



Fabiana Arduini

Full Professor, University of Rome Tor Vergata,

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CURRICULUM VITAE

Date of Birth [Redacted]

Sex [Redacted]

Nationality [Redacted]

[Redacted]

Education

Ph.D (Analytical Chemistry)	Feb 2007, Department of Chemical Science and Technologies, University of Rome Tor Vergata, Italy Supervisor: Prof.ssa Moscone
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M.S. (Chemistry, Summa cum Laude)	May 2003, Department of Chemical Science and Technologies, University of Rome Tor Vergata, Italy Supervisor: Prof.ssa Moscone
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Professional Experience

Dec 2023-current	Full Professor, Analytical Chemistry, Department of Chemical Science and Technologies, University of Rome Tor Vergata, Italy
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Dec 2018-Dec 2023	Associate Professor, Analytical Chemistry, Department of Chemical Science and Technologies, University of Rome Tor Vergata, Italy
Nov 2007-Nov 2018	Senior Researcher, Analytical Chemistry, Department of Chemical Science and Technologies, University of Rome Tor Vergata, Italy
Jul 2019-current	CEO of SENSE4MED s.r.l. start-up/spin-off located at Department of Chemical Science and Technologies, University of Rome Tor Vergata, Italy, www.sense4med.com
Oct 2019-Oct 2021	Coordinator of Interdivisional Sensor Group, Italian Chemical Society
Sep 2019-current	RGQ of the Certified Laboratory ISO 9001 LABCap of the Department of Chemical Science and Technologies, University of Rome Tor Vergata
May 2019-current	Member of International Scientific Committee of the International Conference "CBRN Research rd & Innovation"
Jan 2019-current	Member of the Scientific Committee of Master Maris, Faculty of Economics, University of Rome Tor Vergata
Jan 2019-current	Member of the Committee of the Sustainability, University of Rome Tor Vergata
Jan 2020-current	Associate Editor of Microchemical Journal, Elsevier
Feb 2021-current	Specialty Chief Editor Micro- and Nano- Sensors, Frontiers in Sensors
May 2021-current	Editor of Green Analytical Chemistry Journal, Elsevier
Feb 2022-current	Member of Fidelio Medical s.r.l. , start-up winner of National Prize of Innovation 2021, sector: Life Sciences-MEDTech
Feb 2023-current	Member of Tecnosens s.r.l., Laudato Si prize for sustainability vision, Italian Startup Master Award 2019

Current Research Interests

The research interests include the development of Bioassay and Biosensor systems, Electrochemical (bio)sensors, Electrochemical Mediators, Screen-Printed Electrodes (how to use, fabricate and modify them), Sensors and Biosensors modified with Nanomaterials (carbon black, gold nanoparticles, etc.), Paper based (bio)sensors. Real applications in the field of biomedical, defence, food, cultural heritage, and environmental analytical chemistry.

Spin-off/Start-up activities

SENSE4MED s.r.l., in which I am CEO, was born to develop: i) smart electrochemical biosensors applied in the different fields including biomedical, defense, agrifood, cultural heritage, and environmental for sustainable life and ii) to create an Italian research point for the development of beta prototype of electrochemical biosensors ready for technological transfer in collaboration with other companies. Within the funded project CI FAST, n. 6579942 POR-FESR Lazio 2014-2020, we are developing sensors for chloride detection in sweat for fibrosis cystic disease, with the aim to deliver a cost-effective analytical tool for precision medicine in the case of patients affected by this disease. Furthermore, SENSE4MED filed a patent in collaboration with the Italian Ministry of Defence related to a smart-phone assisted washing-free miniaturized electrochemical biosensor for the detection of virus in saliva (102022000003920).

Fidelio Medical s.r.l., in which I am member, won on 6 December 2021 the National prize of Innovation, sector: Life Sciences- MEDTech with the aim to deliver an innovative diagnostic solution to monitor the iron deficiency that affects one in three people, especially women, children and people with chronic diseases.

Tecnosens s.r.l., in which I am member thanks the the collaboration since the start of the constitution of this company, to develop sustainable sensors for control the quality of water disinfection, in collaboration with Etatron D.S. (<https://www.etatronds.it/>), which is the big company that support Tecnosens s.r.l. Some sensors patented (see section patents), developed and produced by Tecnosens s.r.l. are now available on the market www.tecnosens.biz, one PhD and one post-doc belonging from our group in the R&D section of Tecnosens s.r.l. Tecnosens has also won on May 17, 2019 the prize Laudato Si at Italian Master start-up Award for the sustainable vision of the sensors developed. Furthermore, I worked as Scientific responsible in the European project H2020 SME instrument SWAT "An innovative system capable of monitoring and removing heavy metals, phenolic compounds and biological pollutants in drinking water", Project ID: 775885.

Honors and Awards

Oct 2022, Oct 2024	Her name is present in listed the top 2% of most cited researchers (world's top 2% most influential scientists from all areas) in the world reported by Stanford University
Oct 2021	Her name is present in https://elsevier.digitalcommonsdata.com/datasets/btchxktz-yw/3 which listed the top 2% most cited researchers in the world
Sept 2019	Her name is present in PLoS Biology https://doi.org/10.1371/journal.pbio.3000384 which listed the top 2% most cited researchers in the world
Apr 2017	Habilitation as Full Professor in Analytical Chemistry (Italian Ministry for Research)
Jun 2013	Habilitation as Associate Professor in Analytical Chemistry (Italian Ministry for Research)
Sept 2013	"Best Young Researcher" Award from the Analytical Chemistry Division of the Italian Chemical Society

Jun 2012	"Top cited author" for 2010-2011 on Biosensors and Bioelectronics journal (IF 10.257) for the paper entitled "A thionine-modified carbon paste amperometric biosensor for catechol and bisphenol A determination"
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Visiting periods

Nov 2021	Visiting Professor at AO Foundation (Davos, Switzerland)
Dec 2017	Visiting senior researcher at Bundeswehr Medical Academy, Medical CBRN Defence (Munich, Germany)
Jun 2016	Visiting senior researcher at Department of Digital Printing and Imaging Technology, Baumann Printing Research, Chemnitz University of Technology, Chemnitz, Germany
Feb 2015	Visiting senior researcher at Centre Suisse d'Electronique et de Microtechnique SA Landquart, Switzerland
Feb 2006	Visiting PhD student at BIOMEM Laboratory, Universite de Perpignan, France

Referee/Evaluator Activity

Referee Nature Communications, Journal of American Chemical Society, Analytical Chemistry, Analytica Chimica Acta, Biosensors and Bioelectronics, etc. > 300 papers refereed

Evaluators Marie Curie Fellowships (European Commission, H2020, Horizon Europe), ITN H2020 (European Commission), Agence Nationale de la recherche, Academy of Finland, Swedish Research Council, Central Finance and Contracting Agency (CFCA) of the Republic of Latvia, National research foundation South Africa, Academy of Sciences of Albania, Executive Agency for Higher Education, Research, Development and Innovation Funding, Romania, European Science Foundation.

Research Grants

Prof. Fabiana Arduini was involved in the following projects with a total budget higher than 2.000.000 €:

2024-2028	European Project Horizon Europe Pathfinder Open HE-EIC Pathfinder Proposal 101130395-PHOENIX-OoC Origami Paper-based technology fOr the innovativE aNd sustalnable Organ-on-Chip devices <u>Role: Coordinator.</u>
2023-2025	PRIN 2022 SMARTMASK4CF SMART paper-based (bio)sensors combined with face MASKs for the development of active and reliable devices for monitoring disease biomarkers: Cystic Fibrosis as a case study <u>Role: Coordinator.</u>

2022-2025	European Project RELIANCE Smart Response sELf-desInfected biobAsed NanoCoatEd surfaces for healthier environments”, RIA action, HORIZON-CL4-2021-RESILIENCE-01-20, HORIZON EUROPE <u>Role: Head of Unit</u>
2021-2022	European National project Water 4.0 - Industry-4.0 for Water loss Assessment Through Environmental Research, Ministry of the Economic Development <u>Role: Subcontractor of INGV</u>
2021-2023	E-Crome project POR FESR LAZIO 2014-2020: Biosensors on wireless paper-based biosensors for telemedicine in oncology, <u>Role: Coordinator</u>
2021-2023	National Antarctic Research Program project PNRA18_00184: Multidecadal Biogenic Compounds and Nutrients Characterization in Coastal Lake Sediments, <u>Role: Head of Unit</u>
2020-2021	SENSOCARD: SENSORs for rapid detection CARDiovascular emergencies HA-R2EC project funded by the POR FESR Life 2020 <u>Role: Subcontractor of CNR</u>
2020-2025	European project H2020 STRENTEx project, WIDESPREAD-04-2019: ERA Chair, ERA Chair for emerging technologies and innovative research in Stretchable and Textile Electronics <u>Role: member of the Advisory board</u>
2018-2021	INNOCONCRETE project “Innovative tools for conservation and monitoring of artworks in concrete by exploiting electrochemical paper-based sensors, functionalised nanomaterials, and modelling” within Executive Programme on Scientific and Technological Cooperation between Italian Republic and the Kingdom of Sweden for the years 2018-2020, <u>Role: Italian Coordinator</u>
2019-2020	Cranima Project KETs POR FESR LAZIO 2014-2020 – "KETs" Tecnologie Abilitanti – Project number F85F18000100007: <u>Role: Subcontractor University of Rome Nicolò Cusano</u>
2020	National project Patchstress 2020 Minister of Defense, <u>Role: Head of Unit</u>
2019	OPCW project Application of Miniaturised sensors and sampler to Remotely Controlled Mini Aerial Vehicles (payload less than 25 kg), a new pathway for the survey of critical areas, <u>Role: Participant</u>
2019	National project BIAPTABONT 2019 Minister of Defense, <u>Role: Coordinator</u>
2017-2020	European Project ERANETMED2-72-328 NanoSWS 2017-2020 "Integrated nanotechnologies for sustainable sensing water and sanitation, <u>Role: European Coordinator</u>

2017-2019	Tor Vergata University "MISSION: SUSTAINABILITY" call, NANOSPES Synthetic NANOsponges vs. natural SPonges: biomimicry for sustainable management of Emerging pollutantS in water, <u>Role: Head of Unit</u>
2016-2017	Mobility project Germany-Italy MIUR-DAAD Joint Mobility Program 2016-2017 "Rapid detection of salmonella using a smart multiplexed impedimetric paper-based sensor", <u>Role: Italian Coordinator</u>
2016-2018	Mobility project Algeria-Italy 2016-2018 "Electrochemistry and Electrochemical cost-effective sensors for remediation and detection of heavy metals in polluted waters and soils", <u>Role: Italian Coordinator</u>
2016	National Project PRIN 2016 "Securing and ensuring sustainable use of agriculture waste co- and by-products: an integrated analytical approach combining mass spectrometry with health effect-based biosensing", <u>Role: Participant</u>
2015	European Defency Agency 2015, "Generic Identification of Agents: SOLving New Emergencies", <u>Role: Head of Unit</u>
2014	National project APTAMERI BW (CIG 5411905D46) Minister of Defense 2014, <u>Role: Head of Unit</u>
2015.	National project ACQUA-SENSE (MI01_00223) INDUSTRIA 2015 <u>Role: Participant</u>
2015	National project Grape Health Wine (MI01_00308) INDUSTRIA 2015, <u>Role: Participant</u>
2005-2010	European Project "Biocop" New Technologies to Screen Multiply Chemical Contaminants in Food, 2005-2010, FP VI, Food Quality and Safety, <u>Role: Participant</u>
2005	European Project Leonardo RO/02/B/F/PP-141004, <u>Role: Participant</u>
2004	National project FISR 1999 "Development of sensor for pesticides detection in drinking and waste waters, <u>Role: Participant</u>

Invited/Keynote/Plenary Lectures (selection of most recent)

May 2024	"Paper-based printed electrochemical (bio)sensors as smart and sustainable point-of-care devices" <i>9th International Workshop on Materials Physics (IWMP)</i> Magurele, Bucharest, Romania, 14-17 May 2024 (Invited lecture)
April 2024	"Paper-based electrochemical (bio)sensors: a new generation of devices with unprecedented features", Barcelona Institute of Science and Technologies, Barcelona, Spain, 19 April 2024 (Invited lecture)
March 2024	"Paper-based point-of-care devices from academia to the market" Sensors in Medicine 2024 (Invited Lecture)

Oct 2023	“Paper-based electrochemical (bio)sensors: a new generation of devices with unprecedented features”, Workshop – SUSNANO, Nanobalkan, 16-20 October 2023, Tirana, Albania (Invited lecture)
Sept 2023	“Paper-based(bio)sensors: when an old and cost-effective material changes the features of the printed electrochemical devices”, XII ARGENTINEAN ANALYTICAL CHEMISTRY CONGRESS, 12-15 September 2023 San Juan, Argentina (on-line)
Sept 2023	“Miniaturized electrochemical biosensors for chemical warfare agents” EUROTOX2023, 57th Congress of the European Toxicologists and European Societies of Toxicology, 10-13 September 2023 Ljubljana, Slovenia (Invited lecture)
Sept 2023	“Electrochemical paper-based devices for overcoming the limitation of electrochemical polyester/ ceramic-based printed sensors”, 74 th Annual Meeting of the International Society of Electrochemistry 3 -8 September 2023 Lyon, France (Invited lecture)
Aug 2023	“Paper as smart material to deliver ecodeigned lab on a chip with improved analytical features and unprecedented applications” 4th European BioSensor Symposium 2023, 27-30 August 2023 Aachen, Germany (Plenary Lecture)
June 2023	“Paper-based Electrochemical (Bio)sensors as Smart and Sustainable Microfluidic Devices” Physics and Chemistry of Microfluidics Gordon Research Conference(Barga), Lucca, Italy (Invited Lecture)
March 2023	“Paper-based printed electrochemical (bio)sensors as smart and sustainable point-of-care devices”, LOPEC 1-2 March 2023, Munich, Germany (Invited Lecture)
Feb 2023	“Paper as smart material to deliver ecodeigned printed (bio)sensors with improved analytical features and unprecedented applications”, IAdChem Workshop “Materials for Biosensing & Bioimaging 2023”, Madrid, Feb 17, 2023, Madrid, Spain (Invited Lecture)
Feb 2023	“Paper-based electrochemical (bio)sensors as smart and sustainable analytical tools” Women in Science, Engineering and Research (WISER) workshop 7-9 February, 2023, King Abdullah University of Science and Technology (KAUST), Saudi Arabia (invited Lecture)
Oct 2022	“Paper-based electrochemical (bio)sensors as smart and sustainable devices”, THE TENTH INTERNATIONAL WORKSHOP ON BIOSENSORS 13 – 15 October 2022, Dakhla, Morocco (Plenary Lecture)
Sep 2022	“Design of novel paper-based devices for smart analysis”, 2 th Annual 2022 IEEE International Conference on RFID --- Technology and Applications RFID-TA 2022, Cagliari, Italy (Plenary Lecture)

Sept 2022	“Electrochemical paper-based devices: when the simple replacement of the support to print ecodesigned electrodes improves radically the features of the electrochemical devices”, 73 rd Annual Meeting of the International Society of Electrochemistry , “Symposium 1, Smart Materials for Innovative Wearable/Disposable/Renewable/Low-cost Electroanalytical devices”, on line (Invited Lecture)
Sept 2022	“Paper-based electrochemical (bio)sensors as smart and sustainable devices”, XXIX Congress of the Italian Division of Analytical Chemistry, Milazzo, Italy (Keynote Lecture)
July 2022	Smart miniaturized biosensors for chemical and biological warfare agents, AuxDefense 2022 – 3 rd World Conference on Advanced Materials for Defense, Guimarães, Portugal (Keynote Lecture)
May 2022	“Miniaturized electrochemical sensors for the detection of pollutants” , International Congress of Energies and Engineering of Industrial Processes CEGPI’2 USTHB, Algiers (Invited Lecture)
Apr 2022	“How the analytical chemists can face the Sustainable Developments in their research activity: design of sustainable (bio)sensors”, International Conference on Sustainable Developments in Materials Science, Technology and Engineering (ICSDMSTE 2022), Malaysia (Invited Lecture)
Apr 2022	“Paper-based (bio)sensors as smart and sustainable point-of-care devices”, BES2022 XXVII International symposium on Bioelectrochemistry and Bioenergetics, Antwerp, Belgium (Invited Lecture)
Nov 2021	“Miniaturized Electrochemical Biosensors for Smart Detection of Chemical & Warfare Agents”, International Conference on Disaster and Military Medicine at MEDICA Trade Fair in Dusseldorf, Germany (Invited Lecture)
Nov 2021	“Paper-based (bio)sensors as smart and sustainable point-of-care devices”, 9 th Annual Sensors in Medicine 2021 (Invited Lecture)
Oct 2021	“Carbon black as an outstanding and affordable nanomaterial for electrochemical (bio)sensors design”, TNT2021 School of Nanobiosensors, Tirana, Albania (Invited Lecture)
Jun 2021	“Carbon black-based Printed Electrochemical (Bio)sensors”, International school on Programmable Smart Sensors based on compatible Nanocomposite Materials (NanoSENS) (Plenary Lecture)
Feb 2021	“Carbon black as nanomodifier of printed electrodes”, Workshop “Nuove Tecnologie per Sensori e Biosensori” (Invited Lecture)
Feb 2021	“Carbon black as nanomodifier of printed electrodes”, International Conference in Recent Trends in 2D Nanomaterials: Synthesis, Properties and Applications (Invited Lecture)

Feb 2021	"Electrochemical miniaturized (bio)sensors to support the sustainable management of COVID-19 outbreak, Biosensors for Pandemics 2021 (Invited Lecture)
Jan 2021	"Ecodesigned and cost-effective electrochemical (bio)sensors", International webinar on Deployable nanobionengineered sensing technologies, on Springer Nature platform Albania (Invited Lecture)
Sept 2020	"All-solid state ion-selective carbon black-modified printed electrode for sodium detection in sweat", 71 st Annual Meeting of International Society of Electrochemistry, Symposium 1 (Invited Lecture)
Jul 2020	Analytical Chemistry to support COVID-19 Emergency, AUXDEFENSE 2020 (Invited Lecture)
Sep 2019	"Paper-based electrochemical (bio)sensors for sustainable surface water monitoring", International Conference Smarter Catchment Monitoring, Cleaner Waters, Intcatch 2020, London (Invited Lecture)
June 2019	"Electrochemical miniaturized scree-printed electrodes for emerging pollutant detection", 21 st Danube-Kris-Mures-Tisza Euroregional Conference and Environment and Health, Novi Sad, Serbia (Invited Lecture)
May 2019	"An origami-like wearable electrochemical sensor for sulphur mustard detection in liquid and aerosol phase, 2 nd International Conference Research and Innovation, CBRNE, Nantes (Invited Lecture)
May 2019	"Screen-printed electrodes as cost-effective and miniaturized analytical tools for environmental and biomedical analyses", IEEE International Conference on Design & Test of integrated micro & NanoSystems, Gammarth, Tunis, Tunisia (Invited Lecture)
May 2019	"Cutting edge technologies for fostering biosensors in water quality monitoring, precision medicine and food safety assessment", CRMN of Technopole of Sousse, Tunisia (Invited Lecture)
May 2019	"Carbon black for the development of cost-effective and miniaturised electrochemical sensors", NanoMAT 2019, Tunisia (Keynote Lecture)
May 2019	"Sustainable forefront technologies for the design of smart electrochemical (bio)sensors", Exploratory Workshop NeXT-Chem, National Institute for Research and Development in Chemistry and Photochemistry, Bucharest, Romania (Plenary Lecture)

May 2019	"Electrochemical paper-based (bio)sensors as new smart and sustainable analytical tools", University of Milan, Italy (Invited Lecture)
Sept 2018	"Carbon Black as Successful and Cost-effective Nanomaterial for the Design of Printable Electrochemical (Bio)sensors", 69 Annual ISE Meeting, Bologna, Italy (Invited Lecture)
Apr 2018	"Electrochemistry and paper towards a new route: electrochemical paper-based (bio)sensors", 4 International Symposium on Electrochemistry "Pure and Applied Electrochemistry, Johannesburg, South Africa (Keynote Lecture)
Oct 2017	"Paper-based and reagent free (bio)sensors", Eight International Workshop on Biosensors for Food Safety and Environmental Monitoring", Rabat, Morocco (Keynote Lecture)
May 2017	"Paper-based devices for the detection of chemical warfare agents, 2 nd International Conference CBRNE - Research & Innovation", Lyon, France (Keynote Lecture)
May 2016	"Carbon black as successful cost-effective raw carbonaceous nanomaterial for electrochemical (bio)sensor development", IX All-Russian Conference on electrochemical methods of analysis with the Youth Scientific School and international participation «EMA-2016», Ekaterinburg, Russia (Plenary Lecture)

Publications (overview)

166 papers in ISI peer-reviewed journals, 17 chapters, 29 papers as first-author and 103 papers as corresponding author (13 as co-corresponding)

H-index: 58; 9256 total citations (Scopus)

Editor together with V. Scognamiglio, G. Rea and G. Palleschi of the book entitled "Biosensors for Sustainable Food-New Opportunities and Technical Challenges", Elsevier 2016, ISSN 9780444635808 (electronic)

The articles:

1. ◦ D. Sordi, F. Arduini (Corr. Author), V. Conte, D. Moscone, G. Palleschi: "Real Time Monitoring of Hydrogen Peroxide Consumption in an Oxidation Reaction in Molecular Solvent and Ionic Liquids by Hydrogen Peroxide Electrochemical Sensor CHEMSUSCHEM (2011), 6; 792-796" was **Featured in scientific news media (ChemViewsMagazine)** http://www.chemistryviews.org/details/ezone/1075341/Hydrogen_Peroxide_Electrochemical_Sensor.html
2. ◦ F. Arduini, F. Ricci, C. S.Tuta, D. Moscone, A. Amine, G. Palleschi: "Detection of carbamic and organophosphorous pesticides in water samples using cholinesterase biosensor based on Prussian Blue modified screen printed electrode Analytica Chimica Acta (2006), 580;155-162" was **"Top 25 Hottest Article"** in October-November 2006
3. ◦ S. Cinti, F. Arduini, G. Vellucci, I. Cacciotti, F. Nanni, D. Moscone: "Carbon black assisted tailoring of Prussian Blue nanoparticles to tune sensitivity detection limit towards H₂O₂ by using screen-printed

electrode, *Electrochemistry Communications* (2014), 47; 63-66" *was Featured in scientific news media (Advances in Engineering, section nanotechnology; <http://advanceseng.com/nanotechnology-engineering/carbon-black-assisted-tailoring-of-prussianblue-nanoparticles-to-tune-sensitivity-and-detection-limit-towards-h2o2-by-using-screen-printed-electrode/>*

4. S. Cinti, V. Mazzaracchio, G. Öztürk, D. Moscone, F. Arduini. "A lab-on-a-tip approach to make electroanalysis userfriendly and de-centralized: Detection of copper ions in river water". *Analytica Chimica Acta*, 2018, 1029, 1-7 ***selected for the cover page***
5. M. Scarselli, F. Limosani, M. Passacantando, F. D'Orazio, M. Nardone, I. Cacciotti, F. Arduini, E. Gaudron, M. De Crescenzi. Influence of Iron Catalyst in the Carbon Spheres Synthesis for Energy and Electrochemical Applications". *Advanced Materials Interfaces*, 2018, s 2018, 1800070 ***selected for the cover page***
6. A. Antonacci, F. Arduini, D. Moscone, G. Palleschi, V. Scognamiglio. "Nanostructured (Bio) Sensors For Smart Agriculture". *TrAC Trends in Analytical Chemistry* 2018, 98, 95-103 ***selected for the cover page***
7. Amendola, L., Saurini, M., Di Girolamo, F., & Arduini, F. (Co-Corr. Author). "A rapid screening method for testing the efficiency of masks in breaking down aerosols". *Microchemical Journal*, 2020, 157, 104928 ***most downloaded August 2020***
8. Fabiani, L., Saroglia, M., Galatà, G., De Santis, R., Fillo, S., Luca, V., Faggioni, G., D'Amore, N., Regalbuto, E., Salvatori, P., Terova, G., Moscone, D., Lista, F., Arduini, F. (Corr. Author). (2021). Magnetic beads combined with carbon black-based screen-printed electrodes for COVID-19: A reliable and miniaturized electrochemical immunosensor for SARS-CoV-2 detection in saliva. *Biosensors and Bioelectronics*, 171, 112686 ***most downloaded February 2021. Laura Fabiani selected as finalist for Premio Levi prize for this article (Italian Chemical Society)***
9. Fiore, L., Mazzaracchio, V., Galloni, P., Sabuzi, F., Pezzola, S., Matteucci, G., Moscone, D., Arduini, F. (Corr. Author) (2021). A paper-based electrochemical sensor for H₂O₂ detection in aerosol phase: Measure of H₂O₂ nebulized by a reconverted ultrasonic aroma diffuser as a case of study. *Microchemical Journal*, 166, 106249 ***most downloaded on September 2021.***
10. Colozza, N., Caratelli, V., Moscone, D., Arduini, F. (2021). Paper-based devices as new smart analytical tools for sustainable detection of environmental pollutants. *Case Studies in Chemical and Environmental Engineering*, 4, 100167 ***Winner of CSCEE Best Awards 2022***
11. Fiore, L., Vitiello, R., Perna, A., Maccauro, G. and Arduini, F. (2022). Fast and reliable infection diagnosis during orthopaedic surgery using Bluetooth-assisted miniaturized-electrochemical sensor. *Microchemical Journal*, p.108061. ***Highlighted in Sole24ore Italian newspaper <https://www.sanita24.ilsole24ore.com/art/notizie-flash/2022-11-04/protesi-sensore-rileva-pochi-secondi-infezioni-le-operazioni-chirurgiche-ortopediche-171511.php?uuid=AEZFyHEC>***
12. Caratelli, V., Di Meo, E., Colozza, N., Fabiani, L., Fiore, L., Moscone, D., Arduini, F. (2022). Nanomaterials and paper-based electrochemical devices: merging strategies for fostering sustainable detection of biomarkers. *Journal of Materials Chemistry B*, 2022, 10, 9021 - 9039 ***selected for the cover page***

13. Fiore, L., Sinha, A., Seddaoui, N., di Biasio, J., Ricci, F., Stojanovic, G.M., Arduini, F. (2023). Paper card-like electrochemical platform as a smart point-of-care device for reagent-free glucose measurement in tears. *Chemical Communications* **selected for the cover page**
14. Mazzaracchio, V., Vitiello, R., Maccauro, G. and **Arduini, F. (Corr. Author)** 2024. Point-of-care devices for the detection of biomarkers of periprosthetic joint infection: State of the art and future perspectives. *TrAC Trends in Analytical Chemistry*, **selected for the cover page**

List of publications

1. **Arduini, F (Corr. Author)**. 2024. Wireless real-time monitoring of oestradiol in sweat. *Nature Nanotechnology*, pp.1-2
2. Mazzaracchio, V., Vitiello, R., Maccauro, G. and **Arduini, F. (Corr. Author)** 2024. Point-of-care devices for the detection of biomarkers of periprosthetic joint infection: State of the art and future perspectives. *TrAC Trends in Analytical Chemistry*, p.117544 (selected for the cover page).
3. Fabiani, L., Fiore, L., Fillo, S., D'Amore, N., De Santis, R., Lista, F. and **Arduini, F. (Corr. Author)**. 2024. Smartphone-assisted paper-based electrochemical immunosensor for SARS-CoV-2 detection in saliva. *Bioelectrochemistry*, 156, p.108619.
4. Gullo, L., Mazzaracchio, V., Colozza, N., Duranti, L., Fiore, L. and **Arduini, F. (Corr. Author)**. 2024. Carbon black as a cost-effective nanomodifier for (electro) chemical-free pre-treatment thermoplastic polyurethane-based 3D printed electrodes. *Electrochimica Acta*, p.143982.
5. Fiore, L., Sinha, A., Seddaoui, N., di Biasio, J., Ricci, F., Stojanovic, G.M. and **Arduini, F. (Corr. Author)** 2023. Paper card-like electrochemical platform as a smart point-of-care device for reagent-free glucose measurement in tears. *Chemical Communications (Cambridge, England)* (selected for cover page)
6. Mazzaracchio, V., Bagheri, N., Chiara, F., Fiore, L., Moscone, D., Roggero, S. and **Arduini, F. (Corr. Author)** 2023. A smart paper-based electrochemical sensor for reliable detection of iron ions in serum. *Analytical and Bioanalytical Chemistry*, 415(6), pp.1149-1157.
7. Moro, G., Fama, F., Colozza, N., Gambaro, A., Bassanello, M., Arduini, F. and Zanardi, C., 2023. A paper-based device for glyphosate electrochemical detection in human urine: A case study to demonstrate how the properties of the paper can solve analytical issues. *Green Analytical Chemistry*, 7, p.100076.
8. Bianco, G.M., Raso, E., Fiore, L., Mazzaracchio, V., Bracciale, L., Arduini, F., Loreti, P., Marrocco, G. and Occhiuzzi, C., 2023. UHF RFID and NFC point-of-care—architecture, security, and implementation. *IEEE Journal of Radio Frequency Identification*.
9. Seddaoui, N., Colozza, N., Gullo, L. and **Arduini, F. (Corr. Author)**, 2023. Paper as smart support for bioreceptors immobilization in electrochemical paper-based devices. *International Journal of Biological Macromolecules*, p.127409.
10. Fiore, L., Mazzaracchio, V., Serani, A., Fabiani, G., Fabiani, L., Volpe, G., Moscone, D., Bianco, G.M., Occhiuzzi, C., Marrocco, G. and **Arduini, F. (Corr. Author)** 2023. Microfluidics paper-based wearable electrochemical biosensor for reliable cortisol detection in sweat. *Sensors and Actuators B: Chemical*, p.133258.

11. Fiore, L., Vitiello, R., Perna, A., Maccauro, G. and **Arduini, F. (Corr. Author)** 2022. Fast and reliable infection diagnosis during orthopaedic surgery using Bluetooth-assisted miniaturized-electrochemical sensor. *Microchemical Journal*, 183, p.108061.
12. **Arduini, F. (Corr. Author)**. 2022. Electrochemical paper-based devices: when the simple replacement of the support to print ecodesigned electrodes radically improves the features of the electrochemical devices. *Current Opinion in Electrochemistry*, p.101090.
13. Antonacci, A., Arduini, F., Attaallah, R., Amine, A., Giardi, M.T. and Scognamiglio, V., 2022. A Proof-of-Concept Electrochemical Cytosensor Based on Chlamydomonas reinhardtii Functionalized Carbon Black Screen-Printed Electrodes: Detection of Escherichia coli in Wastewater as a Case Study. *Biosensors*, 12(6), p.401.
14. Colozza, N., Di Meo, E., Mucaria, A., Moscone, D. and **Arduini, F. (Corr. Author)** 2022. An origami paper-based electrochemical biosensing platform for quality control of agri-food waste in the valorization strategy. *Microchimica Acta*, 189(8), pp.1-12.
15. Caratelli, V., Moccia, M., Paggioro, F.R., Fiore, L., Avitabile, C., Saviano, M., Imbriani, A.L., Dardano, P., De Stefano, L., Moscone, D. and Colabufo, N.A., **Arduini, F. (Co-Corr. Author)** 2022. Liquid Biopsy beyond Cancer: A miRNA Detection in Serum with Electrochemical Chip for Non-Invasive Coeliac Disease Diagnosis. *Advanced NanoBiomed Research*, 2(9), p.2200015.
16. Caratelli, V., Fegatelli, G., Moscone, D. and **Arduini, F. (Corr. Author)** 2022. A paper-based electrochemical device for the detection of pesticides in aerosol phase inspired by nature: A flower-like origami biosensor for precision agriculture. *Biosensors and Bioelectronics*, 205, p.114119.
17. Mazzaracchio, V., Sassolini, A., Mitra, K.Y., Mitra, D., Stojanović, G.M., Willert, A., Sowade, E., Baumann, R.R., Zichner, R., Moscone, D. and **Arduini, F. (Corr. Author)** 2022. A fully-printed electrochemical platform for assisted colorimetric detection of phosphate in saliva: Greenness and whiteness quantification by the AGREE and RGB tools. *Green Analytical Chemistry*, 1, p.100006.
18. Caratelli, V., Di Meo, E., Colozza, N., Fabiani, L., Fiore, L., Moscone, D. and **Arduini, F. (Corr. Author)** 2022. Nanomaterials and paper-based electrochemical devices: merging strategies for fostering sustainable detection of biomarkers. *Journal of Materials Chemistry B* 10, 9021 - 9039
19. Mani, V., Durmus, C., Khushaim, W., Ferreira, D.C., Timur, S., **Arduini, F. (Co-Corr. Author)** and Salama, K.N., 2022. Multiplexed sensing techniques for cardiovascular disease biomarkers-A review. *Biosensors and Bioelectronics*, p.114680.
20. Mazzaracchio, V., Marrone, R., Forchetta, M., Sabuzi, F., Galloni, P., Wang, M., Nazligul, A., Choy, K.L., **Arduini, F. (Corr. Author)** and Moscone, D., 2022. Carbon-black combined with TiO₂ and KuQ as sustainable photosystem for a reliable self-powered photoelectrochemical biosensor. *Electrochimica Acta*, 426, p.140766.
21. Nanni, F., Fiore, L., Arduini, F. and Marrocco, G., 2022, September. Flexible epidermal device for the RFID-based potentiometric sensing of skin parameters. In *2022 IEEE 12th International Conference on RFID Technology and Applications (RFID-TA)* (pp. 40-42). IEEE.
22. Bianco, G.M., Raso, E., Fiore, L., Riente, A., Barba, A.B., Miozzi, C., Bracciale, L., Arduini, F., Loreti, P., Marrocco, G. and Occhiuzzi, C., 2022, September. Towards a Hybrid UHF RFID and NFC Platform for the Security of Medical Data from a Point of Care. In *2022 IEEE 12th International Conference on RFID Technology and Applications (RFID-TA)* (pp. 142-145). IEEE.

23. Fiore, L., Vitiello, R., Perna, A., Maccauro, G. and Arduini, F. (Corr. Author) (2022). Fast and reliable infection diagnosis during orthopaedic surgery using Bluetooth-assisted miniaturized-electrochemical sensor. *Microchemical Journal*, p.108061.
24. Fabiani, L., Mazzaracchio, V., Moscone, D., Fillo, S., De Santis, R., Monte, A., Amatore, D., Lista, F., Arduini, F. (Corr. Author) (2022). Paper-based immunoassay based on 96-well wax-printed paper plate combined with magnetic beads and colorimetric smartphone-assisted measure for reliable detection of SARS-CoV-2 in saliva. *Biosensors and Bioelectronics*, 200, 113909.
25. Fiore, L., De Lellis, B., Mazzaracchio, V., Suprun, E., Massoud, R., Goffredo, B. M., Moscone, D. & Arduini, F. (Corr. Author) (2022). Smartphone-assisted electrochemical sensor for reliable detection of tyrosine in serum. *Talanta*, 237, 122869.
26. Colozza, N., Caratelli, V., Moscone, D., Arduini, F. (Corr. Author) (2021). Paper-based devices as new smart analytical tools for sustainable detection of environmental pollutants. *Case Studies in Chemical and Environmental Engineering*, 4, 100167.
27. Arduini, F. (Corr. Author) (2021). Nanomaterials and Cross-Cutting Technologies for Fostering Smart Electrochemical Biosensors in the Detection of Chemical Warfare Agents. *Applied Sciences*, 11(2), p.720.
28. Antonacci, A., Attaallah, R., Arduini, F., Amine, A., Giardi, M. T., & Scognamiglio, V. (2021). A dual electro-optical biosensor based on *Chlamydomonas reinhardtii* immobilised on paper-based nanomodified screen-printed electrodes for herbicide monitoring. *Journal of Nanobiotechnology*, 19(1), 1-13.
29. Colozza, N., Tazzioli, S., Sassolini, A., Agosta, L., di Monte, M. G., Hermansson, K., Arduini, F. (Co-Corr. Author) (2021). Vertical-Flow Paper Sensor for On-Site and Prompt Evaluation of Chloride Contamination in Concrete Structures. *Analytical Chemistry*, 93(43), 14369-14374.
30. Mazzaracchio, V., Serani, A., Fiore, L., Moscone, D., & Arduini, F. (Corr. Author). (2021). All-solid state ion-selective carbon black-modified printed electrode for sodium detection in sweat. *Electrochimica Acta*, 394, 139050.
31. Colozza, N., Tazzioli, S., Sassolini, A., Agosta, L., di Monte, M. G., Hermansson, K., & Arduini, F. (Corr. Author). (2021). Multiparametric analysis by paper-assisted potentiometric sensors for diagnostic and monitoring of reinforced concrete structures. *Sensors and Actuators B: Chemical*, 345, 130352.
32. Scapinello, L., Grecchi, S., Rossi, S., Arduini, F., Arnaboldi, S., Penoni, A., Cirilli, R., Romana Mussini, P. and Benincori, T. (2021). Modulating the Enantiodiscrimination Features of Inherently Chiral Selectors by Molecular Design: A HPLC and Voltammetry Study Case with Atropisomeric 2, 2'-Biindole-Based Monomers and Oligomer Films. *Chemistry—A European Journal*, 27(52), pp.13190-13202.
33. Colozza, N., Caratelli, V., Moscone, D., & Arduini, F. (Corr. Author). (2021). Origami Paper-Based Electrochemical (Bio) Sensors: State of the Art and Perspective. *Biosensors*, 11(9), 328.
34. Fabiani, L., Caratelli, V., Fiore, L., Scognamiglio, V., Antonacci, A., Fillo, S., De Santis, R., Monte, A., Bortone, M., Moscone, D., Lista, F., & Arduini, F. (Corr. Author) (2021). State of the Art on the SARS-CoV-2 Toolkit for Antigen Detection: One Year Later. *Biosensors*, 11(9), 310.
35. Bagheri, N., Cinti, S., Nobile, E., Moscone, D., & Arduini, F. (Corr. Author) (2021). Multi-array wax paper-based platform for the pre-concentration and determination of silver ions in drinking water. *Talanta*, 232, 122474.

36. Fiore, L., Mazzaracchio, V., Galloni, P., Sabuzi, F., Pezzola, S., Matteucci, G., Moscone, D., **Arduini, F. (Corr. Author)** (2021). A paper-based electrochemical sensor for H₂O₂ detection in aerosol phase: Measure of H₂O₂ nebulized by a reconverted ultrasonic aroma diffuser as a case of study. **Microchemical Journal**, 166, 106249.
37. Caratelli, V., Fillo, S., D'Amore, N., Rossetto, O., Pirazzini, M., Moccia, M., Avitabile, C., Moscone, D., Lista, F., **Arduini, F. (Corr. Author)** (2021). Paper-based electrochemical peptide sensor for on-site detection of botulinum neurotoxin serotype A and C. **Biosensors and Bioelectronics**, 183, 113210.
38. Colozza, N., Kehe, K., Popp, T., Steinritz, D., Moscone, D., & **Arduini, F. (Corr. Author)** (2021). Paper-based electrochemical sensor for on-site detection of the sulphur mustard. **Environmental Science and Pollution Research**, 28(20), 25069-25080.
39. Arnaboldi, S., Mezzetta, A., Grecchi, S., Longhi, M., Emanuele, E., Rizzo, S., **Arduini, F.**, Micheli, L., Guazzelli, L. and Mussini, P.R. (2021). Natural-based chiral task-specific deep eutectic solvents: A novel, effective tool for enantiodiscrimination in electroanalysis. **Electrochimica Acta**, 380, p.138189.
40. Chebil, A., Mazzaracchio, V., Cinti, S., **Arduini, F. (Corr. Author)**, and Dridi, C. (2021). Facile development of cost effective and greener for all solid-state supercapacitor on paper substrate. **Journal of Energy Storage**, 33, p.102107.
41. Grecchi, S., Ferdeghini, C., Longhi, M., Mezzetta, A., Guazzelli, L., Khawthong, S., **Arduini, F.**, Chiappe, C., Iuliano, A. and Mussini, P.R. (2021). Chiral biobased ionic liquids with cations or anions including bile acid building blocks as chiral selectors in voltammetry. **ChemElectroChem**, 8(7), pp.1377-1387.
42. Bagheri, N., Mazzaracchio, V., Cinti, S., Colozza, N., Di Natale, C., Netti, P.A., Saraji, S., Roggero, S., Moscone D., **Arduini, F. (Corr. Author)** (2021). Electroanalytical Sensor Based on Gold-Nanoparticle-Decorated Paper for Sensitive Detection of Copper Ions in Sweat and Serum. **Analytical Chemistry**, 93(12), 5225-5233.
43. Colozza, N., Mazzaracchio, V., Kehe, K., Tsoutsoulopoulos, A., Schioppa, S., Fabiani, L., Steinritz, D., Moscone, D., **Arduini, F. (Corr. Author)** (2021). Development of novel carbon black-based heterogeneous oligonucleotide-antibody assay for sulfur mustard detection. **Sensors and Actuators B: Chemical**, 328, 129054.
44. Mazzaracchio, V., Fiore, L., Nappi, S., Marrocco, G., **Arduini, F. (Co-Corr. Author)** (2021). Medium-distance affordable, flexible and wireless epidermal sensor for pH monitoring in sweat. **Talanta**, 2021, 222, 121502
45. Fabiani, L., Saroglia, M., Galatà, G., De Santis, R., Fillo, S., Luca, V., Faggioni, G., D'Amore, N., Regalbuto, E., Salvatori, P., Terova, G., Moscone, D., Lista, F., **Arduini, F. (Corr. Author)**, 2021. Magnetic beads combined with carbon black-based screen-printed electrodes for COVID-19: A reliable and miniaturized electrochemical immunosensor for SARS-CoV-2 detection in saliva. **Biosensors and Bioelectronics**, 171, 112686.
46. Cinti, S., Marrone, R., Mazzaracchio, V., Moscone, D., **Arduini, F. (Corr. Author)**, 2020. Novel bio-lab-on-a-tip for electrochemical glucose sensing in commercial beverages". **Biosensors and Bioelectronics**, 2020, 112334.
47. Colozza, N., Sassolini, A., Agosta, L., Bonfanti, A., Hermansson, K. and **Arduini, F. (Corr. Author)** (2020). A Paper-Based Potentiometric Sensor for Solid Samples: Corrosion Evaluation of Reinforcements Embedded in Concrete Structures as a Case Study. **ChemElectroChem**, 7(10), pp.2274-2282.

48. Caratelli, V., Ciampaglia, A., Guiducci, J., Sancesareo, G., Moscone, D., **Arduini, F. (Corr. Author)**, 2020. Precision medicine in Alzheimer's disease: An origami paper-based electrochemical device for cholinesterase inhibitors. **Biosensors and Bioelectronics**, 165, 112411.
49. Khanmohammadi, A., Jalili Ghazizadeh, A., Hashemi, P., **Arduini, F.**, Bagheri, H., 2020. An overview to electrochemical biosensors and sensors for the detection of environmental contaminants". **Journal of the Iranian Chemical Society**, 17, 2429-2447.
50. Bordbar, M.M., Nguyen, T.A., **Arduini, F.** and Bagheri, H., 2020. A paper-based colorimetric sensor array for discrimination and simultaneous determination of organophosphate and carbamate pesticides in tap water, apple juice, and rice. **Microchimica Acta**, 187, 1-13.
51. Moccia, M., Antonacci, A., Saviano, M., Caratelli, V., **Arduini, F.** and Scognamiglio, V., 2020. Emerging technologies in the design of peptide nucleic acids (PNAs) based biosensors. **TrAC Trends in Analytical Chemistry**, 132, 116062.
52. Moccia, M., Caratelli, V., Cinti, S., Pedè, B., Avitabile, C., Saviano, M., Imbriani, A., Moscone, D., **Arduini, F. (Co-Corr. Author)**, 2020. Paper-based electrochemical peptide nucleic acid (PNA) biosensor for detection of miRNA-492: a pancreatic ductal adenocarcinoma biomarker. **Biosensors and Bioelectronics**, 165, 112371
- 53.
54. Deroco, P.B., Fatibello-Filho, O., **Arduini, F. (Corr. Author)**, Moscone, D., 2020. Electrochemical determination of capsaicin in pepper samples using sustainable paper-based screen-printed bulk modified with carbon black". **Electrochimica Acta**, 354, 136628
55. Amendola, L., Saurini, M., Di Girolamo, F., & **Arduini, F. (Co-Corr. Author)**, 2020. A rapid screening method for testing the efficiency of masks in breaking down aerosols. **Microchemical Journal**, 157, 104928.
56. Cacciotti, I., Pallotto, F., Scognamiglio, V., Moscone, D., **Arduini, F.**, 2020. Reusable optical multi-plate sensing system for pesticide detection by using electrospun membranes as smart support for acetylcholinesterase immobilisation." **Materials Science and Engineering: C**, 111, 110744.
57. Jemeli, D., Marcoccio, E., Moscone, D., Dridi, C., **Arduini, F. (Corr. Author)**, 2020. Highly sensitive paper-based electrochemical sensor for a reagent free detection of bisphenol A." **Talanta**, 216, 120924.
58. Attaallah, R., Antonacci, A., Mazzaracchio, V., Moscone, D., Palleschi, G., **Arduini, F.**, Amine, A., Scognamiglio, V., 2020. Carbon black nanoparticles to sense algae oxygen evolution for herbicides detection: Atrazine as a case study. **Biosensors and Bioelectronics**, 159, 112203.
59. Roda, A., **Arduini, F.**, Mirasoli, M., Zangheri, M., Fabiani, L., Colozza, N., Marchegiani, E., Simoni, P., Moscone, D., 2020. A challenge in biosensors: Is it better to measure a photon or an electron for ultrasensitive detection?". **Biosensors and Bioelectronics**, 155, 112093.
60. Colozza, N., Cacciotti, I., Moscone, D., **Arduini, F. (Corr. Author)**, 2020. Effects of Humidity, Temperature and Bismuth Electrodeposition on Electroanalytical Performances of Nafion-coated Printed Electrodes for Cd²⁺ and Pb²⁺ Detection". **Electroanalysis**, 32(2), 345-357.
61. Bartolucci, C., Antonacci, A., **Arduini, F.**, Moscone, D., Fraceto, L., Campos, E., Attaallah, R., Amine, A., Zanardi, C., Cubillana-Aguilera, C., Santander, J. M. P., Scognamiglio, V., 2020. Green nanomaterials fostering agrifood sustainability. **TrAC Trends in Analytical Chemistry**, 125, 115840.

62. **Arduini, F. (Corr. Author)**, Cinti, S., Mazzaracchio, V., Scognamiglio, V., Amine, A., Moscone, D., 2020. Carbon black as an outstanding and affordable nanomaterial for electrochemical (bio) sensor design. *Biosensors and Bioelectronics*, 156, 112033.
63. Kumar, V., Sinha, A.K., Uka, A., Antonacci, A., Scognamiglio, V., Mazzaracchio, V., Cinti, S. and **Arduini, F.**, 2020. Multi-potential biomarkers for seafood quality assessment: Global wide implication for human health monitoring. *TrAC Trends in Analytical Chemistry*, 132, 116056.
64. Cinti, S., Cinotti, G., Parolo, C., Nguyen, E. P., Caratelli, V., Moscone, D., **Arduini, F.** Merkoçi, A., 2020 Experimental Comparison in Sensing Breast Cancer Mutations by Signal ON and Signal OFF Paper-Based Electroanalytical Strips. *Analytical Chemistry*, 82, 1674-1679.
65. Castrovilli, M.C., Bolognesi, P., Chiarinelli, J., Avaldi, L., Cartoni, A., Calandra, P., Tempesta, E., Giardi, M.T., Antonacci, A., **Arduini, F.** and Scognamiglio, V., 2020. Electrospray deposition as a smart technique for laccase immobilisation on carbon black-nanomodified screen-printed electrodes. *Biosensors and Bioelectronics*, 163, 112299.
66. Mazzaracchio, V., Tshwenya, L., Moscone, D., **Arduini, F. (Co-Corr. Author)**, and Arotiba, O.A., 2020. A Poly (Propylene Imine) Dendrimer and Carbon Black Modified Flexible Screen Printed Electrochemical Sensor for Lead and Cadmium Co-detection. *Electroanalysis*, 32(12), pp.3009-3016
67. Hashemi, P., Afkhami, A., Baradaran, B., Halabian, R., Madrakian, T., **Arduini, F.**, Nguyen, T.A. and Bagheri, H., 2020. Well-orientation strategy for direct immobilization of antibodies: development of the immunosensor using the boronic acid-modified magnetic graphene nanoribbons for ultrasensitive detection of lymphoma cancer cells. *Analytical Chemistry*, 92, 11405-11412.
68. Fakude, C.T., Arotiba, O.A., **Arduini, F.** and Mabuba, N., 2020. Flexible Polyester Screen-printed Electrode Modified with Carbon Nanofibers for the Electrochemical Aptasensing of Cadmium (II). *Electroanalysis*, 32, 2650-2658.
- 69.
70. Antonacci, A., Scognamiglio, V., Mazzaracchio, V., Caratelli, V., Fiore, L., Moscone, D. and **Arduini, F. (Corr. Author)**, 2020. Paper-based electrochemical devices for the pharmaceutical field: state of the art and perspectives. *Frontiers in Bioengineering and Biotechnology*, 8, 339.
71. Tomei, M. R., Marcoccio, E., Daniela, N., Moscone, D., **Arduini, F. (Corr. Author)**, 2020. "A miniaturized carbon black-based electrochemical sensor for chlorine dioxide detection in swimming pool water". *Electroanalysis*, , 32, 986-991
72. Deroco, P. B., Fatibello-Filho, O., **Arduini, F. (Corr. Author)**, Moscone, D., 2019. "Effect of Different Carbon Blacks on the Simultaneous Electroanalysis of Drugs as Water Contaminants Based on Screen-printed Sensors". *Electroanalysis*, 31, 2145-2154.
73. Kojić, T., Stojanović, G., Miletić, A., Radovanović, M., Al-Salami, H., **Arduini, F.**, 2019. "Testing and Characterization of Different Papers as Substrate Material for Printed Electronics and Application in Humidity Sensor". *Sensors and Materials*, 31, 2981–2995.

74. Cinti, S., Moscone, D., **Arduini, F. (Co-Corr. Author)**, 2019. "Preparation of paper-based devices for reagentless electrochemical (bio)sensor strips". **Nature Protocols** 14, 2437-2451.
75. Mazzaracchio, V., Tomei, M. R., Cacciotti, I., Chiodoni, A., Novara, C., Castellino, M., Scordo, G., Amine, A., Moscone, D., **Arduini, F. (Corr. Author)** , 2019. Inside the different types of carbon black as nanomodifiers for screen-printed electrodes". **Electrochimica Acta** 317, 673-683.
76. Scognamiglio, V., **Arduini, F.**, 2019. The technology tree in the design of glucose biosensors. *TrAC - Trends in Analytical Chemistry* 120, 115642.
77. Karamia, P., Khoshsafara, H., Johari-Aharb, M., **Arduini, F.**, Afkhamie, A., Bagheri H., 2019. Colorimetric immunosensor for determination of prostate specific antigen using surface plasmon resonance band of colloidal triangular shape gold nanoparticles". **Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy** 222, 117218.
78. Scognamiglio, V., Antonacci, A., **Arduini, F.**, Moscone, D., Campos, E. V., Fraceto, L. F., Palleschi, G., 2019. An eco-designed paper-based algal biosensor for nanoformulated herbicide optical detection". **Journal of Hazardous Materials** 373, 483-492.
79. Hashemi, P., Karimian, N., Khoshsafari, H., **Arduini, F.**, Mesri, M., Afkhami, A., Bagheri, H., 2019. Reduced graphene oxide decorated on Cu/CuO-Ag nanocomposite as a high-performance material for the construction of a non-enzymatic sensor: Application to the determination of carbaryl and fenamiphos pesticides. **Materials Science and Engineering: C**, 102, 764-772.
80. Tomei, M. R., Cinti, S., Interino, N., Manovella, V., Moscone, D., **Arduini, F. (Corr. Author)**. "Paper-based electroanalytical strip for user-friendly blood glutathione detection". **Sensors and Actuators B: Chemical** 2019, 294, 291-297.
81. Karami, P., Bagheri, H., Johari-Ahar, M., Khoshsafari, H., **Arduini, F.**, Afkhami, A. "Dual-modality impedimetric immunosensor for early detection of prostate-specific antigen and myoglobin markers based on antibody-molecularly imprinted polymer". **Talanta** 2019, 202, 111-122.
82. Bagheri, N., Cinti, S., Caratelli, V., Massoud, R., Saraji, M., Moscone, D., **Arduini, F.** "A 96-well wax printed Prussian Blue paper for the visual determination of cholinesterase activity in human serum". **Biosensors and Bioelectronics** 2019, 134, 97-102.
83. N. Colozza, K. KeheG. Dionisi , T. Popp, A. Tsoutsoulopoulos, D. Steinritz, D. Moscone, **F. Arduini (Corr. Author)** . "A wearable origami-like paper-based electrochemical biosensor for sulfur mustard detection". **Biosensors and Bioelectronics** 2019, **129**, 15–23
84. **F. Arduini (Corr. Author)**, S Cinti, V Caratelli, L Amendola, G Palleschi, D Moscone. "Origami multiple paper-based electrochemical biosensors for pesticide detection". **Biosensors and Bioelectronics**, 2019, 126, 346-354.
85. V. Mazzaracchio, D. Neagu, A. Porchetta, E. Marcoccio, A. Pomponi, G. Faggioni, N. D'Amore, A. Notargiacomo, M. Pea, D. Moscone, G. Palleschi, F. Lista, **F. Arduini (Corr. Author)**. " A label-free impedimetric aptasensor for the detection of Bacillus anthracis spore simulant". *Biosensors and Bioelectronics*, 2019, 126, 640-646.

86. A. Sassolini, N. Colozza, E. Papa, K. Hermansson, I. Cacciotti, **F. Arduini (Corr. Author)**. "Screen-printed electrode as a cost-effective and miniaturized analytical tool for corrosion monitoring of reinforced concrete". **Electrochemistry Communications**, 2019, 98, 69-72.
87. S. Cinti, E. Proietti, F. Casotto, D. Moscone, **F. Arduini**. "Based Strips for the Electrochemical Detection of Single and Double Stranded DNA". **Analytical Chemistry**, 2018, 90 13680-13686.
88. V. Pagliarini, D. Neagu, V. Scognamiglio, S. Pascale, G. Scordo, G. Volpe, E. Delibato, E. Pucci, A. Notargiacomo, M. Lilia, D. Moscone, **F. Arduini (Corr. Author)**. "Treated Gold Screen-Printed Electrode as Disposable Platform for Label-Free Immunosensing of Salmonella Typhimurium". **Electrocatalysis** 2018, 10, 288-294.
89. A.A. Lahcen, **F. Arduini (Corr. Author)**, F. Lista, A. Amine. "Label-free electrochemical sensor based on spore-imprinted polymer for Bacillus cereus spore detection". **Sensors and Actuators B: Chemical** 2018, 276, 114-120
90. N. Pajooheshpour, M. Rezaei, A. Hajian, A. Afkhami, M. Sillanpää, **F. Arduini**, H. Bagheri. (2018) "Protein templated AuPt nanoclusters-graphene nanoribbons as a high performance sensing layer for the electrochemical determination of diazinon". **Sensors and Actuators B: Chemical** 2018, 275, 180-189.
91. A. Amine, S. Cinti, **F. Arduini (Corr. Author)**, D. Moscone, G. Palleschi. "How to extend range linearity in enzyme inhibition-based biosensing assays". **Talanta** 2018, 189, 365-369
92. M.R. Tomei, **F. Arduini (Corr. Author)**, D. Neagu, D. Moscone. "Carbon black-based disposable sensor for an on-site detection of free chlorine in swimming pool water". **Talanta** 2018, 189, 262-267
93. S. Cinti, F. Limosani, M. Scarselli, **F. Arduini (Corr. Author)**. "Magnetic carbon spheres and their derivatives combined with printed electrochemical sensors". **Electrochimica Acta** 2018 282, 247-254
94. S. Cinti, R. Cusenza, D. Moscone, **F. Arduini**. "Paper- based synthesis of Prussian Blue Nanoparticles for the development of whole blood glucose electrochemical biosensor". **Talanta** 2018, 187, 59-64.
95. S. Cinti, V. Mazzaracchio, G. Öztürk, D. Moscone, **F. Arduini**. "A lab-on-a-tip approach to make electroanalysis userfriendly and de-centralized: Detection of copper ions in river water". **Analytica Chimica Acta**, 2018, 1029, 1-7 (selected for the cover page)
96. M. Scarselli, F. Limosani, M. Passacantando, F. D'Orazio, M. Nardone, I. Cacciotti, **F. Arduini**, E. Gaudron, M. De Crescenzi. Influence of Iron Catalyst in the Carbon Spheres Synthesis for Energy and Electrochemical Applications". **Advanced Materials Interfaces**, 2018, s 2018, 1800070
97. S. Cinti, N. Colozza, I. Cacciotti, D. Moscone, M. Polomoshnov, E. Sowade, R.R. Baumann, **F. Arduini (Corr. Author)**. "Electroanalysis moves towards paper-based printed electronics: carbon black nanomodified inkjet-printed sensor for ascorbic acid detection as a case study". **Sensors and Actuators B** 2018, 265, 155-160.
98. A. Antonacci, M.D. Lambrev, M. **F. Arduini**, D. Moscone, G. Palleschi, V. Scognamiglio. "A whole cell optical bioassay for the detection of chemical warfare mustard agent simulants". **Sensors and Actuators B** 2018, 257, 658-665.
99. G. Scordo, D. Moscone, G. Palleschi, **F. Arduini (Corr. Author)** "A reagent-free paper-based sensor embedded in a 3D printing device for cholinesterase activity measurement in serum". **Sensors and Actuators B** 2018, 258, 1015-1021.

100. A. Antonacci, F. Arduini, D. Moscone, G. Palleschi, V. Scognamiglio. "Nanostructured (Bio) Sensors For Smart Agriculture". **TrAC Trends in Analytical Chemistry** 2018, 98, 95-103 (*selected for the cover page*)
101. S. Cinti, L. Fiore, R. Massoud, C. Cortese, D. Moscone, G. Palleschi, F. Arduini (Co-Corr. Author) Low-cost and reagent-free paper-based device to detect chloride ions in serum and sweat. **Talanta** 2018, 179, 186-192.
102. S. Cinti, B. De Lellis, D. Moscone, F. Arduini (Co-Corr. Author) Sustainable monitoring of Zn(II) in biological fluids using office paper. **Sensors and Actuators B** 2017, 253, 1199-1206.
103. S. Cinti, V. Mazzaracchio, I. Cacciotti, D. Moscone, F. Arduini (Co-Corr. Author) Carbon black-modified electrodes screen-printed onto paper towel, waxed paper and Parafilm. **Sensors** 2017, 17, 2267, 1-12.
104. N. Colozza, M.F. Gravina, L. Amendola, M. Rosati, D.E Akretche, D. Moscone, F. Arduini (Corr. Author) A miniaturized bismuth-based sensor to evaluate the marine organism *Styela plicata* bioremediation capacity toward heavy metal polluted seawater. **Science of The Total Environment**, 2017, 584-585, 692-700.
105. F. Arduini (Corr. Author), M. Forchielli, V. Scognamiglio, K.A. Nikolaevna, D. Moscone. "Organophosphorous Pesticide Detection in Olive Oil by Using a Miniaturized, Easy-to-Use, and Cost-Effective Biosensor Combined with QuEChERS for Sample Clean-Up". **Sensors**, 2017, 17, 34
106. F. Arduini (Corr. Author), S. Cinti, V. Scognamiglio, D. Moscone, G. Palleschi, G. "How cutting-edge technologies impact the design of electrochemical (bio) sensors for environmental analysis. A review". **Analytica Chimica Acta**, 2017, 959, 15-42.
107. S. Cinti, M. Basso, D. Moscone, F. Arduini (Co-Corr. Author). "A paper-based nanomodified electrochemical biosensor for ethanol detection in beers". **Analytica Chimica Acta**, 2017, 960, 123-130
108. S. Cinti, C. Minotti, D. Moscone, G. Palleschi, F. Arduini (Co-Corr. Author). "Fully integrated ready-to-use paper-based electrochemical biosensor to detect nerve agents". **Biosensors and Bioelectronics**, 2017, 93, 46-51
109. S. Cinti, F. Arduini (Corr. Author). "Graphene-based screen-printed electrochemical (bio)sensors and their applications: Efforts and criticisms (review)". **Biosensors and Bioelectronics**, 2017, 89, 107-122
110. D. Moscone, G. Volpe, F. Arduini, L. Micheli. "Rapid electrochemical screening methods for food safety and quality". **ACTA IMEKO**, 2016, 5, 45-50
111. F. Arduini, L. Micheli, D. Moscone, G. Palleschi, S. Piermarini, F. Ricci, G. Volpe. "Electrochemical biosensors based on nanomodified screen-printed electrodes: Recent applications in clinical analysis". **TrAC Trends in Analytical Chemistry**, 79 (2016) 114-126
112. D. Talarico, F. Arduini (Corr. Author), A. Amine, I. Cacciotti, D. Moscone, G. Palleschi. "Screen-printed electrode modified with carbon black nanoparticles and chitosan: a novel platform for acetylcholinesterase biosensor development". **Analytical and Bioanalytical Chemistry**, 408 (2016) 7299-7309

113. **Arduini, F.**, Micheli, L., Scognamiglio, V., Mazzaracchio, V. and Moscone, D., 2020. Sustainable materials for the design of forefront printed (bio) sensors applied in agrifood sector. **TRAC Trends in Analytical Chemistry**, 128, p.115909.
114. **F. Arduini (Corr. Author)**, S. Cinti, V. Scognamiglio, D. Moscone. "Nanomaterials in electrochemical biosensors for pesticide detection: advances and challenges in food analysis (review)". **Microchimica Acta**, 183 (2016) 2093-2083
115. S. Cinti, D. Talarico, G. Palleschi, D. Moscone, **F. Arduini (Corr. Author)**. "Novel reagentless paper-based screen-printed electrochemical sensor to detect phosphate". *Analytica Chimica Acta*, 919 (2016) 78-84
116. **F. Arduini (Corr. Author)**, D. Neagu, V. Paglierini, V. Scognamiglio, M.A. Leonardis, E. Gatto, A. Amine, G. Palleschi, D. Moscone. "Rapid and label-free detection of ochratoxin A and aflatoxin B1 using an optical portable instrument". **Talanta** 150 (2016) 440–448.
117. A. Amine, **F. Arduini**, D. Moscone, G. Palleschi. "Recent advances in biosensors based on enzyme inhibition (review)". **Biosensors and Bioelectronics** 76 (2016) 180–194.
118. M.S. I. Rabie, A.A. Lahcen, **F. Arduini**, A. Ourari, A. Amine. "Electrochemical Characterization of Carbon Solid like Paste Electrode Assembled Using Different Carbon Nanoparticles". **Electroanalysis** (2016), 28,1044–1051
119. S. Cinti, F. Santella, D. Moscone, **F. Arduini (Corr. Author)**. "Hg²⁺ detection using a disposable and miniaturized screenprinted electrode modified with nanocomposite carbon black and gold nanoparticles". **Environmental Science and Pollution Research**, 23 (2016) 8192-8199
120. S. Cinti, D. Neagu, M. Carbone, I. Cacciotti, D. Moscone, **F. Arduini (Corr. Author)**. "Novel carbon black-cobalt phthalocyanine nanocomposite as sensing platform to detect organophosphorus pollutants at screen-printed electrode". **Electrochimica Acta** 188 (2016) 574–581
121. S.Cinti, **F. Arduini (Corr. Author)**, M. Carbone, L. Sansone, I. Cacciotti, D. Moscone, G. Palleschi. "Screen-Printed Electrodes Modified with Carbon Nanomaterials: A Comparison among Carbon Black, Carbon Nanotubes and Graphene". **Electroanalysis** 27 (2015) 2230-2238
122. D. Talarico, S. Cinti, **F. Arduini (Corr. Author)**, D. Moscone, G. Palleschi. "Phosphate Detection through a Cost-Effective Carbon Black Nanoparticle-Modified Screen- Printed Electrode Embedded in a Continuous Flow System". **Environ. Sci. Technol.** 49 (2015) 7934–7939
123. D. Talarico, **F. Arduini (Corr. Author)**, A. Costantino, M. Del Carlo, D. Compagnone D. Moscone, G. Palleschi. "Carbon black as successful screen-printed electrode modifier for phenolic compound detection". **Electrochemistry Communications** 60 (2015) 78–82
124. S. Cinti, **F. Arduini**, D. Moscone, G. Palleschi, L. Gonzalez, A. Killard. "Cholesterol biosensor based on inkjet-printed Prussian blue nanoparticle-modified screen-printed electrodes". **Sensors and Actuators B** 221 (2015) 187–190

125. **F. Arduini (Corr. Author)**, D. Neagu, V. Scognamiglio, S. Patarino, D. Moscone, G. Palleschi. Automatable flow system for paraoxon detection with an embedded screen-printed electrode tailored with Butyrylcholinesterase and Prussian Blue nanoparticles. **Chemosensors** 3 (2015) 129-145
126. C. Zanardi, E. Ferrari, L. Pigani, **F. Arduini**, R. Seeber. Development of an electrochemical sensor for NADH determination based on a caffeic acid redox mediator supported on carbon black. **Chemosensors** 3 (2015) 118-128
127. D. Talarico, **F. Arduini (Corr. Author)**, A. Amine, D. Moscone, G. Palleschi. Screen-printed electrode modified with carbon black nanoparticles for phosphate detection by measuring electroactive phosphomolybdate complex. **Talanta** 141 (2015) 267-272
128. **F. Arduini**, C. Zanardi, S. Cinti, F. Terzi, D. Moscone, G. Palleschi, R. Seeber. Effective electrochemical sensor based on screen-printed electrodes modified with a carbon black-Au nanoparticles composite. **Sensors and Actuators B** 212 (2015) 536-543 74.
129. **F. Arduini (Corr. Author)**, V. Scognamiglio, C. Covaia, A. Amine, D. Moscone, G. Palleschi. A choline oxidase amperometric bioassay for the detection of mustard agents based on screen-printed electrode modified with Prussian Blue nanoparticles. **Sensors** (2015) 15; 353-4367
130. **F. Arduini (Corr. Author)**, M. Forchielli, A. Amine, D. Neagu, I. Cacciotti, F. Nanni, D. Moscone, G. Palleschi Screen-printed biosensor modified with carbon black nanoparticles for the determination of paraoxon based on the inhibition of butyrylcholinesterase. **Microchimica Acta** 182 (2015) 643–651
131. S.Cinti, **F. Arduini**, D. Moscone, G. Palleschi, A.T. Killard. Development of a Hydrogen Peroxide Sensor Based on Screen-Printed Electrodes Modified with Inkjet-Printed Prussian Blue Nanoparticles. **Sensors** 14 (2014) 14222-14234
132. S. Cinti, **F. Arduini (Corr. Author)**, G. Vellucci, I. Cacciotti, F. Nanni, D. Moscone. Carbon black assisted tailoring of Prussian Blue nanoparticles to tune sensitivity detection limit towards H₂O₂ by using screen-printed electrode. **Electrochemistry Communications** 47 (2014) 63-66
133. V. Scognamiglio, **F. Arduini**, G. Palleschi, G.Rea. Biosensing technology for a sustainable food safety (review). **Trends in Analytical Chemistry** 62 (2014) 1-10
134. A. Amine, L. El Harrad, **F. Arduini**, D. Moscone, G. Palleschi. Analytical aspects of enzyme reversible inhibition. **Talanta** 118 (2014) 368-374
135. D. Neagu, **F. Arduini (Corr. Author)**, J.Calvo Quintana, P. Di Cori. C. Forni, D. Moscone Disposable Electrochemical Sensor to Evaluate the Phytoremediation of the Aquatic Plant Lemna minor L. toward Pb²⁺ and/or Cd²⁺. **Environ. Sci. Technol.** (2014) 7477–748
136. S. Cinti, S. Politi, D. Moscone, G. Palleschi, **F. Arduini (Corr. Author)** Stripping Analysis of As(III) by Means of Screen-Printed Electrodes Modified with Gold Nanoparticles and Carbon Black Nanocomposite. **Electroanalysis** 26 (2014) 931-939
137. M. Portaccio, D. Di Tuoro, **F. Arduini**, D. Moscone, M. Cammarota, DG Mita, M. Lepore. Laccase Biosensor based on screen-printed electrode modified with thionine-carbon black nano composite for Bisphenol A detection. **Electrochimica Acta** 109 (2013) 340-347

138. **F. Arduini (Corr. Author)**, S. Guidone, A. Amine, G. Palleschi, D. Moscone. Acetylcholinesterase biosensor based on self-assembled monolayer-modified gold-screen printed electrodes for organophosphorus insecticide detection. **Sensors and Actuators B** 179 (2013) 201-208
139. C. Henriquez, L.M. Laglera, M.J. Alpizar, J. Calvo, **F. Arduini**, V. Cerdà. Cadmium determination in natural water samples with an automatic multisyringe flow injection system coupled to a flowthrough screen printed electrode. **Talanta** 96 (2012) 140-146
140. E.V. Suprun, **F. Arduini**, D. Moscone, G. Palleschi, V.V. Shumyantseva, A.I. Archakov. Direct Electrochemistry of Heme Proteins on Electrodes Modified with Didodecyldimethyl Ammonium Bromide and Carbon Black. **Electroanalysis** 24 (2012) 1923-1931
141. **F. Arduini (Corr. Author)**, F. Di Nardo, A. Amine, L. Micheli, G. Palleschi, D. Moscone Carbon black-modified screen-printed electrodes as electroanalytical tools. **Electroanalysis** 24 (2012) 743-751
142. J. Calvo Quintana, **F. Arduini (Corr. Author)**, A. Amine, K. Van Velzen, G. Palleschi, D. Moscone. Part two: Analytical optimisation of a procedure for lead detection in milk by means of bismuth- modified screen-printed electrodes. **Analytica Chimica Acta** 736 (2012) 92-99
143. **F. Arduini (Corr. Author)**, D. Neagu, S. Dall'Oglio, D. Moscone, G. Palleschi Towards a Portable Prototype Based on Electrochemical Cholinesterase Biosensor to be Assembled to Soldier Overall for Nerve Agent Detection. **Electroanalysis** 24 (2012) 581-590
144. V. Scognamiglio, I. Pezzotti, G. Pezzotti, J. Cano, I. Manfredonia, K. Buonasera, **F. Arduini**, D. Moscone, G. Palleschi, M.T. Giardi Towards an integrated biosensor array for simultaneous and rapid multi-analysis of endocrine disrupting chemicals. **Analytica Chimica Acta** 751 (2012) 161-170
145. A.N. Ivanov, R.R. Younusova, G.A. Evtugyn, **F. Arduini**, D. Moscone, G. Palleschi. Acetylcholinesterase biosensor based on single-walled carbon nanotubes – Co phthalocyanine for organophosphorus pesticides detection. **Talanta** 56 (2011) 4209-4215
146. D. Di Tuoro, M. Portaccio, M. Lepore, **F. Arduini**, D. Moscone, U. Bencivenga, D.G. Mita. An acetylcholinesterase biosensor for determination of low concentrations of Paraoxon and Dichlorvos. **New Biotechnology** 29 (2011) 132-138
147. J. Calvo Quintana, **F. Arduini (Corr. Author)**, A. Amine, F. Punzo, G. Li Destri, C. Bianchini, D. Zane, A. Curulli, G. Palleschi, D. Moscone. Part I: A comparative study of bismuth-modified screen-printed electrodes for lead detection. **Analytica Chimica Acta** 707 (2011) 171-177
148. D. Sordi, **F. Arduini (Corr. Author)**, V. Conte, D. Moscone, G. Palleschi. Real Time Monitoring of Hydrogen Peroxide Consumption in an Oxidation Reaction in Molecular Solvent and Ionic Liquids by Hydrogen Peroxide Electrochemical Sensor. **CHEMSUSCHEM** 6 (2011) 792-796.
149. **F. Arduini (Corr. Author)**, C. Majorani, A. Amine, D. Moscone, G. Palleschi. Hg²⁺ detection by measuring thiol groups with a highly sensitive screen-printed electrode modified with a nanostructured carbon black film. **Electrochimica Acta** 56 (2011) 4209-4215
150. **F. Arduini (Corr. Author)**, J. Quintana Calvo, A. Amine, G. Palleschi, D. Moscone. Bismuth-modified electrodes for lead detection (review). **Trends in Analytical Chemistry** 29 (2010) 1295-1304

151. **F. Arduini (Corr. Author)**, A. Amine, C. Majorani, F. Di giorgio, D. De felicis, F. Cataldo, D. Moscone, G. Palleschi. High performance electrochemical sensor based on modified screen-printed electrodes with cost-effective dispersion of nanostructured carbon black. **Electrochemistry Communications** 12 (2010) 346-350.
152. **F. Arduini (Corr. Author)**, A. Amine, D. Moscone, G. Palleschi. Biosensors based on cholinesterase inhibition for pesticides, nerve agents and aflatoxin B1 detection (review). **Microchimica Acta** 170 (2010) 193-214.
153. **F. Arduini (Corr. Author)**, F. Di Giorgio, A. Amine, F. Cataldo, D. Moscone, G. Palleschi. Electroanalytical characterisation of carbon black nanomaterial paste electrode. Development of highly sensitive tyrosinase biosensor for catechol detection. **Analytical Letters** 43 (2010) 1688-1702.
154. **F. Arduini (Corr. Author)**, A. Amine, D. Moscone, G. Palleschi. Reversible enzyme inhibition-based biosensors: applications and analytical improvement through diagnostic inhibition (review). **Analytical Letters** 42 (2009) 1258-1293
155. M. L. Antonelli, **F. Arduini (Corr. Author)**, A. Lagana', D. Moscone, V. Siliprandi. Construction, assembling and application of a trehalase–GOD enzyme electrode system. **Biosensors & Bioelectronics** 24 (2009) 1382-1388.
156. Inen Rejeb, **F. Arduini (Corr. Author)**, A. Arvinte, A. Amine, M. Gargouri, L. Micheli, C. Bala, D. Moscone, G. Palleschi Development of a bio-electrochemical assay for AFB1 detection in olive oil. **Biosensors & Bioelectronics** 24 (2009) 1962-1968.
157. **F. Arduini (Corr. Author)**, A. Cassisi , A. Amine, F. Ricci, D. Moscone, G. Palleschi Electrocatalytic oxidation of thiocholine at chemically modified cobalt hexacyanoferrate screen- printed electrodes. **Journal of Electroanalytical Chemistry** 626 (2009) 66-74.
158. D.G. Mita, A. Attanasio, **F. Arduini**, N. Diano, V. Grano, U. Bencivenga, S. Rossi, A. Amine, D. Moscone Enzymatic determination of BPA by means of tyrosinase immobilized on different carbon carriers. **Biosensors & Bioelectronics** 23 (2007) 60-65.
159. **F. Arduini (Corr. Author)**, F. Ricci, A. Amine, D. Moscone, G. Palleschi. Fast, sensitive and cost-effective detection of nerve agents in the gas phase using a portable instrument and an electrochemical biosensor. **Analytical and Bioanalytical Chemistry** 388 (2007) 1049-1057
160. A. Arvinte, F. Valentini, A. Radoi, **F. Arduini**, E. Tamburri, L. Rotariu, G. Palleschi, C. Bala The NADH Electrochemical Detection Performed at Carbon Nanofibers Modified Carbon Electrode. **Electroanalysis** 19 (2007) 1455-1459.
161. **F. Arduini**, I. Errico, A. Amine, L. Micheli, G. Palleschi, D. Moscone. Enzymatic spectrophotometric method for aflatoxin B detection based on acetylcholinesterase inhibition. **Analytical Chemistry** 79 (2007) 3409-3415.
162. I. Ben Rejeb, **F. Arduini**, A. Amine, M. Gargouri, G. Palleschi Amperometric biosensor based on Prussian Blue-modified screen- printed electrode for lipase activity and triacylglycerol determination. **Analytica Chimica Acta** 594 (2007) 1-8.

163. F. Ricci, **F. Arduini**, C. S. Tuta, U. Sozzo, D. Moscone, A. Amine, G. Palleschi Glutathione amperometric detection based on a thiol-disulfide exchange reaction. **Analytica Chimica Acta** 558 (2006) 164-170.
164. **F. Arduini**, F. Ricci, C. S.Tuta, D. Moscone, A. Amine, G. Palleschi. Detection of carbamic and organophosphorous pesticides in water samples using cholinesterase biosensor based on Prussian Blue modified screen-printed electrode. **Analytica Chimica Acta** 580 (2006) 155-162.
165. **F. Arduini**, F. Ricci, I. Bourais, A. Amine, D. Moscone, G. Palleschi. Extraction and Detection of Pesticides by Cholinesterase Inhibition in a Two-phase System: a Strategy to Avoid Heavy Metal Interference. **Analytical Letters** 38 (2005) 1703-1719.
166. F. Ricci, **F. Arduini**, A. Amine, D. Moscone, G. Palleschi. Characterisation of Prussian Blue modified screen-printed electrodes for thiol detection. **Journal of Electroanalytical Chemistry** 563 (2004) 229-23

Chapters

1. F. Arduini, The Affordable Nanomaterial Carbon Black as Nanomodifier for Smart (Bio) Sensors Handbook of Nanobioelectrochemistry: Application in Devices and Biomolecular Sensing, Springer
2. Colozza, N., Achref, C. and **Arduini, F. (Corr. Author)**., 2023. Smartphone-integrated electrochemical (bio) sensors as smart and reliable analytical tools. *COMPREHENSIVE ANALYTICAL CHEMISTRY*
3. **F. Arduini**, D. Moscone (2020) Multifarious aspects of electrochemical paper-based (bio)sensors in Comprehensive Analytical Chemistry, Paper-based sensors, Elsevier
4. Attaallah, R., Antonacci, A., **Arduini, F.**, Amine, A. and Scognamiglio, V. (2020). Nanobiosensors for bioclinical applications: pros and cons. In Green Nanoparticles (pp. 117-149). Springer.
5. **F. Arduini**, V. Scognamiglio, S. Cinti, A. Amine, A. Antonacci, J. Vasiljevic, G. Favaretto, D. Moscone, G. Palleschi Enzyme-based materials in Handbook of Smart Materials in Analytical Chemistry, Wiley
6. **F. Arduini**, S. Cinti, V. Scognamiglio, D. Moscone (2019) Nanomaterial-based sensors in Handbook of Nanomaterials in Analytical Chemistry: Modern Trends in Analysis, pp. 329-359, Elsevier
7. S. Cinti, V. Scognamiglio, D. Moscone, **F. Arduini** (2017) Efforts, challenges and future perspectives of graphene-based (bio)sensors for biomedical applications in: Graphene Bioelectronics, Elsevier
8. **F. Arduini**, S. Cinti, V. Scognamiglio, D. Moscone (2017) Paper-Based Electrochemical Devices in Biomedical Field: Recent Advances and Perspectives in: Comprehensive Analytical Chemistry (Vol. 77) Elsevier
9. V. Scognamiglio, A. Antonacci, MD Lambrea, **F. Arduini**, G Palleschi (2016). Application of Biosensors for Food Analysis in Food Safety in: Innovative Analytical Tools for Safety Assessment, Scrivener Publishing, Wiley

10. A. Antonacci, **F. Arduini**, D. Moscone, G. Palleschi, V. Scognamiglio (2016). Commercially Available (Bio) sensors in the Agrifood Sector. In Biosensors for Sustainable Food-New Opportunities and Technical Challenges, Comprehensive Analytical Chemistry. Vol. 74. Elsevier
11. **F. Arduini**, V. Scognamiglio, D. Moscone, G. Palleschi (2016) Electrochemical Biosensors for Chemical Warfare Agents in: Biosensors for Security and Bioterrorism Applications Springer
12. **F. Arduini**, A. Amine (2014) Biosensors based on enzyme inhibition in: Adv Biochem Eng Biotechnol. Springer 10. **F. Arduini**, G. Palleschi (2013) Screening and confirmatory methods for the detection of heavy metals in foods in: Persistent organic pollutants and toxic metals in food, Elsevier
13. **F. Arduini**, G. Palleschi (2012). Disposable Electrochemical Biosensor Based on Cholinesterase Inhibition with Improved Shelf-Life and Working Stability for Nerve Agent Detection in: NATO Science for Peace and Security Series A: Chemistry and Biology Portable Chemical Sensors Weapons Against Bioterrorism, Springer
14. D. Moscone, **F. Arduini**, A. Amine (2011) A Rapid Enzymatic method for AFB detection in: Microbial Toxins, Springer
15. **F. Arduini**, A. Amine, D. Moscone, G. Palleschi (2010) Biosensors for quality and safety control of olive oil: a review (review) in: Olive Oil and Health, Nova Science Publisher
16. D.G. Mita, A. Attanasio, N. Diano, V. Grano, U. Bencivenga, S. Rossi, P. Canciglia, L. Mita, M. Portaccio, **F. Arduini**, A. Amine, D. Moscone (2007). Bioremediation and biodetermination of bisphenol A (BPA) in aqueous solutions in: The endocrine disruptors. Ed Mita, Marino ISBN: 81-7895-283-1
17. **F. Arduini**, G. Palleschi (2005). Detection of pesticide using prussian blue screen-printed biosensors in Environmental pollution monitoring, Laboratory guide. Ed: Danet, M. Cheregi, M. Badea, ISBN/ISSN: 973-0-03916-X

Lists of patents

1. **F. Arduini**, D. Neagu, M.R. Tomei, A. Boccella, D. Moscone “Nano and/or microstructured printed electrodes”, International patent WIPO nr PCT/EP2018/061383
2. **F. Arduini**, L. Fiore, V. Mazzaracchio, D. Moscone, A. Riparbelli “Implantable electrochemical sensors for the pH measurement”, International patent WIPO nr.PCT/EP2020/063786

3. A. Boccella, D. Moscone Danila, **F. Arduini**, D. Neagu, M. R. Tomei NEW SENSORS PRINTED ON PAPER NANOSTRUCTURED, International patent PCT/EP2020/056384
4. V. Mazzaracchio, N. Bagheri, S. Cinti, D. Moscone, **F. Arduini** "Metodo per funzionalizzare un supporto di cellulosa con nanoparticelle metalliche e sensore elettroanalitico che comprende tale supporto di cellulosa funzionalizzato" Italian Patent N. 102020000027546, WIPO nr.PCT IB2021050869
5. V. Mazzaracchio, **F. Arduini**, D. Moscone, F. Chiara, S.Roggero "Metodo per rilevare e/o quantificare un elemento metallico in un liquido biologico" Italian Patent N. 102020000002017, International patent WIPO nr. PCTIB2021060659
6. **F. Arduini**, S. Fillo, F. Lista, D. Moscone, N. D'amore, R. De Santis, L. Fabiani Metodo analitico di rilevazione di virus in liquidi e relativo kit monouso miniaturizzato. Italian Patent N. 102022000003920
7. **F. Arduini**, N. Colozza, A. Sassolini, V. Mazzaracchio, L.Fiore, K. Hermansson, D. Moscone, "Nuovi elettrodi stampati paper-based per il monitoraggio dei processi degradativi del cemento armato". Italian Patent N. 102019000023157
8. **F. Arduini**, G. Galatà, M. Saroglia, L. Fabiani, G. Faggioni Giovanni, S. Fillo, R. De Santis, D. Moscone, F. Lista, "Easy to use analytical method for detection of SARS-CoV-2 and relative disposable and miniaturized kit". Italian Patent N.102020000016948
9. **F. Arduini**, V. Caratelli, D. Moscone, F. Lista, S. Fillo, N. D'Amore, M. Pirazzini, O. Rossetto, "Analytical method and kit for in vitro detection of botulinum neurotoxins in a sample". Italian Patent N. 102020000022054
10. L. Fiore, V. Mazzaracchio, **F. Arduini**, "Sensore miniaturizzato modificato con carbon black per la determinazione di Tyr in siero sanguigno". Italian Patent N. 102020000027642

Conferences (organization)

Dec 2023	GS 2023, Workshop of Sensors Group, Italian Chemical Society, Rome, Italy
Mar 2021	1 st Workshop Next generation of sensors (NGS-2021) hosted on Springer Nature platform. Organizer together with Can Dincer University of Freiburg, Germany (recognized as "Rising Stars in Sensing" of ACS Sensors), Wei Gai (recognized as MIT Technology Review Top 35 Innovators Under 35), California Institute of Technology, USA, Pranjal Chandra, Indian Institute of Technology (recognized as top 2% most cited researchers in the world), Eden Morales Narvaez, Center for Optics Mexico (2020 JPhys Photonics Early Career Award).

Teaching activity

2009/2008 – 2009/2010	Analytical Chemistry: Biology Bachelor's degree of University of Rome, Tor Vergata (average enrolment: 200 students)
2009/2008 – 2009/202	Analytical Chemistry II: Chemistry Bachelor's degree of University of Rome, Tor Vergata (average enrolment: 70 students)
2009/2008 – 2009/2023	Analytical Chemistry II: Applied Chemistry Bachelor's degree of University of Rome, Tor Vergata (average enrolment: 70 students)
2022-2023	Analytical Clinical Chemistry, Chemistry Master's degree of University of Rome, Tor Vergata (average enrolment: 30 students)
2008/2009– 2009/2010	Laboratory of Environmental Analytical Chemistry: Chemistry Bachelor's degree of University of Rome, Tor Vergata (average enrolment: 70 students)
2009/2010– 2009/2011	Environmental Analytical Chemistry: Applied Chemistry Bachelor's degree of University of Rome Tor Vergata (average enrolment: 20 students)
2009/2015-2009/2023	Analytical Chemistry: Master's Degree in Medical Biotechnology
2009/2018- 2012/2023	Chemistry: Master of Tor Vergata University dedicated to Unit of the Carabinieri responsible for preventing the adulteration of foodstuffs and beverages (average enrolment: 60)

Supervisor of 9 PhD students (Stefano Cinti, Daria Talarico, Noemi Colozza, Maria Rita Tomei, Vincenzo Mazzaracchio, Veronica Caratelli, Luca Fiore, Erika di Meo, Ludovica Gullo).

Supervisor of over 40 degree theses (Master's Degree in Chemistry, Bachelor's Degree in Chemistry, Master's Degree in Industrial Biotechnology, Master's Degree in Chemistry and Pharmaceutical Technology).