

PROF. ANTONIO DI BARTOLOMEO

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<https://www.scopus.com/authid/detail.uri?authorId=57211645861>

<https://scholar.google.com/citations?hl=en&user=wBRVxrUAAAAJ>

https://www.researchgate.net/profile/Antonio_Di_Bartolomeo2

<https://www.webofscience.com/wos/author/record/A-5899-2017>

- Full Professor (2021-present), Associate Professor (5 years) and Researcher (15 years) in Experimental Condensed Matter Physics at the University of Salerno, Italy.
- President of the Physics Education Committee of the Physics Department at the University of Salerno (2021-2022).
- 2022-23 IEEE NTC Distinguished lecturer.
- Device and Integration Engineer at Intel Corporation, Leixlip-Ireland (3.5 years), STMicroelectronics, Phoenix-AZ (1.5 years) and System Engineer at Creative Electronic Systems, Geneva-CH (1 year).
- Scientific Associate at CERN, Geneva-CH (1 year). Fulbright Research Scholar at Georgetown University, Washington-DC (6 months).
- Guest scientist at IHP-Microelectronics and Infineon Technologies, Frankfurt Oder and Dresden, Germany (8 months).
- MS (1993) and Ph. (1997) in Physics at Salerno University, Italy.

Publications

Author of over 200 publications, including articles in peer-reviewed journals, two textbooks, and two patents. Scopus: *publications 210, H-index 49, citations > 9000*, WOS: *publications 186, H-index 46, citations > 8200* and Google Scholar: *publications 300, H-index 54, citations > 13000*.

Over 150 invited talks in international conferences and workshops.

Interests

Optical and electrical properties of graphene, transition metal dichalcogenides, carbon nanotubes, and composite materials. 2D layered materials. Semiconductor heterojunctions and their application as photodetectors, solar cells, and chemical sensors. Schottky and van der Waals heterojunctions. Nanowires and nanotubes. Field-effect transistors. Tunnelling transistors. Non-volatile memories. CMOS technologies. Solid-state radiation detectors. Field emission materials and devices. Photovoltaic devices. Chemical sensors. Supercapacitors, fuel cells.

Lectures

Annually delivered at Salerno University for the BS, MS or PhD in Physics:

- Nanotransistors (PhD)
- Nanoelectronics (MS)
- Physics Laboratory III: Analog and Digital Electronics (BS)

Other BS, MS and PhD courses taught at Salerno University:

- Physics I – Mechanics (from 2000 to 2019)
- Physics II – Electromagnetism (from 2000 to 2019)
- Physics Laboratory I – Mechanics (from 2015 to 2019)
- Physics of Semiconductor Devices (from 2009 to 2016)
- Graphene and Carbon Nanotube Physics (PhD)
- Condensed Matter Laboratory (MS)
- Medical Imaging (MS).

Supervisor of over 30 MS and 10 PhD theses in Physics.

Research

- Physical phenomena and critical topics in electronic and optoelectronic nanodevices. Fabrication and electrical characterization of new field-effect transistors (FETs) based on graphene, transition metal dichalcogenides and other 2D materials. Role of materials, device architecture, contacts, and environmental conditions on FET performance. Development of non-volatile memories based on low-dimensional materials.
- Electric transport, photoresponse, hysteresis and mechanical properties of graphene, and two-dimensional transition metal dichalcogenides (TMDs) such as MoS₂, WSe₂, WS₂, PdSe₂, PtSe₂, GeAs, etc. Effects of pressure, temperature, defects and gas absorption on 2D layered materials. Field emission from graphene, MoS₂, WSe₂ and PdSe₂. Temperature-dependent and anisotropic electrical conductivity in few-layer GeAs. Negative photoconductivity in PtSe₂.
- Electrical and optical properties of van der Waals heterostructures. Fabrication and study of graphene/semiconductor Schottky heterojunctions. Chemical and electrical modulation of Schottky barrier. Design, fabrication, and characterization of novel graphene/semiconductor devices for photodetector, solar cell and chemical sensors. Study of phenomena occurring at the metal/graphene and metal/TMD interfaces.
- Development of hybrid nanocomposites with reduced graphene oxide for efficient electrodes in supercapacitors and alcoholic fuel cells
- Carbon nanotube growth by CVD and structural characterization by electron beam techniques (SEM, TEM) and scanning probe microscopy. Investigation of field emission, conductivity, and photoconductivity of single- and multi-wall carbon nanotubes. Development of an innovative technique to measure two-dimensional maps of field emission current from vertically aligned carbon nanotube films using scanning probe microscopes (AFM/STM).
- Nanomanipulation of individual nanotubes and nanowires and study of their electrical, optical, and mechanical properties in SEM chambers.
- Demonstration of freestanding carbon nanotube films as fast and sensitive thermistors and as sensors of alcoholic graduation in liquid solutions. Photovoltaic effects of CNT/Si structures. Development of photodetectors based on carbon nanotubes both for sensing and charge amplification purposes.
- Radiation hardness of semiconductor materials and devices such as a-Si/ μ -Si junctions.
- Mechanical and electrical properties of composite materials such as polyethylene, polypropylene, or epoxy filled with multi-walled carbon nanotubes or graphene. Investigation of conduction mechanisms in composite materials.
- Electrical characterization and optimization of semiconductor devices (pn junctions, MOS transistors) for 22 and 14 nm FinFET technologies at Intel Corporation. 14 nm FinFET technology transfer into production. Integrating a single-poly EEPROM cell in a 130 nm SiGe BiCMOS technology for high-frequency applications (collaboration with IHP Microelectronics). Integration of a non-volatile NROM memory cell in a 90 nm CMOS technology (collaboration with Infineon Technologies). Charge trapping in oxide multi-layers. Process integration of 0.5 and 0.35 μ m BiCMOS technologies at STMicroelectronics. Identification and solution of several front-end and back-end process issues (silicon trenching, implanter memory effect, fluctuations of BJT gain, salicide etching, contact junction spiking, voids in via filling, etc.), tuning of inline and electrical parameters and yield enhancement.
- Differential conductance measurements by point-contact spectroscopy and current transport modeling of ferromagnet/superconductor bilayers (PdNi/Nb).
- Collaboration on ALICE experiment at Large Hadron Collider of CERN (European Laboratory for Particle Physics), for the study of the Quark-Gluon Plasma produced in heavy-ion high-energy collisions. Development of a time-of-flight gas detector (TOF) able to identify charged particles by measuring their time of flight with accuracy better than 100 ps. Design, simulation and test of read-out electronics.
- Collaboration on CHORUS experiment at CERN for the search of neutrino oscillations. Detector set-up (nuclear emulsions) and analysis of experimental data. Development of an automatic system, constituted by an advanced optical microscope driven by a personal computer for the analysis of events stored in nuclear emulsions. Analysis of video images and automatic track-finding in nuclear emulsions.

Research Grants and Projects

- *PON R&I 2014-2020* (ESF REACT-EU) DM 1062 of 10 August 2021, Research Contracts (RTDA) on topics: innovation and green - Action IV.4 "Doctorates and Research Contracts on Innovation Issues" and Action IV.6 - Research contracts on green issues, Jan 1st, 2022- Dec 31st, 2024.– contract code 28-I-15115-1 (CUP D41B21003650003) of the University of Salerno
- *Ultralight Wearable Solar Cells as a Portable Electricity source* (ESCAPE), Science for Peace and Security (SPS) Programme, NATO Multi-Year Project G5936. Role: Project Co-Director. Form 1/04/2022 to 31/3/2025 amount: 273.000,00 EUR.
- *Integrated and connected processes for the industrial evolution - PICO and PRO Project*, Industrial Research Project PON Intelligent Fab – 2018-2021, MIUR, Italy, code: ARS01_01061 - CUP B46G18000220005. Principal investigator. From 1/09/2018 to 28/02/2022, amount: 72.000,00 euro.
- *Advanced Ionizing Radiation Detectors by CMOS Compatible Graphene-Semiconductor Hybrid Schottky Junctions*, CNR-SPIN SEED project 2016-2017, Italy, 1 year from 1/7/2017. Principal Investigator.
- *Heterojunctions of 2D layered materials for optoelectronic and sensing applications*. POR Campania FSE 2014-2020 – Asse III Obiettivo Specifico 14 - Bando rep. n. 1915, 2017, Italy. Principal investigator.
- *Electrical conductivity, photoconductivity and field emission in nanostructured materials*, Research Project of Salerno University, Italy, ORSA200207, University of Salerno, 2020-22, Principal investigator. From 15/02/2021 to 15/2/2024, amount: 6.320,11 EUR.
- *Electronic devices and sensors based on nanostructured materials*, Research Project of Salerno University, Italy, 2021-23, Principal investigator. From 22/11/2021 to 22/11/2024, amount: 15.908,21 EUR.
- *Optoelectronic Properties of uni-dimensional - and two-dimensional materials*, Research Project of Salerno University, Italy, ORSA195727, University of Salerno, 2019-21, Principal investigator. From 18/05/2020 to 18/05/2023, amount: 7.081,13 EUR.
- *Two-dimensional materials for optoelectronic devices*, Research Project of Salerno University, Italy, ORSA181079, University of Salerno, 2018-20, Principal investigator. From 11/03/2019 to 10/03/2022, amount: 15.204,44 EUR.
- *Heterojunctions and field effect transistors for the study of optoelectronic properties of two-dimensional materials*, Research Project of Salerno University, Italy, ORSA170715, University of Salerno, 2017-19, Principal investigator. From 20/11/2017 to 20/11/2020, amount: 5.192,49 EUR.
- *Two-dimensional materials nanojunctions for optoelectronic and sensing applications*, POR FSE Campania 2014-2020, prot. N. 68014 del 30.9.2016, AS.2016.0000005 del 21.10.2016, U-GOV 300391POR16RIS3, 2016-17. Principal investigator.
- *Electric and spin transport in heterojunctions and nanodevices*, Research Project of Salerno University, Italy, ORSA150953, University of Salerno, 2015-16, Principal investigator. From 28/07/2015 to 28/07/2017, amount: 14.462,65 EUR.
- *Fabrication of electronic devices with 1D and 2D nanomaterials and study of classic and quantum transport phenomena*. Research Project of Salerno University, Italy, ORSA137452, University of Salerno, 2013-14, Principal investigator. From 11/12/2013 to 11/12/2015, amount: 6.266,55 EUR.
- *Carbon nanotube ionization chambers*. Call 2009 of Campania Region, Italy. 2009-2010. Principal investigator. From 21/01/2015 to 22/09/2017, amount: 15.000,00 EUR.
- *Electric transport and memory effects in single-walled carbon nanotube devices*. Research Project of Salerno University, Italy, ORSA100389, University of Salerno, 2010-11, Principal investigator.
- *Carbon nanotubes as gas and temperature sensors*. Fulbright Scholar research grant 2009 and Call 2008 of Campania Region, Italy. Principal investigator.
- *Introduction of nanotechnologies and advanced materials in the industrial sector of mechanical power transmissions and, in particular, of gear lubricants*, INNOLUBE Project, MISE Horizon 2020, 2014-2020 FESR, Asse 1, azione 1.1.3, 2017-2020 (36 months), Italy. From 1/06/2017 to 31/05/2020, amount: 1.036.801,65 EUR.

- *New life for previously non-recyclable resources through a new processing technique* - RINASCIMENTO project. Research Project PON “Ricerca e Innovazione” 2014-2020 e FSC , 2018-2021 (42 months), MIUR, Italy, Code: ARS01_01088. area di specializzazione “Design, creatività e Made in Italy”. From 1/03/2018 to 31/08/2021, amount: 2.461.998,00 EUR.
- *Mixing Innovative Nanocluster Recycled Value*, MINERVA Project, MISE, Asse 1, azione 1.1.3. PON «Imprese e Competitività» 2014-2020 FESR, Italy, 2020 – 2023. From 1/06/2020 to 31/05/2023, amount: 1.083.962,50 EUR.
- *Electric transport and coherence in nanostructured materials*. Research Project of Salerno University, Italy, ORSA113553, University of Salerno, 2011-12, Participant.
- *Application of advanced techniques of scanning probe microscopy to the study of superconducting, magnetic and polymeric materials*. Research Project of Salerno University, Italy, ORSA162434, University of Salerno, 2016-18, Participant.
- *Fabrication of thin films (manganites) and superconducting/ferromagnet heterostructures and their characterization with scanning probe microscopy techniques (STM/STS-AFM-MFM)*. Research Project of Salerno University, Italy, ORSA082085, University of Salerno, 2008-9, Participant.
- *Electrical characterization and modelling of innovative polymeric nano-compounds*. Research Project of National Interest (PRIN), area 09, Prot. 2008NMRHJS_001. 2008-2009. Participant.
- *GINT - INFN group for Nanotechnology. Carbon nanotubes based radiation detectors*. Italian National Institute for Nuclear Research, 2006-2008. Participant.
- *Fabrication of thin films and superconductor/ferromagnet heterostructures and their characterization by STM/STS-AFM-MFM*, Research Project of Salerno University, Italy, ORSA070372, University of Salerno, 2007-2008, Participant.
- *Application of Physics to the study of complex systems* Research Project of Salerno University, Italy, ORSA065302, University of Salerno, 2006-2007, Participant.
- *Intensive and parallel numerical techniques* Research Project of Salerno University, Italy, ORSA060507, University of Salerno, 2006-2007, Participant.
- *New Technologies for Production, Work Package: Innovative Devices for the Electronic Industry*. Excellence Center of Campania Region, Italy. 2003-2006. Participant.
- *Test rig for the identification of friction parameters in principal couplings of machines*. Research Project of National Interest (PRIN), Area 09, Prot. 2003092071_001. 2003-2004. Participant.
- *ALICE - Experiment at LHC (heavy ion collisions)*. CERN, Geneva, and Italian National Institute for Nuclear Research. 2000-2005. Participant.
- *CHORUS - Experiment at SPS, CERN Geneva (neutrino oscillations)*. CERN, Geneva and Italian National Institute for Nuclear Research. 1992-1997. Participant.

Evaluation of Research Projects

- Evaluation of the applications for the IEEE Nanotechnology Council (NTC) Technical Committee (TC) Award as a member of IEEE NTC 2024 TC Award Committee
- Evaluation of a research project for the University of Parma – Action A, August 2023
- Evaluation of research projects (200021_212748) for the Swiss National Science Foundation, July 2022
- Evaluation of research projects for the Free University of Bozen-Bolzano (unibz), Italy, May 2022
- Evaluation of research projects for National Science Center, Poland, Panel: ST3 Condensed matter physics, Funding scheme: OPUS-22, project ID: 537240, and Funding scheme: SONATA-17, project ID: 533803, April 2022
- Evaluation of research products VQR 2015-19 (evaluation of the research quality) for the ANVUR Italian National Agency for the Evaluation of University and Research, 2021
- Evaluation of scientific project FAST for UMSE Industria Sviluppo Economico e Ricerca, Provincia autonoma di Trento, Italy, 2021
- Evaluation of scientific proposals submitted to the ERC Starting Grant 2021 Call by the European Research Council (ERC), 2021

- Scientific and technical expert for the evaluation of the Research project GO-FOR-WATER, Call 2019 Eranet cofund FLAG-ERA III “Joint Transnational Call 2019 for research projects in synergy with the two FET Flagships Graphene Flagship & Human Brain Project”- Project “Graphene cComposites FOR advanced drinking WATER treatment (GO-FOR-WATER)”, funded by MIUR (Italian Ministry for University and Research)
- Evaluation of research projects for Slovak Academic and Scientific Program – SASPRO2, Application No.1098/01/01, April 2021.
- Evaluation of research projects for National Science Centre Poland, Funding scheme: OPUS-20 (LAP), proposal ID: 499627, March 2021.
- Evaluation of research projects for Austrian Science Fund (FWF), proposal P 34289, 2020, and Y1445-N, 2021
- Evaluation of research projects for State Science and Technology, Republic of Kazakhstan, 2019.
- Evaluation of proposals for FLAG-ERA JTC 2019 - Graphene Flagship, call 2019.
- Evaluation of research projects for Israeli Ministry of Science and Technology, call 2019.
- Scientific and technical expert for the evaluation of the Research project MELODICA, Call FLAG ERA II: “Joint Transnational Call 2017 for research projects in synergy with the two FET Flagships Graphene Flagship & Human Brain Project”, funded by MIUR (Italian Ministry for University and Research).
- Evaluation of research projects for Regione Autonoma della Sardegna - Fondo di Sviluppo e Coesione 2014 - 2020 - Interventi di sostegno alla ricerca, 2018
- Evaluation of research projects for the Polytechnic University of Turin, Italy, 2017.
- Evaluation of research projects for the French National Research Agency (ANR), France, 2017
- Evaluation of research projects, Rita Levi Montalcini program, Italy, 2017
- Evaluation of research projects for State Science and Technology, Republic of Kazakhstan, 2017
- Evaluation of the research products (publications) for the triennium 2011-2014 for the ANVUR, Italian National Agency for the Evaluation of University and Research, 2016.
- Evaluation of research projects for the University of Verona, Italy, 2016.
- Fulbright Scholar for US – Italy Fulbright commission, 2011

Editorial Activity

Editor-in-Chief of *IOP Nano Express* (2019 – present)

Editor-in-Chief of *IET Micro & Nano Letters* (May 2022-present)

Deputy Editor in Chief of *IET Micro & Nano Letters* (2019-2022)

Editorial board member of:

- *Heliyon* (2022-present)
- *IOP Nanotechnology* (2018-present)
- *IOP Nano Futures* (2018-present)
- *IOP Journal of Physics D: Applied Physics* (2017-present, Board Member of the Advisory Panel)
- *IET Micro & Nano Letters* (2018-2019)
- *MDPI Sensors* (2018-present)
- *MDPI Electronics* (2018-present)

Reviewer of Scientific Articles

Over 1500 verified reviews and 1200 editorial records for more than 100 journals (WOS data) including:

- **IOP:** Nanotechnology (*IOP – Outstanding Reviewer Award 2016*), 2D Materials, Journal of Physics D: Applied Physics (*IOP – Outstanding Reviewer Award 2016*), Journal of Physics: Condensed Matter, Physica Scripta, Materials Research Express, Semiconductor Science and Technology, Journal of Micromechanics and Microengineering.

- **APS:** Physical Review B, Physical Review Letters, Physical Review Applied, Physical Review Materials.
- **ACS:** Nano Letters, Applied Materials & Interfaces, ACS Photonics, ACS Nano, ACS Applied Electronic Materials, ACS Applied Nano Materials, ACS Omega.
- **AIP:** Applied Physics Letters (*Top reviewer 2018*), Journal of Applied Physics, APL Materials, APL Photonics, AIP advances, Review of scientific instruments.
- **Bentham:** Current Nanoscience
- **Elsevier:** Carbon (recognized as *Outstanding Reviewer 2016*), Carbon Trends, Solid State Electronics, Microelectronic Engineering, Sensors and Actuators A – Physical, Diamond and related materials, Chemical Physics Letters, Materials Science and Engineering B (*Outstanding Reviewer 2018*), Surfaces and Interfaces, Optical Materials, Microelectronics Reliability (*Outstanding Reviewer 2017*), Superlattices and Microstructures, Journal of Physics and Chemistry of Solids, Polymer, Materials Chemistry and Physics, Materials Science in Semiconductor Processing, Materials Today Proceedings, Vacuum, Applied Surface Science, Physica E, Surface and Coatings Technology, Journal of Alloys and Compounds, Physics Letters A, Materials Science in Semiconductor Processing, Thin Solid Films, Optics and Laser Technology, Materials Letters, Acta Materialia, Optical Materials, Biosensors and Bioelectronics.
- **Wiley:** Advanced Science, Advanced Functional Materials, Advanced Electronic Materials, Advanced Materials, Advanced Optical Materials, Advanced Engineering Materials, Advanced Photonic Research, Small, Small Science, Small Methods, ChemPhysChem, Physica Status Solidi A, Physica Status Solidi (RRL) - Rapid Research Letters, International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, Advanced Materials Interfaces, Chemistry-A European Journal, Advanced Intelligent Systems.
- **MDPI:** Nanomaterials, Biosensors, Molecules, Antioxidants, Crystals, Applied Sciences, Chemosensors, Materials, ChemEngineering, Polymers, Computation, Sensors, C, Coatings, Energies, Macromol, Electronics, Sustainability, Micromachines, International Journal of Molecular Sciences, Journal of Low Power Electronics and Applications, Fibers, Metals, International Journal of Environmental Research and Public Health, Diagnostics, Catalysts, Biomedicines
- **Cambridge press:** Journal of Materials Research.
- **ASP:** Journal of nanoscience and nanotechnology.
- **IET:** Micro & Nano Letters, IET Circuits, Devices & Systems, Electronics Letters.
- **RSC:** Nanoscale, Materials Horizons (recognized as *Outstanding Reviewer 2018 and 2022*), Journal of Materials Chemistry C (recognized as *Outstanding Reviewer 2019 and 2020*), Nanoscale Advances, Molecular Systems Design & Engineering, RSC Advances, Royal Society Open Science, New Journal of Chemistry, ChemComm, Journal of Materials Chemistry A, Materials Advances.
- **Springer:** Central European Journal of Physics, Nanoscale Research Letters, Applied Physics A, Photonic Sensors, Journal of Solid State Electrochemistry, Journal of Electronic Materials.
- **Springer Nature:** Scientific Reports, npj 2D Materials and Applications, Scientific Data, Communications Materials, Communications Physics, Journal of Solid State Electrochemistry, The European Physical Journal Plus.
- **Nature:** Communications Materials
- **IEEE:** IEEE Transaction on Nanotechnology, IEEE Sensors Journal, IEEE Electron Device Letters, IEEE Transactions on Electron Devices, Transactions on Nuclear Science, IEEE Sensors Journal, Transactions on Device and Materials Reliability, IEEE Journal of the Electron Devices Society.
- **AVS:** Journal of Vacuum Science & Technology A, Journal of Vacuum Science & Technology B.
- **Taylor & Francis:** Inorganic and Nano-Metal Chemistry
- **Other:** Japanese Journal of Applied Physics, Indian Journal of Physics, Materials Physics and Mechanics journal, Physical Science International Journal, Philosophical Magazine Letters, Philosophical Magazine & Philosophical Magazine Letters, National Science Review (Oxford Academic)

Awards and Recognitions

- Selected for the composition of the GEVs (group of expert evaluators) of the VQR 2020-2024, Interdisciplinary GEV and Disciplinary GEV, March 2024
- *2022 TC Award Winner* as a member of IEEE NTC TC 6 on Nanoelectronics for activities in 2021
- Listed in the *World Top Cited Scientists 2022* ranking by Stanford University (Ioannidis, John P.A. (2022), “September 2023 data-update for "Updated science-wide author databases of standardized citation indicators”, Mendeley Data
- Listed in the *World Top Cited Scientists 2021* ranking by Stanford University (Ioannidis, John P.A. (2022), “September 2022 data-update for "Updated science-wide author databases of standardized citation indicators”, Mendeley Data, V4, doi: 10.17632/btchxktyw.4)
- Listed in the *World Top Cited Scientists 2019-2020* ranking by Stanford University and *Top Italian Scientist for Physics*, 2021 ranking by topitalianscientists.org
- Qualification as Full Professor in Electronics (2019).
- Qualification as Full Professor in Experimental Condensed Matter Physics (2017).
- *Top Cited Paper Award 2020* by IOP Nanotechnology for article A. Di Bartolomeo et al. “Electrical transport and persistent photoconductivity in monolayer MoS₂ phototransistors” Nanotechnology 28, 214002, 2017
- Winner of the prize Start cup Campania 2018: Start up your business (prot. 2018/0003612, 28.11.2018) with the project Gradi: A sensor for alcoholic beverages and temperature, Italy, 2018
- Winner of the “Factory” prize at the XII Edition of Best Practices for Innovation, Confindustria Salerno, Italy, 2018
- *Top articles in the Low Dimensional Materials and Nanotechnologies* by Applied Physics Letters for paper A. Di Bartolomeo et al. “High field-emission current density from β -Ga₂O₃ nanopillars” Applied Physics Letters 114 (2019) 193101
- *National Malcolm Baldrige Quality Award 1999* as device engineer di ST Microelectronics, Phoenix, AZ, 1999

Materials Horizons (RSC): Outstanding Reviewer in 2022

Nanoscale: Outstanding Reviewer in 2021

The Journal of Materials Chemistry C: Outstanding Reviewer in 2020

The Journal of Materials Chemistry C: Outstanding Reviewer in 2019

Materials Horizons (RSC): Outstanding Reviewer in 2018

Applied Physics Letters (AIP): Top reviewer 2018

Materials Science and Engineering B: Outstanding Reviewer award 2018

IOP Publishing Reviewer Awards 2016: Nanotechnology Outstanding Reviewers in 2016 and Journal of

Physics D: Applied Physics Outstanding Reviewers in 2016

Carbon (Elsevier): Outstanding Reviewer in 2016

Conference Organization

- Publication chair and Organizer of IEEE NANO 2024, Gijón, Spain July 8-11, 2024.
- Program Committee Chair of 2024 12th International Conference on Nano and Materials Science (ICNMS 2024) in Bangkok, Thailand during January 12-15, 2024
- Organizer and General Chair of IEEE-NMDC 2023, Nanotechnology Materials and Devices Conference, Paestum, Italy, 22-25 October 2023
- Chairman of the 4th International Online-Conference on Nanomaterials (IOCN 2023) by MDPI, 26 June 2023. Online | 5–19 May 2023, Mater. Proc., 2023, IOCN 2023 <https://www.mdpi.com/2673-4605/14/1>
- Member of the Scientific Advisory Committee of the 2nd International Electronic Conference - Enabling Nanoelectronics (IEC2021), from 1 to 31 October 2021, online platform of <https://iec2021.sciforum.net/>
- Conference Chair and Session Chair of MDPI 3rd International Online Conference on Nanomaterials “IOCN 2022”, Online conference, Sciforum.net, 25 April-10 May 2022

- Publication Chair, Track Co-chair (Nanoelectronics), Session Chair (5 sessions) and Award Committee member of IEEE International Conference on Nanotechnology, IEEE-NANO 2021, Montreal, July 28-30, 2021.
- General chair for “IOCN2020: 2nd International Online-Conference on Nanomaterials conference”, and session chair for “Nanophysics, Nanophotonics, Nanoplasmonics, Nanoelectronics and Nanodevices”, Sciforum.net, 15-30 Nov 2020
- Organizer and Publication Chair, Award Committee Chair, Session Chair (2D Materials II e Plenary session – Closing remarks) of 2020 International IEEE Conference on Nanotechnology (IEEE-NANO 2020), virtual conference, July 29-31, 2020
- Member of the scientific committee of the symposium “Integration of advanced materials on silicon: from classical to neuromorphic and quantum applications” at E-MRS Fall meeting 2020, Warsaw University of Technology in Warsaw, Poland, September 14-17, 2020
- Organizer and Chair of the International Conference Nano M&D 2019 “Fabrication, Properties, and Applications of Nano-Materials and Nano-Devices”, Savoy Beach Hotel, Paestum, Salerno (Italy) June 04-08, 2019
- Special Sessions Chair, Award Committee member and Program Committee member of the IEEE 13th Nanotechnology Materials and Devices Conference NMDC 2018, Portland, Oregon, 14-17 October 2018
- Scientific responsibility for the area “Smart fab” of the “Far Future Exhibition”, Naples, Italy, 8-11 Nov. 2018
- Moderator, session chair and poster evaluator – 20th International Conference on Advanced Energy Materials and Research, Dublin, Ireland, 13-14 August 2018
- Session Chair WODIM 2018 - 20th Workshop on Dielectrics in Microelectronics (Wide bandgap Semiconductors), Berlin, Germany, 11-14 June 2018
- Organizer of the 1st International Online Conference on Nanomaterials (IOCN2018) 1-15 July 2018 online
- Organizer of the Tunnelling through Nanoscience (TTN2018), International conference, Ravello, Italy, 17-20 October 2018
- Session Chair of NMDC 2017 – 12th IEEE Nanotechnology Materials and Devices Conference NMDC (Nano electronics I), Singapore, 2-4 October 2017
- Chair of GM2016 – Graphene and Related Materials, international conference, Paestum, Italy, 22-27 May 2016

Managerial Activity

- Member of the Board of the Multidisciplinary Center for the initial training and qualification of general teachers for lower and upper secondary schools (ASFI Service Centre), January 2024.
- Member of the IEEE NTC Conference Committee in 2024.
- Member of the Department Quality Assurance Group (GAQ-Dip) of the Physics Department, University of Salerno, since January 2024.
- President or member of several Committees for the selection of PhD and Post-Doc candidates, Assistant or Associate professors as well as Technologists in research Institutes.
- President of the Physics Education Committee, University of Salerno, from 3/2021
- Member of IEEE Nanotechnology Council Financial Committee (2020-2021)
- Elected in the Physics Department Council of Salerno University (2019-2021)
- Research Group Leader from 2008
- Scientific and technical responsible for the “Graphene and 2D Materials for Nanoelectronics Laboratory” from 2006
- Member of the Technological Transfer Committee of Salerno University from 2018
- Member of the Degree in Physics Monitoring and Analysis Committee from 2017
- Elected in the Physics Department Council of Salerno University (2007-2009)
- Responsible for the Doctorate funds (2000-2006) and the Teaching funds in the Physics Department of Salerno University (2008-2008)

- Member of the Quality Committee of the Physics Department of Salerno University (2004-2006)
- Member of the Human Resource Committee of the Physics Department of Salerno University (2000-2006)
- Member of the Council of the Doctorate in Mathematics, Physics and Applications (Ph.D. programme)
- Responsible for several Research Projects

Memberships:

- IEEE (Senior member: 95033536)
- SIF – Società Italiana di Fisica (Member number: 6973)
- EPS – European Physical Society (Member number: IM160341)

Publications

Articles

2024

1. A. Pelella, K. Intonti, O. Durante, A. Kumar, L. Viscardi, S. De Stefano, P. Romano, F. Giubileo, H. Neill, V. Patil, L. Ansari, B. Roycroft, P. K. Hurley, F. Gity and A. Di Bartolomeo
Multilayer WS₂ for low-power visible and near-infrared phototransistors
Discover Nano, 19 (2024) 57
2. A. Kumar, K. Intonti, L. Viscardi, O. Durante, A. Pelella, O. Kharsah, S. Sleziona, F. Giubileo, N. Martucciello, P. Ciambelli, M. Schleberger, and A. Di Bartolomeo
Memory Effect and Coexistence of Negative and Positive Photoconductivity in Black Phosphorus Field Effect Transistor for Neuromorphic Vision Sensors
Materials Horizons, 2024, DOI: 2024, 10.1039/d4mh00027g
3. A. Kumar, A. Pelella, K. Intonti, L. Viscardi, O. Durante, F. Giubileo, P. Romano, H. Neill, V. Patil, L. Ansari, P. Hurley, F. Gity, A. Di Bartolomeo
n-type GaSe thin flake for field effect transistor, photodetector, and optoelectronic memory
Advanced Electronic Materials, In press, DOI: 10.1002/aelm.202400010
4. D. Capista, L. Lozzi, A. Di Bartolomeo, F. Giubileo, N. Martucciello, M. Passacantando
SWCNT-Si Photodetector with Voltage-Dependent Active Surface
Nano Express, 5 (2024) 015004
5. Z. Peng, A. Grillo, A. Pelella, X. Liu, M. Boyes, X. Xiao, M. Zhao, J. Wang, A. Di Bartolomeo, Z. Hu and C. Casiraghi
Fully Printed Memristors Made with MoS₂ and Graphene Water-Based Inks
Materials Horizons, 2024, DOI: 10.1039/D3MH01224G
6. E. Seven, E. Ö. Orhan, A. Di Bartolomeo, M. Ertuğrul, N. Avishan
Graphene/Al₂O₃/Si Schottky diode with integrated waveguide on a silicon-on-insulator wafer
Indian Journal of Physics, 2024, DOI: 10.1007/s12648-023-03062-7
7. L. Viscardi, E. Faella, K. Intonti, F. Giubileo, V. Demontis, D. Prete, V. Zannier, L. Sorba, F. Rossella, A. Di Bartolomeo
Temperature behavior and logic circuit applications of InAs nanowire-based field-effect transistors
Materials Science in Semiconductor Processing 173 (2024) 108167

2023

8. O. Durante, K. Intonti, L. Viscardi, S. De Stefano, E. Faella, A. Kumar, A. Pelella, F. Romeo, F. Giubileo, M. S. G. Alghamdi, M. A. S. Alshehri, M. F. Craciun, S. Russo, and A. Di Bartolomeo
Subthreshold Current Suppression in ReS₂ Nanosheet-Based Field-Effect Transistors at High Temperatures
ACS Applied Nano Materials, 6 (2023) 21663–21670
9. K. Intonti, E. Faella, A. Kumar, L. Viscardi, F. Giubileo, N. Martucciello, H. T. Lam, K. Anastasiou, M. Craciun, S. Russo, and Antonio Di Bartolomeo
Temperature-Dependent Conduction and Photoresponse in Few-Layer ReS₂
ACS Applied Materials & Interfaces 15 (2023) 50302–50311
10. A. Pelella, K. Intonti, L. Viscardi, O. Durante, D. Capista, M. Passacantando, F. Giubileo, P. Romano, M. A. S. Alshehri, M. S. G. Alghamdi, M. F. Craciun, S. Russo, A. Di Bartolomeo
Two-Dimensional α -In₂Se₃ Field Effect Transistor for Wide-Band Photodetection and Non-Volatile Memory
Journal of Physics and Chemistry of Solids 183 (2023) 111653

11. A. Di Bartolomeo, A. Kumar, O. Durante, A. Sessa, E. Faella, L. Viscardi, K. Intonti, F. Giubileo, N. Martucciello, P. Romano, S. Sleziona, M. Schleberger
Temperature-dependent photoconductivity in two-dimensional MoS₂ transistors
Materials Today Nano, 24 (2023) 100382
12. Z. Peng, A. Grillo, A. Pelella, M. Boyes, X. Xiao, M. Zhao, J. Wang, Z. Hu, A. Di Bartolomeo, C. Casiraghi
Fully Printed 2D Material-based Memristors
Materials Horizons, Submitted, 2023
13. S. Sleziona, A. Pelella, E. Faella, O. Kharsah, L. Skopinski, A. Maas, Y. Liebsch, A. Di Bartolomeo and M. Schleberger
Manipulation of the electrical and memory properties of MoS₂ field-effect transistors by highly charged ion irradiation
Nanoscale Advances, 2023, DOI: 10.1039/D3NA00543G
14. F. Romeo, A. Di Bartolomeo
The experimental demonstration of a topological current divider
Nature Communications, 14 (2023) 3709
15. K. Intonti, E. Faella, L. Viscardi, A. Kumar, O. Durante, F. Giubileo, M. Passacantando, H. T. Lam, K. Anastasiou, M. Craciun, S. Russo and A. Di Bartolomeo
Hysteresis and photoconductivity of few-layer ReSe₂ field effect transistors enhanced by air pressure
Advanced Electronic Materials, 9 (2023) 2300066
16. K. Intonti, E. Coleman, A. Blake, C. Lyons, A. Hydes, A. Di Bartolomeo, F. Gity and P.K. Hurley
Role of Interface and Bulk Traps on the Capacitance-Voltage Characteristics of Ws₂/Al₂O₃/Si Capacitors
Solid State Electronics, 207 (2023) 108697
17. A. Kumar, E. Faella, O. Durante, F. Giubileo, A. Pelella, L. Viscardi, K. Intonti, S. Sleziona, M. Schleberger, A. Di Bartolomeo
Optoelectronic memory in 2D MoS₂ field effect transistor
Journal of Physics and Chemistry of Solids 179 (2023) 111406
18. M. B. Askari, P. Salarizadeh, P. Veisi, E. Samiei, H. Saeidfirozeh, M. T. Tourchi Moghadam and A. Di Bartolomeo
Transition-Metal Dichalcogenides in Electrochemical Batteries and Solar Cells
Micromachines 14 (2023) 691
19. A. Kumar, L. Viscardi, E. Faella, F. Giubileo, K. Intonti, A. Pelella, S. Sleziona, O. Kharsah, M. Schleberger, and A. Di Bartolomeo
Temperature Dependent Black Phosphorus Transistor and Memory
Nano Express, 4 (2023) 014001
20. L. Viscardi, K. Intonti, A. Kumar, E. Faella, A. Pelella, F. Giubileo, S. Sleziona, O. Kharsah, M. Schleberger, and Antonio Di Bartolomeo
Black phosphorus nanosheets in field effect transistors with Ni and NiCr contacts
Physica Status Solidi B 260 (2023) 2200537
21. M.B. Askari, H. Beitollahi, A. Di Bartolomeo
Methanol and ethanol electrooxidation on ZrO₂/NiO/rGO
Nanomaterials, 13 (2023) 679
22. D. Capista, L. Lozzi, A. Pelella, A. Di Bartolomeo, F. Giubileo, M. Passacantando
Spatially resolved photo-response of a MWCNT-Si photodetectors enhanced by MWCNT film thinning
Nanomaterials 13 (2023) 650
23. S. Tajik, F. Sharifi, B. Aflatoonian, A. Di Bartolomeo
A new electrochemical sensor for the detection of ketoconazole using carbon paste electrode modified with sheaf-like Ce-BTC MOF nanostructure and ionic liquid
Nanomaterials 13 (2023) 523
24. A. Kumar, L. Viscardi, E. Faella, F. Giubileo, K. Intonti, A. Pelella, S. Sleziona, O. Kharsah, M. Schleberger, A. Di Bartolomeo
Black Phosphorus Unipolar Transistor, Memory, and Photodetector
Journal of Materials Science 58 (2023) 2689–2699
25. S. Azizi, M.B. Askari, M. T. T. Moghadam, M. Seifi, A. Di Bartolomeo
Ni₃S₄/NiS/rGO as a promising electrocatalyst for methanol and ethanol electro-oxidation
Nano Futures 7 (2023) 015002

26. F. Giubileo, D. Capista, E. Faella, A. Pelella, W.Y. Kim, P. Benassi, M. Passacantando, and A. Di Bartolomeo
Local Characterization of Field Emission Properties of Graphene Flowers
Advanced Electronic Materials 9 (2023) 2200690
27. A. Pelella, D. Capista, M. Passacantando, E. Faella, A. Grillo, F. Giubileo, N. Martucciello, and A. Di Bartolomeo
A Self-Powered CNT–Si Photodetector with Tuneable Photocurrent
Advanced Electronic Materials 9 (2023) 2200919
28. E. Faella, A. Grillo, A. Pelella, F. Giubileo, and A. Di Bartolomeo
Multiwalled Carbon Nanotubes Films for Sensing Purpose
Lecture Notes in Electrical Engineering Volume 918 LNEE, Pages 98 – 105, 2023, Annual Italian Conference on Sensors and Microsystems, AISEM 2021, Naples 28 February 2021 through 28 February 2021, Code 280059, https://doi.org/10.1007/978-3-031-08136-1_16
29. F. Giubileo, A. Grillo, A. Pelella, E. Faella, N. Martucciello, M. Passacantando, and A. Di Bartolomeo
Field Emission from Graphene Layers
Lecture Notes in Electrical Engineering Volume 918 LNEE, Pages 213 – 220, 2023 Annual Italian Conference on Sensors and Microsystems, AISEM 2021, Naples, 28 February 2021 through 28 February 2021, Code 280059, https://doi.org/10.1007/978-3-031-08136-1_33
30. Di Bartolomeo, A.
Advanced Field-Effect Sensors
Sensors 23 (2023) 4554
31. S De Stefano, O Durante, F Giubileo, E Faella, K Intonti, A Kumar, ... A. Di Bartolomeo
Temperature-induced step-like enhancement of drain current in a two-dimensional ReS₂ field-effect transistor
2023 IEEE Nanotechnology Materials and Devices Conference (NMDC), 339-340, 2023
32. S Sleziona, A Pelella, E Faella, O Kharsah, L Skopinski, A Maas, ... A. Di Bartolomeo
Manipulation of the electrical and memory device properties of monolayer MoS₂ field-effect transistors by highly charged ion radiation
2023 IEEE Nanotechnology Materials and Devices Conference (NMDC), 450-451, 2023
33. L Viscardi, E Faella, K Intonti, F Giubileo, V Demontis, D Prete, V Zannier, ... A. Di Bartolomeo
InAs nanowire field-effect transistors: temperature dependence of electrical properties and digital electronic applications
2023 IEEE Nanotechnology Materials and Devices Conference (NMDC), 773-777, 2023
34. K Intonti, E Faella, A Kumar, L Viscardi, F Giubileo, HT Lam, K Anastasiou, ... A. Di Bartolomeo
Pressure-dependent photoconductivity in two dimensional ReS₂
2023 IEEE Nanotechnology Materials and Devices Conference (NMDC), 368-372, 2023
35. A Pelella, D Capista, A Grillo, E Faella, M Passacantando, N Martucciello, ... A. Di Bartolomeo
Enhanced photodetection in carbon-based devices with MIS parallel structure
2023 IEEE Nanotechnology Materials and Devices Conference (NMDC), 214-217, 2023
36. E Faella, L Viscardi, K Intonti, O Durante, A Pelella, MS Alghamdi, ... A. Di Bartolomeo
Electric Transport Properties In Few-Layers WTe₂ Field Effect Transistors Affected by Temperature
2023 IEEE Nanotechnology Materials and Devices Conference (NMDC), 553-557, 2023
37. A Kumar, L Viscardi, E Faella, F Giubileo, K Intonti, A Pelella, O Durante, ... A. Di Bartolomeo
Effect of PMMA capping layer on black phosphorus field effect transistor
2023 IEEE Nanotechnology Materials and Devices Conference (NMDC), 77-80, 2023
38. A Pelella, P Romano, K Intonti, L Viscardi, O Durante, D Capista, ... A. Di Bartolomeo
Optoelectronic properties of two-dimensional α -In₂Se₃ Field Effect Transistor
2023 IEEE Nanotechnology Materials and Devices Conference (NMDC), 270-271, 2023
39. D Capista, F Giubileo, L Lozzi, N Martucciello, A Di Bartolomeo, ... A. Di Bartolomeo
SWCNT-Si photodetector with position-dependent photoresponse
2023 IEEE Nanotechnology Materials and Devices Conference (NMDC), 335-336, 2023
40. A Grillo, Z Peng, A Pelella, A Di Bartolomeo, C Casiraghi
Ink-jet Printed Graphene-Silicon Schottky Diodes
2023 IEEE Nanotechnology Materials and Devices Conference (NMDC), 863-863, 2023

2022

41. H. Beitollahi, M. B. Askari and A. Di Bartolomeo
Voltammetric determination of bisphenol A at NiCo₂O₄/reduced graphene oxide nanocomposite modified electrode
International Journal of Environmental Analytical Chemistry, Dec 2022,
<http://dx.doi.org/10.1080/03067319.2022.2147836>
42. A. Grillo, Z. Peng, A. Pelella, A. Di Bartolomeo, C. Casiraghi
Etch and Print: Graphene-based Diodes for Silicon-technology
ACS Nano, Dec. 2022, <https://doi.org/10.1021/acsnano.2c10684>
43. M. B. Askari, S. Azizi, M. T. T. Moghadam, M. Seifi, S.M. Rozati and A. Di Bartolomeo
MnCo₂O₄/NiCo₂O₄/rGO as a Catalyst Based on Binary Transition Metal Oxide for the Methanol Oxidation Reaction
Nanomaterials 12 (2022) 4072
44. M.B. Askari, M.T.T. Moghadam, S. Azizi, S.R.S. Hashemi, M. Shojaeifar, A. Di Bartolomeo
CeO₂-NiO-rGO as a nano-electrocatalyst for methanol electro-oxidation
Journal of Physics D: Applied Physics 55 (2022) 505501
45. F. Giubileo, A. Pelella, A. Grillo, E. Faella, S. Slezione, O. Kharsah, M. Schleberger and A. Di Bartolomeo
Characterization of the electric transport properties of black phosphorous back-gated field-effect transistors
Journal of Physics: Conference Series 2353 (2022) 012005
46. N. Askari, M.B. Askari, A. Di Bartolomeo
Electrochemical Alcohol Oxidation and Biological Properties of Mn₃O₄-Co₃O₄-rGO
Journal of The Electrochemical Society, 169 (2022) 106511
47. H. Beitollahi, M.B. Askari, A. Di Bartolomeo
Voltammetric determination of bisphenol A at NiCo₂O₄/reduced graphene oxide nanocomposite modified electrode
International Journal of Environmental Analytical Chemistry, 2022 in press
48. A. Longo, A. Di Bartolomeo, E. Faella, A. Pelella, F. Giubileo, A. Sorrentino, M. Palomba, G. Carotenuto, G. Barucca, A. Tagliaferro, U. Coscia
Temperature dependence of electrical resistance in graphite films deposited on glass and low density polyethylene by spray technology
Coatings 12 (2022) 1446, Feature article
49. H. Beitollahi, F. Garkani Nejad, S. Tajik, A. Di Bartolomeo
Screen printed graphite electrode modified with graphene-Co₃O₄ nanocomposite: voltammetric assay of morphine in the presence of diclofenac in pharmaceutical and biological samples
Nanomaterials 12 (2022) 3454
50. P. Romano, F. Avitabile, A. Di Bartolomeo, F. Giubileo
Point contact spectroscopy: a powerful technique for the low temperature characterization of superconducting materials
IEEE Xplore, 2022 IEEE 9th International Workshop on Metrology for AeroSpace (MetroAeroSpace) Pisa, Italy, 27-29 June 2022, Page(s):532 – 537, DOI: 10.1109/MetroAeroSpace54187.2022.9856099
51. S. Tajik, Z. Dourandish, F. Garkani Nejad, H. Beitollahi, P. Mohammadzadeh Jahani, A. Di Bartolomeo
Transition metal dichalcogenides: Synthesis and use in the development of electrochemical sensors and biosensors
Biosensors and Bioelectronics, 216 (2022) 114674
52. P. Mohammadzadeh Jahani, H. Beitollahi, A. Di Bartolomeo
Voltammetric sensor for the determination of hydroxylamine at polypyrrole nanotubes modified electrode
Applied Sciences 12 (2022) 7485
53. A. Di Bartolomeo
Electronic Nanodevices
Nanomaterials 12 (2022) 2125.
54. F. Giubileo, E. Faella, A. Pelella, A. Kumar, D. Capista, M. Passacantando, S. S. Kim, A. Di Bartolomeo
SnO₂ Nanofibers Network for Cold Cathode Applications in Vacuum Nanoelectronics
Advanced Electronic Materials 2022, 2200237, <https://doi.org/10.1002/aelm.202200237>, In press
55. P. Mohammadzadeh Jahani, H. Beitollahi, F. Garkani Nejad, Z. Dourandish, A. Di Bartolomeo.
Screen-printed Graphite Electrode Modified with Co₃O₄ Nanoparticles and 2D Graphitic Carbon Nitride as an Effective Electrochemical Sensor for 4-Aminophenol Detection

- Nanotechnology**, 2022, <https://doi.org/10.1088/1361-6528/ac779f> In press
56. M. Shojaeifar, M. B. Askari, S. R. S. Hashemi, A. Di Bartolomeo
MnO₂-NiO-MWCNTs nanocomposite as a catalyst for methanol and ethanol electrooxidation
Journal of Physics D: Applied Physics 55 (2022) 355502
57. E. Faella, K. Intonti, L. Viscardi, F. Giubileo, A. Kumar, H. T. Lam, K. Anastasiou, M. F. Craciun, S. Russo and A. Di Bartolomeo
Electric Transport in Few-Layer ReSe₂ Transistors Modulated by Air Pressure and Light
Nanomaterials 12 (2022) 1886 (feature paper) – Selected by Nanomaterials as one of the Top 10 Papers in 2022 in the Section "Nanoelectronics, Nanosensors and Devices".
58. A. Grillo, A. Pelella, E. Faella, F. Giubileo, S. Sleziona, O. Kharsah, M. Schleberger, A. Di Bartolomeo
Memory effects in black phosphorus field effect transistors
2D Materials 9 (2022) 015028
59. A. M. Diez-Pascual, A. Di Bartolomeo, G. Chen
Selected Papers from the Second International Online Conference on Nanomaterials
Nanomaterials 12 (2022) 302
60. D. Capista, M. Passacantando, L. Lozzi, E. Faella, F. Giubileo, A. Di Bartolomeo
Easy Fabrication of Performant SWCNT-Si Photodetector
Electronics 11 (2022) 271
61. M. Shahsavari, P. M. Jahani, I. Sheikhshoae, S. Tajik, A. Aghaei Afshar, M. B. Askari, P. Salarizadeh, A. Di Bartolomeo, H. Beitollahi
Green Synthesis of Zeolitic Imidazolate Frameworks: A Review of Their Characterization and Industrial and Medical Applications
Materials 15 (2022) 447
62. S. Tajik, M.B. Askari, S.A. Ahmadi, F.G. Nejad, Z. Dourandish, R. Razavi, H. Beitollahi, A. Di Bartolomeo
Electrochemical Sensor Based on ZnFe₂O₄/RGO Nanocomposite for Ultrasensitive Detection of Hydrazine in Real Samples
Nanomaterials 12 (2022) 491
63. P. Salarizadeh, M.B. Askari, A. Di Bartolomeo
MoS₂/Ni₃S₂/Reduced Graphene Oxide Nanostructure as a an Electrocatalyst for Alcohol Fuel Cell
ACS Applied Nano Materials, 2022, xx, xx, xx-xx, <https://doi.org/10.1021/acsanm.1c03946>
64. Z. Dourandish, S. Tajik, H. Beitollahi, P. M. Jahani, F. Garkani Nejad, I. Sheikhshoae and A. Di Bartolomeo
A Comprehensive Review of Metal–Organic Framework: Synthesis, Characterization, and Investigation of Their Application in Electrochemical Biosensors for Biomedical Analysis
Sensors 2022, 22, 2238.
Manuscript No.: ie-2022-00370m (10.1021/acs.iecr.2c00370)
65. S. Tajik, A.A. Afshar, S. Shamsaddini, M.B. Askari, Z. Dourandish, F.G. Nejad, H. Beitollahi, A. Di Bartolomeo
Fe₃O₄@MoS₂/rGO Nanocomposite/Ionic Liquid Modified Carbon Paste Electrode for Electrochemical Sensing of Dasatinib in the Presence of Doxorubicin
Industrial & Engineering Chemistry Research 2022, xx, xx-xx, <https://doi.org/10.1021/acs.iecr.2c00370>
66. M. B. Askari, S. M. Rozati, and A. Di Bartolomeo
Fabrication of Mn₃O₄-CeO₂-rGO as Nanocatalyst for Electro-Oxidation of Methanol
Nanomaterials 2022,12, 1187 (Feature paper)
67. S. Tajik, Z. Dourandish, F. Garkani Nejad, Hadi Beitollahi, A. Aghaei Afsha, P. Mohammadzadeh Jahani and A. Di Bartolomeo
Review—Single-Atom Catalysts as Promising Candidates for Single-Atom Catalysts as Promising Candidates for Electrochemical Applications
Journal of the Electrochemical Society, 169 (2022) 046504
68. P. Mohammadzadeh Jahani, M.R. Aflatoonian, R. Abbasi Rayeni, A. Di Bartolomeo, S.Z. Mohammadi
Graphite carbon nitride-modified screen-printed electrode as a highly sensitive and selective sensor for detection of amaranth
Food and Chemical Toxicology 163 (2022) 112962
69. H Beitollahi, S Tajik, A Di Bartolomeo

Application of MnO₂ Nanorod–Ionic Liquid Modified Carbon Paste Electrode for the Voltammetric Determination of Sulfanilamide

Micromachines 13 (2022) 598

70. H. Moradpour, H. Beitollahi, F. Garkani Nejad and A. Di Bartolomeo

Glassy Carbon Electrode Modified with N-Doped Reduced Graphene Oxide Sheets as an Effective Electrochemical Sensor for Amaranth Detection

Materials 15 (2022) 3011

2021

71. M. B. Askari, P. Salarizadeh, A. Di Bartolomeo

NiCo₂O₄-rGO/Pt as a robust nanocatalyst for sorbitol electrooxidation

International Journal of Energy Research, (2021) 1-10, <https://doi.org/10.1002/er.7614>

72. F. Giubileo, A. Grillo, A. Pelella, E. Faella, L. Camilli, J.B. Sun, D. Capista, M. Passacantando, A. Di Bartolomeo

Germanium arsenide nanosheets applied as two-dimensional field emitters

Journal of Physics: Conference Series 2047 (2021) 012021

73. M.B. Askari, S.M. Rozati, P. Salarizadeh, H. Saeidfirozeh, A. Di Bartolomeo

A remarkable three-component RuO₂-MnCo₂O₄/rGO nanocatalyst towards methanol electrooxidation

International Journal of Hydrogen Energy 46 (2021) 36792-36800

74. S. Tajik, H. Beitollahi, S.a. Ahmadi, M.B. Askari, A. Di Bartolomeo

Screen-Printed Electrode Surface Modification with NiCo₂O₄/RGO Nanocomposite for Hydroxylamine Detection

Nanomaterials 11 (2021) 3208 (*feature paper and Top 10 Selected Papers in 2020–2021 in the Section “2D and Carbon Nanomaterials” on Nanomaterials*).

75. A. Grillo, E. Faella, A. Pelella, F. Giubileo, L. Ansari, F. Gity, P.K. Hurley, N. McEvoy, and A. Di Bartolomeo

Coexistence of negative and positive photoconductivity in few-layer PtSe₂ field-effect transistors

Advanced Functional Materials 31 (2021) 2105722

76. A. Pelella, A. Grillo, E. Faella, G. Luongo, M. B. Askari, and A. Di Bartolomeo

Graphene-silicon device for visible and infrared photodetection

ACS Applied Materials & Interfaces 13(40), 2021, 47895–47903

77. M. B. Askari, P. Salarizadeh, A. Beheshti-Marnani, A. Di Bartolomeo

NiO-Co₃O₄-rGO as an efficient electrode material for supercapacitor and direct alcoholic fuel cells

Advanced Materials and Interfaces 8 (2021) 2100149

78. A. Di Bartolomeo, A. Pelella, A. Grillo, F. Urban, L. Iemmo, E. Faella, N. Martucciello, F. Giubileo

Vacuum gauge from ultrathin MoS₂ transistor

In: Di Francia G., Di Natale C. (eds) **Sensors and Microsystems**. AISEM 2020. Lecture Notes in Electrical Engineering, vol 753. Springer, Cham., 11 May 2021, https://doi.org/10.1007/978-3-030-69551-4_7

79. M. Askari, P. Salarizadeh, A. Di Bartolomeo, F. Şen

Enhanced electrochemical performance of MnNi₂O₄/rGO nanocomposite as pseudocapacitor electrode material and methanol electro-oxidation catalyst

Nanotechnology 32 (2021) 325707

80. A. Di Bartolomeo, F. Urban, E. Faella, A. Grillo, A. Pelella, F. Giubileo, M.B. Askari, N. McEvoy, F. Gity, and P. K. Hurley

PtSe₂ phototransistors with negative photoconductivity

Journal of Physics: Conference Series 1866 (2021) 012001

81. F. Giubileo, E. Faella, A. Pelella, A. Grillo, M. Passacantando, R. LaPierre, C. Goosney, A. Di Bartolomeo

Characterization of InSb nanopillars for field emission applications

Journal of Physics: Conference Series 1765 (2021) 012004

82. M. B. Askari, P. Salarizadeh, A. Di Bartolomeo, M. H. Ramezan zadeh, H. Beitollahi, and S.Tajik

Hierarchical nanostructures of MgCo₂O₄ on reduced graphene oxide as a high-performance catalyst for methanol electro-oxidation

Ceramics International 47 (2021) 16079-16085

83. A. Pelella, A. Grillo, F. Urban, F. Giubileo, M. Passacantando, E. Pollmann, S. Sleziona, M. Schleberger, and A.Di Bartolomeo

Gate-controlled field emission current from MoS₂ nanosheets

- Advanced Electronic Materials** 7 (2021) 2000838.
84. A. Di Bartolomeo, A. Grillo, F. Giubileo, L. Camilli, J. Sun, D. Capista, M. Passacantando, *Field emission from two-dimensional GeAs*
Journal of Physics D: Applied Physics 54 (2021) 105302
85. A. Grillo and A. Di Bartolomeo
A current-voltage model for double Schottky barrier devices
Advanced Electronic Materials, 7 (2021) 2000979.
86. M. B. Askari, M. Seifi, P. Salarizadeh, M. H Ramezan zadeh and A. Di Bartolomeo
ZnFe₂O₄ nanorods on reduced graphene oxide as advanced supercapacitor electrodes
Journal of Alloys and Compounds, 860 (2021) 158497
87. Giubileo, F., Faella, E., Pelella, A., ...Passacantando, M., Di Bartolomeo, A.
2D transition metal dichalcogenides nanosheets as gate modulated cold electron emitters
Proceedings of the IEEE Conference on Nanotechnology, 2021, 2021-July, pp. 189–192
88. Di Bartolomeo, A., Grillo, A., Pelella, A., ...Martucciello, N., Giubileo, F.
Modification of contacts and channel properties in two-dimensional field-effect transistors by 10 keV electron beam irradiation
Proceedings of the IEEE Conference on Nanotechnology, 2021, 2021-July, pp. 165–168
89. U. Coscia, A. Longo, M. Palomba, A. Sorrentino, G. Barucca, A. Di Bartolomeo, F. Urban, G. Ambrosone, G. Carotenuto
Influence of the Thermomechanical Characteristics of Low-Density Polyethylene Substrates on the Thermoresistive Properties of Graphite Nanoplatelet Coatings
Coatings 2021, 11, 332. *Feature article*

2020

90. A Di Bartolomeo, A Pelella, F Urban, A Grillo, L Iemmo, M Passacantando, X Liu, F Giubileo
Field emission in ultrathin PdSe₂ back-gated transistors
Advanced Electronic Materials 6 (2020) 2000094
91. A. Di Bartolomeo, A. Pelella, A. Grillo, F. Urban, F. Giubileo
Air pressure, gas exposure and electron beam irradiation of 2D transition-metal dichalcogenides
Applied Sciences 2020, 10, 5840
92. A Di Bartolomeo, F Urban, A Pelella, A Grillo, M Passacantando, X Liu, F Giubileo
Electron irradiation on multilayer PdSe₂ field effect transistors
Nanotechnology 31 (2020) 375204
93. A. Di Bartolomeo
Emerging 2D Materials and Their Van Der Waals Heterostructures
Nanomaterials 2020 (2020) 579
94. A. Di Bartolomeo
Welcome to Nano Express
Nano Express 1 (2020) 010201
95. F. Giubileo, A. Di Bartolomeo, Y. Zhong, S. Zhao, M. Passacantando
Field emission from AlGa_N nanowires with low turn-on field
Nanotechnology 31 (2020) 475702
96. A. Grillo, M. Passacantando, Z. Alla, A. Pelella, and A. Di Bartolomeo
WS₂ nanotubes: Electrical conduction and field emission under electron irradiation and mechanical stress
Small 16 (2020) 202002880
97. F. Giubileo, M. Passacantando, F. Urban, A. Grillo, L. Iemmo, A. Pelella, C. Goosney, R. LaPierre, A. Di Bartolomeo
Field emission characteristics of InSb patterned nanowires
Advanced Electronic Materials 6 (2020) 202000402
98. X. Li, X. Zhang, H. Park and A. Di Bartolomeo
Electronics and Optoelectronics of Graphene and Related 2D Materials
Frontiers in Materials – Thin solid films 7 (2020) 235.
99. A. M. Ghadiri, M. Bagherzadeh, N. Rabiee, M. Kiani, Y. Fatahi, A. Di Bartolomeo, R. Dinarvand, T. J Webster
Green synthesis of CuO- and Cu₂O-NPs in assistance with high-gravity: The flowering of Nanobiotechnology
Nanotechnology 31 (2020) 425101

100. A Pelella, O Kharsah, A Grillo, F Urban, M Passacantando, F Giubileo, L Iemmo, S Sleziona, E Pollmann, L Madauß, M Schleberger, and A Di Bartolomeo
Electron irradiation of metal contacts in monolayer MoS₂ Field-Effect Transistors
ACS Applied Materials and Interfaces 2020, 12 (36) 40532–40540
101. L. Iemmo, F. Urban, F. Giubileo, M. Passacantando, and A. Di Bartolomeo
Nanotip contacts for electric transport and field emission characterization of ultrathin MoS₂ flakes
Nanomaterials 10 (2020) 106 (**Feature Article**)
102. F. Urban, G. Lupina, A. Grillo, N. Martucciello, and A. Di Bartolomeo
Contact resistance and mobility in back-gate graphene transistors
Nano Express 1 (2020) 010001
103. A. Grillo, A. Di Bartolomeo, F. Urban, M. Passacantando, J. Caridad, J Sun, L. Camilli
Observation of 2D conduction in ultrathin germanium arsenide field-effect transistors
ACS Applied Materials & Interfaces 12 (2020) 12998-13004
104. J. Sun, M. Passacantando, M. Palummo, J. Caridad, A. Grillo, A. Di Bartolomeo, L. Camilli
Impact of impurities on the electrical conduction of in-plane anisotropic 2D materials
Physical Review Applied, 13 (2020) 044063
105. V. Bugatti, G. Viscusi, A. Di Bartolomeo, L. Iemmo, D. C. Zampino, V. Vittoria and G. Gorrasi
Liquid as Dispersing Agent of LDH-Carbon Nanotubes into a Biodegradable Vinyl Alcohol Polymer
Polymers 12 (2020) 495
106. P. Romano, F. Avitabile, A. Nigro, G. Grimaldi, A. Leo, L. Shu, J. Zhang, A. Di Bartolomeo, F. Giubileo
Transport and point-contact measurements on Pr(1-x)CexPt4Ge12 superconducting polycrystals
Nanomaterials, 10 (2020) 1810
107. F. Urban, F. Gity, P. Hurley, N. McEvoy, and A. Di Bartolomeo
Isotropic conduction and negative photoconduction in ultrathin PtSe₂ films
Applied Physics Letters, 117 (2020) 193102
108. A. Di Bartolomeo, A. Pelella, A. Grillo, F. Urban, L. Iemmo, E. Faella, N. Martucciello, F. Giubileo
Vacuum gauge from ultrathin MoS₂ transistor
Sensors and Microsystems, Lecture Notes in Electrical Engineering, Springer, in stampa, accettato il 14/9/2020
109. A. Di Bartolomeo, L. Iemmo, F. Urban, M. Palomba, G. Carotenuto, A. Longo, A. Sorrentino, F. Giubileo, G. Barucca, M. Rovere, A. Tagliaferro, G. Ambrosone, and U. Coscia
Graphite Platelet Films Deposited by Spray Technique on Low Density Polyethylene Substrates
Materials Today: Proceedings 20 (2020) 87-90
110. A. Grillo, F. Giubileo, L. Iemmo, G. Luongo, F. Urban, M. Passacantando and A. Di Bartolomeo
Field emission from mono and two-dimensional nanostructures
Materials Today: Proceedings 20 (2020) 64-68
111. F. Giubileo, A. Grillo, L. Iemmo, G. Luongo, F. Urban, M. Passacantando, A. Di Bartolomeo
Environmental Effects on Transport Properties of PdSe₂ Field Effect Transistors
Materials Today: Proceedings 20 (2020) 50-53
112. G. Luongo, A. Grillo, F. Urban, L. Iemmo, F. Giubileo and A. Di Bartolomeo
Effect of silicon doping on graphene/silicon Schottky photodiodes
Materials Today: Proceedings 20 (2020) 82-86
113. A. Di Bartolomeo, F. Urban, A. Pelella, A. Grillo, L. Iemmo, E. Faella, F. Giubileo
Electrical transport in two-dimensional PdSe₂ and MoS₂ nanosheets
2020 IEEE 20th International Conference on Nanotechnology (IEEE-NANO), Montreal, QC, Canada, 2020, pp. 276-281, doi: 10.1109/NANO47656.2020.9183617
114. F. Giubileo, M. Passacantando, Y. Zhong, S. Zhao, A. Di Bartolomeo
Field emission properties of molecular beam epitaxy grown AlGa_N nanowires
2020 IEEE 20th International Conference on Nanotechnology (IEEE-NANO), Montreal, QC, Canada, 2020, pp. 271-275, doi: 10.1109/NANO47656.2020.9183704

2019

115. A. Di Bartolomeo, F. Giubileo, A. Grillo, G. Luongo, L. Iemmo, F. Urban, L. Lozzi, D. Capista, M. Nardone and M. Passacantando
Bias Tunable Photocurrent in Metal-Insulator-Semiconductor Heterostructures with Photoresponse Enhanced by Carbon Nanotubes

Nanomaterials 9 (2019) 1598 (**Feature Article**)

116. M. Palomba, G. Carotenuto, A. Longo, A. Sorrentino, A. Di Bartolomeo, L. Iemmo, F. Urban, F. Giubileo, G. Barucca, M. Rovere, A. Tagliaferro, G. Ambrosone and U. Coscia

Thermoresistive Properties of Graphite Platelet Films Supported by Different Substrates

Materials 12(2019) 3638

117. F. Urban, F. Giubileo, A. Grillo, L. Iemmo, G. Luongo, M. Passacantando, T. Foller, L. Madauß, E. Pollmann, M. Geller, D. Oing, M. Schleberger and A. Di Bartolomeo

Gas dependent hysteresis in MoS₂ field effect transistors

2D Materials 6 (2019) 045049

118. A. Di Bartolomeo, A. Pelella, X. Liu, F. Miao, M. Passacantando, F. Giubileo, A. Grillo, L. Iemmo, F. Urban, and S-J Liang

Pressure-Tunable Ambipolar Conduction and Hysteresis in Thin Palladium Diselenide Field Effect Transistors

Advanced Functional Materials 29 (2019) 1902483

119. G. Grillo, J. Barrat, Z. Galazka, M. Passacantando, F. Giubileo, L. Iemmo, G. Luongo, F. Urban, C. Dubourdieu, and A. Di Bartolomeo

High field-emission current density from β -Ga₂O₃ nanopillars

Applied Physics Letters 114 (2019) 193101 (*highlighted in top articles in the Low Dimensional Materials and Nanotechnologies by APL*)

120. F. Giubileo, A. Grillo, M. Passacantando, F. Urban, L. Iemmo, G. Luongo, A. Pelella, M. Loveridge, L. Lozzi, and A. Di Bartolomeo

Field Emission Characterization of MoS₂ Nanoflowers

Nanomaterials 9 (2019) 717

121. G. Luongo, A. Grillo, F. Giubileo, L. Iemmo, M. Lukosius, C. Alvarado Chavarin, C. Wenger, and A. Di Bartolomeo

Graphene Schottky Junction on Pillar Patterned Silicon Substrate

Nanomaterials 9 (2019) 659

122. F. Giubileo, L. Iemmo, M. Passacantando, F. Urban, G. Luongo, L. Sun, G. Amato, E. Enrico, and A. Di Bartolomeo

Effect of Electron Irradiation on the Transport and Field Emission Properties of Few-Layer MoS₂ Field Effect Transistors

The Journal of Physical Chemistry C 123 (2019) 1454–1461

123. A. Di Bartolomeo, F. Urban, M. Passacantando, N. McEvoy, L. Peters, L. Iemmo, G. Luongo, F. Romeo, and F. Giubileo

A WSe₂ vertical field emission transistor

Nanoscale 11 (2019) 1538-1548

124. C. Giordano, G. Filatella, M. Sarno and A. Di Bartolomeo

Multi-walled carbon nanotube films for the measurement of the alcoholic concentration

Micro & Nano Letters 14 (2019) 304-308

125. A. Grillo, F. Giubileo, L. Iemmo, G. Luongo, F. Urban, A. Di Bartolomeo

Space charge limited current and photoconductive effect in few-layer MoS₂

Journal of Physics: Conference Series, 1226 (2019) 012013

126. F. Urban, M. Passacantando, F. Giubileo, L. Iemmo, G. Luongo, A. Grillo, A. Di Bartolomeo

Two-dimensional effects in Fowler-Nordheim field emission from transition metal dichalcogenides

Journal of Physics: Conference Series 1226 (2019) 0120189

127. A. Di Bartolomeo, L. Iemmo, F. Giubileo, G. Luongo, F. Urban, A. Grillo

Persistent photoconductivity, hysteresis and field emission in MoS₂ back-gate field-effect transistors

2018 IEEE 13th Nanotechnology Materials and Devices Conference, NMDC 20188 January 2019, Article number 8605928

2018

128. F. Urban, N. Martucciello, L. Peters, N. McEvoy and A. Di Bartolomeo

Environmental Effects on the Electrical Characteristics of Back-Gated WSe₂ Field-Effect Transistor

Nanomaterials 8 (2018) 901 (**Feature paper**)

129. F. Romeo, A. Di Bartolomeo

Scattering Theory of Graphene Grain Boundaries

Materials 11 (2018) 1660

130. A. Di Bartolomeo, G. Luongo, L. Iemmo, F. Urban, F. Giubileo

Graphene-silicon Schottky heterojunctions for optoelectronic applications

Innovative Energy & Research 7 (2018) 70-71 DOI: 10.4172/2576-1463-C1-002

131. A. Di Bartolomeo, L. Iemmo, F. Giubileo, G. Luongo, F. Urban, A. Grillo

Persistent Photoconductivity, Hysteresis and Field Emission in MoS₂ Back-Gate Field-Effect Transistors

Proceedings of the 2018 IEEE 13th Nanotechnology Materials and Devices Conference (NMDC), 14-17

Oct. 2018, Portland, OR, USA, pp.1-2. DOI: 10.1109/NMDC.2018.8605928

132. A. Di Bartolomeo, G. Luongo, L. Iemmo, F. Urban, F. Giubileo

Graphene Schottky diodes for photodetection

IEEE Transactions on Nanotechnology 17 (2018) 1133-1137

133. A. Di Bartolomeo, A. Grillo, F. Urban, L. Iemmo, F. Giubileo, G. Luongo, G. Amato, L. Croin, L. Sun, S.-J. Liang, L K Ang

Asymmetric Schottky Contacts in Bilayer MoS₂ Field Effect Transistors

Advanced Functional Materials 28 (2018) 1800657

134. G. Luongo, A. Di Bartolomeo, F. Giubileo, C. Alvarado, C. Wenger

Electronic properties of Graphene/p-Silicon Schottky junction

Journal of Physics D: Applied Physics 51 (2018) 255305 (8pp)

135. F. Giubileo, A. Di Bartolomeo, L. Iemmo, G. Luongo, F. Urban

Field emission from carbon nanostructures

Applied Sciences 8 (2018) 526 (**Feature paper**)

136. F. Giubileo, F. Romeo, A. Di Bartolomeo, Y. Mizuguchi, P. Romano

Probing unconventional pairing in LaO_{0.5}F_{0.5}BiS₂ layered superconductor by point contact spectroscopy

Journal of Physics and Chemistry of Solids, 118 (2018) 192-199

137. F. Urban, M. Passacantando, F. Giubileo, L. Iemmo, A. Di Bartolomeo

Transport and Field Emission Properties of MoS₂ Bilayers

Nanomaterials 8 (2018) 151 (pp 10)

138. C. Alvarado Chavarin, C. Strobel, J. Kitzmann, A. Di Bartolomeo, M. Lukosius, M. Albert, J. W. Bartha, C. Wenger

Current Modulation of a Heterojunction Structure by an Ultra-Thin Graphene Base Electrode

Materials 11 (2018) 345 (11 pp)

139. G. Luongo, F. Giubileo, L. Iemmo, A. Di Bartolomeo

The role of the substrate in Graphene/Silicon photodiodes

Journal of Physics: Conference Series 956 (2018) 012019 (6 pp)

140. A. Di Bartolomeo, L. Genovese, F. Giubileo, L. Iemmo, G. Luongo, T. Foller, M. Schleberger

Hysteresis in the transfer characteristics of MoS₂ transistors

2D Materials 5 (2018) 015014 (pp 9)

141. G. Gorrasi, V. Bugatti, C. Milone, E. Mastronardo, E. Piperopoulos, L. Iemmo and A. Di Bartolomeo

Effect of temperature and morphology on the electrical properties of PET/conductive nanofillers composites

Composites part B 135 (2018) 149–154

2017

142. L. Iemmo, A Di Bartolomeo, F Giubileo, G Luongo, M Passacantando, G Niu, F Hatami, O Skibitzki and T Schroeder

Graphene enhanced field emission from InP Nanocrystals

Nanotechnology 28 (2017) 495705 (6pp)

143. A. Di Bartolomeo, G. Luongo, F. Giubileo, N. Funicello, G. Niu, T. Schroeder, M. Lisker, G. Lupina

Hybrid graphene/silicon Schottky photodiode with intrinsic gating effect

2D Materials 4 (2017) 025075

144. A. Di Bartolomeo, F. Giubileo, G. Luongo, L. Iemmo, N. Martucciello, G. Niu, M. Fraschke, O. Skibitzki, T. Schroeder, and G. Lupina

Tunable Schottky barrier and high responsivity in graphene/Si-nanotip optoelectronic device

2D Materials, 4 (2017) 015024

145. F. Giubileo, A. Di Bartolomeo, L. Iemmo, G. Luongo, M. Passacantando, E. Koivusalo, T.V. Hakkarainen, M. Guina

Field Emission from Self-Catalyzed GaAs Nanowires

Nanomaterials 7 (2017) 275

146. F. Giubileo and A. Di Bartolomeo

The role of contact resistance in graphene field-effect devices

Progress in Surface Science 92 (3), 143-175

147. G. Luongo, F. Giubileo, L. Genovese, L. Iemmo, N. Martucciello and A. Di Bartolomeo

I-V and C-V Characterization of a High-Responsivity Graphene/Silicon Photodiode with Embedded MOS Capacitor

Nanomaterials 7 (2017) 158 (Feature paper)

148. F. Giubileo, N. Martucciello and A. Di Bartolomeo

Focus on graphene and 2D materials

Nanotechnology 28 (2017) 410201

149. A. Di Bartolomeo, L. Genovese, T. Foller, F. Giubileo, G. Luongo, L. Croin, S. Liang, L.-K. Ang, M. Schleberger

Electrical transport and persistent photoconductivity in monolayer MoS₂ phototransistors

Nanotechnology 28 (2017) 214002

150. S. J. Liang, W. Hu, A. Di Bartolomeo, S. Adam, L.K. Ang

A modified Schottky model for graphene-semiconductor (3D/2D) contact: A combined theoretical and experimental study

Technical Digest - International Electron Devices Meeting, IEDM 2017, 7838416, pp14.4.1-14.4.4

151. F. Giubileo, L. Iemmo, G. Luongo, N. Martucciello, M. Raimondo, L. Guadagno, M. Passacantando, K. Lafdi, and A. Di Bartolomeo

Transport and field emission properties of buckypapers obtained from aligned carbon nanotubes

Journal of Materials Science 52 (2017) 6459–6468

2016

152. A. Di Bartolomeo, M. Passacantando, G. Niu, V. Schlykow, G. Lupina, F. Giubileo and T. Schroeder

Observation of field emission from GeSn nanoparticles epitaxially grown on silicon nanopillar arrays

Nanotechnology 27 (2016) 485707

153. A. Di Bartolomeo, F. Giubileo, L. Iemmo, F. Romeo, S. Russo, S. Unal, M. Passacantando, V. Grossi and A. M. Cucolo

Leakage and field emission in side-gate graphene field effect transistors

Applied Physics Letters 109 (2016) 023510

154. A. Di Bartolomeo

Graphene Schottky diodes: an experimental review of the rectifying graphene semiconductor heterojunction

Physics Reports 606 (2016) 1-58

155. G. Niu, G. Capellini, F. Hatami, A. Di Bartolomeo, T. Niermann, E. H. Hussein, M. A. Schubert, H.-M.

Krause, P. Zaumseil, O. Skibitzki, G. Lupina, W. Ted Masselink, M. Lehmann, Y-H Xie, T. Schroeder

Selective Epitaxy of InP on Si and Rectification in Graphene/InP/Si Hybrid Structure

ACS Appl. Mater. Interfaces, 2016, 8 (40), pp 26948–26955

156. S.-J. Liang, W. Hu, A. Di Bartolomeo, S. Adam, L.K. Ang

A new perspective on the nature of graphene- semiconductor (3D/2D) Schottky contact: A combined theoretical and experimental approach

IEEE International Electron Devices Meeting (IEDM), Dec. 2016

157. F. Giubileo, A. Di Bartolomeo, N. Martucciello, F. Romeo, L. Iemmo, P. Romano, M. Passacantando

Contact Resistance and Channel Conductance of Graphene Field-Effect transistors under Low-Energy Electron Irradiation

Nanomaterials 6 (2016) 206

2015

158. A. Di Bartolomeo, F. Giubileo, F. Romeo, P. Sabatino, G. Carapella, L. Iemmo, T. Schroeder, G. Lupina

Graphene field effect transistors with niobium contacts and asymmetric transfer characteristics

Nanotechnology 26 (2015) 475202 (9pp)

159. F. Romeo, F. Giubileo, R. Citro, A. Di Bartolomeo, C. Attanasio, C. Cirillo, A. Polcari, P. Romano

Resonant Andreev Spectroscopy in normal-Metal/thin-Ferromagnet/Superconductor Device: Theory and Application

Scientific Reports 5 (2015) 17544 pp 9

2014

160. F. Giubileo, F. Romeo, R. Citro, A. Di Bartolomeo, C. Attanasio, C. Cirillo, A. Polcari, P. Romano
Point Contact Andreev Reflection Spectroscopy on Ferromagnet/Superconductor Bilayers
Physica C: Superconductivity and its applications 503 (2014) 158-161

2013

161. A. Di Bartolomeo, F. Giubileo, L. Iemmo, F. Romeo, S. Santandrea, U. Gambardella
Transfer characteristics and contact resistance in Ni- and Ti-contacted graphene-based field-effect transistors
Journal of Physics: Condensed Matter 25 (2013) 155303

162. A. Di Bartolomeo, S. Santandrea, F. Giubileo, F. Romeo, M. Petrosino, R. Citro, P. Barbara, G. Lupina, T. Schroeder, A. Rubino
Effect of back-gate on contact resistance and on channel conductance in graphene-based field-effect transistors
Diamond and Related Materials 38 (2013) 19-23

2012

163. L. Guadagno, M. Raimondo, C. Naddeo, A. Di Bartolomeo, K. Lafdi
Influence of multiwall carbon nanotubes on morphological and structural changes during UV irradiation of syndiotactic polypropylene films

Journal of Polymer Science – Part B Polymer Physics 50 (2012) 963-975

164. F. Giubileo, A. Di Bartolomeo, M. Sarno, C. Altavilla, S. Santandrea, P. Ciambelli, A.M. Cucolo
Field emission properties of as-grown multiwalled carbon nanotube films
Carbon 50 (2012) 163-169

2011

165. A. Di Bartolomeo, F. Giubileo, S. Santandrea, A. Romeo, R. Citro, T. Schroeder, G. Lupina
Charge transfer and partial pinning at the contacts as origin of a double dip in the transfer characteristic of graphene based field-effect transistors

Nanotechnology 22 (2011) 275702

166. S. Santandrea, F. Giubileo, V. Grossi, S. Santucci, M. Passacantando, T. Schroeder, G. Lupina, and A. Di Bartolomeo

Field emission from single and few-layer graphene flakes

Applied Physics Letters 98 (2011) 163109

167. F. Romeo, R. Citro, A. Di Bartolomeo

Effects of impurities on Fabry-Perot physics of ballistic carbon nanotubes

Physical Review B 84 (2011) 153408

168. M. Funaro, A. Di Bartolomeo, P. Pelosi, M. Sublimi Saponetti, A. Proto

Dosimeter based on silver-nanoparticle precursors for medical applications with linear response over a wide dynamic range

Micro & Nano Letters 6 (2011) 759–762

169. L. Guadagno, B. De Vivo, A. Di Bartolomeo, P. Lamberti, A. Sorrentino, V. Tucci, L. Vertuccio, V. Vittoria

Effect of functionalization on thermo-mechanical and electrical behaviour of multi-wall nanotube/epoxy composites

Carbon 49 (2011) 1919-1930

2010

170. A. Di Bartolomeo, Y. Yang, M. Rinzan, A. K. Boyd, P. Barbara
Record Endurance for single-walled carbon nanotube-based memory cell

Nanoscale Research Letters 5 (2010) 1852-1855

171. A. Di Bartolomeo, M. Rinzan, A.K. Boyd, Y. Yang, L. Guadagno, F. Giubileo and P. Barbara
Electric properties and memory effects of field-effect transistors from networks of single and double walled carbon nanotube

Nanotechnology 21 (2010) 115204

172. F. Giubileo, S. Piano, A. Scarfato, F. Bobba, A. Di Bartolomeo and A. M. Cucolo

Study of the pairing symmetry in the electron-doped cuprate $Pn_{1-x}LaCe_xCuO_{4-y}$ by tunneling spectroscopy

Physica C – Superconductivity and its applications 470 (2010) 922-925

173. A.M. Cucolo, S. Piano, F. Giubileo, A. Scarfato, F. Bobba, A. Di Bartolomeo

Point Contact Spectroscopy on electron doped $Pr_{1-x}LaCe_xCuO_{4-y}$

Physica C – Superconductivity and its applications 470 (2010) s243-s244

174. F. Giubileo, S. Piano, A. Scarfato, F. Bobba, A. Di Bartolomeo and A. M. Cucolo

A tunneling spectroscopy study of the pairing symmetry in the electron-doped $Pr_{1-x}LaCe_xCuO_{4-y}$

Journal of Physics: Condensed Matter 22 (2010) 045702

2009

175. A. Di Bartolomeo, H. Ruecker, A. Fox, P. Schley, S. Lischke, K. Na

A single-poly EEPROM cell for embedded applications

Solid State Electronics 53 (2009) 644-648

176. A. Di Bartolomeo, M. Sarno, F. Giubileo, M. Sarno, C. Altavilla, D. Sannino, L. Iemmo, F. Bobba, A.M. Cucolo, P. Ciambelli

Multiwalled carbon nanotube films as small-sized temperature sensors

Journal of Applied Physics 105 (2009) 064518

177. F. Giubileo, A. Di Bartolomeo, A. Scarfato, L. Iemmo, F. Bobba, A. Cucolo, S. Santucci, M. Passacantando

Local probing of the field emission stability of vertically aligned carbon nanotubes

Carbon 47 (2009) 1074-1080

178. M. Ambrosio, ... A. Di Bartolomeo, ... (GINT collaboration)

Nanotechnology: a new era for photodetection?

Nuclear Instruments and Methods in Physics Research A 610 (2009) 1-10

179. L. Guadagno, M. Raimondo, V. Vittoria, A. Di Bartolomeo, B. De Vivo, P. Lamberti, V. Tucci

Dependence of electrical properties of polypropylene isomers on morphology and chain conformation

Journal of Physics D: Applied Physics 42 (2009) 135405

180. S. Piano, A. De Santis, F. Bobba, F. Giubileo, M. Longobardi, A. Di Bartolomeo, M. Polichetti, A. Scarfato, D. Zola, A. Vecchione, A. M. Cucolo

Structural, electrical and magnetic characterization of artificial ferromagnetic/superconducting $(La_{0.7}Ca_{0.3}MnO_3/YBa_2Cu_3O_{7-x})$ heterostructures

Journal of Physics: Condensed Matter 21 (2009) 254205

2008

181. A. Di Bartolomeo, F. Giubileo, M. Sarno, C. Altavilla, D. Sannino, L. Iemmo, D. Mancusi, F. Bobba, A.M. Cucolo, P. Ciambelli

Multiwalled carbon nanotube films as temperature nano-sensors

NSTI-Nanotech 1 (2008) 112-115

182. M. Passacantando, F. Bussolotti, S. Santucci, A. Di Bartolomeo, F. Giubileo, L. Iemmo, A.M. Cucolo

Field Emission from a selected multiwall carbon nanotube **Nanotechnology** 19 (2008) 395701

183. K. Aamodt, ... A. Di Bartolomeo, ... ALICE Collaboration *The ALICE experiment at the CERN LHC,*

Journal of Instrumentation, 3 (2008) 1-245

2007

184. A. Di Bartolomeo, A. Scarfato, F. Giubileo, F. Bobba, M. Biasiucci, A.M. Cucolo, S. Santucci, M. Passacantando

A local field emission study of partially aligned carbon-nanotubes by atomic force microscope probe

Carbon 45 (2007) 2957-2971

185. G. Gorrasi, M. Sarno, A. Di Bartolomeo, D. Sannino, P. Ciambelli, V. Vittoria

Incorporation of Carbon Nanotubes into Polyethylene by High Energy Ball Milling: Morphology and Physical Properties

Journal of Polymer Science Part B: Polymer Physics 45 (2007) 597-606

186. M. Ambrosio, A. Ambrosio, G. Ambrosone, L. Campajola, G. Cantele, U. Coscia, G. Iadonisi, D. Ninno, P. Maddalena, E. Perillo, A. Raulo, P. Russo, F. Trani, E. Esposito, F. Buonocore, A. Di Matteo, S. Santucci, M. Passacantando, M. Allegrini, P.G. Gucciardi, F. Bobba, A. Di Bartolomeo, F. Giubileo, L. Iemmo, A. Scarfato, A.M. Cucolo

Current results on the development of a carbon nanotube radiation detector

Proceeding of the 10th Conference on Astroparticle, Particle and Space Physics, **Detectors and Medical Physics Applications**, Como, Italy, 2007, p 8-18

2006

187. A. Akindinov,... A. Di Bartolomeo,...

The MRPC detector for the ALICE Time of Flight System: final design and Performances

Nuclear Physics B (Proc. Suppl.) 158 (2006) 60-65

188. A. Akindinov,... A. Di Bartolomeo,...

Study of QGP signatures with the $\phi \rightarrow K^+K^-$ signal in Pb-Pb ALICE events

European Physics Journal C 45 (2006) 669-677

189. A. Akindinov, ... A. Di Bartolomeo

Magnetic Field and Radiation Tests of a Programmable Delay Line

Astroparticle, Particle and Space Physics, World Scientif. Pub. ISBN 9789812773678

Detectors and Medical Physics Applications Vol 3 (2006) 871-875

190. A. Akindinov,... A. Di Bartolomeo,...

Quality Assurance procedures for the construction of ALICE TOF detector

Nuclear Physics B (Proc. Suppl.) 158 (2006) 78-82

191. B. Alessandro, ... A. Di Bartolomeo, ...

ALICE Physics Performance Report – Volume II

Journal of Physics G: Nuclear Particle Physics 32 (2006) 1295-2040

192. M. Ambrosio,... A. Di Bartolomeo,...

Current results on the development of a carbon nanotube radiation detector

Proceeding, 10th ICATPP Conference on Astroparticle, Particle, Space Physics, **Detectors and Medical Physics Applications**, Villa Olmo, 8-12 October, 2007

2005

193. A. Akindinov,... A. Di Bartolomeo, ...

Prototype of a cosmic muon detection system based on scintillation counters with MRS APD light readout

Nuclear Instruments and Methods in Physics Research A 555, 1-2 (2005) 65-71

194. P. Cortese, G. Dellacasa, ..., A. Di Bartolomeo ...

Alice technical design report of the computing

CERN-LHCC-2005-018, ALICE TDR 012, ISBN 92-9083-247-9, 2005, pp 104

195. H.C. Neitzert,.. A. Di Bartolomeo...

Modification of amorphous and microcrystalline silicon film properties after irradiation with MeV and GeV protons

20th European Photovoltaic Solar Energy Conference, p.1627

196. P. Cortese, G. Dellacasa, ...A. Di Bartolomeo ...

ALICE Technical Design Report on Forward Detectors: FMD, T0 and V0

CERN-LHCC-2004-025 ALICE-TDR-011, ISBN 2-9083-229-0, 2005, pp 1-176

197. E. Scapparone, A. Akindinov,... A. Di Bartolomeo ...

A multiplicity trigger based on the Time of Flight detector of Alice experiment

Electronics for LHC and Future Experiments

CERN-LHCC-ALICE (2005) 379-383

2004

198. **A. Akindinov,... A. Di Bartolomeo, ...**

Design aspects and prototype test of a very precise TDC system implemented for the multigap RPC of the ALICE-TOF

Nuclear Instruments and Methods in Physics Research A 533 (2004) 178-182

199. A. Akindinov,... A. Di Bartolomeo,...

Latest results on the performance of the multigap resistive plate chamber used for the ALICE TOF

Nuclear Instruments and Methods in Physics Research A 533 (2004) 74-78.

200. A. Akindinov,... A. Di Bartolomeo,...

Operation of the multigap resistive plate chamber using a gas mixture free of flammable components

Nuclear Instruments and Methods in Physics Research A 532 (2004) 562-565

201. A. Akindinov,... A. Di Bartolomeo,...

Results from a large sample of MRPC-strip prototypes for the ALICE TOF detector
Nuclear Instruments and Methods in Physics Research A 532 (2004) 611-621

202. A. Akindinov, ... A. Di Bartolomeo, ...

Space charge limited avalanche growth in Multigap Resistive Plate Chambers
European Physical Journal C 34 (2004) s325-s331

203. A. Akindinov, ... A. Di Bartolomeo, ...

Study of gas mixtures and ageing of the multigap resistive plate chamber used for the Alice TOF
Nuclear Instruments and Methods in Physics Research A 533 (2004) 93-97

204. F. Carminati, ... A Di Bartolomeo, ...

ALICE: Physics Performance Report, Volume I

Journal of Physics G: Nuclear Particle Physics 30 (2004)1517-1763

205. P Cortese, V. Chambert, ... A Di Bartolomeo, ...

ALICE forward detectors: FMD, TO and VO

CERN-LHCC-2004-025 ALICE-TDR-011 (2004), ISBN 2-9083-229-0, pp 150

206. P. Cortese, ... A. Di Bartolomeo, ...

Alice Technical Design Report: Trigger, Data Acquisition, High Level Trigger Control System, Alice TRD 010
CERN-LHCC-2003-062, 2004 , ISBN92-9083-217-7, pp 470

2003

207. A. Akindinov, ..., A. Di Bartolomeo, ...

Particle Identification with the Alice TOF detector at very high particle multiplicity
European Physical Journal C 32 (2003) s165-s167

208. A. Di Bartolomeo, J. Quartieri, S. Steri

Lie and Lagrange Series in Nonlinear Equations with Controlled Evolution

International Journal of Nonlinear Sciences and Numerical Simulations 4 (2003) 95-97

209. A. Di Bartolomeo, J. Quartieri, S. Steri

A Class of Nonlinear Implicit Cauchy Problems Integrated by Groebner's Method

International Journal of Nonlinear Sciences and Numerical Simulation, 4 (2003) 103-104

210. P. Antonioli, ..., A. Di Bartolomeo, ...

The Alice time of flight system

Nuclear Physics B (Proc. Suppl) 125 (2003) 193-197

211. A. Di Bartolomeo, J. Quartieri, S. Steri

Second Order Nonlinear Cauchy Problems in a Four Dimensional Space Equivalent to Evolution Cauchy Problems

Journal of Nonlinear Oscillations 6 (2003) 164-168

2002

212. A. Akindinov, ... A. Di Bartolomeo, ...

A Study of the Multigap RPC at the Gamma Irradiation Facility at CERN

Nuclear Instruments and Methods in Physics Research A 490 (2002) 58-70.

213. P. Cortese, ... A. Di Bartolomeo, ...

ALICE Addendum to the Technical Design Report of the Time of Flight System (TOF)

CERN-LHCC 2002-016, Addendum to ALICE TDR 8, 24 April 2002, ISBN 92-9083- 192-8 pp 144

214. A. Di Bartolomeo, J. Quartieri, S. Steri

Perturbed Nonlinear Evolution Problems by Generalized Lie Series Method

International Journal of Nonlinear Sciences and Numerical Simulation, 3 (2002) 75-76

2001

215. P. Cortese, ..., A. Di Bartolomeo,

Alice Technical Design Report of the Transition radiation detector

CERN-LHCC-2001-021-ALICE TDR 9, ISBN 92-9083-184-7, 2001, pp 246

1999

216. S. Amendola, E. Barbuto, C. Bozza, C. D'apolito, A. Di Bartolomeo, M. Funaro, ... *Status of Salerno Laboratory (Measurements in Nuclear Emulsion)*

arXiv hep-ex/9901034

217. S. Amendola, E. Barbuto, C. Bozza, C. D'apolito, A. Di Bartolomeo, M. Funaro, ... *SySal: System of Salerno*
arXiv hep-ex/9901031

1998

218. E. Eskut,... A. Di Bartolomeo,...
A search for $Nu_{\mu} \rightarrow Nu_{\tau}$ oscillation
Physics Letters B 424 (1998) 202-212
219. A. Di Bartolomeo
SySal: a new fully automatic system for emulsion scanning
Nuclear Instruments and Methods in Physics Research A 409 (1998) 471-476
220. P. Annis,... A. Di Bartolomeo,...
Observation of neutrino induced diffractive Ds^{+} production and subsequent decay $Ds^{*+} \rightarrow Ds \rightarrow \tau \rightarrow \mu$*
Physics Letters B 435 (1998) 458-464
221. E. Eskut,... A. Di Bartolomeo,...
Search for $\nu_{\tau} \rightarrow \nu_{\mu}$ oscillation using the τ decay modes into a single charged particle
Physics Letters B 434 (1998) 205-213.
222. A. Di Bartolomeo, F. Cassol, M. Chizhov, J.P. Dupraz, B. Friend, H. Meinhard...
Status of the Automatic Microscopes at CERN
Chorus Notes 98-006, 1998

1997

223. A Di Bartolomeo
The CHORUS Experiment: A Status Report
Dark matter in Astro-and Particle Physics 1 (1997) 670
224. G. Rosa, A. Di Bartolomeo, G. Grella, G. Romano
Automatic analysis of digitized TV images by a computer driven optical microscope
Nuclear Instruments and Methods in Physics Research A 394 (1997) 357-367
225. E. Eskut,... A. Di Bartolomeo,...
The CHORUS experiment to search for μ oscillation
Nuclear Instruments and Methods in Physics Research A 401 (1997) 7-44.
226. E. Eskut,... A. Di Bartolomeo,...
A high sensitivity short baseline experiment to search for μ oscillation-Letter of intent
CERN-SPSC/97-5 SPSC/I 213, 14/03/1997, pp 39.
227. A. Di Bartolomeo, C. Bozza, G. Iovane, P. Pelosi
Measurement of the muon flux in the CERN-SPS neutrino beam line
Chorus notes 97-030, 1997

1996

228. J. Konijn,... A. Di Bartolomeo,...
The CHORUS experiment
Nuclear Physics B (Proc. Suppl.) 48 (1996) 183-187
229. A. Di Bartolomeo
The Chorus Experiment: a status report
Dark matter in astro- and particle physics : (DARK '96) : Heidelberg, Germany, 16-20 September 1996 /
editors, H.V. Klapdor-Kleingrothaus, Y. Ramachers. Singapore; River Edge, NJ : World Scientific, c1997, p.
670-680, ISBN 981-02-3075-3.

1995

230. S. Aoki,... A. Di Bartolomeo,...
Charged particle multiplicity and transverse energy measured in 32S central interactions at 200 GeV per nucleon
Il Nuovo Cimento 108 A 9 (1995) 1125-1141

Textbooks

231. A. Di Bartolomeo (Editor)

Electronic nanodevices

MDPI Books, September 2022, ISBN 978-3-0365-5021-3 (Hbk); ISBN 978-3-0365-5022-0 (PDF)

DOI: 10.3390/books978-3-0365-5022-0

232. A. Di Bartolomeo (Editor)

2D Materials and Van der Waals Heterostructures: Physics and Applications

MDPI Books, 2020, ISBN 978-3-03928-768-0 (Pbk); ISBN 978-3-03928-769-7 (PDF)

DOI: 10.3390/books978-3-03928-769-7

233. J. Quartieri, A. Di Bartolomeo, L. Sirignano, M. Guida

Fisica 1 – Elementi di teoria ed applicazioni (1^a e 2^a edizione)

Cues Salerno, 2004, pp 373, ISBN: 88-87030-83-9

234. J. Quartieri, L. Sirignano, A. Di Bartolomeo

Fisica 2 – Elementi di teoria ed applicazioni

Cues Salerno, 2004, pp 271, ISBN: 8887030731, 9788887030730

Patents

235. A. Di Bartolomeo, D. Sannino, M. Sarno, C. Altavilla, L. Iemmo, F. Giubileo, F. Bobba, L. Longobardi, A. Scarfato, P. Ciambelli, A. M. Cucolo

Freestanding carbon nanotube network based temperature sensor

Patent n° WO/2010/016024 and 09786824.4-1236 PCT/IB2009/053426

European Patent Application EP2310820A1 (Published 20 Apr 2011)

United States Patent Application 20110210415 (Published 01 Sept 2011)

236. A. Di Bartolomeo, L. Iemmo, N. Martucciello, F. Giubileo, C. Giordano, S. Abate, G. Luongo, F. Urban, A. Barbarisi

Carbon nanotube sensors for alcoholic graduation

Italian patent granted on 23.09.2021 number 102019000018611.

Conference Talks and Posters

2024

1. Di Bartolomeo

Transistors and phototransistors with 2D transition metal dichalcogenides

Keynote talk at 12th International Conference on Nano and Materials Science (ICNMS 2024), Bangkok, Thailand, 12-15 January 2024

2023

2. A. Di Bartolomeo

Transition Metal Dichalcogenides in Field-effect Devices

Distinguished Lecture for IEEE NTC Chapter, PDPM IIITDM Jabalpur, Madhya Pradesh, India (485005), 20 dec. 2023

3. A. Di Bartolomeo

Photoconductivity and electric transport in 2D transition metal dichalcogenides

Keynote talk at Sixth IEEE International Workshop on Recent Advances in Photonics, 07-09 December 2023 - IIT Allahabad, India

4. A. Di Bartolomeo

Two-dimensional transition metal dichalcogenides in back-gated field-effect transistors

Invited seminar, Leibniz-Institut für Kristallzüchtung, IKZ, Berlin, Germany, 27 November 2023

5. A. Di Bartolomeo

Electrical conduction and photoconduction in 2D materials based transistors

CENIDE & WIN Seminar Series on 2D-MATURE, DFG IRTG 2803 & NSERC CREATE, Duisburg Essen University, Duisburg, Germany, 28 November 2023

6. A. Di Bartolomeo

The role of adsorbates on the electric transport and the photoresponse of 2D materials

Plenary talk at The 15th International Conference on Physics of Advanced Materials (ICPAM-15), Sharm El Sheikh, Egypt, 19 – 26 November 2023

7. A. Di Bartolomeo

2D materials-based field-effect transistors as photodetectors and sensors

Invited talk at 2023 IEEE NTC Forum on Nanomechanics and Machine Learning, IEEE Nanotechnology Materials and Devices Conference, NMDC 2023, Paestum, Italy, 22-25 October 2023

8. A. Di Bartolomeo

Pressure- and temperature-dependent photocurrent in 2D materials

Invited talk at EMRS European Material Research Society 2023 Fall Meeting 18-21 Sept 2023, Warsaw, Poland

9. A. Di Bartolomeo

Photoconductivity and electrical transport in two-dimensional transition metal dichalcogenides

Invited talk at Nano TR-17, 17th International Nanoscience and Nanotechnology Conference, İzmir, Turkey, August 27-29, 2023

10.A. Di Bartolomeo

Pressure and temperature dependent photoconductivity in two-dimensional transition metal dichalcogenide transistors

Invited talk at Nanotextology 2023, 20th International Conference on Nanosciences & Nanotechnologies (NN23), Thessaloniki, Greece, July 4-8, 2023

11.A. Di Bartolomeo

2D materials in back-gate field effect transistors: electric transport and photoresponse

Invited talk at EMRS European Material Research Society, Spring Meeting 2023, Strasbourg, France, May 28-June 2, 2023

12.A. Di Bartolomeo

2D Materials: Fabrication, Properties, and Applications in Electronic and Optoelectronic Devices

Keynote talk at the 46th International Spring Seminar on Electronics Technology (IEEE-ISSE), Timisoara, Romania May 10-14, 2023 and Distinguished lecture hosted by IEEE Hungary&Romania EPS&NTC Joint Chapter.

13.A. Di Bartolomeo

2D materials-based nanotransistors

IEEE NTC Distinguished lecture, IEEE NCT Boise and Santa Clara Sections, US, 27 April 2023

14.K. Intonti, E. Coleman, A. Blake, C. Lyons, A. Hydes, A. Di Bartolomeo, F. Gity and P. K. Hurley

Role of interface and bulk traps on the capacitance-voltage characteristics of WS₂/Al₂O₃/Si capacitors

INFOS2023-23rd Conference on Insulating Films on Semiconductors, 27 June-30 June 2023, Pizzo (VV), Italy

15.S. Slezione, A. Pelella, E.Faella, O. Kharsah, A. Maas, Y. Liebsch, A. Di Bartolomeo and M. Schleberger
Manipulation of the electrical and memory properties of MoS₂ field-effect transistors by highly charged ion Irradiation

Presented by S. Slezione at German Physics Society (DPG), March 2023

16.A. Kumar, E. Faella, O. Durante, F. Giubileo, A. Pelella, L. Viscardi, K. Intonti, S.Slezione, M. Schleberger
A. Di Bartolomeo

Effect of pressure on photoconductivity and memory performance in 2D MoS₂ FET

Presented by A. Kumar at The 4th International Electronic Conference on Applied Sciences, Section: Applied Physical, Science sciforum-076579, July 2023

2022

17.A. Di Bartolomeo

Transition metal dichalcogenides and other 2D materials in field effect devices

IEEE NTC Distinguished Lecture of the IEEE chapter workshop on 2D materials, November 16th, 2022, of NTC Zhejiang Chapter (China)

18.A. Di Bartolomeo

Transition metal dichalcogenides in back-gated transistors with 2D channel

Keynote talk 5th Virtual Congress on Outlining the Importance of Materials Science for a Better Future Materials Info 2022, Online conference, September 26-29 2022

19.A. Di Bartolomeo

2D Materials for electronic and optoelectronic applications

Lecture at the 5th Autumn School on Physics of Advanced Materials (PAMS-5), Dubrovnik, Croatia September 8 – 15, 2022.

- 20.A. Di Bartolomeo
Electric Transport and Photoresponse in 2D Materials-based Field-Effect Devices
Plenary talk at the 14th International Conference on Physics of Advanced Materials (ICPAM-14), Dubrovnik, Croatia September 8 – 15, 2022.
- 21.A. Di Bartolomeo
2D Materials in Field Effect Devices
 IEEE NTC Distinguished Lecture for IEEE Nanotechnology Councils Student Branch, IIT Indore, India, 2 September 2022
- 22.A. Di Bartolomeo
2D materials in field-effect devices: Electric transport and photoresponse
Plenary talk at the Ceremony for the 2021 “Outstanding Early Career Investigator in Nanoscience Award” by IOP Publishing, Beijing China, 31 August 2022
- 23.A. Di Bartolomeo
2D materials in back-gate field-effect devices
Keynote talk at the 5th International Symposium - Nanotechnology from Academy to Industry (NTAI 2022), 24-25th of August 2022, Holon Institute of Technology (HIT), Israel.
- 24.A. Di Bartolomeo
Electrical transport measurements in 2D materials
 IEEE NTC Distinguished Lecture for IEEE Sensors & Nanotechnology Councils Joint Chapter Malaysia, 9 August 2022
- 25.A. Di Bartolomeo
2D materials in transistors, memories, and phototransistors
Invited lecture at the 8th International Workshop on Nanocarbon Photonics and Optoelectronics (NPO2022, <http://www.npo.fi>). Polvijarvi, Finland, 31 July – 05 August 2022.
- 26.A. Di Bartolomeo
Environmental effects on the electric transport and the photoresponse in 2D-materials based FETs
Invited Lecture at the 19th International Conference on Nanosciences & Nanotechnologies (NN22), Nanotextnology, 5-8 July 2022, Thessaloniki, Greece
- 27.A. Pelella, A. Grillo, E. Faella, G. Luongo, M. B. Askari, A. Di Bartolomeo
Graphene–Silicon Device for Visible and Infrared Photodetection
 Poster at the 19th International Conference on Nanosciences & Nanotechnologies (NN22), Nanotextnology, 5-8 July 2022, Thessaloniki, Greece
- 28.E. Faella, K. Intonti, L. Viscardi, F. Giubileo, A. Kumar, O. Lam, A. Konstantinos, M. Craciun, S. Russo and A. Di Bartolomeo
Pressure effects on electrical and optical transport in few-layer ReSe₂ FETs
 Poster at the 19th International Conference on Nanosciences & Nanotechnologies (NN22), Nanotextnology, 5-8 July 2022, Thessaloniki, Greece
- 29.A. Di Bartolomeo
Electrical characterization of 2D materials
Keynote talk, 4th Virtual Congress on Materials Science & Engineering, March 28-31, 2022
- 30.A. Di Bartolomeo
Electrical and Optical Characterization of 2D Materials-Based Field-Effect Transistors
 MDPI Electronics 2022 – Webinars. 4th electronics webinar – Recent Progress in Optoelectronic Devices and Systems. MDPI Electronics, March 18th, 2022.
- 31.A. Di Bartolomeo
Electrical conduction and photoconduction in 2D materials
Plenary talk at The national conference on "Technological Advances in Applied Physics", Tehran, Iran, March 9-10, 2022
- 32.A. Di Bartolomeo
Electrical characterization of 2D materials-based field-effect transistors
Invited lecture, European Union’s Horizon 2020 research and innovation programme Marie Skłodowska-Curie Actions – ULTIMATE Innovative Training Network, 25 January 2022
- 33.A. Di Bartolomeo
 General Chair and Session Chair of the 3rd International Online Conference on Nanomaterials, held 25 April – 10 May 2022 on sciforum.net (<https://icon2022.sciforum.net/>).
- 34.A. Zak, S. Ghosh, P. Chithaiah, Y. Iwasa, A. Di Bartolomeo, V. Bruser, I. Kaplan-Ashiri.

WS2 & MoS2 from 3D to 1D Structures: Curvature and Chirality Induced Properties of Nanotubes (INVITED Presentation by A. Zak)

2022 IEEE International Conference "Nanomaterials: Applications & Properties", Kraków, POLAND, Sep. 11-16, 2022

35.S. Shahi, M. Liu, H. N. Jaiswal, A. Chakravarty, S. Wei, Y. Fu, A. Ahmed, A. Cabanillas, X. Liu, J. Sun, W. J. Yoo, A. Di Bartolomeo, T. Knobloch, T. Grasser, V. Perebeinos, F. Yao, and H. Li.

2D Monolayers Integrated with Si for Selective Charge Manipulation through 2D/3D Interfaces

IEEE International Electron Devices Meeting, IEDM 2022, 03 - 07 December 2022, San Francisco CA, United States

36.A. Kumar, L. Viscardi, E. Faella, F. Giubileo, K. Intonti, A. Pelella, S. Sleziona, O Kharsah, M. Schleberger, and A. Di Bartolomeo

Optoelectronic Properties of the 2D-Black Phosphorus

Oral, presented by A. Kumar at Materials Science 2022, London, UK, October 17-18, 2022

2021

37.A Di Bartolomeo

2D materials in field-effect electronic devices

Plenary speaker, ICPAM-13, 13th International Conference on Physics of Advanced Materials, September 24-30, 2021, Sant Feliu de Guixols, Spain

38.A Di Bartolomeo

Electronics and optoelectronics with two-dimensional materials

Invited speaker, 11th EASN International Conference on "Innovation in Aviation & Space to the Satisfaction of the European Citizens", 1-3 September 2021

39.A. Di Bartolomeo

Modification of contacts and channel properties in two-dimensional field-effect transistors by 10 keV electron beam irradiation

Invited speaker and session chair, IEEE Nano 2021 - The 21st IEEE International Conference on Nanotechnology – Virtual Conference 28-30 July 2021

40.F. Giubileo,..., A. Di Bartolomeo

2D transition metal dichalcogenides nanosheets as gate modulated cold electron emitters

Invited talk, IEEE Nano 2021 - The 21st IEEE International Conference on Nanotechnology – Virtual Conference 28-30 July 2021,

41.A. Di Bartolomeo

2D materials and electronic devices

Webinar, IOP Publishing Academy, 20 July 2021

42.A. Di Bartolomeo

Two-dimensional transition metal dichalcogenides in field-effect devices

Invited speaker and session chair of workshop "Graphene 1", Nanotechnology 2021 - International Conference on Nanosciences & Nanotechnologies (NN21) 6-9 July, Thessaloniki, Grece, July 6-9, 2021

43.A. Di Bartolomeo

Conduction and photoconduction in 2D materials based transistors

Invited speaker, Italy-Japan Joint Workshop "Device science of 2D organic and inorganic materials: from fundamentals to applications", online, July 5, 2021

44.A. Di Bartolomeo

2D materials in back gate field-effect transistors and sensors

EMRS Spring Meeting, 31 May-4 June, 2021

45.A. Di Bartolomeo

2D layered materials in transistors, sensors and field emission devices

Keynote speaker, Materials Info 2021: 2nd Virtual Congress on Materials Science & Engineering by Mind Authors, March 29-31, 2021, <https://materialsinfo.mindauthors.com>

46.A. Di Bartolomeo

Atomically thin two-dimensional materials in field-effect transistors

Keynote speaker, iMat Virtual 2021, March 24-25, 2021,

<https://phronesisonline.com>

47.A Di Bartolomeo

Electric conduction in field effect transistors with 2D material channel

Keynote speaker, 2nd Webinar on Material Science and Nanotechnology February 24-25, 2021, www.irisscientificgroup.com

2020

48.A Di Bartolomeo

Electrical conduction, photoconduction and field emission in 2D materials

Invited speaker, SNAIA 2020 Smart NanoMaterials: Advances, Innovation and Applications, École National Supérieure de Chimie, Paris, 8-11 December 2020

49.A Di Bartolomeo

Transistors and field emission from 2D layered materials

Keynote speaker, Materials Info 2020, International online conference, November 9-10, 2020

50.A Di Bartolomeo

Applicazioni elettroniche di materiali nanostrutturati bidimensionali

Seminario, Dipartimento di Fisica, Università di Salerno, Italy, 5/11/2020

51.A Di Bartolomeo

Electric conduction and photoconduction in transistors with 2D layered materials

Keynote speaker, iMat 2020, Webinar on Materials science & Naotechnology, October 19-20, 2020

52.A. Di Bartolomeo

Electric transport and field emission in two-dimensional transition metal dichalcogenides

Keynote speaker, 2020 Nano Scientific Symposium, Scanning Probe Microscopy by Park Systems, International Virtual Conference, 14-15 October 2020

53.A. Di Bartolomeo

2D materials in field effect electronic devices and sensors

Invited speaker, 10th EASN International Conference on “Innovation in Aviation & Space to the Satisfaction of the European Citizens”, Virtual conference, 2-4 September 2020

54.A. Di Bartolomeo

Transition metal dichalcogenides in field-effect transistors

Keynote speaker, Materials Summit 2020 - Global Virtual Summit On “Materials Science and Engineering”, August 28-30, 2020

55.A. Di Bartolomeo

Pressure, temperature and radiation effects in back-gate transistors based on layered 2D materials

Invited speaker, “Nanotechnology 2020” – ISFOE International Symposium on Flexible Electronics, Thessaloniki, Greece 6-11 July 2020

56.A. Di Bartolomeo

2D materials in field-effect transistors: effects of pressure, temperature and e-beam irradiation

Keynote speaker, iNano 2020 – SCIFED – June 15-17, 2020 – Virtual conference

57.A. Di Bartolomeo

Electrical transport in nanosheets of 2D layered materials

Invited speaker, IEEE Nano 2020 The 20th IEEE International Conference on Nanotechnology – Virtual conference, 29-21 July, 2020

58.A. Di Bartolomeo

Field emission properties of molecular beam epitaxy grown AlGa_N nanowires

Talk and poster, IEEE Nano 2020, The 20th IEEE International Conference on Nanotechnology – Virtual conference, 29-31 July, 2020

59. A. Di Bartolomeo, A. Pelella, A. Grillo, F. Urban, L. Iemmo, E. Faella, N. Martucciello, and F. Giubileo
Vacuum gauge from ultrathin MoS₂ transistor

Proceedings of the 21st AISEM 2020 National Conference, ENEA, Portici, Napoli

60. F. Giubileo, E. Faella, A. Pelella, A. Grillo, M. Passacantando, Ray LaPierre, Curtis Goosney and Antonio Di Bartolomeo

Characterization of InSb nanopillars for field emission applications

The 2nd International Conference on Graphene and Novel Nanomaterials (GNN 2020) November 1-4, 2020, Online Conference

61.A Di Bartolomeo

Transistors and field emission from 2D layered materials

Keynote speaker, Materials Info 2020, Virtual Congress on Materials Science & Engineering, 9-10 November 2020

- 62.A. Pelella, ... A. Di Bartolomeo
Molibdenum Disulfide Field Effect Transistor under Electron Beam Irradiation and External Electric Field
 IOCN2020, 2nd Online Conference on Nanomaterials, 15-30 November 2020, MDPI
<https://sciforum.net/paper/view/7807>, DOI: 10.3390/IOCN2020-07807
- 63.A. Grillo, ... A. Di Bartolomeo
Temperature dependence of Germanium Arsenide field-effect transistors electrical properties
 IOCN2020, 2nd Online Conference on Nanomaterials, 15-30 November 2020, MDPI
<https://sciforum.net/paper/view/7810>, DOI: 10.3390/IOCN2020-07810
- 64.A Di Bartolomeo
Electrical conduction and photoconduction in PtSe₂ ultrathin films
 IOCN2020, 2nd Online Conference on Nanomaterials, 15-30 November 2020, MDPI
<https://sciforum.net/paper/view/7814>, DOI: 10.3390/IOCN2020-07814
- 65.A. Longo, ... A. Di Bartolomeo
Structural and Electrical Properties of Graphite Platelet Films Deposited on Low Density Polyethylene Substrate
 IOCN2020, 2nd Online Conference on Nanomaterials, 15-30 November 2020, MDPI
<https://sciforum.net/paper/view/7917>, DOI: 10.3390/IOCN2020-07917
- 66.E. Faella, ... A. Di Bartolomeo
Sensors based on multiwalled carbon nanotubes
 IOCN2020, 2nd Online Conference on Nanomaterials, 15-30 November 2020, MDPI
<https://sciforum.net/paper/view/7920>, DOI:10.3390/IOCN2020-07920
- 67.F. Giubileo, ... A. Di Bartolomeo
Direct contacting of 2D nanosheets by metallic nanoprobe
 IOCN2020, 2nd Online Conference on Nanomaterials, 15-30 November 2020, MDPI
<https://sciforum.net/paper/view/7931>, DOI: 10.3390/IOCN2020-07931

2019

- 68.A Di Bartolomeo
Field-effect transistors with 2D layered materials
 Invited speaker in the international conference "Smart NanoMaterials 2019: Advances, Innovation and Applications", Paris, France, 10-13 December 2019
- 69.A. Di Bartolomeo
Few-layer TMDs in back-gated field-effect transistors
 Invited speaker in the International workshop "CA2D: Carrier Doping in two-dimensional layered materials: toward novel physical properties and electronic device applications", Naples, Italy, 4-5 Novembre 2019
- 70.A. Di Bartolomeo
Graphene in 2D/3D heterojunctions for rectifying and photo-detecting applications
 Invited speaker in the EMRS (European Materials Research Society) Fall Meeting 2019, Warsaw, Poland, 16-19 September 2019
- 71.A. Di Bartolomeo
Electric transport in few-layer TMD back-gated field effect transistors
 Oral in the International Conference ChinaNANO2019, Beijing, China, August 17-19, 2019
- 72.A. Di Bartolomeo
Few-layer transition metal dichalcogenides in back-gate field effect transistors
 Invited speaker in the 3rd International Conference on Nanotechnology and Materials Science, Rome, Italy, July 22-24, 2019
- 73.A. Di Bartolomeo
Transition metal dichalcogenides in back-gate field effect transistors
 Talk and session chair in the International conference Nano M&D 2019 "Fabrication, Properties, and Applications of Nano-Materials and Nano-Devices", Savoy Beach Hotel, Paestum, Salerno (Italy) June 04-08, 2019
- 74.A. Di Bartolomeo
2D transition metal dichalcogenides in electronic devices
 Keynote in the 29th International Conference on Nanomaterials and Nanotechnology, Rome, Italy, 25-26 April 2019
- 75.A. Grillo, F. Giubileo, F. Urban, G. Luongo, L. Iemmo, A. Di Bartolomeo

Field-emission from nanostructures

Talk at “105° Congresso Nazionale SIF”, L’Aquila, Italy, 27 Settembre 2019

76. A. Grillo, J. Barrat, Z. Galazka, M. Passacantando, F. Giubileo, L. Iemmo, G. Luongo, F. Urban, C. Dubourdieu and A. Di Bartolomeo

Field-emission properties of $\beta - Ga_2O_3$ nanopillars

Poster session in the International conference Nano M&D 2019 “Fabrication, Properties, and Applications of Nano-Materials and Nano-Devices”, Savoy Beach Hotel, Paestum, Salerno (Italy) June 04-08, 2019

77. F. Urban, F. Giubileo, A. Grillo, L. Iemmo, N. Martucciello, M. Passacantando and A. Di Bartolomeo

Transport in 2D transition metal dichalcogenide field effect transistors

Talk at “105° Congresso Nazionale SIF”, L’Aquila, Italy, 27 Settembre 2019

78. F. Urban, F. Giubileo, A. Grillo, L. Iemmo, G. Luongo, N. Martucciello, M. Passacantando, A. Pelella, N. McEvoy, L. Peters, T. Foller, E. Pollmann, M. Schleberger and A. Di Bartolomeo

A study of the external stimuli on hysteresis and electrical properties of TMDs-based field effect transistors

Talk in the 9th Young Researcher Meeting, Salerno, Italy, 10-13 July 2018

2018

79. A. Di Bartolomeo

MoS₂ and WSe₂ in field effect transistors

Invited speaker e session chair (“Electronic Properties in Nanostructured Materials”), International Conference Tunneling Through Nanoscience TTN 2018, Ravello, Italy, 17-20 October 2018

80. A. Di Bartolomeo

Persistent Photoconductivity, Hysteresis and Field Emission in MoS₂ Back-Gate Field-Effect Transistors

Invited speaker e session chair (“Plasmonic absorption and other plasmonic effects” and “Studying performance issues in FETs”), IEEE 13th Nanotechnology Materials and Devices Conference NMDC 2018, Portland, Oregon, 14-17 October 2018

81. A. Di Bartolomeo

Electric transport in MoS₂ and WSe₂ back-gated field effect transistors

Invited speaker e session chair (“Electronic Transport in Nanostructures”), Nano-Application Workshop 2018, Munich, Germany, 19-21 Sept. 2018

82. A. Di Bartolomeo

Graphene-Silicon Schottky heterojunctions for optoelectronic applications

Invited speaker, moderator, session chair e poster evaluator, 20th International Conference on Advanced Energy Materials and Research, Dublin, Ireland, 13-14 August 2018

83. A. Di Bartolomeo

The graphene-Si Schottky junction

Lectio magistralis, 9th Young Researcher Meeting, Salerno, Italy, 10-13 July 2018

84. A. Di Bartolomeo

MoS₂ transistors with ohmic and Schottky contacts

Invited speaker e Session Chair (“Wide bandgap Semiconductors”), 20th Workshop on Dielectrics in Microelectronics, WODIM 2018 - June 11-14, 2018 Berlin, Germany.

85. M. Palomba, G. Carotenuto, A. Longo, A. Di Bartolomeo, L. Iemmo, F. Urban, F. Giubileo, G. Ambrosone, U. Coscia

Low density polyethylene coated by graphene nanoplatelets

Coauthor and Organizing Committee member of TTN 2018 – Tunneling through Nanoscience, 17-20 October 2018, Ravello, Salerno, Italy

86. A. Grillo A. Di Bartolomeo, F. Urban, L. Iemmo, F. Giubileo, G. Luongo, G. Amato, L. Croin, L. Sun, S. Liang, and L. K. Ang

Asymmetric Schottky Contacts in Bilayer MoS₂ Field-Effect Transistors

Poster session in the 9th Young Researcher Meeting, Salerno, Italy, 10-13 July 2018

87. F. Urban, L. Iemmo, F. Giubileo, G. Luongo, M. Passacantando, L. Peters, N. McEvoy, and A. Di Bartolomeo

Field emission from MoS₂ and WSe₂

Talk (“Electronic Transport in Nanostructures”), Nano-Application Workshop 2018, Munich, Germany, 19-21 Sept. 2018

88. F. Urban, A. Di Bartolomeo

Transistor characterization and Field Emission Properties Of MoS₂ Bilayers

Poster, “International School of Physics Enrico Fermi- Course 204- Nanoscale Quantum Optics”, Varenna, Italy, 23-28 July 2018

89. F. Urban, F. Giubileo, L. Iemmo, G. Luongo, M. Passacantando, A. Di Bartolomeo
Transport and field emission properties of MoS₂

Talk, 9th Young Researcher Meeting, Salerno, Italy, 10-13 July 2018

2017

90. A. Di Bartolomeo

Graphene-Silicon Schottky diodes for photodetection

Invited speaker and Session Chair in the 12th IEEE Nano Materials & Devices Conference (NMDC 2017), Singapore, 2-4 October, 2018.

91. A. Di Bartolomeo

Fabrication and characterization of graphene/silicon heterojunctions

Invited speaker in the EMN Meeting on 2D materials, August 8-12, 2017 – Lyon, France

92. A. Di Bartolomeo

Graphene/Si Schottky diodes

Poster. Graphene 2017, March 28-31, 2017, Barcelona, Spain

93. G. Luongo, F. Giubileo, N. Martucciello, N. Funicello, G. Niu, T. Schroeder, M. Lisker, G. Lupina, and A. Di Bartolomeo

Hybrid Graphene/Silicon Schottky photodiode with intrinsic gating effect

Poster, Graphene 2017, March 28-31, 2017 Barcelona, Spain

2016

94. G. Niu, G. Capellini, F. Hatami, A. Di Bartolomeo, T. Niermann, E. H. Hussein, M. A. Schubert, H.-M. Krause, P. Zaumseil, O. Skibitzki, G. Lupina, W. Ted Masselink, M. Lehmann, Y-H Xie, T. Schroeder

Selective epitaxy of InP nanocrystals on Si nano-tips for hybrid graphene/InP/Si photodetectors

Proceeding, 2016 SPIE/COS Photonics Asia, Semiconductor Lasers and Applications VII, Beijing, China, 12-14 Oct 2016

95. G. Luongo, F. Giubileo, L. Iemmo, G. Lupina, T. Schroeder, Gang Niu, and A. Di Bartolomeo *Graphene/Si Schottky diodes*

Poster, International conference on Graphene and related Materials, GM2016, Paestum, Italy 2015

96. L. Iemmo, F. Giubileo, G. Luongo, G. Lupina, T. Schroeder and A. Di Bartolomeo

Two conductance minima in graphene field effect transistors

Poster, International conference on Graphene and related Materials, GM2016, Paestum, Italy 2015

97. S. Santandrea, F. Giubileo, L. Iemmo, G. Luongo, V. Grossi, M. Passacantando, S. Santucci, G. Lupina, T. Schroeder, and A. Di Bartolomeo

Field emission from graphene flakes

Poster, International conference on Graphene and related Materials, GM2016, Paestum, Italy 2015

98. F. Giubileo, L. Iemmo, G. Luongo, N. Martucciello, M. Passacantando, P. Romano, F. Romeo, and A. Di Bartolomeo

Low-energy electron-irradiation effect on transport properties of graphene field effect transistors

Poster, International conference on Graphene and related Materials, GM2016, Paestum, Italy 2015

99. F. Giubileo, L. Iemmo, G. Luongo, S. Russo, S. Unal, and A. Di Bartolomeo

Leakage and field emission in side-gate graphene field effect transistors

Poster, International conference on Graphene and related Materials, GM2016, Paestum, Italy 2015

100. A. Di Bartolomeo

Graphene and carbon nanotubes in transistors, diodes and field emission devices

Invited speaker in the Congresso del Dipartimento “E.R. Caianiello”, Salerno, Italy, 10-11 March 2016

101. A. Di Bartolomeo

Schottky barrier graphene/Si-nanotip photodiodes

Talk in the Workshop EMPIR Call 2017 “Fundamental Metrology”, INRIM – Istituto Nazionale di Ricerca Metrologica, Torino, Italy, 2 Dec. 2016

2015

102. A. Di Bartolomeo

Two conductance minima in graphene field effect transistors

Talk in the international conference GraphITA, September 14-18, 2015, Bologna, Italy

103. A. Di Bartolomeo

Fabrication and studies of graphene nanodevices

Talk in the workshop Giornata sulle attività di ricerca sul grafene ed ossido di grafene, 27/4/2015, Salerno, Italy

2014

104. A. Di Bartolomeo

Field Effect transistors: FinFETs, GFETs and CNTFETs

Invited seminar, IMEC, 3/11/2014, Leuven, Belgium

2013

105. F. Giubileo, F. Romeo, R. Citro, A. Di Bartolomeo, C. Attanasio, C. Cirillo, A. Polcari and P. Romano

Point contact spectroscopy of Nb/Pd bilayers

Poster, Eighth Int. Conference on Vortex Matter in nanostructured superconductors, 21-26 September, 2013, Rhodes, Greece

2011

106. V. Grossi, ... A. Di Bartolomeo

Field emission from single and few-layer graphene flakes

Poster at GraphITA, Graphene workshop, Gran Sasso National Laboratories, 15-18 May 2011, L'Aquila, Italy

2010

107. A. Di Bartolomeo

Memory effects in FETs from SWCNT networks

Talk in the March Meeting American Physical Society, 15-19/3/2010, Portland, Oregon

108. A. Di Bartolomeo

Electronic applications of carbon nanotubes

Invited Seminar at IHP Microelectronics, 18 Feb. 2010, Frankfurt Oder, Germany

2009

109. A. Di Bartolomeo

New sensors and devices: a carbon nanotube based sensor and a single poly non-volatile memory

Talk in the workshop VII Congresso del Dipartimento di Fisica E.R. Caianiello, Baronissi, Salerno, Italy, 22-23/4/09

110. A. Di Bartolomeo

Nanotubi di carbonio come emettitori di campo e sensori di temperatura

Invited Seminar, Università di Udine, February 18, 2008, Udine, Italy

2008

111. A Di Bartolomeo

Scanning probe microscopy characterization techniques

Invited speaker in the international workshop n-Mate 2008, Salerno, June 11th, 2008

112. M. Ambrosio, ..., A. Di Bartolomeo, ...

The GINT (Gruppo INFN per le Nanotecnologie) research program

Proceeding II Workshop di Ateneo sulle Nanotecnologie, L'Aquila, 5 June 2008

113. A Di Bartolomeo, F. Giubileo, ...

Multi-wall carbon nanotube networks as temperature nano-sensors

Poster, Nanotec 2008, Venezia, May 10-14, 2008

114. A Di Bartolomeo, F. Giubileo, ...

Studies of field emission from MWCNT by SEM and AFM

Poster, Nanotec 2008, Venezia, March 10-13, 2008

2007

115. A. Di Bartolomeo

Field emission studies for a MWCNT based radiation detector

Invited speaker and poster in the international conference ICNTE 2007, Bologna May 24-25 , 2007

116. A. Di Bartolomeo

Field Emission from vertical MWCNTs with AFM/STM probes

Invited speaker in NIS Colloquium, "Carbon nanotubes and Carbon Hybrid/Composites", Turin, January 29th, 2007

2006

117. A. Di Bartolomeo, F. Bobba, F. Giubileo, A. Scarfato, A.M. Cucolo

Field emission from vertically aligned carbon nanotube array measured by non-contact AFM

Poster, VIII Congresso Nazionale Materiali Nanofasici, Roma 3-4 Ottobre 2006

118. A. Di Bartolomeo, F. Bobba, ...

Il progetto GINT: nanotubi e nanodiamanti per un rivelatore di radiazione con risoluzione spaziale nanometrica

Talk and Proceeding, VI Congresso del Dipartimento di Fisica E. R. Caianiello, Salerno, 16-17 ottobre 2006

2005

119. L. Guadagno,... A. Di Bartolomeo,...

Electrical Properties of Syndiotactic Polypropylene

Poster, 23rd Discussion Conference on Current and Future Trends in Polymeric Materials, Prague, 26 - 30 June 2005

120. H.C. Neitzert, M. Ferrara, G.D. Licciardo, Y. Ma, W. Fahrner, E. Bobeico, P. Delli Veneri, L.V. Mercaldo, L. Gialanella, M. Romano, B. Limata, A. Di Bartolomeo, F. Ravotti, M. Glaser

Modification of amorphous and microcrystalline silicon film properties after irradiation with MeV and GeV protons

Proceeding of 20th European Photovoltaic Solar Energy Conference, 6–10 June 2005, Barcelona, Spain

121. A. Akindinov..., A. Di Bartolomeo, ...

Magnetic field and radiation tests of a programmable delay line

Proceeding 9th ICATPP Conference on Astroparticle, Particle, Space Physics, Detectors and Medical Physics Applications, Villa Erba, Como, Italy, 17-21 October 2005, World Scientific Publishing Company, 2005, pp. 871 – 875

2002

122. Cortese,... A. Di Bartolomeo,...

The Multigap RPC: The Time-Of-Flight Detector for the ALICE Experiment

Proceeding, Vienna Conference on Instrumentation, Vienna, 19-23 Feb. 2001,

Nuclear Instrum. and Methods in Phys. Res. A 478, 2002, pp. 183-186

123. P. Cortese,... A. Di Bartolomeo,...

A large time of flight array for the ALICE experiment based on the multigap resistive plate chamber

Proceeding, 14th International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, Quark Matter '99 (QM 99), 10-15 May Torino, Italy, Nuclear Physics. A661, 2002, pp.707-711.

124. P. Cortese,... A. Di Bartolomeo,...

Physics perspectives of the ALICE experiment at the Large Hadron Collider

Proceeding, International Conference on Physics and Astrophysics of Quark Gluon Plasma, Jaipur, India, 26-30 Nov. 2001, CERN-ALI-2002-001, CERN-ALICE-PUB-2002-001, Jan. 2002.

125. P. Cortese,... A. Di Bartolomeo,...

The Time-Of-Flight Detector for the ALICE Experiment

Proceeding, 15th Intl. Conference on Ultra-Relativistic Nucleus-Nucleus Collisions, Quark Matter 2001(QM 2001), Stony Brook, NY, USA, 15-20 Jan. 2001, Nuclear Physics A698 (2002) 464-467

1999

126. Di Bartolomeo

Modular Function Units for Efficient Combination of WFIP Equipment with ATM Networking

Invited speaker, ICALEPCS99, Trieste, Italy 4-8 Oct. 1999

1998

127. S. Amendola,... A. Di Bartolomeo,...

Status of Salerno Laboratory (Measurement in Nuclear Emulsion)

Proceeding, First International Workshop of Nuclear Emulsion Technique, Nagoya, Japan, June 1998, pp 15-128. S. Amendola,... A. Di Bartolomeo,...

Sysal: System of Salerno

Proceeding, First International Workshop of Nuclear Emulsion Technique, Nagoya, Japan, June 1998, pp 26.

1997

129. A. Di Bartolomeo

Nuclear Emulsion Microscopy

Invited speaker and Proceeding, Frontier Detectors for Frontier Physics - 7th Pisa Meeting on Advanced Detectors, La Biodola, Isola d'Elba, 25-31 May 1997.

130. E. Eskut,... A. Di Bartolomeo,...

The Chorus neutrino oscillation search experiment

Proceeding, 28th Int. Conf. On High Energy Physics, Warsaw, Poland, 25-31

July 1996, Ed. by Adjuk et Al., World Scientific, Singapore 1997, pp. 1278-128

1996

131. Di Bartolomeo

The Chorus Experiment: a status report

Talk in the international workshop Dark matter in astro- and particle physics, DARK '96, Heidelberg, Germany, 16-20 September 1996

Fisciano, 28/03/2024