

ALLEGATO B

Decreto Rettore Università di Roma “La Sapienza” n. 2267/2021, codice concorso 2021RTDB022

FRANCESCA ANNA SCARAMUZZO

Curriculum Vitae

Place Roma

Date 29/09/2021

Part I – General Information

Full Name	FRANCESCA ANNA SCARAMUZZO
Spoken Languages	Italian (Mother tongue); English (Proficient User); French (A2); Dutch (A1) Cambridge First Certificate in English Grade A, December 2002

Part II – Education

Type	Date	Institution	Notes (Degree, Experience,...)
PhD	08/07/2010	University of Twente, Enschede, The Netherlands	<ul style="list-style-type: none">• Thesis topic: Functionalization of Inorganic Surfaces: from the Synthesis of New Monolayers to the Immobilization of Biological Material• Joint research doctoral thesis project with University of Rome “La Sapienza”• Supervisors: Prof. Jurriaan Huskens, Prof. Mario Barteri
PhD in Chemical Sciences	21/12/2009	University of Rome “La Sapienza”, Rome, Italy	<ul style="list-style-type: none">• Thesis topic: Functionalization of Inorganic Surfaces: from the Synthesis of New Monolayers to the Immobilization of Biological Material• Joint research doctoral thesis project with University of Twente (15 months spent abroad)• Supervisors: Prof. Mario Barteri, Prof. Jurriaan Huskens
Master’s degree in Chemistry	27/10/2006	University of Rome “La Sapienza”, Rome, Italy	<ul style="list-style-type: none">• Thesis topic: Synthesis and characterization of new linker molecules for Au and Si surface functionalization for biosensing applications• Supervisors: Prof. Mario Barteri, Prof. Giancarlo Doddi• Mark: 110/110 cum laude
Bachelor’s degree in Chemistry	15/07/2004	University of Rome “La Sapienza”, Rome, Italy	<ul style="list-style-type: none">• Thesis topic: Study of α-lactalbumin conformational variations in hydro-alcoholic solutions via circular dichroism and fluorescence spectroscopy• Mark: 110/110 cum laude
High school leaving qualification	07/2001	Liceo Scientifico G.B.Scorza, Cosenza, Italy	<ul style="list-style-type: none">• Mark: 100/100

CV – Francesca Anna Scaramuzzo

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
04/05/2020	Today (contract expiring next 03/05/2023)	Department of Basic and Applied Sciences for Engineering (SBAI), University of Rome “La Sapienza”, Rome, Italy	Fixed-term Assistant Professor (RTD-A, according to Italian Law n. 240/2010) – SSD CHIM/07
01/03/2019	28/02/2020	Department of Basic and Applied Sciences for Engineering (SBAI), University of Rome “La Sapienza”, Rome, Italy	Post-doctoral position (Assegno di ricerca, Italian Law n. 240/2010)
01/02/2018	31/01/2019	Department of Basic and Applied Sciences for Engineering (SBAI), University of Rome “La Sapienza”, Rome, Italy	Post-doctoral position (Assegno di ricerca, Italian Law n. 240/2010) – SSD CHIM/07
01/10/2015	30/09/2016	Department of Basic and Applied Sciences for Engineering (SBAI), University of Rome “La Sapienza”, Rome, Italy	Post-doctoral position (Assegno di ricerca, Italian Law n. 240/2010) – SSD CHIM/07
01/06/2013	31/05/2014	Department of Basic and Applied Sciences for Engineering (SBAI), University of Rome “La Sapienza”, Rome, Italy	Post-doctoral position (Assegno di ricerca, Italian Law n. 240/2010) – SSD CHIM/07
01/05/2011	30/04/2013	Department of Chemical Sciences, University of Padua, Padua, Italy	Post-doctoral position (Assegno di ricerca)
01/05/2010	30/04/2011	Department of Chemical Sciences, University of Padua, Padua, Italy	Post-doctoral position (Assegno di ricerca)
01/05/2017	31/10/2017	Department of Basic and Applied Sciences for Engineering (SBAI), University of Rome “La Sapienza”, Rome, Italy	Research Fellow (Borsa di studio)
02/05/2012	29/05/2012	Department of Chemistry, Nanoscience Center, University of Jyvaskyla, Jyvaskyla, Finland	Post-doctoral visiting fellow, Short Term Scientific Mission granted by the COST Action N. CM1005 (Supramolecular Chemistry in Water)

IIIB – Other Appointments

Start	End	Institution	Position
01/06/2014	31/05/2015	Accademia Nazionale dei Lincei	Post-doctoral research fellow “Guido Donegani Foundation” for research in Synthetic Organic Chemistry for 2014

Part IV – Teaching experience

Year	Institution	Lecture/Course
2021/2022	Master’s degree in Nanotechnology Engineering, University of Rome “La Sapienza”, Rome, Italy	<i>Chemistry for Nanotechnology</i> (SSD CHIM-07, 9 CFU, lectures in English for foreign students)
2020/2021	Master’s degree in Nanotechnology Engineering, University of Rome “La Sapienza”, Rome, Italy	<i>Chemistry for Nanotechnology</i> (SSD CHIM-07, 9 CFU, lectures in English for foreign students)
2019/2020	Master’s degree in Nanotechnology Engineering, University of Rome “La Sapienza”, Rome, Italy	<i>Chemistry for Nanotechnology</i> (SSD CHIM-07, 9 CFU, lectures in English for foreign students)
2018/2019	Master’s degree in Nanotechnology Engineering, University of Rome “La Sapienza”, Rome, Italy	<i>Chemistry for Nanotechnology</i> (SSD CHIM-07, 3 CFU, lectures in English for foreign students)
2018/2019	Bachelor’s degree in Mechanical Engineering, University of Rome “La Sapienza”, Rome, Italy	<i>Chemistry</i> (SSD CHIM-07, 3 + 3 CFU)
2017/2018	Master’s degree in Nanotechnology Engineering, University of Rome “La Sapienza”, Rome, Italy	<i>Advanced Chemistry</i> (SSD CHIM-07, 3 CFU, lectures in English for foreign students)
2017/2018	Bachelor’s degree in Mechanical Engineering, University of Rome “La Sapienza”, Rome, Italy	<i>Chemistry</i> (SSD CHIM-07, 3 + 3 CFU)
2017/2018	Master’s degree in Biomedical Engineering, University of Rome “La Sapienza”, Rome, Italy	<i>Chemistry and Biochemistry for Biomedical Technologies</i> (SSD CHIM-07, 3 CFU)
2016/2017	Bachelor’s degree in Clinical Engineering, University of Rome “La Sapienza”, Rome, Italy	Tutorship activity for <i>Chemistry</i> class, SSD CHIM-07, 48 hours
2012/2013	Master’s degree in Industrial Chemistry, University of Padova	Tutorship activity for <i>Inorganic Synthesis and Reactivity</i> class, 25 hours
2011/2012	Bachelor’s degree in Chemistry, University of Padova	Tutorship activity for <i>Organic Chemistry</i> class, 25 hours
2011/2012	Bachelor’s degree in Industrial Chemistry, University of Padova	Tutorship activity for <i>Organic Chemistry</i> class, 12 hours
2011/2012	Bachelor’s degree in Material Science, University of Padova	Tutorship activity for <i>Organic Chemistry</i> class, 12 hours

Part V - Society memberships, Awards and Honors

Year	Title
2021	Member of AICIng (<i>Italian Association of Chemistry for Engineering</i>)
2021	Member of SCI (<i>Italian Chemical Society</i>)
2017	Fellowship for participation to the First National Italian School on Chemical Sensors, offered by <i>Electrochemistry Group (Divisione di Elettrochimica)</i> of the <i>Italian Chemical Society</i>
2014	Post-doctoral Fellowship offered by <i>Guido Donegani's Foundation</i> for Research within the field of Organic Chemistry for 2014
2008	Fellowship for PhD Students performing joint research doctoral thesis projects offered by University of Rome "La Sapienza"
2008	<i>Alessandro D'Aprano Award</i> offered by <i>Ordine dei Chimici LUAM</i> , 3rd Young Chemists Congress, Department of Chemistry, University of Rome "La Sapienza", for best Poster presentation
2001	Fellowship offered by <i>Federazione Nazionale dei Cavalieri del Lavoro</i> to live in <i>Collegio Universitario Lamaro-Pozzani</i> (www.collegiocavalieri.it) and renewed till 2006 on the basis of number of passed exams and obtained marks at University (average of the requested marks 27/30)
2001	<i>Alfieri del Lavoro Award – Medal of the President of the Italian Republic</i> offered by <i>Federazione Nazionale dei Cavalieri del Lavoro</i> on the basis of the results obtained in high school and personally given by the past President of the Italian Republic Carlo Azeglio Ciampi

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program	Grant value
2020	A preliminary Study Towards A circular Green-use of Eco-friendly barrier masks for SARS-CoV-2 protection: production, use, decontamination, reuse and recycling (STAGES)	Progetti Medi di Ateneo, University of Rome "La Sapienza", Protocol n. RM120172B479E2E8, Investigator	11.000 €
2020	Advanced Platform for nanoscale Electrochemical Synthesis and Characterizations based on Atomic Force Microscopy (PESCA) as tool of visualization at high spatial resolution	Grandi Attrezzature Scientifiche, University of Rome "La Sapienza", Protocol n. GA120173054F048C, Investigator	316.712 €
2018	Strain characterization via Tip-enhanced Raman spectroscopy in micro- and nano- Electronic Strain-engineered Systems and devices (STRESS)	H2020 Projects – Collaborations, University of Rome "La Sapienza", Protocol n. PH1181643625A638, Investigator	26.000 €
2014	Synthesis of a library of pyrylium-based compounds to be used as DNA intercalating agents	Post-doctoral fellowship for research within the field of Organic Chemistry by <i>Guido Donegani's Foundation</i> , <i>Accademia Nazionale dei Lincei</i> , Protocol n. 38/2014/A, Principal Investigator	20.000 €

Part VII – Research Activities

Keywords	Brief Description
Energy, TiO ₂ nanostructures, electrode materials	At the moment, F.A. Scaramuzzo works on materials chemistry for energy. In detail, she is interested in the electrochemical synthesis of TiO ₂ nanotube and nanowire arrays in polar organic solvents. The optimized reaction conditions (e.g. cell geometry, anodic bath composition, potential applied, post-synthetic thermal treatment) allow to obtain the perfect control of morphology and crystal structure (<i>J. Phys.Chem. C</i> 2017 , <i>121</i> , 24871). F.A. Scaramuzzo successfully used these materials for water splitting (<i>Chem. Eng. Trans.</i> 2014 , <i>41</i> , 223; <i>J. Appl. Electrochem.</i> 2015 , <i>45</i> , 727) and developed an innovative method to obtain multilayers of nanotubes with different diameter on Ti and ITO (<i>AIP Conf. Proc.</i> 2015 , <i>1667</i> , 020005). Moreover, F.A. Scaramuzzo works on the development of electrode nanomaterials for lithium-ion and lithium-sulfur batteries (<i>Materials</i> 2018 , <i>11</i> , 56; <i>Appl. Sci.</i> 2019 , <i>9</i> , 1913; <i>J. Electroanal. Chem.</i> 2020 , <i>870</i> , 114239), even derived from waste materials (<i>Solid State Ionics</i> 2018 , <i>324</i> , 20), with the goal of optimizing the production on kilo-scale.
Self-assembled Monolayers, Nanomaterials, Molecular recognition, AFM	During her PhD, F.A. Scaramuzzo studied and applied the main techniques for functionalization of inorganic surfaces. In detail, she successfully functionalized Au surfaces with organic molecules, biological macromolecules and cells (<i>J. Phys. Chem. B</i> 2009 , <i>113</i> , 15895; <i>J. Biomed. Mat. Res. A</i> 2009 , <i>91</i> , 370). Moreover, she synthesized organic molecules for functionalization of monolayers on silica, performing click reactions in order to obtain a reactive platform for amines (<i>Chem. Commun.</i> 2010 , <i>46</i> , 4193). More recently, she moved from functionalization of surfaces to synthesis, functionalization and characterization of core-shell nanoparticles for theragnostic applications (<i>Biomatter</i> 2014 , <i>4</i> , e29507; <i>Clin. Nucl. Med.</i> 2015 , <i>40</i> , e-104; <i>AIP Conf. Proc.</i> 2016 , <i>1749</i> , 020006; <i>Int. J. Nanotechnol.</i> 2016 , <i>13</i> , 659; <i>Nanoscale</i> 2017 , <i>9</i> , 5671; <i>J. Magn. Magn. Mater.</i> 2020 , <i>516</i> , 167299). Within long-standing collaborations, she also characterizes functionalized inorganic surfaces, metallic and polymeric nanoparticles <i>via</i> atomic force microscopy, both in air and in fluid, for energy and molecular recognition (<i>Materials</i> 2017 , <i>10</i> , 258; <i>Colloids Surf. A</i> 2017 , <i>532</i> , 125; <i>Microchem. J.</i> 2018 , <i>138</i> , 430; <i>Appl. Surf. Sci.</i> 2018 , <i>445</i> , 404; <i>Int. J. Biol. Macromol.</i> 2020 , <i>146</i> , 790; <i>Mater. Sci. Eng C</i> , 2020 , <i>117</i> , 111337; <i>ACS Appl. Nano Mater.</i> 2021 , <i>4</i> , 2930; <i>Coll. Surf. B</i> 2021 , <i>203</i> , 111727).
Tris(2-pyridylmethyl) amine, Circular dichroism, Molecular recognition, Principal Components Analysis	Finally, especially during her post-doc at the University of Padova, F.A. Scaramuzzo worked on Zn(II) and Co(II) organometallic complexes based on tris(2-pyridylmethyl)amine ligands in order to obtain self-assembling and cage-like structures for molecular recognition and hydrogen production (<i>Dalton Trans.</i> 2016 , <i>45</i> , 14764; <i>J. Am. Chem. Soc.</i> 2017 , <i>139</i> , 6456; <i>RSC Adv.</i> , 2018 , <i>8</i> , 19494; <i>Dalton Trans.</i> 2020 , <i>49</i> , 10011). In this field, besides developing abilities concerning organic synthesis, F.A. Scaramuzzo studied induced chirality <i>via</i> circular dichroism spectroscopy and rationalized the obtained results using multivariate statistical analysis techniques (<i>Chem. Eur. J.</i> 2013 , <i>19</i> , 16809; <i>Eur. J. Org. Chem.</i> 2017 , 1438; <i>Chirality</i> 2019 , <i>31</i> , 375).

Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	32	Scopus	2009	2021
Conference Papers [international]	2	Scopus	2015	2016
Editorials [international]	2	Scopus	2020	2021
Book Chapter [scientific]	1	Google Scholar	2013	2013

The following data are referred to Scopus Database, and the Impact factor is considered for the year of publication

Total Impact factor	127.525
Total Citations	357
Average Citations per Product	9.9167
Hirsch (H) index	10
Normalized H index*	0.83

*H index divided by the academic seniority (time span from PhD graduation)

Active participant to 35 national and international Congresses and training schools:

- 14 oral communications (2 invited)
- 12 poster presentations (2 of which selected for flash presentation, 1 awarded)
- 17 co-authored oral or poster communications presented by co-workers

Part IX– Selected Publications

01) Title: *Study of the interaction mechanism between hydrophilic thiol capped gold nanoparticles and melamine in aqueous medium*

Authors: S. Cerra, T. Salamone, F. Sciubba, M. Marsotto, C. Battocchio, S. Nappini, **F.A. Scaramuzzo**, R. Li Voti, C. Sibilia, R. Matassa, A.M. Beltrán, G. Familiari, I. Fratoddi

Product type: Paper on international peer-reviewed journal

Title of the journal: *Colloids and Surfaces B: Biointerfaces*

Press release: Elsevier

ISSN: 0927-7765

Publication Year: 2021

Volume: 203

Article number: 111727

Impact Factor: 5.268

Citations: 1

02) Title: *Insights about the interaction of methotrexate loaded hydrophilic gold nanoparticles: Spectroscopic, morphological and structural characterizations*

Authors: S. Cerra, R. Matassa, A.M. Beltrán, G. Familiari, C. Battocchio, I. Pis, F. Sciubba, **F.A. Scaramuzzo**, A. Del Giudice, I. Fratoddi

Product type: Paper on international peer-reviewed journal

Title of the journal: *Materials Science and Engineering C*

Press release: Elsevier

ISSN: 0928-4931

Publication Year: 2020

Volume: 117

Article number: 111337

Impact Factor: 7.328

Citations: 3

03) Title: *Extending Substrate Sensing Capabilities of Zinc tris(2-pyridylmethyl)amine based Stereodynamic Probe*

Authors: **F.A. Scaramuzzo**, E. Badetti, G. Licini, C. Zonta

Product type: Paper on international peer-reviewed journal

Title of the journal: *Chirality*

Press release: Wiley Periodicals, Inc

Online ISSN: 1520-636X

Publication Year: 2019

Volume: 31

Pages: 375 - 383

Impact Factor: 1.927

Citations: 4

- 04) Title: *Integration of graphene onto silicon through electrochemical reduction of graphene oxide layers in non-aqueous medium*
Authors: A. G. Marrani, A. C. Coico, D. Giacco, R. Zanoni, **F.A. Scaramuzzo**, R. Schrebler, D. Dini, M. Bonomo, E.A. Dalchiele
Product type: Paper on international peer-reviewed journal
Title of the journal: *Applied Surface Science*
Press release: Elsevier ISSN: 0169-4332
Publication Year: 2018 Volume: 445 Pages: 404 - 414
Impact Factor: 4.439 Citations: 18
- 05) Title: *Phase Transition of TiO₂ Nanotubes: a X-ray Study as a Function of Temperature*
Authors: **F.A. Scaramuzzo**, (§) A. Dell’Era, G. Tarquini, R. Caminiti, P. Ballirano, M. Pasquali
Product type: Paper on international peer-reviewed journal
Title of the journal: *Journal of Physical Chemistry C*
Press release: ACS ISSN: 1932-7447 (On-line ISSN: 1932-7455)
Publication Year: 2017 Volume: 121 Pages: 24871 - 24876
Impact Factor: 4.536 Citations: 4
 (§) corresponding author
- 06) Title: *Triggering Self-Assembly and Disassembly of a Supramolecular Cage*
Authors: C. Bravin, E. Badetti, **F.A. Scaramuzzo**, G. Licini, C. Zonta
Product type: Paper on international peer-reviewed journal
Title of the journal: *Journal of the American Chemical Society*
Press release: ACS ISSN: 0002-7863 (On-line ISSN: 1520-5126)
Publication Year: 2017 Volume: 139 Pages: 6456 - 6460
Impact Factor: 13.858 Citations: 38
- 07) Title: *Detection of Stiff Nanoparticles within Cellular Structures by Contact Resonance Atomic Force Microscopy Subsurface Nanomechanical Imaging*
Authors: M. Reggente, D. Passeri, L. Angeloni, **F.A. Scaramuzzo**, M. Barteri, F. De Angelis, I. Persiconi, M.E. De Stefano, M. Rossi
Product type: Paper on international peer-reviewed journal
Title of the journal: *Nanoscale*
Press release: RSC On-line ISSN: 2040-3372
Publication Year: 2017 Volume: 9 Pages: 5671 - 5676
Impact Factor: 7.367 Citations: 16
- 08) Title: *Second-Generation Tris(2-pyridylmethyl)amine–Zinc Complexes as Probes for Enantiomeric Excess Determination of Amino Acids*
Authors: **F.A. Scaramuzzo**, E. Badetti, G. Licini, C. Zonta
Product type: Paper on international peer-reviewed journal
Title of the journal: *European Journal of Organic Chemistry*
Press release: Wiley-VCH On-line ISSN: 1099-0690
Publication Year: 2017 Volume: 2017 Pages: 1438 - 1442
Impact Factor: 3.068 Citations: 19
- 09) Title: *Photoinduced hydrogen evolution with new tetradentate cobalt(II) complexes based on the TPMA ligand*
Authors: M. Natali, E. Badetti, E. Deponi, M. Gamberoni, **F.A. Scaramuzzo**, A. Sartorel, C. Zonta
Product type: Paper on international peer-reviewed journal

Title of the journal: *Dalton Transactions*

Press release: RSC

ISSN: 1477-9226

Publication Year: 2016

Volume: 45

Pages: 14764 - 14773

Impact Factor: 4.177

Citations: 28

- 10) Title: *Efficient Photocurrent Generation using a Combined Ni-TiO₂ Nanotubes Anode*
Authors: **F.A. Scaramuzzo**, (§) A. Pozio, A. Masci, F. Mura, A. Dell'Era, A. Curulli, M. Pasquali

Product type: Paper on international peer-reviewed journal

Title of the journal: *Journal of Applied Electrochemistry*

Press release: Springer

ISSN: 0021-891X (On-line ISSN: 1572-8838)

Publication Year: 2015

Volume: 45

Pages: 727 - 733

Impact Factor: 2.223

Citations: 3

(§) corresponding author

- 11) Title: *TiO₂ Nanotubes Photo-anode: an Innovative Cell Design*

Authors: **F.A. Scaramuzzo**, (§) M. Pasquali, F. Mura, A. Pozio, A. Dell'Era, A. Curulli

Product type: Paper on international peer-reviewed journal

Title of the journal: *Chemical and Engineering Transactions*

Press release: AIDIC

ISSN: 2283-9216 ISBN: 978-88-95608-32-7

Publication Year: 2014

Volume: 41

Pages: 223 - 228

Impact Factor: 1.044

Citations: 8

(§) corresponding author

- 12) Title: *Determination of Amino Acids Enantiopurity and Absolute Configuration: Synergism between Configurationally Labile Metal-based Receptors and Dynamic Covalent Interactions*

Authors: **F.A. Scaramuzzo**, G. Licini, C. Zonta

Product type: Paper on international peer-reviewed journal

Title of the journal: *Chemistry – A European Journal*

Press release: Wiley-VCH

On-line ISSN: 1521-3765

Publication Year: 2013

Volume: 19

Pages: 16809 - 16813

Impact Factor: 5.696

Citations: 38

Part X – Other Publications

XA – Papers Published on international, peer-reviewed journals indexed on Scopus

1. R. Petrucci, M. Pasquali, **F.A. Scaramuzzo**, A. Curulli, Recent Advances in Electrochemical Chitosan-Based Chemosensors and Biosensors: Applications in Food Safety, *Chemosensors* **2021**, 9, 254. (I.F. 3.398)
2. I. Fratoddi, S. Cerra, T. Salamone, R. Fioravanti, F. Sciubba, E. Zampetti, A. Macagnano, A. Generosi, B. Paci, **F.A. Scaramuzzo**, R. Matassa, G. Familiari, Functionalized Gold Nanoparticles as an Active Layer for Mercury Vapor Detection at Room Temperature, *ACS Applied Nano Materials* **2021**, 4 (3), 2930 – 2940. (I.F. 5.097)
3. L. Angeloni, D. Passeri, **F.A. Scaramuzzo**, P.G. Schiavi, F. Pagnanelli, M. Rossi, Magnetic Force Microscopy Characterization of Core-Shell Cobalt-Oxide/Hydroxide Nanoparticles, *J. Magn. Magn. Mater.* **2020**, 516, 167299. (I.F. 2.993)
4. E. Badetti, V. Lloveras, **F.A. Scaramuzzo**, K. Wurst, J. Veciana, J. Vidal-Gancedo, G. Licini, C. Zonta, Tris-pyridylmethylamine (TPMA) complexes functionalized with persistent nitronyl nitroxide organic radicals, *Dalton Trans.* **2020**, 49, 10011-10016. (I.F. 4.174)
5. G. Tarquini, A. Dell'Era, P.P. Prosini, **F.A. Scaramuzzo**, C. Lupi, M. Pasquali, Polysulfide solutions effects on Li-S batteries performances, *J. Electroanal. Chem.* **2020**, 870, 114239. (I.F. 3.807)
6. L. Chronopoulou, **F.A. Scaramuzzo**, R. Fioravanti, A. Di Nitto, S. Cerra, I. Fratoddi, C. Palocci, Noble metal nanoparticle-based networks as a new platform for lipase immobilization, *Int. J. Biol. Macromol.* **2020**, 146, 790-797. (I.F. 4.784)

7. A. Dell’Era, F.A. Scaramuzzo, M. Stoller, C. Lupi, M. Rossi, D. Passeri, M. Pasquali, Spinning Disk Reactor Technique for the Synthesis of Nanometric Sulfur TiO₂Core–Shell Powder for Lithium Batteries, *Appl. Sci.* **2019**, *9*, 1913. (I.F. 2.217)
8. A. Dell’Era, M. Pasquali, G. Tarquini, F.A. Scaramuzzo, P. De Gasperis, P.P. Prosini, A. Mezzi, R. Tuffi, L. Cafiero, Carbon Powder Material from an Innovative High Pressure Water Jet Recycling Process of Tires Used as Anode in Alkali Ion (Li, Na) Batteries, *Solid State Ionics* **2018**, *324*, 20-27. (I.F. 2.751)
9. E. Badetti, N.A. Carmo dos Santos, F.A. Scaramuzzo, C. Bravin, K. Wurst, G. Licini, C. Zonta, Diastereoselective multi-component assemblies from dynamic covalent imine condensation and metal-coordination chemistry: mechanism and narcissistic stereochemistry self-sorting, *RSC Adv.* **2018**, *8*, 19494-19498. (I.F. 3.108)
10. I. Fratoddi, M. Rapa, G. Testa, I. Venditti, F.A. Scaramuzzo, G. Vinci, Response Surface Methodology for the Optimization of Phenolic Compounds Extraction from Extra Virgin Olive Oil with Functionalized Gold Nanoparticles, *Microchem. J.* **2018**, *138*, 430-437. (I.F. 3.034)
11. A. Dell’Era, M. Pasquali, E.M. Bauer, S. Vecchio Cipriotti, F.A. Scaramuzzo, C. Lupi, Synthesis, Characterization, and Electrochemical Behavior of LiMn_xFe_(1-x)PO₄ Composites Obtained from Phenylphosphonate-Based Organic-Inorganic Hybrids, *Materials* **2018**, *11*, 56, doi:10.3390/ma11010056. (I.F. 2.654)
12. I. Venditti, A. Cartoni, L. Fontana, G. Testa, F.A. Scaramuzzo, R. Faccini, C. Mancini Terracciano, E. Solfaroli Camillocci, S. Morganti, A. Giordano, T. Scotognella, D. Rotili, V. Dini, F. Marini, I. Fratoddi, Y³⁺ embedded in polymeric nanoparticles: Morphology, dimension and stability of composite colloidal system, *Colloids Surf. A* **2017**, *532*, 125-131. (I.F. 2.714)
13. I. Venditti, L. Fontana, F.A. Scaramuzzo, M. V. Russo, C. Battocchio, L. Carlini, L. Gonon, V.H. Mareau, I. Fratoddi, Nanocomposite based on functionalized gold nanoparticles and sulfonated poly(ether ether ketone) membranes: synthesis and characterization, *Materials* **2017**, *10*, 258, doi: 10.3390/ma10030258. (I.F. 2.654)
14. F. De Angelis, G. Berardi, F.A. Scaramuzzo, M. Liberatore, M. Barteri, Internalization of Core-Shell Superparamagnetic Nanoparticles into Human Granulocytes, *Int. J. Nanotechnol.* **2016**, *13*, 659-666. (I.F. 0.502)
15. M. Liberatore, M. Barteri, V. Megna, P. D’Elia, S. Rebonato, A. Latini, F. De Angelis, F.A. Scaramuzzo, M.E. De Stefano, N. Guadagno, S. Chondrogiannis, A.M. Maffione, D. Rubello, A. Pala, P.M. Colletti, Effect of External Magnetic Field on Intravenous ^{99m}Tc-labelled Aminosilane coated iron-oxide nanoparticles: demonstration in a rat model, *Clin. Nucl. Med.* **2015**, *40*, e104 – e110. (I.F. 4.278)
16. D. Passeri, C. Dong, M. Reggente, L. Angeloni, M. Barteri, F.A. Scaramuzzo, F. De Angelis, F. Marinelli, F. Antonelli, F. Rinaldi, C. Marianecchi, M. Carafa, A. Sorbo, D. Sordi, I.W.C.E. Arends, M. Rossi, Magnetic Force Microscopy: Quantitative Issues in Biomaterials, *Biomatter* **2014**, *4*, e29507. (I.F. 2.317)
17. F. Fabris, O. De Lucchi, I. Nardini, M. Crisma, A. Mazzanti, S.A. Mason, M.H. Lemee-Cailleau, F.A. Scaramuzzo, C. Zonta, (+)-*syn*-Benzotriborneol an Enantiopure C₃-Symmetric Receptor for Water, *Org. Biomol. Chem.* **2012**, *10*, 2464-2469. (I.F. 3.559)
18. F.A. Scaramuzzo, A. González-Campo, C.C. Wu, A. Velders, V. Subramaniam, G. Doddi, P. Mencarelli, M. Barteri, J. Huskens, P. Jonkheijm, Pyrylium Monolayers as Amino-reactive Platform, *Chem. Commun.* **2010**, *46*, 4193-4195. (I.F. 5.787)
19. F.A. Scaramuzzo, R. Salvati, B. Paci, A. Generosi, V. Rossi-Albertini, A. Latini, M. Barteri, Nanoscale In Situ Morphological Study of Proteins Immobilized on Gold Thin Films, *J. Phys. Chem. B* **2009**, *113*, 15895-15899. (I.F. 3.95)
20. D. Coletti, F.A. Scaramuzzo, L.C. Montemiglio, A. Pristerà, L. Teodori, S. Adamo, M. Barteri, Culture of Skeletal Muscle Cells in Unprecedented Proximity to a Gold Surface, *J. Biomed. Mat. Res. A* **2009**, *91*, 370-377. (I.F. 2.816)

XB – Conference Papers indexed on Scopus

1. L. Angeloni, D. Passeri, F.A. Scaramuzzo, D. Di Iorio, M. Barteri, D. Mantovani, M. Rossi, Measurement of the nonmagnetic coating thickness of core-shell magnetic nanoparticles by controlled magnetization magnetic force microscopy, *AIP Conf. Proc.* **2016**, *1749*, 020006; doi: 10.1063/1.4954489.
2. F.A. Scaramuzzo, (§) M. Pasquali, F. Mura, A. Dell’Era, From Single to Multiple TiO₂ Nanotubes Layers: Analysis of the Parameters which Influence the Growth, *AIP Conf. Proc.* **2015**, *1667*, 020005, doi:10.1063/1.4922561.
(§) corresponding author

XC – Editorials indexed on Scopus

1. F.A. Scaramuzzo, (§) A. González-Campo, A. Dell’Era, Cutting Edge Technologies by Silicon- And Silicon Oxide-Based Nanostructures, *Journal of Nanomaterials* **2021**, Article number 5478156. (I.F. 2.986)
(§) corresponding author

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2. M. Rossi, D. Passeri, F.A. Scaramuzzo, M. Vittori Antisari, Preface: NANOINNOVATION 2019, *AIP Conf. Proc.* **2020**, 2257, 010001.

XD – Book Chapters (not indexed on Scopus)

1. F. Marinello, F.A. Scaramuzzo, S. Dinarelli, D. Passeri, M. Rossi, Nanoscale characterization methods in plant disease management, chapter of the book *Nanotechnology-based Sustainable Alternatives for the Management of Plant Diseases*, Edited by G.M. Balestra, Elsevier **2021**, *Just accepted*.
2. F.A. Scaramuzzo, M. Barteri, P. Jonkheijm, J. Huskens, Stimuli-Responsive Monolayers, chapter of the book *Organic Nanomaterials*, Edited by T. Torres, G. Bottari, ISBN 978-1-118-01601-5 - John Wiley & Sons, Hoboken - New Jersey, **2013**, 347-368.

XE – Oral communications to Congresses and Schools (Speaker)

1. F.A. Scaramuzzo, M. Fortunato, M. S. Sarto, M. Pasquali, *Study of piezoelectric properties of TiO₂ nanotube arrays via Piezoresponse Force Microscopy (PFM)*, XII Congresso Nazionale AICInG, Reggio Calabria, 5-8-September 2021.
2. F.A. Scaramuzzo, M. Ottaviani, E. Gualtieri, A. Dell’Era, M. Pasquali, *Advanced electrodes for Li-ion, Na-ion and Li-S batteries: from recycled materials to nanostructures*, First Italian Workshop on Energy Storage – IWES 2021, online conference, 24-24 February 2021.
3. F.A. Scaramuzzo, *Scanning Probe Microscopy Platforms: Morphology and Beyond*, NanoInnovation 2019, Rome, 11-14 June 2019.
4. F.A. Scaramuzzo, M. Moreno, A. Santoni, F. Rondino, M. Ottaviani, L. Della Seta, P.P. Prosini, M. Pasquali, *Electrochemical properties of Si-NWs with different morphologies used as anodes for Li-ion batteries*, NanoInnovation 2019, Rome, 11-14 June 2019.
5. F.A. Scaramuzzo, C. Paoletti, S. Galli, P.P. Prosini, M. Pasquali, *Synthesis of LiFePO₄ for Li/Li-ion Batteries: a Kilo-Lab Tale*, Eurasia Conference on Chemical Sciences - EuAsC₂S-15, Rome, 5-8 September 2018 (*invited*).
6. M. Pasquali, F.A. Scaramuzzo, A. Dell’Era, G. Tarquini, P. Ballirano, *Phase Transition of TiO₂ Nanotube Arrays: an X-ray Study*, 21st International Conference on Solid State Ionics - SSI 21, Padova, 18-23 June 2017.
7. F.A. Scaramuzzo, *Sintesi e Applicazioni di Nanotubi di Titania in forma di Arrays*, Workshop - I primi 5 anni del Laboratorio di Nanotecnologie e Nanoscienze del CNIS University of Rome “La Sapienza”, 5 April 2017.
8. F.A. Scaramuzzo, M. Pasquali, F. Mura, A. Pozio, A. Dell’Era, A. Curulli, *TiO₂ Nanotubes for Photoelectrocatalytic Water Splitting: an Innovative Cell Design*, 10th European Symposium on Electrochemical Engineering, Chia (CA), 28 September- 2 October 2014.
9. F.A. Scaramuzzo, M. Pasquali, F. Mura, A. Dell’Era, *TiO₂ Nanotubes for renewable energy: tuning morphology to tune properties*, Nanoforum – X Edition, Rome, 22-25 September 2014.
10. F.A. Scaramuzzo, *Application of tripodal ligands in molecular recognition event*, 2nd Summer Workshop on Supramolecular Functional Materials, Bibione (VE), 22 – 24 May 2013.
11. F.A. Scaramuzzo, *Tris-pyridine Ligands as a base for Multimetallic Supramolecular Architectures*, 1st Training School for Young Researchers, CMST COST Action CM1005 Supramolecular Chemistry in Water, Riccione, 16-19 April 2012.
12. F.A. Scaramuzzo, A. González-Campo, C.C. Wu, A. Velders, V. Subramaniam, G. Doddi, P. Mencarelli, M. Barteri, P. Jonkheijm, J. Huskens, *Pyrylium Monolayer: a reactive platform for binding of amines*, XXXIII Convegno Nazionale della Divisione di Chimica Organica della SCI (Co.Di.C.O. 2010), S. Benedetto del Tronto (AP), 12-16 September 2010.
13. F.A. Scaramuzzo, A. González-Campo, P. Jonkheijm, P. Mencarelli, G. Doddi, J. Huskens, M. Barteri, *Protein Immobilization on Silica Surface through Self Assembled Monolayers of New Pyrylium Salts Derivatives*, IX Convegno Nazionale sui Materiali Nanofasici, Iglesias, 3 – 5 June 2009.
14. F.A. Scaramuzzo, D. Coletti, L.C. Montemiglio, M. Barteri, *Culture of Skeletal Muscle Cells on Cysteamine Coated Gold Surfaces*, Workshop on Nanomaterial Production, Characterization and Industrial Applications, Milan, 3 December 2008.

XF – Poster communications to Congresses and Schools (Presenting author)

1. F.A. Scaramuzzo, G. Licini, C. Zonta, *Combining Dynamic Covalent Interactions with Metal Recognition for the Determination of Amino acids Enantiopurity and Absolute Configuration*, European Winter School on Physic Organic Chemistry (E-WISPOC 2013), Bressanone (Bolzano), 27 January – 1 February 2013 (*Flash communication*);

2. F.A. Scaramuzzo, G. Licini, C. Zonta, *Dynamic Combinatorial Libraries for the Synthesis of New Multimetallic Tris(2-pyridylmethyl)amine Architectures*, European Winter School on Physic Organic Chemistry (E-WISPOC 2012), Bressanone (Bolzano), 29 January – 3 February 2012 (*Flash communication*);
3. F.A. Scaramuzzo, L. Dovico, G. Licini, C. Zonta, *Towards New Functional Molecular Pincers*, X Congresso Nazionale di Chimica Supramolecolare, Perugia, 25-28 September 2011;
4. F. Scaramuzzo, G. Licini, C. Zonta, *Towards New Functional Organic Frameworks*, European Winter School on Physic Organic Chemistry (E-WISPOC 2011), Bressanone (Bolzano), 30 January –4 February 2011;
5. G. Gasparini, G. Licini, M. Mba, F.A. Scaramuzzo, C. Zonta, K. Rissanen, M. Cametti, A. Dalla Cort, *Anion Recognition Using Chiral Triphenolamines*, XXXIII Convegno Nazionale della Divisione di Chimica Organica della SCI - Co.Di.C.O. 2010, S. Benedetto del Tronto (AP), 12-16 September 2010;
6. F.A. Scaramuzzo, M. Mba, G. Gasparini, C. Zonta, M. Cametti, K. Rissanen, G. Iadevaia, A. Dalla Cort, G. Licini, *Anion Recognition Using Triphenolamines*, Giornate di Chimica Organica Fisica e Meccanicistica - COFEM 2010, Rome, 2 - 4 September 2010;
7. M. Mba, F.A. Scaramuzzo, G. Gasparini, C. Zonta, K. Rissanen, M. Cametti, A. Dalla Cort, G. Licini, *Anion Recognition Using Chiral Triphenolamines*, VIII SISOC – Spanish-Italian Symposium on Organic Chemistry, Padova, 3-6 July 2010;
8. M. Barteri, G. Doddi, A. Gonzalez-Campo, P. Jonkheijm, J. Huskens, P. Mencarelli, F.A. Scaramuzzo, *Monostrati di Sali di Pirlilio come Piattaforma Reattiva per l'Immobilizzazione di Ammine*, Quarto Convegno Giovani Chimici – La Chimica nelle Nanoscienze e nelle Nanotecnologie, Dipartimento di Chimica, Università La Sapienza, Roma, 18 – 19 June 2010;
9. F.A. Scaramuzzo, A. Gonzalez Campo, P. Jonkheijm, P. Mencarelli, G. Doddi, J. Huskens, M. Barteri, *New Pyriliun Salts Derivatives as basis of Self Assembled Monolayers for Protein Immobilization on Gold and Silica*, Bionanotechnology II: from Biomolecular Assembly to Applications, Robinson College, Cambridge, United Kingdom, 7 – 9 January 2009;
10. F.A. Scaramuzzo, A. Generosi, R. Salvati, A. Latini, B. Paci, V. Rossi Albertini, M. Barteri, *Morphological Study of Acetylcholinesterase on Gold Films for Biosensor Applications*, 2nd EuCheMS Chemistry Congress, Torino, 16 – 20 September 2008;
11. Barteri, G. Doddi, P. Mencarelli, F.A.Scaramuzzo, *Self Assembled Monolayers di Sali di Pirlilio per la Funzionalizzazione di Superfici di Au e Si con Proteine*, Terzo Convegno Giovani Chimici – La Chimica Sostenibile, Dipartimento di Chimica, Università La Sapienza, Roma, 18 – 19 June 2008 (*Awarded as best poster presentation*);
12. F.A. Scaramuzzo, D. Coletti, L.C. Montemiglio, M. Barteri, *Growth and Differentiation of Muscle Cells on Cysteamine Coated Gold Surfaces*, Congresso Nazionale della Divisione di Chimica dei Sistemi Biologici della S.C.I., Montagnana (Padova), 8 – 9 November 2007.

Part XI– Editorial and Organizing Activities

Year	Activity
2021	Lead Guest Editor for the Special Issue “Cutting Edge Technologies by Silicon- and Silicon Oxide-Based Nanostructures” of <i>Journal of Nanomaterials</i>
2020	Guest Editor for the Special Issue “Exploitation of Multifunctional Nanomaterials for Biological Applications” of <i>Molecules</i>
2020	Guest Editor for number 2257 “Nanoinnovation 2019” of <i>AIP Conference Proceedings</i>
2019	Member of the Programme Committee of <i>NanoInnovation 2019</i> , Rome, 11-14 June 2019
2018	Member of the local Organizing Committee of <i>Eurasia Conference on Chemical Sciences</i> (EuAsC2S-15), Rome, 5-8 September 2018
2015-today	Referee for the international, peer reviewed journals <i>Appl. Phys. A</i> , <i>J. App. Electrochem.</i> , <i>AIP Conf. Proc.</i> , <i>Colloids and Surfaces A</i> , <i>IEEE Trans. Nanotechnol.</i> , <i>Materials</i>

Part XII – Other Activities concerning Teaching

Year	Institution	Activity
24/09/2021	NanoInnovation 2021 – <i>School of Nanomedicine</i> co-organized with <i>Istituto Superiore di Sanità</i>	Invited lecture on the topic: <i>Atomic Force Microscopy: a versatile tool for characterization at the nanoscale</i>
23/09/2021	NanoInnovation 2021 – <i>Corso di aggiornamento professionale dell’Ordine degli Ingegneri di Roma</i>	Invited lecture on the topic: <i>Le nanotecnologie nell'industria tessile: dagli smart wearables alla sensoristica integrata</i>
16/09/2020	NanoInnovation 2021 – <i>Corso di aggiornamento professionale dell’Ordine degli Ingegneri di Roma</i>	Invited lecture on the topic: <i>Le nanotecnologie nell'industria tessile: dagli smart wearables alla sensoristica integrata</i>
26/02/2021	Universitat de Barcelona, Spain	Member of Doctoral Degree Examining Board Committee (PhD Candidate Sandra Giraldo Clemente, title of the thesis: <i>Monocapes autoassemblades electroactives: interaccions π-donador/ π-acceptor per a induir transport en superfície</i>)
26/03/2021	Master’s degree in Nanotechnology Engineering, University of Rome “La Sapienza”, Rome, Italy	Member of Graduation Examining Board Committee
30/10/2020	Master’s degree in Nanotechnology Engineering, University of Rome “La Sapienza”, Rome, Italy	Member of Graduation Examining Board Committee
2021/2022	Master’s degree in Nanotechnology Engineering, University of Rome “La Sapienza”, Rome, Italy	Member of the Committee for communication and students orienteering (<i>Commissione per la gestione della comunicazione e per l’orientamento, CCOM</i>)
2021/2022	Master’s degree in Nanotechnology Engineering, University of Rome “La Sapienza”, Rome, Italy	Member of the Committee for study plans and evaluation of admission requirements (<i>Commissione per i percorsi formativi degli studenti e per la valutazione dei requisiti di accesso, CFOR</i>)
2020/2021	Master’s degree in Nanotechnology Engineering, University of Rome “La Sapienza”, Rome, Italy	Member of the Committee for communication and students orienteering (<i>Commissione per la gestione della comunicazione e per l’orientamento, CCOM</i>)
2020/2021	Master’s degree in Nanotechnology Engineering, University of Rome “La Sapienza”, Rome, Italy	Member of the Committee for study plans and evaluation of admission requirements (<i>Commissione per i percorsi formativi degli studenti e per la valutazione dei requisiti di accesso, CFOR</i>)

Part XII – Third Mission

XIIA – Patents

1. P. Atanasio, F.A. Scaramuzzo, A. Capasso, M. Rossi, M. Pasquali, Elettrodi ibridi carbonio/materiale attivo per accumulatori agli ioni di litio (Hybrid Carbon/active material electrodes for lithium-ion accumulators), *submitted* to the Italian Patent and Trademark Office on 29th June 2021, n. 102021000017024, *under review*.

XIIB – Consulting Activity

1. Consultant for PROGES srl: Bibliographic research and technical analysis for the development of the Training Case for a workshop concerning the quality of water within the project “EBM-DSS Caraibi Olandesi (Applied training for the application of the EBM-DSS methodology and the use of the ISP software developed by PROGES)”, 2020.

XIIC – Participation in spin-off

1. 20/06/2020 – 04/05/2020: President of NanoShare srl.

XIID – Communication

1. 09/06/2021: Interview to the National radio Radio 1 concerning private-public partnership.

