energy and ecological efficiency". Student: Luca Pitetosanti from La Sapienza University.
- Thesis: "Gas sensors based on semiconducting perovskitic oxides for monitoring the atmospheric pollutants and controlling the environmental impact of production systems". Student: Mara Bartolini from La Sapienza University.
- Thesis: "Chemical sensors for environmental monitoring and control of sustainable production systems". Student: Flavia Reggiani from La Sapienza University.
- Thesis: "Gas sensors based on perovskite oxide nanopowders". Student: Alessia Moresi from La Sapienza University.
- Thesis: "Production of oxygen-rich gas by means of Perovskite membranes in order to prevent environmental impact of production processes in closed cycle systems". Student: Marco Colavito from La Sapienza University.
- Thesis: "Nanomaterial design for developing chemical sensors based on Perovskite oxide". Student: Filippo Timperi from La Sapienza University.
- Thesis: "Network of sensors for territory protection". Student: Simone Bonanni from La Sapienza University.

Sep 2012–Dec 2012

Postdoctoral Research Fellow (Assegno di Ricerca)

La Sapienza University, Rome (Italy)

Duties were focused on the synthesis, characterization and utilization of functional nanomaterial such as nanotube of titania.

Oct 2006–Jul 2012

Research Fellow (Assegno di Ricerca)

ENEA, Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Rome (Italy)

Research activity in the field of chemical processes for the valorization of waste through development of integrated production systems, consisting of fuel cells, gasifiers and anaerobic digesters (waste-to-energy systems). The work was focused on the synthesis of innovative materials and the testing of fuel cells for the electrochemical conversion of energy from sources renewable. The work was financed through European funds because it was within national (**FISR-TECSA** 2005-2009; **Industria2015-EFESO** 3 years) and international (**FCTESQA** 2006-2009; **FCTEDI** 2006-2009; **MCFC-CONTEX** 2010-2012) research projects.

Nov 2011–Oct 2016

University Adjunct Professor (Professore a contratto)

Tor Vergata University, Rome (Italy)

- **Professor of the 8CFU "Laboratory of Analytical Chemistry"** official course for the academic year 2011/2012, 2012/2013, 2013/2014, 2014/2015 and 2015/2016 at the Pharmacy Faculty, whose the official language is English.

Sep 2008–Dec 2012

University Adjunct Professor (Professore a contratto)

RomaTre University, Rome (Italy)

- **Professor of the 6CFU "Chemistry"** official course for the academic year 2011/2012 at the

Engineering Faculty.

- **Professor of the 6CFU "Chemistry and Laboratory"** supplementary course for the academic year 2008/2009, 2009/2010, 2011/2012 and 2012/2013 at the Geology Science Faculty.
- **Professor of the 0CFU "Chemistry Zero"** official preliminary course for the academic year 2010/2011, 2011/2012 and 2012/2013 at the Geology Science Faculty.
- **Title of Expert in Chemistry and Laboratory (Cultore della Materia)**, received in 2009.

Nov 2008–Oct 2010

University Lecturer

La Sapienza University and Roma Tre University, Rome (Italy)

- **University Tutor for Numerical Exercises in Chemistry** for the 2008/2009 and 2009/2010 academic years at the Engineering Faculty, La Sapienza University.
- **University Teacher for Seminars on "Combustion Chemistry"** for the academic year 2011/2012, La Sapienza University.
- **University Teacher for Seminars on "Chemistry"** for the 2009/2010 and 2010/2011 academic years at the Geology Science Faculty, RomaTre University.

2008–2011

Substitute Teacher

Public High School, Rome (Italy)

High School Chemistry Teacher at the following Public High Schools as short-term occasional teacher for each school year:

- **Federico Caffè High School** (2011/2012 school year).
- **Giorgio de Chirico High School of the Art** (2010/2011 school year).
- **Caravillani High School of the Art** (2007/2008 school year).

May 2007–Jul 2007

Scientific consultant

FAO-Food and Agriculture Organization of the United Nations, Rome (Italy)

Technico-Scientific support to the Food Quality and Standards Service, Nutrition and Consumer Protection Division for the Risk/Benefit assessment of Nanotechnology in food sector.

Jul 2006–Oct 2006

Volunteer

FAO-Food and Agriculture Organization of the United Nations

Technico-Scientific support to the Food Quality and Standards Service, Nutrition and Consumer Protection Division for the Risk/Benefit assessment of the active chlorine and alternative disinfectants in food sector.

Mar 2006–Oct 2006

Volunteer

Istituto Superiore di Sanità

Internship trainer for measuring pesticide residue levels in food matrices by means of standard analytical methods.

Oct 1994–Oct 1995

Military National Service (Servizio di leva militare obbligatorio)

Ministry of Italian Navy, Rome (Italy)

Administration assistant and lifeguard on board and on costal bathing areas with the rank of Sottocapo on the Nocchiere di Porto category at La Spezia and Palinuro NavyStation.

EDUCATION AND TRAINING

Nov 2007–Mar 2011

PhD in Materials Engineering

La Sapienza University, Rome (Italy)

EQF level 8

Achievement of the Research Doctorate with the judgment of the Commission, unanimous,

Excellent.

The work of Thesis was focused on synthesis, characterization and utilization of advanced nanomaterials for developing molten carbonate fuel cell devices in order to convert efficiently the biomass chemical energy to electricity and heat.

Nov 2005–Mar 2007 Master Degree (second level) in Analytical Chemistry and Quality Control
La Sapienza University, Rome (Italy)

EQF level 8

Achievement of the 2nd level Master degree with the awarding of 50 ECM credits.

The work of Thesis was focused on synthesis, characterization and utilization of advanced nanomaterials for developing molten carbonate fuel cell devices.

Nov 1995–Sep 2004 Advanced University Degree (Laurea Quinquennale V.O.) in Industrial Chemistry
La Sapienza University, Rome (Italy)

EQF level 7

Achievement of the five-year Degree Diploma with full marks, 110/110.

The “Advanced University Degree” is equivalent to the “Bachelor’s Degree” plus the “1st level Master Degree”, based on the agreement for the referencing of the Italian framework qualification system to European Qualifications Framework (EQF) referred to Recommendation of the European Parliament, Council of 23 April 2003.

The work of Thesis was focused on the preparation, characterization and utilization of advanced materials for developing lithium batteries.

Sep 1987–Jul 1992 Scientific High School Diploma (Diploma di Maturità Scientifica)
J.F.Kennedy Public High School, Rome (Italy)

PERSONAL SKILLS

Mother tongue(s) Italian

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem-solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital skills - Self-assessment grid

- Programming languages: Fortran, HTML, PHP, LABview
- Operating systems: Windows
- Application software: Microsoft Office (Word, PowerPoint, Excel, Access, Outlook), LATEX, Acrobat, MATLAB, Octave, Σ-Plot, Origin, KaleidaGraph, ChemSketch, IsisDraw, Flash, DreamWeaver, Parvus, ZSimp, GSAS, EXPO, VESTA.
- Other: Internet; Computer security

Other skills	<p>Specific skills in chemistry and computer science are acquired from the following schools:</p> <ul style="list-style-type: none"> ■ SCHOOLS ON CHEMISTRY AND ENGINEERING <ul style="list-style-type: none"> □ "LabVIEW Core 1", National Instrumentum, 12-14 Dicembre 2016 presso l'Università Roma Tre □ "LabVIEW Core 2", National Instrumentum, 30-31 Gennaio 2017 presso l'Università Roma □ International EXPO/SIR Workshop, 10-13.06.2014 at University of Bari, Italy □ □ COMSOL Multiphysics, 27.09.2012 at University of Rome La Sapienza, Italy □ Chemiometry, 26-29.01.2009 at University of Genoa, Italy □ Valuation and Accreditation of Laboratory for Food Safety Controls, ORL-Valuation and Accreditation Organism, 19-20.12.2008 at the Istituto Superiore di Sanità, Rome, Italy □ Chemical Risk and REACH Regulatory, 10-19.11.2008 at ISPRA-National Italian Institute for Environmental Protection, Rome, in collaboration with Ministry of Labor, Health and Social Policy, Ministry of Environment and Territorial Sea Tutelage, Ministry of Economy Development and ISS-National Italian Institute of Health. □ Experimental Design and Multivariate analysis, 15-18.09.2008 at University of Genoa, Italy. □ Theory and Practice of Electrochemical Impedance Spectroscopy, 15-18.07.2008 at University of Bath, United Kingdom □ Thermal analysis – Applications and Results Interpretation, 01.04.2008 at Mettler Toledo, Pomezia (RM), Italy. □ Characterization of pharmaceutical materials, 17-18.07.2007 at TA Instrument, Rome, Italy. ■ SCHOOLS ON COMPUTER SCIENCE <ul style="list-style-type: none"> □ HTML programming language for website building, Jan./Feb.2007 at ENI, Rome, Italy. □ PHP programming language for interactive website building, Jan./Feb.2007 at ENI, Rome, Italy. □ Flash software for interactive animation making, Jan./Feb.2007 at ENI, Rome, Italy.
Driving licence	A, B

ADDITIONAL INFORMATION

Certifications	<p>Italian Habilitation to the Chemist Profession earned in 2005.</p> <p>Lifeguard license, obtained in 1995</p>
Honours and awards	<ul style="list-style-type: none"> ■ Key scientific article in Advances in Engineering - 2017, as recognition for the contribution to the research of excellence in the science and engineering sector with the publication "Quality by design approach for SrTiO₃ perovskite nanomaterials synthesis" (Journal of Materials Science, 2016, 51:96499668). ■ Best original scientific article in November 2016, in recognition of an excellent original research work in the publication "Quality by design approach for SrTiO₃ perovskite nanomaterials synthesis" (Journal of Materials Science, 2016, 51:96499668), that got the nomination for the 2016 Cahn Prize. ■ Award SIF2011, for the best PhD project dedicated to sustainable energy, Sustainability International Forum, 20 June 2011, Rome, Italy. ■ Award POLOIDROGENO 2009, for the Best Doctoral Thesis, New Energy Frontiers Congress, 17-19 June 2009, Gaeta, Italy. ■ Grant HYSYDAYS 2009, for the best Research Work by young researcher, Hysydays Congress, 7-9 October, 2009, Turin, Italy. ■ University tax-exemption, due to the high academic achievements during the PhD thesis. ■ Student Grant by working as University Library Assistant, due to the high level of achievement in the academic career.
Publications	Author of about 80 scientific papers (patents, manuscripts and conference proceedings), some of

which are indexed on internationally relevant databases with **H-index 11** and **393 citations**. Some titles are listed below in order to show the high level of expertise in many areas of interest of environmental sustainability, ranging from the development of advanced technologies for preventing, managing and monitoring pollutants to the use of conventional technologies for performing environmental chemical analyses:

PATENTS

- Procedimento Termochimico per la Produzione di Rivestimenti Ceramici Protettivi su Acciai Inossidabili., S.Frangini, A.Maschi e **F.Zaza**, brevetto ENEA N°RM2010A000583, data di deposito: 04.11.2010

PAPERS WITH ISI INDEX

- Quality by design approach to optimize cladodes soluble fiber processing extraction in *Opuntia ficus indica* (L.) Miller, L.Bacchetta, O.Maccioni, V.Martina, E.Bojorquez-Quintal, F.Persia, S.Procacci and **F.Zaza**, Journal of Food Science and Technology, **ISSN- Print:0022-1155, ISSNOnline: 0975-8402**, <https://doi.org/10.1007/s13197-019-03794-7>, 2019, pp.1-8.
- Optimization of Working Conditions for Perovskite-Based Gas Sensor Devices by Multiregression Analysis, **F.Zaza**, V.Palozzi and E.Serra, Journal of Nanotechnology, ISSN-print: 1687-9503, **ISSN-online: 1687-9511**, 2019, Article ID 4628765, pp.1-19
- Gas sensors for sustainable and safe integrated gasification-FC system, V.Palozzi, **F.Zaza**, A.DiCarlo, E.Bocci and M.Carlini, International Journal of Hydrogen Energy, **ISSN:0360-3199**, vol.42, 2017, pp. 29606-29619
- Monitoraggio e Caratterizzazione Geochimica delle Acque Superficiali, Sotterranee e dei Sedimenti Fluviali dell'Area di San Giuliano di Puglia (CB), M.Proposito, G.Armiento, M.DeCassan, M.R.Montereali, E.Nardi, C.Ubaldi, **F.Zaza**, M.Angelone and S.Chiavarini, ENEA-Rapporto Tecnico 2016, RT/2016/14/ENEA
- Gas sensors for sustainable and safe bioenergy production from an integrated gasification-FC system, V.Palozzi, **F.Zaza**, E.Serra, A.DiCarlo, M.Villarini and M.Carlini, WHEC-World Hydrogen Energy Conference Proceedings , **ISBN:978-1-5108-3835-2**, 2016, p.893-8942016, p.893-894
- Quality by Design Approach for SrTiO₃ Perovskite Nanomaterials Synthesis, **F.Zaza**, G.Orio and E.Serra, Journal of Materials Science, **ISSN- Print:0022-2461, ISSN-Online:1573-4803**, 2016, pp.9649-9668.
- Perovskite Sensing Materials for Syngas Composition Monitoring and Biomass Gasifier Numerical Model Validation: a Preliminary Approach, V.Palozzi, A.DiCarlo, **F.Zaza**, E.Serra, E.Bocci, M.Villarini, M.Carlini, AIP Conference Proceedings, **ISSN-Print:0094-243X, ISSN-Online:1551-7616, ISBN:978-0-7354-1314-6**, vol.1749, 2016, pp.20002.1- 20002.8.
- Catalytic Combustion of Methane by Perovskite-Type Oxide Nanoparticles as Pollution Prevention Strategy, **F.Zaza**, I.Luisetto, E.Serra, S.Tuti and M.Pasquali, AIP Conference Proceedings, **ISSN-Print:0094-243X, ISSN-Online:1551-7616, ISBN:978-0-7354-1314-6**, vol.1749., 2016, pp.20003.1- 20003.9.
- Combustion synthesis of LaFeO₃ sensing nanomaterial, **F. Zaza**, V. Palozzi, E. Serra and M. Pasquali, AIP Conference Proceedings, **ISSN-Print:0094-243X, ISSN-Online:1551-7616, ISBN:978-0-7354-1314-6**, vol.1667, 2015, pp.020003.1-020003.11.
- Low-temperature capacitive sensor based on perovskite oxides, **F.Zaza**, G. Orio, E. Serra, F. Caprioli and M. Pasquali, AIP Conference Proceedings, **ISSN-Print:0094-243X, ISSN-Online:1551-7616, ISBN:978-0-7354-1314-6**, vol.1667, 2015, pp.020004.1-020003.8.
- Degradation behavior of a commercial 13Cr ferritic stainless steel (SS405) exposed to an ambient air atmosphere for IT-SOFC interconnect applications, S.Frangini, A.Maschi, S.J.McPhail, T.Soccio and **F.Zaza**, Materials Chemistry and Physics, **ISSN:0254-0584**, vol.144 (3), 2014, pp.491-497.
- Purification of nickel or cobalt ion containing effluents by electrolysis on reticulated vitreous carbon cathode, A.Dell'Era, M.Pasquali, C.Lupi and **F.Zaza**, Hydrometallurgy, **ISSN:0304-386X**, vol.150, 2014, pp.1-8.
- Temperature-independent sensors based on perovskite-type oxides, **F.Zaza**, S.Frangini, J.Leoncini, I.Luisetto, A.Maschi, M.Pasquali, S.Tuti, AIP Conference Proceedings, **ISSN-Print:0094-243X, ISSN-Online:1551-7616, ISBN:978-0-7354-1314-6**, vol.603, 2014, pp.53-61.
- Perovskite synthesis via complex sol-gel process to immobilize radioactive waste elements, T.Smoliński, A.Deptuła, T.Olczak, W.Łada, M.Brykała, P.Wojtowicz, D.Wawszczak, M.Rogowski and **F.Zaza**, Journal of Radioanalytical and Nuclear Chemistry, **ISSN-Print:0236-5731; ISSN-Online:1588-2780**, vol.299 (1), 2014, pp.675-680.
- Nuclear Waste Immobilization into Structure of Zirconolite by Complex Sol Gel Process,

- T.Smoliński, A.Deptuła, W.Lada, T.Olczak, A.G. Chmielewski and **F.Zaza**, MRS Proceedings, Cambridge University Press, **ISSN:1946-4274**, vol.1683, Symposium S, 2014.
- Innovative nanomaterials for fuel cells fed with biogas, **F.Zaza**, M.Pasquali, E.Simonetti, C.Paoletti, A.Dell'Era, Il Nuovo Cimento Colloquia, **ISSN-Print:2037-4909; ISSN-Online:1826-9885**, Vol.36 (2), 2013, pp.73.
 - Synthesis and characterization of TiO₂ nanotubes as anodic material in lithium-ion batteries, A.Dell'Era, F.Mura, M.Pasquali, A.Pozio and **F.Zaza**, Il Nuovo Cimento Colloquia, **ISSN-Print:2037-4909; ISSN-Online:1826-9885**, vol.36 (2), 2013, p.65.
 - Metallic Interconnectors for Intermediate Temperature Solid Oxide Fuel Cell, **F.Zaza**, S.Frangini, A.Maschi, T.Soccio, 5th edition of the "European Fuel Cell Technology & Applications Piero Lunghi Conference", **ISBN:978-88-8286-297-8**, 11-13 December 2013 Rome, Italy, EFC13205.
 - Comparative Assessment of Integrated Systems for Bioenergy Production by Fuel Cell Devices: Environmental Aspects, **F.Zaza**, G.Barberio, D.Ciarla and M.Pasquali, 5th edition of the "European Fuel Cell Technology & Applications Piero Lunghi Conference", **ISBN:978-88-8286-297-8**, 11-13 December 2013 Rome, Italy, EFC13207.
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