

CURRICULUM VITAE

PERSONAL INFORMATION

First Name and Surname	Davide Francesco RICCI
Date of birth	13 October 1958
Mobile phone number	
Email address	
Current position	Technician at the Università degli studi di Genova – DITEN; Adjunct Professor Retired as of 01/11/2025

NATIVE LANGUAGE

Italian; English

OTHER LANGUAGES

- Reading skills
- Writing skills
- Oral expression skills

FRENCH

Good
Good
Good

EDUCATION AND TRAINING

13.09.1993 - PhD in Electronic Engineering and Computer Science - Università di Genova, Thesis title: "Tunnelling and atomic force microscopy for molecular electronics and nanotechnology", tutor Prof. Alessandro Chiabrera.

03.05.1989 - Degree in Physics - Università di Genova, Thesis title 'Microcrystalline semiconductors in bimolecular lipid membranes' (Supervisors: Dr Ranieri Rolandi, Prof. Giovanni Boato)

WORK EXPERIENCE

from 01.02.2015 to 31.01.2018 – Principal investigator of the research group "Neural Interfaces" at the Centre of "Translational neurophysiology of speech and communication" at the Italian Institute of Technology at the University of Ferrara - Director Prof. L. Fadiga

from 01.02.2007 to 31.01.2015 – Researcher Team Leader of the "Soft Materials Design" and "Neural Interfaces" groups within the Department of Robotics and Cognitive and Brain Sciences at the Italian Institute of Technology, directed by Prof. Giulio Sandini

from 01.01.2004 to 31.12.2009 - Member of the I2 group at the Department of Biophysical and Electronic Engineering of the Università di Genova (DIBE, later DYNATEC) directed by Prof. S. Cincotti

dal 01.01.1989 al 31.12.2003 – Member of the research group "Complex Systems" at the Dipartimento di Ingegneria Biofisica ed Elettronica of the Università di Genova

dal 10.11.1998 al 31.10.2001 – Technician at the Università degli studi di Genova – DIBE

dal 01.09.1996 al 31.12.1998 – Technician assistant at the Università degli studi di Genova - DIBE

dal 01.10.1994 al 31.10.1996 - Post-doc at the Dipartimento di Ingegneria Biofisica ed Elettronica, Università di Genova, Gruppo C Area 09 (Ingegneria industriale).
Scientific Supervisor: Prof. Massimo Grattarola

**NATIONAL SCIENTIFIC
HABILITATION
(PROFESSORSHIP)**

Attainment of the national qualification of Second Level 02/D1 - APPLIED PHYSICS, TEACHING AND HISTORY OF PHYSICS, Bando 2016 (DD n. 1532/2016) Validity: from 10/05/2019 to 10/05/2031

Attainment of the national qualification of First Level 02/D1 - APPLIED PHYSICS, TEACHING AND HISTORY OF PHYSICS, Bando 2016 (DD n. 1532/2016) Validity: since 10/05/2019 to 10/05/2031

Achievement of the national qualification of Second Level 09/G2 - BIO-ENGINEERING, Bando 2016 (DD n.1532/2016) Validity: since 04/05/2021 to 04/05/2033

Achievement of the national qualification of First Level 02/B1 - EXPERIMENTAL PHYSICS OF MATTER, Bando 2016 (DD n. 1532/2016) Validity: since 26/07/2018 to 26/07/2030

Achievement of the national qualification of Second Level 02/B1 - EXPERIMENTAL PHYSICS OF MATTER, Bando 2012 (DD n. 222/2012) Validity: since 11/12/2013 to 11/12/2025

TEACHING ACTIVITIES

a.y. 2025/2026 –PHYSICS (108854) 90 hours 9 CFU, CL MARITIME SCIENCE AND TECHNOLOGY (UniGe)

a.y. 2024/2025 – PHYSICS (108854) 90 hours 9 CFU, CL MARITIME SCIENCE AND TECHNOLOGY (UniGe)

a.y. 2023/2024 – PHYSICS (108854) 90 hours 9 CFU, CL MARITIME SCIENCE AND TECHNOLOGY (UniGe)

since a.y. 2022/23 to present - vice-coordinator of the bachelor's degree course "MARITIME SCIENCE AND TECHNOLOGY" (UniGe) delivered entirely in English

a.y. 2022/2023 – PHYSICS (101119) 60 hours 6 CFU, CL MARITIME SCIENCE AND TECHNOLOGY (UniGe)

a.y. 2021/2022 – PHYSICS (101119) 60 hours 6 CFU, CL MARITIME SCIENCE AND TECHNOLOGY (UniGe)

a.y. 2020/2021 – PHYSICS (101119) 60 hours 6 CFU, CL MARITIME SCIENCE AND TECHNOLOGY (UniGe)

a.a. 2019/2020 – incarico ad affidamento diretto dell'insegnamento (art. 23 c.1) PHYSICS (101119) 60 ore 6 CFU, CL MARITIME SCIENCE AND TECHNOLOGY (UniGe)

a.y. 2016/2017 – Adjunct Professor "Bionanotechnology" 84336, 6 CFU

a.y. 2015/2016 - Adjunct Professor "Bionanotechnology" 84336, 6 CFU

a.y. 2014/2015 - Adjunct Professor "Bionanotechnology" 84336, 6 CFU

a.y. 2013/2014 - Adjunct Professor "Bionanotechnology" 84336, 6 CFU

from 22.04.2014 to 23.04.2014 - Doctoral Course Examining Committee Member "Robotics, Cognition and Interaction Technologies" – Doctoral School "Life and Humanoid Technologies" XXVII cycle - Università di Genova

from 23.03.2013 to 23.03.2013 - Doctoral Course Examining Committee Member "Robotics, Cognition and Interaction Technologies" – Doctoral School "Life and Humanoid Technologies" XXVI cycle - Università di Genova

from 29.03.2006 to 12.04.2006 – Professor for "Basic Nanotechnology" Ph.D course "Robotics, Cognition and Interaction Technologies - Scuola di Tecnologie Umanoidi della Vita" - Università di Genova Doctoral Course Examining Committee Member "Robotics, Cognition and Interaction Technologies" – Doctoral School "Life and Humanoid Technologies" XXV cycle - Università di Genova

from 08.03.2006 to 22.03.2006 – Professor of "Self-Assembled Nanostructures " In the Doctoral School "Science and Technology for the Information Society" - Università di Genova – XXI cycle

from 01.09.2002 to 31.08.2003 - Faculty Member - PhD in Biophysical Sciences and Technologies XVIII - Università di Genova

TUTORING ACTIVITIES IN UNDERGRADUATE THESES AND DOCTORAL DISSERTATIONS

from 01.01.1996 to present - Tutor and co-tutor of 18 PhD students in Engineering, Nanotechnology and Translational Neuroscience and Neurotechnology
from 01.01.1994 to present - Rapporteur and co-reporter of 34 dissertations (Biomedical Engineering, Electrical Engineering, Physics)

SCIENTIFIC RESPONSIBILITY FOR RESEARCH PROJECTS

from 01.01.2014 to 31.05.2017 - Responsible Tasks T2.4 e T2.5 del WP2; participation to T3.4 e T3.5 WP3 e T5.2 e T5.3 del WP5; Project Title "Personal Assistive Device for BLIND and visually impaired people" acronym: BLINDPAD Project Number : 611621; Small or medium scale focused research project (STREP); Call (part) identifier: FP7-ICT-2013-10; Topic: ICT-2013.5.3 "ICT for smart and personalized inclusion"
from 01.01.2013 to 31.12.2015 - Coordinator "major project" in the Executive Program of bilateral scientific and technological collaboration between Italy and Japan. "Plastic and lightweight nanoactuators for biomedical devices." Funded by the Ministry of Foreign Affairs and the Ministry of Education, University and Research.
from 01.01.2013 to 31.12.2014 - PI in the IIT interdepartmental project "Interconnecting artificial and living systems for advanced prosthetics."
from 01.01.2013 to 31.12.2014 - PI in the IIT Interdepartmental Project "All polymer ultrathin conformable and stretchable large area epicortical electrode arrays"
from 01.01.2010 to 31.12.2011 - Coordinator of the "project of great significance" in the Executive Program of bilateral scientific and technological collaboration between Italy and Slovakia. Title "Transparent conductive films of carbon nanotubes and graphene for flexible electronics and polymer solar cells." Funded by the Ministry of Foreign Affairs and the Ministry of Education, University and Research.
from 01.02.2009 to 31.01.2012 - Responsible Work Package WP3 Project "Variable Impedance Actuation Systems Embodying Advanced Interaction Behaviours" - SEVENTH FRAMEWORK PROGRAMME FP7-ICT-2007-3 ICT-3-8.5 - Embodied intelligence - Grant agreement for: Small or medium-scale focused research project - STREP - CP-FP-INFOS; Project acronym: VIATORS; Grant agreement no.: 231554 - www.viactors.eu

PARTICIPATION IN RESEARCH PROJECTS

from 08.12.2010 to 07/12/2014 - Researcher in COST project MP1003 - European Scientific Network for Artificial Muscles (ESNAM)
from 01.05.2009 to 30.04.2012 - Researcher in project FP7-ICT-2007.2.2-231500 - ROBOSKIN - Skin-Based Technologies and Capabilities for Safe, Autonomous and Interactive Robots - Prof. G. Cannata - 48 months
from 01.01.2003 to 31.12.2003 - Researcher in the PRIN - MIUR project "Carbon nanotubes for electronics: synthesis, characterization and manipulation" Resp. Prof. E. Di Zitti - 12 months
from 01.01.2000 to 31.12.2002 - Researcher in the CNR project "Organic nanoarchitectures for electronics and computational paradigms" Resp. Prof. E. Di Zitti - 36 months
from 01.01.2000 to 31.12.2001 - Researcher in the PRIN - MIUR project "Physical properties and interfacing of single-electron devices for quantum computing" Resp. Prof. M. Rudan - 24 months
from 01.01.1998 to 31.12.2000 - Researcher in the C.N.R. project. "Biomimetic polyuritan/calcium phosphate composites as bone substitutes", Resp. Prof. A. Chiabrera - 36 months
from 01.01.1998 to 31.01.1999 - Researcher in the PRIN - MIUR project "Langmuir-Blodgett quantum superlattice for parallel information processing", Resp. Prof. A. Chiabrera - 24 months

**OWNERSHIP OF
SCIENTIFIC AND
INDUSTRIAL STUDIES AND
RESEARCH**

from 01.01.1998 to 31.12.1999 - Researcher in MURST project " Information processing by quantum dots arrays", Resp. Prof. Di Zitti - 24 months

from 01.01.1997 to 31.12.1999 - Researcher in C.N.R. project "Mesoscopic and microscopic physico-chemical properties of ordered lipoproteic films" (ORDER), Resp. Prof. M. Grattarola - 36 months

from 01.01.1997 to 31.12.1999 - Researcher in the ISS project Functional substitution, artificial organs and organ transplants, subtopic "Tissue Engineering", "Endothelialization of polymeric vascular prostheses: biological and mechanical characterization". Resp. Prof. M. Grattarola - 36 months

from 01.01.1997 to 31.12.1997 - Researcher in the MURST project "Microelectronic Technologies", Resp. Prof. A. Chiabrera - 12 months

from 01.01.1996 to 31.12.1997 - Researcher in the EU BIOMED2 project, "Bioartificial Tissues and Organs", Resp. Prof. M. Grattarola - 24 months

from 01.01.1995 to 31.12. 1997 - Researcher in EU Concerted Action BE 7317 "Long term performance and stability of materials for biomedical applications", Resp. Prof. M. Grattarola - 36 months

from 01.01.1995 to 31.12.1996 - Researcher in EU-Network project "Langmuir-Blodgett films for Molecular Electronics and Bioelectronics" Resp. Prof. B. Bianco - 24 months

from 01.01.1995 to 31.12. 1995 - Researcher in CNR funded project "Scanning Probe Microscopy for sub-nanometer structure diagnosis in microelectronic processors and nanostructures" Resp. Prof. E. Di Zitti - 12 months

from 01.01.1993 to 31.12.1995 - Researcher in MURST project "Microelectronics: Technologies, Devices, Sensors - Devices for Molecular Electronics" Resp. Prof. A. Chiabrera - 36 months

from 01.01.1993 to 31.12. 1994 - Researcher in the CNR project "Solid state electronics: Organic nanostructures for molecular electronics" Resp. Prof. A. Chiabrera - 24 months

from 01.01.1990 to 31.12.1992 - Researcher in the MURST project "Microelectronic technologies and devices" Resp. Prof. A. Chiabrera - 36 months

from 01.01.1990 to 31.12.1992 - Researcher in the EU ESPRIT BRA project "Organic Low Dimensional Systems," Resp. Prof. A. Chiabrera - 36 months

from 01.11.1996 to 30.11.1996 - Research assignment "Reducing the utilization of scanning probe microscopes from the state of the art to routine operations" - DIBE - UNIGE - resp. Prof. A. Chiabrera

from 01.09.1996 to 31.10.1996 - Research assignment "Development of a methodology for dimensional calibration at the nanoscale of scanning probe microscopes" - DIBE - UNIGE - resp. Prof. B. Bianco

from 01.07.1996 to 31.08. 1996 - Research assignment: Characterization of growth zones of neurons by Atomic Force Microscopy", - DIBE - UNIGE - resp. Prof. M. Grattarola

from 01.01.1996 to 30.06.1996 - Research contract with INFM "Morphological study of the surface of Langmuir-Blodgett films of pyrroles by atomic force microscopy", resp. Prof. Galleani D'Agliano

from 01.01.1995 to 31.10.1995 - Research assignment "Atomic Force Microscopy method for the measurement of aspect ratio of tabular photographic emulsion crystals" at Imation Ricerche S.P.A. - Milan

from 10.01.1994 to 12.31.1994 - Research assignment: "High resolution lithography using tunnel effect microscope" - DIBE - UNIGE - resp. Prof. M. Grattarola

from 06.01.1994 to 07.31.1994 - Study assignment from AET S.r.l. "Review of methodologies that can be used in the realization of molecular models for lipid simulation"

from 01.01.1994 to 30.04.1994 - Research assignment: " Scanning microscope probes as nanoelectrodes", DIBE - UNIGE - resp. Prof. M. Grattarola

from 09.01.1993 to 12.31.1993 - Research assignment: "Preparation of experimental procedures at the Laboratory of Nanotechnology and Molecular Electronics related to analysis of materials at atomic resolution", DIBE - UNIGE - resp. A. Chiabrera

from 05.01.1993 to 07.31.1993 - Research assignment: "Study by tunnel effect and atomic force microscopy of low-oxidation materials for Molecular Electronics", DIBE - UNIGE - resp. A. Chiabrera

from 01.03.1992 to 31.10.1992 - Study assignment: "Performance of software procedures for semiautomatic calibration of images acquired by fluorescence optical microscope, for exercises of the course Elements of Physiology", DIBE - UNIGE - resp. M. Grattarola

from 01.01.1992 to 31.12.1995 - Scientific Consultant for the House "Park Scientific Instruments INC, USA", manufacturer of scanning probe microscopes

from 01.07.1991 to 30.09.1991 - Research assignment: "Characterization of solid-state microbiosensors for the detection of cell metabolism by measuring pH in biological microenvironment", DIBE - UNIGE - resp. M. Grattarola

from 01.04.1989 to 31.05.1989 - Research assignment: "Acquisition of images from tunnel effect microscope and development of software for their reconstruction," DIBE - UNIGE - resp. A. Chiabrera.

PATENTS

Patent "Carbon Nanotube-Based Material And Polymerized Ionic Liquid For Production Of An Actuator" - Authors David GENDRON, Alberto ANSALDO, Davide RICCI, Grzegorz BUBAK, Giulio SANDINI, Luca CESERACCIU - IT 102014902312946 (TO2014A000980) - PCT/IB2015/059152 - WO2016084031

Patent "A Three-Electrode Linear And Bending Polymeric Actuator" - "Linear and bending polymeric actuator, three-electrode" - Authors Maurizio Biso, Alberto Ansaldo, Davide Ricci, Giulio Sandini - IT 102010901852006 (TO2010A000548) - PCT/IB2011/052780 - EP 11743149. 4 - US 13/805243

EDITORIAL AND SCIENTIFIC REVIEWING ACTIVITIES

from 08.01.2018 to present - Associate Editor for Frontiers in Bioengineering and Biotechnology, Nanobiotechnology section

from 12.19.2014 to 12.19.2014 - Reviewer Projects SIR 2014

from 03.23.2013 to 03.23.2013 - Reviewer Project Futuro in Ricerca 2013

from 03.06.2013 to 09.06.2013 - Reviewer Projects PRIN 2012

from 01.01.2003 to 12.01.2004 - Reviewer Projects PRIN 2003 and PRIN year 2004

from 01.01. 1996 to present - Reviewer of articles in international journals (ACS Nano, Carbon, Sensor and Actuators B, Chemical, ACS Applied Materials & Interfaces, Journal of Biomedical Materials Research: Part A, Materials Chemistry and Physics, International Journal of Smart and Nano Materials, Microelectronic Engineering, IEEE sensors Journal, etc.)

from 01.08.2018 to present - Associate Editor for Frontiers in Bioengineering and Biotechnology, Nanobiotechnology section

from 19.12.2014 to 19.12.2014 - SIR 2014 Project Reviewer

from 23.03.2013 to 23.03.2013 - Futuro in Ricerca 2013 Project Reviewer

from 06.03.2013 to 06.09.2013 - PRIN 2012 Project Reviewer

PARTICIPATION TO CONFERENCES

Speaker at over 40 international congresses, over 80 papers presented, including 12 invited papers.

1. Takemi, M., Tia, B., Kosugi, A., Castagnola, E., Ansaldo, A., Ricci, D., Fadiga, L., Ushiba, J., Iriki, A., (2024) "Posture-dependent modulation of marmoset cortical motor maps detected via rapid multichannel epidural stimulation" *Neuroscience*, 560, 263–271, doi: 10.1016/j.neuroscience.2024.09.047
2. Castagnola, V., Castagnola, E., Christian, B., Ricci, D., (2021) "Short-Term Versus Long-Term Challenges in Functional Biomaterials Interfacing Living Systems: Two Sides of the Coin" *Front Bioeng Biotechnol.*, 9, 723451, doi: 10.3389/fbioe.2021.723451
3. Tia, B., Takemi, M., Kosugi, A., Castagnola, E., Ricci, D., Ushiba, J., Fadiga, F., Iriki, A., (2021) "Spectral Power in Marmoset Frontal Motor Cortex during Natural Locomotor Behavior" *Cerebral Cortex*, 31,2, 1077-1089, doi: 10.1093/cercor/bhaa275
4. Vomero, M., Porto Cruz, M.F., Zucchini, E., Ciarpella, F., Delfino, E., Carli, S., Boeler, C., Asplund, M., Ricci, D., Fadiga, L., Stieglitz, T., (2020) "Conformable polyimide-based μ ECGs: Bringing the electrodes closer to the signal source" *Biomaterials*, 255, 120178, doi: 10.1016/j.biomaterials.2020.120178
5. Kosugi, A., Castagnola, E., Carli, S., Ricci, D., Fadiga, L., Taoka, M., Iriki, A., Ushiba, J., (2019) "Fast Electrophysiological Mapping of Rat Cortical Motor Representation on a Time Scale of Minutes during Skin Stimulation", *Neuroscience*, 414, pp. 245-254, doi: 10.1016/j.neuroscience.2019.07.011
6. Carli, S., Fioravanti, G., Armirotti, A., Ciarpella, F., Prato, M., Ottonello, G., Salerno, M., Scarpellini, A., Perrone, D., Marchesi, E., Ricci, D., Fadiga, L. (2019) "A New Drug Delivery System Based on Tauroursodeoxycholic Acid" *Chemistry A European Journal*, 25, p. 2322-2329, doi: 10.1002/chem.201805285
7. Goshi, N., Castagnola, E., Vomero, M., Gueli, C., Cea, C., Zucchini, E., Bjanec, D., Maggiolini, E., Moritz, C., Kassegne, S., Ricci, D., Fadiga, L. (2018) "Glassy Carbon MEMS for Novel Origami-Styled 3D Integrated Intracortical and Epicortical Neural Probes", *Journal of Micromechanics and Microengineering*, 28, 065009, doi: 10.1088/1361-6439/aab061
8. Kosugi, A., Takemi, M., Tia, B., Castagnola, E., Ansaldo, A., Sato, K., Awiszus, F., Seki, K., Ricci, D., Fadiga, L., (2018) "Accurate motor mapping in awake common marmosets using micro-electrocorticographical stimulation and stochastic threshold estimation", *Journal of neural engineering*, 15, 036019, doi: 10.1088/1741-2552/aab307
9. Carli, S., Trapella, C., Armirotti, A., Fantinati, A., Ottonello, G., Scarpellini, A., Prato, M., Fadiga, L., Ricci, D., (2018) "Biochemically Controlled Release of Dexamethasone Covalently Bound to PEDOT" *Chemistry A European Journal*, 24, p. 10300-10305, doi: 10.1002/chem.201801499
10. Carli, S., Lambertini, L., Zucchini, E., Ciarpella, F., Scarpellini, A., Prato, M., Castagnola, E., Fadiga, L., Ricci, D., (2018) "Single Walled Carbon Nanohorns Composite for Neural Sensing and Stimulation" *Sensors and Actuators B: Chemical*, 271, p. 280-288, doi: 10.1016/j.snb.2018.05.083
11. Vomero, M., Castagnola, E., Ordonez, J.S., Carli, S., Zucchini, E., Maggiolini, E., Gueli, C., Goshi, N., Ciarpella, F., Cea, C., Fadiga, L., Ricci, D., Kassegne, S., Stieglitz, T., (2018) "Electrocorticography Arrays: Incorporation of Silicon Carbide and Diamond-Like Carbon as Adhesion Promoters Improves In Vitro and In Vivo Stability of Thin-Film Glassy Carbon electrocorticography Arrays" *Advanced Biosystems*, 2, 1 1870001, doi: 10.1002/adbi.201700081
12. Takemi M, Castagnola E, Ansaldo A, Ricci D, Fadiga L, Taoka M, Iriki A, Ushiba J (2017). Rapid Identification of Cortical Motor Areas in Rodents by High-Frequency Automatic Cortical Stimulation and Novel Motor Threshold Algorithm. *FRONTIERS IN NEUROSCIENCE*, vol. 11, ISSN: 1662-453X, doi: 10.3389/fnins.2017.00580
13. Castagnola E, Carli S, Vomero M, Scarpellini A, Prato M, Goshi N, Fadiga L, Kassegne S, Ricci D (2017). Multilayer poly(3,4-ethylenedioxythiophene)-dexamethasone and poly(3,4-ethylenedioxythiophene)-polystyrene sulfonate-carbon nanotubes coatings on glassy carbon microelectrode arrays for

- controlled drug release. *BIOINTERPHASES*, vol. 12, ISSN: 1559-4106, doi: 10.1116/1.49931401
14. Vomero M, Castagnola E, Ciarpella F, Maggiolini E, Goshi N, Zucchini E, Carli S, Fadiga L, Kassegne S, Ricci D (2017). Highly Stable Glassy Carbon Interfaces for Long-Term Neural Stimulation and Low-Noise Recording of Brain Activity. *SCIENTIFIC REPORTS*, vol. 7, ISSN: 2045-2322, doi: 10.1038/srep40332
 15. Tia B, Takemi M, Kosugi A, Castagnola E, Ansaldo A, Nakamura T, Ricci D, Ushiba J, Fadiga L, Iriki A (2017). Cortical control of object-specific grasp relies on adjustments of both activity and effective connectivity: a common marmoset study. *THE JOURNAL OF PHYSIOLOGY*, vol. 595, p. 7203-7221, ISSN: 0022-3751, doi: 10.1113/JP274629
 16. Rembado I, Castagnola E, Turella L, Ius T, Budai R, Ansaldo A, Angotzi GN, Debertoldi F, Ricci D, Skrap M, Fadiga L (2017). Independent Component Decomposition of Human Somatosensory Evoked Potentials Recorded by Micro- Electrocorticography. *INTERNATIONAL JOURNAL OF NEURAL SYSTEMS*, vol. 27, ISSN: 0129-0657, doi: 10.1142/S0129065716500520
 17. Gendron D, Bubak G, Ceseracciu L, Ansaldo A, Ricci D (2016). The electrolyte layer composition: A key element for improving the performance of carbon nanotube actuator. *SENSORS AND ACTUATORS. B, CHEMICAL*, vol. 222, p. 1073-1082, ISSN: 0925-4005, doi: 10.1016/j.snb.2015.08.050
 18. Castagnola E, Maggiolini E, Ceseracciu L, Ciarpella F, Zucchini E, De Faveri S, Fadiga L, Ricci D (2016). pHEMA Encapsulated PEDOT-PSS-CNT Microsphere Microelectrodes for Recording Single Unit Activity in the Brain. *FRONTIERS IN NEUROSCIENCE*, vol. 10, ISSN: 1662-453X, doi: 10.3389/fnins.2016.00151
 19. Gendron D, Bubak G, Ceseracciu L, Ricciardella F, Ansaldo A, Ricci D (2016). Significant strain and force improvements of single-walled carbon nanotube actuator: A metal chalcogenides approach. *SENSORS AND ACTUATORS. B, CHEMICAL*, vol. 230, p. 673-683, ISSN: 0925-4005, doi: 10.1016/j.snb.2016.02.116
 20. Boccardo S, Gaudiello E, Melly L, Cerino G, Ricci D, Martin I, Eckstein F, Banfi A, Marsano A (2016). Engineered mesenchymal cell-based patches as controlled VEGF delivery systems to induce extrinsic angiogenesis. *ACTA BIOMATERIALIA*, vol. 42, p. 127-135, ISSN: 1742-7061, doi: 10.1016/j.actbio.2016.07.041
 21. Zucca A, Cipriani C, Sudha, Tarantino S, Ricci D, Mattoli V, Greco F (2015). Tattoo Conductive Polymer Nanosheets for Skin-Contact Applications. *ADVANCED HEALTHCARE MATERIALS*, vol. 4, p. 983-990, ISSN: 2192-2659, doi: 10.1002/adhm.201400761
 22. Gendron D, Ansaldo A, Bubak G, Ceseracciu L, Vamvounis G, Ricci D (2015). Poly(ionic liquid)-carbon nanotubes self-supported, highly electroconductive composites and their application in electroactive devices. *COMPOSITES SCIENCE AND TECHNOLOGY*, vol. 117, p. 364-370, ISSN: 0266-3538, doi: 10.1016/j.compscitech.2015.07.016
 23. Angotzi GN, Baranauskas G, Vato A, Bonfanti A, Zambra G, Maggiolini E, Semprini M, Ricci D, Ansaldo A, Castagnola E, Ius T, Skrap M, Fadiga L (2015). A Compact and Autoclavable System for Acute Extracellular Neural Recording and Brain Pressure Monitoring for Humans. *IEEE TRANSACTIONS ON BIOMEDICAL CIRCUITS AND SYSTEMS*, vol. 9, p. 50-59, ISSN: 1932-4545, doi: 10.1109/TBCAS.2014.2312794
 24. Castagnola E, Maiolo L, Maggiolini E, Minotti A, Marrani M, Maita F, Pecora A, Angotzi GN, Ansaldo A, Boffini M, Fadiga L, Fortunato G, Ricci D (2015). PEDOT-CNT-Coated Low-Impedance, Ultra-Flexible, and Brain-Conformable Micro-ECoG Arrays. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING*, vol. 23, p. 342-350, ISSN: 1534-4320, doi: 10.1109/TNSRE.2014.2342880
 25. Maita F, Maiolo L, Minotti A, Pecora A, Ricci D, Metta G, Scandurra G, Giusi G, Ciofi C, Fortunato G (2015). Ultraflexible Tactile Piezoelectric Sensor Based on Low-Temperature Polycrystalline Silicon Thin-Film

- Transistor Technology. IEEE SENSORS JOURNAL, vol. 15, p. 3819-3826, ISSN: 1530-437X, doi: 10.1109/JSEN.2015.2399531
26. Bubak G, Gendron D, Ceseracciu L, Ansaldo A, Ricci D (2015). Parylene-Coated Ionic Liquid-Carbon Nanotube Actuators for User-Safe Haptic Devices. ACS APPLIED MATERIALS & INTERFACES, vol. 7, p. 15542-15550, ISSN: 1944-8244, doi: 10.1021/acsami.5b04006
 27. Castagnola Elisa, Ansaldo Alberto, Maggiolini Emma, Ius Tamara, Skrap Miran, RICCI D, Fadiga Luciano (2014). Smaller, softer, lower-impedance electrodes for human neuroprosthesis: a pragmatic approach.. FRONTIERS IN NEUROENGINEERING, vol. 7, p. 8, ISSN: 1662-6443, doi: 10.3389/fneng.2014.00008
 28. Fortunato G, Maiolo L, Maita F, Minotti A, Mirabella S, Strano V, Metta G, Ricci D, Pecora A (2014). Flexible Sensors Based on Low-Temperature Polycrystalline Silicon Thin Film Transistor. ECS TRANSACTIONS, vol. 64, p. 165-173, ISSN: 1938-5862, doi: 10.1149/06410.0165ecst
 29. Maiolo Luca, Pecora Alessandro, Maita Francesco, Minotti Antonio, Zampetti Emiliano, Pantalei Simone, Macagnano Antonella, Bearzotti Andrea, RICCI D, Fortunato Guglielmo (2013). Flexible sensing systems based on polysilicon thin film transistors technology. SENSORS AND ACTUATORS. B, CHEMICAL, vol. 179, p. 114-124, ISSN: 0925-4005, doi: 10.1016/j.snb.2012.10.093
 30. Castagnola Elise, Ansaldo Alberto, Maggiolini Emma, Angotzi Gian Nicola, Skrap Miran, RICCI D, Fadiga Luciano (2013). Biologically Compatible Neural Interface To Safely Couple Nanocoated Electrodes to the Surface of the Brain. ACS NANO, vol. 7, p. 3887-3895, ISSN: 1936-0851, doi: 10.1021/nn305164c
 31. Seminara Lucia, Pinna Luigi, Valle Maurizio, Basirico Laura, Loi Alberto, Cosseddu Piero, Bonfiglio Annalisa, Ascia Alberto, Biso Maurizio, Ansaldo Alberto, RICCI D, Metta Giorgio (2013). Piezoelectric Polymer Transducer Arrays for Flexible Tactile Sensors. IEEE SENSORS JOURNAL, vol. 13, p. 4022-4029, ISSN: 1530-437X, doi: 10.1109/JSEN.2013.2268690
 32. Biso M, Ansaldo A, Ricci D (2013). Strategies for tuning carbon nanotube plastic actuator performance through material hybridization and the thickness effect: a proof of principle. SMART MATERIALS AND STRUCTURES, vol. 22, ISSN: 0964-1726, doi: 10.1088/0964-1726/22/10/104003
 33. Ascia A, Biso M, Natale L, Ricci D, Metta G, Sandini G (2012). Comparison between Two Implementations of iCub's Fingertip. PROCEDIA ENGINEERING, vol. 47, p. 1231-1234, ISSN: 1877-7058, doi: 10.1016/j.proeng.2012.09.375
 34. Mishra N, Das G, Ansaldo A, Genovese A, Malerba M, Povia M, Ricci D, Di Fabrizio E, Di Zitti E, Sharon M, Sharon M (2012). Pyrolysis of waste polypropylene for the synthesis of carbon nanotubes. JOURNAL OF ANALYTICAL AND APPLIED PYROLYSIS, vol. 94, p. 91-98, ISSN: 0165-2370, doi: 10.1016/j.jaap.2011.11.012
 35. Biso Maurizio, Ansaldo Alberto, RICCI D (2012). Geometry dependent performance of bucky gel actuators: Increasing operating frequency by miniaturization. PHYSICA STATUS SOLIDI B-BASIC RESEARCH, vol. 249, p. 2361-2364, ISSN: 0370-1972, doi: 10.1002/pssb.201200110
 36. Lanzarini E, Antognazza MR, Biso M, Ansaldo A, Laudato L, Bruno P, Mentrangolo P, Resnati G, Ricci D, Lanzani G (2012). Polymer-Based Photocatalytic Hydrogen Generation. JOURNAL OF PHYSICAL CHEMISTRY. C, vol. 116, p. 10944-10949, ISSN: 1932-7447, doi: 10.1021/jp212107f
 37. Biso M, Ansaldo A, Picardo E, Ricci D (2012). Increasing the maximum strain and efficiency of bucky gel actuators by pyrrole oxidative polymerization on carbon nanotubes dispersed in an ionic liquid. CARBON, vol. 50, p. 4506-4511, ISSN: 0008-6223, doi: 10.1016/j.carbon.2012.05.032
 38. Baranauskas G, Maggiolini E, Castagnola E, Ansaldo A, Mazzoni A, Angotzi GN, Vato A, Ricci D, Panzeri S, Fadiga L (2011). Carbon nanotube composite coating of neural microelectrodes preferentially improves the

- multiunit signal-to-noise ratio. JOURNAL OF NEURAL ENGINEERING, vol. 8, ISSN: 1741-2560, doi: 10.1088/1741-2560/8/6/066013
39. Ceseracciu L, Biso M, Ansaldo A, Futaba DN, Hata K, Barone AC, Ricci D (2011). Mechanics and actuation properties of bucky gel-based electroactive polymers. SENSORS AND ACTUATORS. B, CHEMICAL, vol. 156, p. 949-953, ISSN: 0925-4005, doi: 10.1016/j.snb.2011.03.012
 40. Ansaldo A, Castagnola E, Maggiolini E, Fadiga L, Ricci D (2011). Superior Electrochemical Performance of Carbon Nanotubes Directly Grown on Sharp Microelectrodes. ACS NANO, vol. 5, p. 2206-2214, ISSN: 1936-0851, doi: 10.1021/nn103445d
 41. Biso M, Ansaldo A, Futaba DN, Hata K, Ricci D (2011). Cross-linking super-growth carbon nanotubes to boost the performance of bucky gel actuators. CARBON, vol. 49, p. 2253-2257, ISSN: 0008-6223, doi: 10.1016/j.carbon.2011.01.057
 42. Castagnola E, Ansaldo A, Fadiga L, Ricci D (2010). Chemical vapour deposited carbon nanotube coated microelectrodes for intracortical neural recording. PHYSICA STATUS SOLIDI B-BASIC RESEARCH, vol. 247, p. 2703-2707, ISSN: 0370-1972, doi: 10.1002/pssb.201000217
 43. Biso M, Ansaldo A, Ricci D (2010). Performance improvement in bucky gel actuators by chemical modifications of carbon nanotubes. PHYSICA STATUS SOLIDI. RAPID RESEARCH LETTERS, vol. 4, p. 64-66, ISSN: 1862-6254, doi: 10.1002/pssr.200903409
 44. Biso M, Ansaldo A, Futaba DN, Hata K, Ricci D (2010). Benchmarking bucky gel actuators: Chemically modified commercial carbon nanotubes versus super-growth carbon nanotubes. PHYSICA STATUS SOLIDI B-BASIC RESEARCH, vol. 247, p. 3055-3058, ISSN: 0370-1972, doi: 10.1002/pssb.201000214
 45. Castagnola E, Biso M, Ricci D (2009). Improvement of polypyrrole and carbon nanotube co-deposition techniques for high charge-transfer electrodes. PHYSICA STATUS SOLIDI B-BASIC RESEARCH, vol. 246, p. 2469-2472, ISSN: 0370-1972, doi: 10.1002/pssb.200982283
 46. Ansaldo A, Jaybhaye S, Chiarolini M, Di Zitti E, Ricci D (2009). Single-walled carbon nanotube networks growth optimization. PHYSICA STATUS SOLIDI B-BASIC RESEARCH, vol. 246, p. 2473-2476, ISSN: 0370-1972, doi: 10.1002/pssb.200982287
 47. Biso M, Ricci D (2009). Multi-walled carbon nanotubes plastic actuator. PHYSICA STATUS SOLIDI B-BASIC RESEARCH, vol. 246, p. 2820-2823, ISSN: 0370-1972, doi: 10.1002/pssb.200982282
 48. Ansaldo A, George C, Parodi MT, Di Zitti E, Roth S, Ricci D (2008). Ex-situ synthesized nickel nanoparticles for multi-walled carbon nanotube growth on high aspect ratio substrates. PHYSICA STATUS SOLIDI B-BASIC RESEARCH, vol. 245, p. 1923-1926, ISSN: 0370-1972, doi: 10.1002/pssb.200879620
 49. Canu G, Dipasquale M, Bernini C, Bonanno P, Di Zitti E, Marre D, Pellegrino L, Ricci D, Sasseti M, Siri AS (2008). Controlling the formation of gold nanoparticle domains onto inorganic substrates. PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol. 40, p. 1709-1711, ISSN: 1386-9477, doi: 10.1016/j.physe.2007.10.061
 50. Kim T Y, Di Zitti E, Ricci D, Cincotti S (2008). Patterning surface oxide nanostructures using atomic force microscope local anodic oxidation. PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol. 40, p. 1941-1943, ISSN: 1386-9477, doi: 10.1016/j.physe.2007.08.085
 51. Ansaldo A, Skakalova V, Ricci D, Di Zitti E, Roth S (2008). Direct transfer of CVD-grown transparent SWCNT networks. PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol. 40, p. 2430-2433, ISSN: 1386-9477, doi: 10.1016/j.physe.2007.09.174
 52. Kim TY, Di Zitti E, Ricci D, Cincotti S (2008). Atomic Force Microscope nanolithography on titanium: Influence of the anodic voltage waveform. on the formation of oxide nanodots. SUPERLATTICES AND MICROSTRUCTURES, vol. 44, p. 670-676, ISSN: 0749-6036, doi: 10.1016/j.spmi.2008.02.012

53. George C, Ricci D, Di Zitti E (2008). Gold nanoparticles self-assembled onto passivated glass substrates: Tuning the transition from 2D to 1D structures. *SUPERLATTICES AND MICROSTRUCTURES*, vol. 44, p. 608-616, ISSN: 0749-6036, doi: 10.1016/j.spmi.2008.02.003
54. George C, Ricci D, Di Zitti E (2008). Driving the self assembly of gold nanoparticle structures using highly oriented PTFE templates. *SUPERLATTICES AND MICROSTRUCTURES*, vol. 44, p. 599-607, ISSN: 0749-6036, doi: 10.1016/j.spmi.2008.03.002
55. Ansaldo A, Skakalova V, Di Zitti E, Ricci D, Roth S (2007). Catalytic chemical vapour deposition growth of single wall carbon nanotube films on different substrates for transparent electronic devices. *PHYSICA STATUS SOLIDI B-BASIC RESEARCH*, vol. 244, p. 3935-3938, ISSN: 0370-1972, doi: 10.1002/pssb.200776190
56. Kim TY, Ricci D, Di Zitti E, Cincotti S (2007). A study of the transient current during the formation of titanium oxide nanodots by AFM anodic oxidation. *SURFACE SCIENCE*, vol. 601, p. 4910-4914, ISSN: 0039-6028, doi: 10.1016/j.susc.2007.08.017
57. Ansaldo A, Haluska M, Cech J, Meyer JC., Ricci D, Gatti F, Di Zitti E, Cincotti S, Roth S (2007). A study of the effect of different catalysts for the efficient CVD growth of carbon nanotubes on silicon substrates. *PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES*, vol. 37, p. 6-10, ISSN: 1386-9477, doi: 10.1016/j.physe.2006.09.008
58. Carrara S, Ricci D, Di Zitti E, Di Fabrizio E, Altissimo M, Tormen M (2006). A route to fabricate nanocontacts by X-ray lithography for the realization of single electron transistors and highly sensitive biosensors. *MATERIALS LETTERS*, vol. 60, p. 3682-3685, ISSN: 0167-577X, doi: 10.1016/j.matlet.2006.03.084
59. Ansaldo A, Haluska M, Cech J, Ricci D, Gatti F, Di Zitti E, Cincotti S, Roth S (2006). CVD synthesis of single wall carbon nanotubes devoted to ULSI electronic applications. *PHYSICA STATUS SOLIDI B-BASIC RESEARCH*, vol. 243, p. 3077-3081, ISSN: 0370-1972, doi: 10.1002/pssb.200669180
60. Carrara S, Bavastrello V, Ricci D, Stura E, Nicolini C (2005). Improved nanocomposite materials for biosensor applications investigated by electrochemical impedance spectroscopy. *SENSORS AND ACTUATORS. B, CHEMICAL*, vol. 109, p. 221-226, ISSN: 0925-4005, doi: 10.1016/j.snb.2004.12.053
61. Bavastrello V, Erokhin V, Carrara S, Sbrana F, Ricci D, Nicolini C (2004). Morphology and conductivity in poly(ortho-anisidine)/carbon nanotubes nanocomposite films. *THIN SOLID FILMS*, vol. 468, p. 17-22, ISSN: 0040-6090, doi: 10.1016/j.tsf.2004.03.036
62. Braga PC, Culici M, Ricci D, Dal Sasso M (2003). Morphostructural damage and the inhibition of bacterial adhesiveness of *Staphylococcus aureus* and *Moraxella catarrhalis* induced by moxifloxacin. *JOURNAL OF CHEMOTHERAPY*, vol. 15, p. 543-550, ISSN: 1120-009X
63. Erokhina S, Erokhin V, Nicolini C, Sbrana F, Ricci D, di Zitti E (2003). Microstructure origin of the conductivity differences in aggregated CuS films of different thickness. *LANGMUIR*, vol. 19, p. 766-771, ISSN: 0743-7463, doi: 10.1021/la026433s
64. SBRANA F., PARODI M.T., RICCI D., DI ZITTI E., NATALE C., THEA S. (2002). Assembling thiolated gold nanoparticles in compact patterns: a transmission electron microscopy and scanning probe microscopy investigation. *MATERIALS SCIENCE AND ENGINEERING B-SOLID STATE MATERIALS FOR ADVANCED TECHNOLOGY*, vol. 96, p. 193-198, ISSN: 0921-5107
65. F. SBRANA, M.T. PARODI, D. RICCI, E. DI ZITTI (2002). Langmuir films of thiolated gold nanoparticles transferred onto functionalized substrate: 2-D local organization. *MATERIALS SCIENCE AND ENGINEERING. C, BIOMIMETIC MATERIALS, SENSORS AND SYSTEMS*, vol. 22, p. 187-191, ISSN: 0928-4931
66. Braga PC, Ricci D (2002). Differences in the susceptibility of *Streptococcus pyogenes* to rokitamycin and erythromycin A revealed by morphostructural

- atomic force microscopy. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY, vol. 50, p. 457-460, ISSN: 0305-7453, doi: 10.1093/jac/dkf180
67. Ahluwalia A, Basta G, Chiellini F, Ricci D, Vozzi G (2001). Endothelial cell adhesion on bioerodable polymers. JOURNAL OF MATERIALS SCIENCE. MATERIALS IN MEDICINE, vol. 12, p. 613-619, ISSN: 0957-4530, doi: 10.1023/A:1011241727138
 68. Porte-Durrieu MC, N'Kaoua G, Brouillaud B, Ricci D, Grattarola H, Baquey C (2000). Elaboration of modelized surfaces with well defined microtopochemistry-localization of adsorbed proteins. COLLOIDS AND SURFACES. B, BIOINTERFACES, vol. 17, p. 205-218, ISSN: 0927-7765, doi:10.1016/S0927-7765(99)00118-6
 69. Braga PC, Ricci D (2000). Detection of rokitamycin-iduced morphostructural alterations in Helicobacter pylori by atomic force microscopy. CHEMOTHERAPY, vol. 46, p. 15-22, ISSN: 0009-3157, doi: 10.1159/000007251
 70. Ahluwalia A, Basta G, Ricci D, Francesconi R, Domenici C, Grattarola M, Palchetti L, Preininger C, De Rossi D (1999). Langmuir-Blodgett films of antibodies as mediators of endothelial cell adhesion on polyurethanes. JOURNAL OF BIOMATERIALS SCIENCE POLYMER EDITION, vol. 10, p. 295-304, ISSN: 0920-5063, doi: 10.1163/156856299X00360
 71. Paradiso R, Ricci D, Ferrari S, Parodi MT, Ruggeri G, Bianco B (1998). Scanning probe characterization of Langmuir-Blodgett and self-assembled films of pyrrole derivatives. MATERIALS SCIENCE AND ENGINEERING. C, BIOMIMETIC MATERIALS, SENSORS AND SYSTEMS, vol. 5, p. 193-198, ISSN:0928-4931, doi: 10.1016/S0928-4931(97)00042-8
 72. Braga PC, Ricci D (1998). Atomic force microscopy: Application to investigation of Escherichia coli morphology before and after exposure to cefodizime. ANTIMICROBIAL AGENTS AND CHEMOTHERAPY, vol. 42, p. 18-22, ISSN: 0066-4804
 73. Bonfiglio A, Ricci D, D'Alleva S, Parodi MT, Bianco B (1997). Controlled ablation of Langmuir-Blodgett films made by scanning force microscopy. ADVANCED MATERIALS FOR OPTICS AND ELECTRONICS, vol. 7, p. 141-148, ISSN: 1057-9257, doi:10.1002/(SICI)1099-0712(199705)7:3<141::AID-AMO305>3.3.CO;2-O
 74. Wood DJ, Youngson CC, Ricci D (1997). A preliminary investigation into the potential of atomic force microscopy as a tool in dental materials research.. JOURNAL OF DENTAL RESEARCH, vol. 76, p. 1047, ISSN: 0022-0345
 75. Ricci D, Tedesco M, Grattarola M (1997). Mechanical and morphological properties of living 3T6 cells probed via Scanning Force Microscopy. MICROSCOPY RESEARCH AND TECHNIQUE, vol. 36, p.165-171, ISSN: 1059-910X, doi:10.1002/(SICI)1097-0029(19970201)36:3<165::AID-JEMT4>3.0.CO;2-O
 76. Bove M, Martinoia S, Grattarola M, Ricci D (1996). The neuron-transistor junction: Linking equivalent electric circuit models to microscopic descriptions. THIN SOLID FILMS, vol. 284, p. 772-775, ISSN: 0040-6090, doi: 10.1016/S0040-6090(95)08443-6
 77. Del Guerra RS, Cascone MG, Ricci D, Martinoia S, Parodi MT, Ahluwalia A, VanMourik JA, Grattarola M(1996). Optimization of the interaction between ethylenevinyl alcohol copolymers and human endothelial cells. JOURNAL OF MATERIALS SCIENCE. MATERIALS IN MEDICINE, vol. 7, p. 8-12, ISSN: 0957-4530, doi: 10.1007/BF00121182
 78. Cascone MG, Laus M, Ricci D, DelGuerra RS (1995). Evaluation of poly(vinyl alcohol) hydrogels as a component of hybrid artificial tissues. JOURNAL OF MATERIALS SCIENCE. MATERIALS IN MEDICINE, vol. 6, p. 71-75, ISSN: 0957-4530, doi: 10.1007/BF00120410
 79. Cavalleri O., Ricci D., Rolandi R. (1994). Scanning force imaging of organic multimolecular films. SURFACE AND INTERFACE ANALYSIS, vol. 21, p. 447-449, ISSN: 0142-2421, doi: 10.1002/sia.740210622
 80. Rolandi R., Cavalleri O., Toneatto C., Ricci D. (1994). Scanning electron microscopy and atomic force microscopy of alkanethiol monolayers on gold.

- THIN SOLID FILMS, vol. 243, p. 431-436, ISSN: 0040-6090, doi: 10.1016/0040-6090(93)04019-O
81. Ricci D, Grattarola M (1994). Scanning force microscopy on live cultured-cells - imaging and force-versus-distance investigations. JOURNAL OF MICROSCOPY, vol. 176, p. 254-261, ISSN: 0022-2720
 82. Cavalleri O, Ricci D, Rolandi R (1994). Scanning force imaging of organic multimolecular films. SURFACE AND INTERFACE ANALYSIS, vol. 21, p. 447-&, ISSN: 0142-2421, doi: 10.1002/sia.740210622
 83. Rolandi R, Cavalleri O, Toneatto C, Ricci D (1994). Scanning electron-microscopy and atomic-force microscopy of alkanethiol monolayers on gold. THIN SOLID FILMS, vol. 243, p. 431-436, ISSN: 0040-6090, doi: 10.1016/0040-6090(93)04019-O
 84. Ricci D., Bonfiglio A., Cincotti S., Di Zitti E., Elementi L. (1993). High resolution imaging of physisorbed organic monolayers by scanning tunneling microscopy. MOLECULAR CRYSTALS AND LIQUID CRYSTALS SCIENCE AND TECHNOLOGY. SECTION A, MOLECULAR CRYSTALS AND LIQUID CRYSTALS, vol. 229, p. 235-240, ISSN: 1058-725X
 85. Bianco B, Bonfiglio A, Cambiaso A, Cavalleri O., Cincotti S, Di Zitti E, Elementi L, Ricci D, Rolandi R (1993). Molecular monolayer structure investigations by scanning tunneling microscopy.. MOLECULAR CRYSTALS AND LIQUID CRYSTALS, vol. 235, p. 109-114, ISSN: 1563-5287
 86. Bonfiglio Z., Paradiso R., Di Zitti E., Ricci D., Bolognesi A., Porzio W. (1993). Scanning Tunneling Microscopy Investigations of Self-assembled Monolayers of Poly(3-decyl-thiophene) on Graphite. ADVANCED MATERIALS FOR OPTICS AND ELECTRONICS, vol. 2, p. 295-299, ISSN: 1057-9257
 87. Chiabrera A., Di Zitti E., Ricci D. (1993). Biological Paradigms of Molecular Electronics. CYTOTECHNOLOGY, vol. 11, p. 77-79, ISSN: 0920-9069
 88. Rolandi R., Ricci D., Brandt O., "Photovoltage Generation in Bilayer Lipid Membrane-Cadmium Sulfide Junctions", The Journal of Physical Chemistry, 96, pp. 6783-6790, American Chemical Society, Washington DC, USA, 1992.
 89. Rolandi R., Ricci D. (1990). Photovoltages In Bilayer Lipid-membranes Incorporating Cadmium-sulfide Particles. PROGRESS IN COLLOID & POLYMER SCIENCE, vol. 81, p. 222-224, ISSN: 0340-255X

BOOK CHAPTERS

1. Braga P C, Ricci D (2011). Imaging Bacterial Shape, Surface, and Appendages Before and After Treatment with Antibiotics. In: (a cura di): P.C. Braga, D. Ricci, Atomic Force Microscopy in Biomedical Research Methods and Protocols. METHODS IN MOLECULAR BIOLOGY, vol. 736, p. 391-399, ISSN: 1064-3745, doi: 10.1007/978-1-61779-105-5_23
2. Torre B, Ricci D, BRaga P C (2011). How the Atomic Force Microscope Works?. In: Atomic Force Microscopy in Biomedical Research Methods and Protocols. METHODS IN MOLECULAR BIOLOGY, vol. 736, p. 3-18, ISSN: 1064-3745, doi: 10.1007/978-1-61779-105-5_1
3. Torre B, Canale C, Ricci D, Braga P C (2011). Recognizing and Avoiding Artifacts in Atomic Force Microscopy Imaging. In: Braga P C, Ricci D. Atomic Force Microscopy in Biomedical Research Methods and Protocols. METHODS IN MOLECULAR BIOLOGY, vol. 736, p. 31-43, ISSN: 1064-3745, doi: 10.1007/978-1-61779-105-5_3
4. Torre B, Canale C, Ricci D, Braga P C (2011). Measurement Methods in Atomic Force Microscopy. In: Braga P C, Ricci D. Atomic Force Microscopy in Biomedical Research Methods and Protocols. METHODS IN MOLECULAR BIOLOGY, vol. 736, p. 19-29, ISSN: 1064-3745, doi: 10.1007/978-1-61779-105-5_2
5. Ricci D, Grattarola M, Tedesco MT (2011). The Growth Cones of Living Neurons Probed by the Atomic Force Microscope. In: Braga PC, Ricci D . Atomic Force Microscopy in Biomedical Research Methods and Protocols. METHODS IN MOLECULAR BIOLOGY, vol. 736, p. 243-257, ISSN: 1064-3745, doi: 10.1007/978-1-61779-105-5_16
6. Ansaldo A., Ricci D., Gatti F., Di Zitti E., Cincotti S. (2005). Investigating Schottky Barrier Effects in Carbon nanotube Field Effect Transistors. In: H. KUZMANY; J. FINK; M. MEHRING; S. ROTH EDS.. ELECTRONIC PROPERTIES OF NOVEL NANOSTRUCTURES. vol. 786, p. 570-573, NEW YORK: American Institute of Physics, ISBN: 9780735402751, doi: 10.1063/1.2103933
7. Ricci D, Braga PC (2004). Recognizing and avoiding artifacts in AFM imaging. In: Atomic Force Microscopy Biomedical Methods and Applications. METHODS IN MOLECULAR BIOLOGY, vol. 242, p. 25-37, ISSN: 1064-3745
8. Braga PC, Ricci D (2004). Imaging bacterial shape, surface, and appendages before and after treatments with antibiotics. In: Atomic Force Microscopy Biomedical Methods and Applications. METHODS IN MOLECULAR BIOLOGY, vol. 242, p. 179-188, ISSN: 1064-3745
9. Ricci D, Grattarola M, Tedesco M (2004). Growth Cones of Living Neurons Probed by Atomic Force Microscopy. In: Atomic Force Microscopy Biomedical Methods and Applications . METHODS IN MOLECULAR BIOLOGY, vol. 242, p. 125-140, ISSN: 1064-3745
10. Ricci D, Braga PC (2004). Imaging Methods in Atomic Force Microscopy. In: Atomic Force Microscopy Biomedical Methods and Applications. METHODS IN MOLECULAR BIOLOGY, vol. 242, p. 13-23, ISSN: 1064-3745
11. Ricci D, Braga PC (2004). How the Atomic Force Microscope Works. In: (a cura di): Ricci D, Braga PC, Atomic Force Microscopy Biomedical Methods and Applications. METHODS IN MOLECULAR BIOLOGY, vol. 242, p. 3-13, ISSN: 1064-3745
12. Sbrana F., Parodi M.T., Di Zitti E., Ricci D. (2002). Gold nanocrystal molecules synthesis and functionalised substrate preparation for metallo-organic ultrathin structures. In: C. DI NATALE; A. D'AMICO; P. DARIO. Sensors and microsystems. p. 61-65, SINGAPORE: World Scientific Publ., ISBN: 9789810248956
13. Parodi M.T., Ricci D., Rocchia W., Sbrana F., Di Zitti E. (2000). Assembling gold nanoparticle patterns for molecular electronics applications. In: C. DI NATALE; A. D'AMICO; P. SICILIANO. Sensors and Microsystems. p. 66-70, SINGAPORE:WORLD SCIENTIFIC PUBL, ISBN: 9789810244873
14. Parodi M.T., Rocchia W., Chiabrera A., Di Zitti ., Ricci D. (2000). Structural properties of mixed ultrathin organic films investigated by scanning probe microscopy. In: C. DI NATALE; A. D'AMICO; F. DAVIDE. Sensors and

- Microsystems. p. 181-185, SINGAPORE: WORLD SCIENTIFIC PUBL, ISBN: 9789810241995
15. Bonfiglio A., Parodi M. T., Di Zitti E., Ricci D., Bianco B., Ruggeri G. (1996). Langmuir-Blodgett Films of Poly-Alkyl-Pyrroles for Sensors and Molecular Devices. In: C. Di Natale and A. D'Amico (Eds.). Sensors and Microsystems. p. 45-49, Singapore: World Scientific Publ., ISBN: 9789810228088
 16. Bonfiglio A., Cincotti S., Di Zitti E., Paradiso R., Ricci D., Elementi L. (1993). Scanning Tunneling Microscopy Imaging of Organic Molecules: from Alkanes to Polymers. In: M. BLANK. Electricity and Magnetism in Biology and Medicine. p. 213-216, San Francisco: San Francisco Press Inc., ISBN: 0911302670
 17. Cambiaso A., Di Zitti E., Bianco B., Ricci D. (1993). Simulation of Scanning Tunneling Microscopy Systems. In: M. Blank (Ed.). Electricity and Magnetism in Biology and Medicine. p. 209-212, San Francisco: San Francisco Press
 18. Chiabrera A., Cincotti S., Di Zitti E., Parodi M., Ricci D., Bonfiglio A. (1992). Dispositivi Molecolari. In: D. DE ROSSI E M. GRATTAROLA A CURA DI. Bioelettronica e Nanotecnologie per la Bioingegneria. p. 231-240, BOLOGNA: Patron Editore, ISBN: 9786000862039

(The last few years, part of the total of more than 80 works presented, are reported)

1. Vomero, M., Porto Cruz, M.F., Zucchini, E., Shabanian, A., Delfino, E., Carli, S., Fadiga, L., Ricci, D., Stieglitz, T., (2018) "Achieving Ultra-Conformability with Polyimide-Based ECoG Arrays", 2018 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), p. 4464 – 4469, doi: 10.1109/EMBC.2018.8513171
2. Castagnola, E.; Vahidi, N.W.; Nimbalkar, S.; Rudraraju, S.; Thielk, M.; Zucchini, E.; Cea, C.; Carli, S.; Gentner, T. Q; Ricci, D.; (2018) "In Vivo Dopamine Detection and Single Unit Recordings Using Intracortical Glassy Carbon Microelectrode Arrays", MRS Advances, 1-6, Materials Research Society
3. Vomero, M.; Castagnola, E.; Maggiolini, E.; Ciarpella, F.; Rembado, I.; Goshi, N.; Fadiga, L.; Kassegne, S.; Ricci, D.; (2017) "A Direct Comparison of Glassy Carbon and PEDOT-PSS Electrodes for High Charge Injection and Low Impedance Neural Interfaces", Advances in Science and Technology, 102, 68-76, Trans Tech Publications
4. Castagnola, E.; Marrani, M.; Maggiolini, E.; Maita, F.; Pazzini, L.; Polese, D.; Pecora, A.; Maiolo, L.; Fortunato, G.; Fadiga, L., Ricci, D.; (2017) "Recording High Frequency Neural Signals Using Conformable and Low-Impedance ECoG Electrodes Arrays Coated with PEDOT-PSS-PEG", Advances in Science and Technology, 102, 77-85, Trans Tech Publications, 2017
5. Vomero, M.; Castagnola, E.; Ordonez, J. S; Carli, S.; Zucchini, E.; Maggiolini, E.; Gueli, C.; Goshi, N.; Fadiga, L.; Ricci, D.; "Improved long-term stability of thin-film glassy carbon electrodes through the use of silicon carbide and amorphous carbon", Neural Engineering (NER), 2017 Conference on 8th International IEEE/EMBS, 288-291, 2017
6. Bubak G, Ansaldo A, Gendron D, Brayda L, Ceseracciu L, Ricci D (2015). Parylene coated carbon nanotube actuators for tactile stimulation. In: (a cura di): BarCohen Y, ELECTROACTIVE POLYMER ACTUATORS AND DEVICES (EAPAD) 2015. vol. 9430, 94300V, ISBN: 978-1-62841-533-9, San Diego, MAR 09-12, 2015 , doi: 10.1117/12.2084233
7. Maita F, Maiolo L, Minotti A, Pecora A, Fortunato G, Ricci D, Metta G (2015). Flexible double stage POSTFT based on Poly-Si technology for robotic skin application. In: 15th IEEE International Conference on Nanotechnology IEEE-NANO 2015. PROCEEDINGS OF THE ... IEEE CONFERENCE ON NANOTECHNOLOGY, ISSN: 1944-9399, Roma, Italia, 27-30 Luglio 2015, doi: 10.1109/NANO.2015.7388874
8. Castagnola E, De Faveri S, Ansaldo A, Maggiolini E, Benfenati F, Ricci D, Fadiga L (2015). Nanostructured microsphere coated with living cells and tethered with low-stiffness wire: A possible solution to brain tissue reactions. In: 7th International IEEE/EMBS Conference on Neural Engineering, NER 2015. INTERNATIONAL IEEE/EMBS CONFERENCE ON NEURAL ENGINEERING, vol. 2015-July, p. 390-393, ISBN: 978-146736389-1, ISSN: 1948-3546, Montpellier; France, 22-24 aprile 2015, doi: 10.1109/NER.2015.7146641
9. Gendron D, Bubak G, Ceseracciu L, Ansaldo A, Ricci D (2015). Cross-linked carbon nanotubes buckygel actuators: An in-depth study. In: Electroactive Polymer Actuators and Devices (EAPAD) 2015. PROGRESS IN BIOMEDICAL OPTICS AND IMAGING, vol. 9430, 94300U, ISSN: 1605-7422, San Diego; United States, 9-12 Marzo 2015, doi: 10.1117/12.2084227
10. Bubak G, Ansaldo A, Ceseracciu L, Hata K, Ricci D (2014). Bucky gel actuators optimization towards haptic applications. In: Electroactive Polymer Actuators and Devices, EAPAD 2014. PROGRESS IN BIOMEDICAL OPTICS AND IMAGING, vol. 9056, 905611, ISBN: 978-081949982-0, ISSN: 1605-7422, San Diego, CA; United States, 10-13 Marzo 2014, doi: 10.1117/12.2045034
11. Bubak G, Ceseracciu L, Ansaldo A, Futaba DN, Hata K, Ricci D (2014). Carbon nanotubes plastic actuator: Towards lightweight, low-voltage haptic devices. In: 2014 IEEE Haptics Symposium, HAPTICS 2014 . IEEE HAPTICS SYMPOSIUM, p. 499-503, ISBN: 978-147993131-6, ISSN: 2324-7347, Houston, TX; United States, 23-26 Febbraio 2014, doi: 10.1109/HAPTICS.2014.6775506
12. Fortunato G, Maiolo L, Maita F, Minotti A, Mirabella S, Strano V, Metta G, Ricci D, Pecora A (2014). LTPS TFT Technology on Flexible Substrates for

- Sensor Applications. In: 21st International Workshop on Active-Matrix Flatpanel Displays and Devices: TFT Technologies and FPD Materials, AM-FPD 2014. TECHNICAL DIGEST-INTERNATIONAL ELECTRON DEVICES MEETING, p. 311-314, ISBN: 978-486348395-8, ISSN: 2156-017X, Kyoto; Japan, 2-4 luglio 2014, doi: 10.1109/AM-FPD.2014.6867206
13. Bocchini S, Accardo D, Ariano P, Lombardi M, Biso M, Ansaldo A, Ricci D (2013). Actuators based on intrinsic conductive polymers/carbon nanoparticles nanocomposites. In: SPIE Electroactive Polymers Actuators and Devices Conference, EAPAD 2013. PROCEEDINGS OF SPIE, THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING, vol. 8687, 86872I, ISBN: 978-081949470-2, ISSN: 0277-786X, San Diego, CA; United States, 11-14 Marzo 2013, doi: 10.1117/12.2009634
 14. Castagnola E, Maiolo L, Maggiolini E, Minotti A, Marrani M, Maita F, Pecora A, Angotzi GN, Ansaldo A, Fadiga L, Fortunato G, Ricci D (2013). Ultra-flexible and brain-conformable micro-electrocorticography device with low impedance PEDOT-carbon nanotube coated microelectrodes. In: 6th International IEEE EMBS Conference on Neural Engineering (NER). INTERNATIONAL IEEE/EMBS CONFERENCE ON NEURAL ENGINEERING, p. 227-230, ISSN: 1948-3546
 15. Biso M, Ansaldo A, Ricci D (2013). Improving dry carbon nanotube actuators by chemical modifications, material hybridization and proper engineering. In: SPIE Electroactive Polymers Actuators and Devices Conference, EAPAD 2013. PROCEEDINGS OF SPIE, vol. 8687, 86871W, ISBN: 978-081949470-2, ISSN: 1996-756X, San Diego, CA; United States, 11-14 Marzo 2013, doi: 10.1117/12.2008696

I authorize the processing of my personal data in the cv in accordance with Legislative Decree No. 196 of June 30, 2003 “Code for the Protection of Personal Data” and GDPR (EU Regulation 2016/679).

Genova 18 June 2025

Davide Francesco Ricci