CURRICULUM VITAE

FORMATO EUROPEO/EUROPEAN FORMAT

INFORMAZIONIPERSONALI/ PERSONAL INFORMATION

Nome, Cognome/Name, Surname	GIANNARELLI Stefania
Indirizzo/ Via, numero civico, c.a.p., città,	Via Pietro Aretino, 64 A – 56010 Arena Metato, Pisa
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Nazionalità/Nationality	Italian
Luogo e data di nascita/ Place and Date of birth	La Spezia (SP) – 03/09/1963

ESPERIENZA PROFESSIONALE /WORK EXPERIENCE

From September 2017 to September 2020	Corso in materia ambientale di "tecniche di campionamento delle acque di superficie e dei sedimenti" presso Centro di formazione specialistica "B. GREGORETTI", LIVORNO, Comando generale del Corpo delle capitanerie di porto
From 01-06-2006 – to present	*University of Pisa, Lungarno Antonio Pacinotti, 43, 56126 Pisa* /Associate Professor of Analytical Chemistry Teaching and research
From 20-12-1995 to 01-06-2006	University of Pisa, Lungarno Antonio Pacinotti, 43, 56126 Pisa /Research Scientist of Analytical Chemistry from 20-12-1995 Teaching and research
From February 1994 to July 1994	Researcher at the Chemical Engineering, Industrial Chemistry and material Science Department of the University of Pisa on a project entitled "Technical analysisofcooling cycleswithparticular referencetoproblemsofwater treatment chemicalrecirculationofthermal power stations"
From October 1990 to March 1991	Researcher at the Chemical Engineering, Industrial Chemistry and material Science Department of the University of Pisa on a project entitled "on the effectsthatdifferentconditionsof hydrolysisofsulphated solutions of titaniummay haveon the morphologyof thetitaniumhydrateproductandon thesizeof the crystallitesconstituting thefrost"

ISTRUZIONE E FORMAZIONE / EDUCATION AND TRAINING

From 04-10-1994 to 31-12-1995	Post-doc grant (cat. 30) of theCommissionof the European Communityat the' Institute ofTransuraniumElements, Joint Research CentreofKarlsruheinGermany. Purposeof thesearch:"Characterization of nuclearmaterialsandnucleardetectionof environmentalsignaturesbyglow dischargemassspectrometry (GDMS)." Nuclear Chemistry, use of GDMS, ICP-MS, TIMS, EDX
From November 1990 to September 1994	PhD grant inChemical Science(University ofPisa), 08/09/1994 named Philosophy Doctor in Chemical Sciences discussing a PhD thesis entitled: "Kinetic study ofreactions in heterogeneousphase of single particleselectrodinamicallylevitated"in collaborationwith the Department ofChemical Engineering, Industrial Chemistry and Science Materials, University of Pisa. (Supervisor: Prof. Emo Chiellini and Leonardo Tognotti; External Supervisor: Prof. Sarofim, MIT, Boston, USA).
From June 1988 to March 1990	29 March 1990University Degree in Chemistry at the University of Pisa (104/110) discussing a thesis on: "Thermodynamic properliesofaqueous solutionsat high temperature: the hydrolysisof the ionAl^{3}"between 25and 150°C" (Supervisor: Prof. Giovanni Conti).

ATTIVITA' DI RICERCA / RESEARCH ACTIVITIES

Researchsectors

StefaniaGiannarellicarry out researchof both afundamentalandapplicationin the field ofanalytical chemistry, particularly with regard to issues ofcontrol and monitoring ofenvironmental contamination.Her teaching activities are related to the courses of Analytical Chemistry and environmental monitoring. Her research interests are related mainly to the development of hyphenated instrumentation and to the development of analytical procedures based on spectroscopic and chromatographic techniques for the characterization of micropollutants in the environment. In particular she been involved in research programs dealing with the application of both gas and liquid chromatography techniques coupled with mass spectrometry detector for the characterization of complex mixtures. By these techniques, degradation process induced U.V. radiation has been also investigated. She is also involved in a monitoring of different kind of environment: urban, lagoon, riverine, and Antarctic (snow, ice, water, and microlayer) by investigating the presence and the concentration of a few classes of persistent organic pollutants (POPs), namely polychlorobiphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs) and organo-chlorine pesticide (OCPs). The scientific activity is testified by 43 scientific publications and 75 communications to national and international congresses. Since 1994 she has personally presented her work at international congresses, often by an oral communication in English.

Recent Scientific Activities.

From 2019 to 2022

PRIN 2017: in UniTO unit: Innovative Analytical Methods to study biogenic and anthropogenic proxies in Ice COres (AMICO)

From 2017 to 2019

Benthic Filter-Feeding invertebrates from the Arctic as accumulators of Persistent Pollutants and tolerant bacterial communities - BIP INTERACT TA - UE

SearChing for EmeRging Contaminants in Sub-ArcticrivErs– CIRCE – INTERACT TA - UE

From 2019 to 2022

PNRA 2018: Leader of Research Unit (Pisa) in Microbial response to human Pollutants in polar lakeS - MicroPolArS

From 2017 to 2019

PNRA 2016: Leader of Research Unit (Pisa) in Antarctic Porifera: Hot-spots for Prokaryotic diversity and biotechnological Potentialities - P^3

From 2014 to 2016

PNRA 2013: Leader of Research Unit (Pisa) Valutazione ed evoluzione della contaminazione chimica da componenti organiche ed inorganiche in aree costiere antartiche

From 2011 to 2013

PRIN 2009: Leader of Research Unit (Pisa) in ARCTICA - ARCTic research on the Inter-connections between Climate and Atmosphere.

From 2010 to 2012

Agreement on Scientific and Technological Cooperation between the National Research Council of Italy and the Academy of Sciences of the Czech Republic, Cooperative Programme: Chemistry - Project No. 12: New unstable processes of electron transfer: experiments and models

July 2009

PolyArc "Occurrence of PCB-degrading bacteria in relation to PCB contamination in coastal marine environments in Ny-Alesund (Svalbard, Spitsbergen) (ID026129-2008-70)", during ARCFAC V, European Union action under the FP6, which allowed Dr. Giannarelli to spend a period of 16 days (8-24 July 2009) at Ny Alesund (Svalbard-Norway) to conduct research and sampling of water, ice and marine sediments.

From 2006 to November 2011

COST Action D36, Redox activity of host-guest, Organometallic and molecular structures at electrode interfaces

PRIN 2005: "Characterization of atmospheric aerosol and chemical and dimensional assessment of the effects caused by exposure to pollutants on the metabolism of normal and genetically modified plants."

PRIN 2007: "Development of new analytical methods for the study of the metabolic response to abiotic stress by normal plants and hormonal structure genetically modified."

From 2004 to 2006

Agreement on Scientific and Technological Cooperation between the National Research Council of Italy and the Academy of Sciences of the Czech Republic, Cooperative Programme: Chemistry - Project No. 1 Electrochemical and molecular modeling of compounds that affect the environment and health.

From 2003 to 2005:	Strategic Project: "Food Safety" rapid and innovative analytical methods for the analysis and control of genetically modified organisms (GMOs) and foods produced from GMOs", MIUR-ISPESL funding agency.
From 1997 to present	National Research Program in Antarctica " Micropollutants and micronutrients in the environment: cycles and relations with climate change". She participated in the XXI and XXVIII campaign in Antarctica.

Books and Articles

1. M. PAPALE, C. RIZZO, S. GIANNARELLI, G. CARUSO, S. AMALFITANO, P.E. ASPHOLM, G. MAIMONE, S. MISEROCCHI, A.C. RAPPAZZO, A. LO GIUDICE, M. Azzaro (2022) *Benthic*MicrobialCommunities in a Seasonallylce-Covered Sub-Arctic River (Pasvik River, Norway) Are Shaped by Site-SpecificEnvironmental Conditions, *https://dx.doi.org/10.3390/microorganisms10051022, Microorganism, 10, 1022*
2. J. LA NASA, G. BIALE, F. MODUGNO, A. CECCARINI, S. GIANNARELLI (2022) Magic extraction: solid-phase extraction and analytical pyrolysis to study polycyclic aromatic hydrocarbon and polychlorinated biphenyls in freshwater, *https://dx.doi.org/10.1007/s11356-022-22435-9, Environmental Science and pollution Research International, vol. 29 (42), 64252-64258*
3. F. MACII, R. DETTI, F. BLOISE, S. GIANNARELLI, T. BIVER (2021) Spectroscopic analysis of the binding of paraquat and diquat herbicides to biosubstrates, *https://dx.doi.org/10.3390/ijerph18052412, International Journal of Environmental Research and Public Health, vol 18 (5), 2412*
4. V. CASTELVETRO, A. CORTI, J. LA NASA, F. MODUGNO, A. CECCARINI, S. GIANNARELLI, V. VINCIGUERRA, M. BERTOLDO (2021) Polymer Identification and SpecificAnalysis (PISA) of Microplastic Total Mass in Sediments of the Protected Marine Area of the Meloria Shoals, *Polymers* 2021, *13*(5), 796; https://doi.org/10.3390/polym13050796
5. J. WANTULOK, M. SZALA; A. QUINTO; J.E. NYCZ; S. GIANNARELLI; R. SOKOLOVA; M. KSIAZEK; J. KUSZ (2020) Synthesis, Electrochemical and Spectroscopic Characterization of Selected Quinolinecarbaldehydes and Their Schiff Base Derivatives, doi: 10.3390/molecules25092053,Molecules.2020; vol. 25(9): 2053.
6. F. MACII, R. BONINI, S. GIANNARELLI, B. MENNUCCI, T. BIVER, (2019) Binding of model polycyclic aromatic hydrocarbons and carbamate-pesticides to DNA, BSA, micelles and liposomes, DOI: 10.1016/j.saa.2019.117313, Spectrochimica Acta Part A Molecular and Biomolecular Spectroscopy, vol. 223, 117313
7. S. GIANNARELLI, M. ONOR, C. ABETE, M. TERMINE, R. FUOCO, (2019) Effect of altitude and distance from the sea on fractionation processes of Persistent Organics Pollutants (POPs) associated to atmospheric aerosol from Ross Sea to Dome C, Antarctica, DOI: 10.1016/j.microc.2019.05.012, Microchemical J., vol. 149, 103911
8. S. CAPUTO, M. PAPALE, C. RIZZO, S. GIANNARELLI, A. CONTE, F. MOSCHEO, M. GRAZIANO, P.E. ASPHOLM, M. ONOR, E. DE DOMENICO, S. MISEROCCHI, L. MICHAUD, M. AZZARO, A. LO GIUDICE, (2019) Metal Resistance in Bacteria from Contaminated Arctic Sediment is Driven by Metal Local Inputs, DOI: 10.1007/s00244-019-00628-7, Arch. Environ. Contam. Toxicol., vol. 77(2), 291-307
5. R. FUOCO, S. GIANNARELLI, (2019) Integrity of aquatic ecosystems: An overview of a message from the South Pole on the level of persistent organic pollutants (POPs), DOI: 10.1016/j.microc.2019.04.076, Microchemical Journal, vol. 148, 230-239
6. A. CIRO RAPPAZZO, M. PAPALE, C. RIZZO, A. CONTE, S. GIANNARELLI, M. ONOR, C. ABETE, P. CEFALI, E. DE DOMENICO, L. MICHAUD, A. LO GIUDICE, (2019) Heavy metal tolerance and polychlorinated biphenyl oxidation in bacterial communities inhabiting the Pasvik River and the Varanger Fjord area (Arctic Norway), DOI:10.1016/j.marpolbul.2019.01.0700, Marine Pollution Bulletin, vol 141, 535-549
7. F. POGGIALINI, B. CAMPANELLA, S. GIANNARELLI, E. GRIFONI, S. LEGNAIOLI, G. LORENZETTI, S. PAGNOTTA, V. PALLESCHI, (2018) Green-synthetized silver nanoparticles for Nanoparticle-Enhanced Laser Induced Breakdown Spectroscopy (NELIBS) using a mobile instrument, DOI: 10.1016/j.sab.2018.01.005, Spectrochimica Acta. Part B: AtomicSpectroscopy, vol 141, 53-58.

8. S. GIANNARELLI, A. CECCARINI, C. TIRIBILLI, R. SPREAFICO, S. FRANCESCONI, R. FUOCO, (2017). Paleo-environmental record of polycyclic aromatic hydrocarbons and polychlorobiphenyls at the peripheral site GV7 in Victoria Land (East Antarctica), DOI: 10.1016/j.chemosphere.2017.01.126, Chemosphere, vol. 174, 390-398.
9. M. PAPALE, S. GIANNARELLI, S. FRANCESCONI, G. DI MARCO, A. MIKKONEN, A. CONTE, C. RIZZO, E. DE DOMENICO, L. MICHAUD, A. LO GIUDICE,(2017). Enrichment, isolation and biodegradation potential of psychrotolerantpolychlorinated-biphenyl degrading bacteria from the Kongsfjorden (Svalbard Islands, High Arctic Norway), DOI:10.1016/j.marpolbul.2016.11.011, Marine Pollution Bulletin, vol. 114, 849-859.
10. C. MANZATU, B. NAGY, A. CECCARINI, R. IANNELLI, S. GIANNARELLI, C. MAJDIK, (2015). Laboratory tests for the phytoextraction of heavy metals from polluted harbor sediments using aquatic plants, DOI: 10.1016/j.marpolbul.2015.10.045, Marine pollution Bulletin, vol 101(2), 605-611
11. C. TIRIBILLI, R. SOKOLOVÁ, S. GIANNARELLI, M. VALÁŠEK, (2015). On reduction of the drug diflunisal in non-aqueous media, DOI: 10.1007/s00706-014-1390-7, MONATSHEFTE FUER CHEMIE, vol. 146(5), 807-812, ISSN 0026-9247
12. A. CINCINELLI, S. GIANNARELLI, T. MARTELLINI, S. FRANCESCONI, B. MUSCATELLO, R. FUOCO, (2014). Occurence of legacy and emerging persistent organic pollutants at Ross sea and Circumpolar Deep Water Convergence (Antarctica). Organohalogen Compounds, vol. 76, 1423-1426.
13. B. CAMPANELLA, M. ONOR, A. D'ULIVO, S. GIANNARELLI, E. BRAMANTI,(2014). Impact of Protein Concentration on the Determination of Thiolic Groups of Ovalbumin: A Size Exclusion Chromatography-Chemical Vapor Generation-Atomic Fluorescence Spectrometry Study via Mercury Labeling, DOI:10.1021/ac4041795ANALYTICAL CHEMISTRY, Analytical Chemistry, vol. 86(4), 2251-2256
14. R. FUOCO, P. BOGANI, G. CAPODAGLIO, M. DEL BUBBA, O. ABOLLINO, S. GIANNARELLI, M.M. SPIRITI, B. MUSCATELLO, S. DOUMETT, C. TURETTA, R. ZANGRANDO, V. ZELANO, M. BUIATTI, (2013). Response to metal stress of Nicotiana langsdorffii plants wild-type and transgenic for the rat glucocorticoid receptor gene,DOI: 10.1016/j.jplph.2012.12.009, JOURNAL OF PLANT PHYSIOLOGY, vol. 170(7), 668-675, ISSN 0176-1617
15. J. BULICKOVA, R. SOKOLOVÁ, S. GIANNARELLI, B. MUSCATELLO, (2013). Determination of Plant Hormone Indole-3-Acetic Acid in Aqueous Solution, DOI:10.1002/elan.201200394, ELECTROANALYSIS, vol. 25(1), 303-307, ISSN: 1040-0397
16. R. FUOCO, S. GIANNARELLI, M. ONOR, S. GHIMENTI, C. ABETE, M. TERMINE, S. FRANCESCONI, (2012). A snow/firn four-century record of polycyclic aromatic hydrocarbons (PAHs) and polychlorobiphenyls (PCBs) at Talos Dome (Antarctica),DOI: 10.1016/j.microc.2012.05.018, MICROCHEMICAL JOURNAL, vol. 105, 133-141, ISSN: 0026-265X
17. S. GIANNARELLI, B. MUSCATELLO, P. BOGANI, M.M. SPIRITI, M. BUIATTI, R. FUOCO, (2010). Comparative determination of some phytohormones in wild-type and genetically modified plants by gas chromatography–mass spectrometry and high-performance liquid chromatography–tandem mass spectrometry,DOI: 10.1016/j.ab.2009.10.038ANALYTICAL BIOCHEMISTRY, Analytical Biochemistry, vol. 398(1), p. 60-68, ISSN: 0003-2697
18. R. SOKOLOVÁ, M. HROMADOVÁ, J. LUDVIK, L. POSPÍŠIL, S. GIANNARELLI, (2010). The autoprotonation in reduction mechanism of pesticide ioxynil, DOI: 10.1016/j.electacta.2010.01.09, ELECTROCHIMICA ACTA, vol. 55 (27), p. 8336-8340, ISSN: 0013-4686
19. M. HROMADOVÁ, R. SOKOLOVÁ, L. POSPÍŠIL, S. LACHMANOVA, N. FANELLI, S. GIANNARELLI, (2009). Host–Guest interaction of pesticide bifenox with cyclodextrin molecules. An electrochemical study, DOI: 10.1135/cccc2009509, COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS, vol. 74 (11-12), p. 1647-1664, ISSN: 0010-0765
20. R. FUOCO, S. GIANNARELLI, Y. WEI, A. CECCARINI, C. ABETE, S. FRANCESCONI, M. TERMINE, (2009). Persistent Organic Pollutants (POPs) at Ross Sea (Antarctica) , 10.1016/j.microc.2008.11.004, MICROCHEMICAL JOURNAL, vol. 92 (1), p. 44-48, ISSN: 0026-265X

21. R. SOKOLOVÁ, M. HROMADOVÁ, J. FIEDLER L. POSPÍSIL, S. GIANNARELLI, M. VALÁŠEK, (2008). Reduction of substituted benzonitrile pesticides, DOI: 10.1016/j.jelechem.2008.06.008, JOURNAL OF ELECTROANALYTICAL CHEMISTRY, vol. 622 (2), p. 211-218, ISSN: 1572-6657
22. P. MORKOVSKA, M. HROMADOVA, L. POSPISIL, S. GIANNARELLI, (2006). Double-layer effects and distance dependence of electron transfer in reduction of nitro aromatic radical anions.doi: 10.1021/la0521894, LANGMUIR, vol. 22 (4), p. 1896-1902, ISSN: 0743-7463,
23. R. SOKOLOVA, E. MACHNIKOVA, J. FIEDLER, M. HROMADOVA, S. GIANNARELLI, L. POSPISIL,(2006). Reductive Cleavage of Halides in Decomposition of Substituted Benzonitrile Pesticides. ECS TRANSACTIONS, vol. 2, p. 75-85, ISSN: 1938-5862
24. M. HROMADOVA, P. MORKOVSKA, L. POSPISIL, S. GIANNARELLI, (2005). Decomposition reactions of bifenox anion radical involving intramolecular electron transfer. doi: 10.1016/j.jelechem.2004.12.013JOURNAL OF ELECTROANALYTICAL CHEMISTRY, vol. 582, p. 156-164, ISSN: 1572-6657,
25. M. HROMADOVA, L. POSPISIL, N. FANELLI, S. GIANNARELLI, (2005). Models of pesticides inside cavities of molecular dimensions. A role of the guest inclusion in the dechlorination process. doi: 10.1021/la048021k ,LANGMUIR, vol. 21, p. 1923-1930, ISSN: 0743-7463,
26. R. FUOCO, S. GIANNARELLI, M. ONOR, A. CECCARINI, V. CARLI, (2005). Optimized cleanup methods of organic extracts for the determination of organic pollutants in biological samples. doi: 10.1016/j.microc.2004.06.009, MICROCHEMICAL JOURNAL, vol. 79, p. 69-76, ISSN: 0026-265X,
27. R. FUOCO, S. GIANNARELLI, Y. WEI, C. ABETE, S. FRANCESCONI, M. TERMINE, (2005). Polychlorobiphenyls and polycyclic aromatic hydrocarbons in the sea-surface micro-layer and the water column at Gerlache Inlet, Antarctica. doi: 10.1039/B507329B, JOURNAL OF ENVIRONMENTAL MONITORING, vol. 7, p. 1313-1319, ISSN: 1464-0325,
28. F. BAGNOLI, A. BIANCHI, A. CECCARINI, R. FUOCO, S. GIANNARELLI, (2005). Trace metals and organic pollutants in treated and untreated residues from urban solid waste incinerators. MICROCHEMICAL JOURNAL, vol. 79, p. 291-297, ISSN: 0026-265X, doi: 10.1016/j.microc.2004.10.001
29. M. HROMADOVA, L. POSPISIL, S. GIANNARELLI, R. FUOCO, M. P. COLOMBINI, (2002). Electrochemical evidence of host-guest interaction. Change of redox mechanism of fungicides iprodione and procymidone in the nano-cavity of cyclodextrins. MICROCHEMICAL JOURNAL, vol. 73, p. 213-219, ISSN: 0026-265X
30. L. POSPISIL, R. SOKOLOVA, M. HROMADOVA, S. GIANNARELLI, R. FUOCO, M. P. COLOMBINI, (2001). Inclusion Complex of fungicide vinclozoline and β-cyclodextrin. The influence of host-guest interaction on the reduction mechanism. JOURNAL OF ELECTROANALYTICAL CHEMISTRY, vol. 571, p. 26-36, ISSN: 1572-6657
31. L. POSPISIL, R. SOKOLOVA, M. P. COLOMBINI, S. GIANNARELLI, R. FUOCO, (2000). Electrochemical impedence studies of reduction kinetic of pesticide vinclozoline. MICROCHEMICAL JOURNAL, vol. 67, p. 305-312, ISSN: 0026-265X
32. M. P. COLOMBINI, F. MODUGNO, S. GIANNARELLI, R. FUOCO, M. MATTEINI, (2000). GC-MS characterization of paint varnishes. MICROCHEMICAL JOURNAL, vol. 67, p. 385-396, ISSN: 0026-265X
33. L. ALDAVE DE LAS HERAS, O. L. ACTIS-DATO, M. BETTI, E. H. TOSCANO, U. TOCCI, R. FUOCO, S. GIANNARELLI, (2000). Monitoring of depth distribution of trace elements by GDMS. MICROCHEMICAL JOURNAL, vol. 67, p. 333-336, ISSN: 0026-265X
34. L. POSPISIL, R. SOKOLOVA, M.P. COLOMBINI, S. GIANNARELLI, R. FUOCO, (1999). Electrochemical Properties of Three Dicarboximide-Type Pesticides: Vinclozoline, Iprodione and Procymidone. JOURNAL OF ELECTROANALYTICAL CHEMISTRY, vol. 472, p. 33-41, ISSN: 1572-6657
35. R. FUOCO, S. GIANNARELLI, C. ABETE, M. ONOR, M. TERMINE, (1999). The effect of seasonal pack ice melting on the sea water polychlorobiphenyl contents at Gerlache Inlet and Wood Bay (Ross Sea – Antarctica). INTERNATIONAL JOURNAL OF ENVIRONMENTAL ANALYTICAL CHEMISTRY, vol. 75, p. 367-375, ISSN: 0306-7319