


According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV:

	MARCO ROSSI	
	Department of Basic and Applied Sciences for Engineering of Sapienza University of Rome	
	+39 3351089678	
	marco.rossi@uniroma1.it	
Associate	Full Professor	
Research topics/experiences	Experimental physics of matter	
SCIENTIFIC / TECHNICAL QUALIFICATION <small>(source: Scopus)</small>	H-index:	32 (WoS + Scopus)
	No. publications:	> 200
	No. citations:	> 4.000
THEMATIC AREA KEYWORDS	Energy transition:	X

EDUCATION & TRAINING

1988 - 1991	PhD in "Electromagnetism and Electrophysical Sciences", Sapienza Univ. of Rome
1980 - 1987	Master's Degree in "Electronic Engineering", Sapienza University of Rome

WORK EXPERIENCE

2021 - current	Rectress Delegate for Industrial PhDs
2020 - current	Full Professor in Experimental Physics of Matter (SC 02/B1), Sapienza University of Rome
2016 - current	Chair of the MS Program in Nanotechnology Engineering, Sapienza University of Rome
12/2013	Qualified for the position of Full Professor in Experimental Physics of Matter (SC 02/B1)
2007 - current	Member of the Board of the PhD Course in "Mathematical Models for Engineering, Electromagnetics and Nanosciences", Sapienza University of Rome
2007 - current	Member of the Executive Scientific Board, Interdept. Research Center on Nanotech. applied to Engineering (CNIS) - Sapienza University of Rome

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01/2005 – current	Head of EMINA (Electron Microscopy and NANoscopies) Lab, Department of Basic and Applied Sciences for Engineering of Sapienza University of Rome
2005 – 2020	Associate Professor in Experimental Physics of Matter (SC 02/B1), Sapienza University of Rome
2004 – current	Associate Researcher, National Interuniversity Consortium for the Physical Sciences of Matter (CNISM)
10/2001	Qualified for the position of Associate Professor in Experimental Physics (SC 02/B1)
11/1994 – 12/2004	Temporary Professor of General Physics, Sapienza University of Rome
07/1991 – 12/2004	Researcher, Sapienza University of Rome
1990 – 2003	Associate Researcher, INFN (National Institute for the Physics of Matter)
1990 – 1994	Associate Researcher, National Interuniversity Consortium for the Physical Sciences of Matter (CNISM)
1988 – 1990	Associate Researcher, Gruppo Nazionale Struttura della Materia (GNM)
1988	Post-laurea contract, Sapienza University of Rome

MAIN ROLES AND RESPONSIBILITIES

10/2018 - current	Founder and share-holder of the spin-off company Nanoshare 4.0 Srl
03/2016 –11/2016	Coordinator of the 'Commissione Monitoraggio', Faculty of Civil and Industrial Engineering, Sapienza University of Rome
05/2015 - current	Founder of the no-profit scientific association 'Nanoltaly'
2011-2012	Member of the Executive Board of AFCEA (Armed Forces Communications & Electronics Association)
2010 - current	Founder of the spin-off company Nanoshare Srl
1991 – 2005	External collaborator for Istituto della Enciclopedia Italiana Treccani

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SERVICE TO NATIONAL AND INTERNATIONAL COMMUNITY

<p>2001 - current</p>	<p>Since 01-01-2001: EMINA (Electron Microscopies and Nanoscopies) is a nanoscience and nanotechnology oriented group that brings together senior researchers, postdoctoral associates, PhD students and undergraduate students. Research activities of the laboratory are mainly focused to material science and related technological applications with the aim to promote advance materials research through the developing of new nanocharacterization tools for different types of functional applications.</p> <p>EMINA (Electron Microscopies and NANoscopies) group is committed with the development of nanometer scale measurements techniques and methodologies, based on the combined and synergistic use of electron microscopies and diffractions and atomic force microscopies (AFM). In particular, the team has a long and well recognized reputation in the field of Carbon-based nanomaterials (from nanographites to ultrananodiamond) with more 120 publications on the more important international scientific journals. In the last recent years, a relevant part of research activity is also devoted to define new methodologies and strategies for soft matter imaging (from polymers to biological objects) through a combined and synergistic use of electron microscopies, diffraction techniques and scanning probe microscopies with related spectroscopies.</p> <p>The experimental activities are carried out in the EMINA labs, located in the Department of Basic and Applied Sciences for Engineering, and in the Sapienza Nanosciences and Nanotechnologies (SNN) lab of the Interdepartmental Research Center on Nanotechnologies Applied to Engineering (CNIS). The available techniques are mainly based on electron and X-Ray diffraction (RHEED, TED and XRD), electron microscopies (TEM, SEM), probe microscopies (AFM, SPM), benefiting of the new state-of-art instrumental platforms recently installed, X-ray Tomography microscopies, Raman and TERS (Tip-Enhanced Raman Spectroscopy).</p> <p>The international relations of the laboratory include projects and scientific contacts with research community across the world, including France, Germany, Russia, USA, UK, Ukraine and other countries.</p>
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TEACHING EXPERIENCE

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2008 - current	Course of 'Microscopies and Nanocharacterization techniques' for the second cycle degree (Laurea Magistrale) in Nanotechnology Engineering
2005 - 2008	Course of 'Electron Optics' for the second cycle degree in Sciences for Engineering
2003 - 2005	Course of 'Electron Microscopy techniques for the environment and cultural heritage' for the Master in 'Nuclear techniques for industry, environment and cultural heritage'
1994 - current	Courses of 'General Physics I' and 'General Physics II' for the first cycle degrees in Industrial Engineering

MAIN RESEARCH EXPERIENCE/INTEREST

1988 - 1997	<p>During the Ph.D. period and at the beginning of my academic carrier, I dealt with lowpower pulsed laser annealing (LPPLA) of ion-implanted III-V semiconductors. Then I studied solid-state laser interaction applied to processing of various materials (ZnO, LiNbO₃, glassy carbon). In this context, I gained expertise on different analysis techniques, in particular transmission electron microscopy and electron diffraction, spending also various periods of training and scientific activities at the Institute of Solid State Physics and Electron Microscopy in Halle (Germany).</p>
1996 - current	<p>Since 1996, my research activity regards mainly advanced materials and problems of nanoscience and nanotechnology.</p> <p>In the period 1996-2018, my research interest has been in particular focused on the study of synthesis, modification and characterization of a wide variety of carbon based materials (from nanographites to ultrananodiamond). I used extensively various electron and scanning microscopy, and diffraction techniques as means to investigate structural and morphological features of the C-based materials of interest. The main achieved results regarded: the study of the interfaces diamond film/substrates; the identification of a new diamond polytype and of modified forms of graphite; the synthesis of highly oriented diamond films and new forms of hybrid materials.</p> <p>Scanning probe microscopies have been also used and an innovative methodology for the mechanical and elastic characterization has been implemented and developed.</p> <p>At present, a part of my research activity is also devoted to define new methodologies and strategies for soft matter imaging (from polymers to bacteria) through a combined and synergistic use of electron microscopies, diffraction techniques and scanning</p>

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	probe microscopies with related spectroscopies.
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HONOURS, AWARDS, MEMBERSHIPS, OTHER QUALIFICATIONS, PROJECTS

2022->current	Principal Investigator for Sapienza (encharged by Rectress) in the Project for an "Infrastructure for Energy Transition and Circular Economy @ EuroNanoLab" (iENTRANCE@ENL) in the framework of the NextGenerationEU (NGEU) program, granted by MUR (Advice N. 3264, 28/12/2021) with a total financial support of about 75,20 M€ (of which about 4,15 M€ for the activities under the responsibility of Sapienza)
2021->current	Principal Investigator of the Project MATRICOLA (Materiali Avanzati per la Riconversione della CO ₂ via Adsorbimento su Sistemi a Larga Area di Contatto), granted by Lazio Region - Regional Call "Gruppi di ricerca 2020" for a total financial support of 147k€. The project aims at the recovery of CO ₂ produced by industrial plants in at least 104 tons per year and proposes the construction of electrochemical devices that can be directly integrated into the production lines.
2020->current	Principal Investigator and Coordinator of the European Project CHALLENGES (Real time nano CHAracterization reLatEd techNIoGiEeS), funded by European Commission as part of Horizon2020 (approved in the framework of the call H2020-NMBP-TO-IND-2019), for a total financial support of 4.6 M€. The project aims to develop innovative Non-Destructive Techniques (NDTs) for reliable inline multiscale measurements down to the nanoscale, and fully compatible with different factory environments.
2019	Principal Investigator and Proposer of the Project TEMIDA funded by Sapienza University of Rome for a global cost of 462k€, which foresees a platform for advanced Imaging and Diffraction Analyses and the acquisition of a Transmission electron microscopy (TEM).
2019	Principal Investigator and Proposer of the Project STRESS funded by Sapienza University of Rome for a global cost of 26k€ and focused on the strain characterization via Tip-enhanced Raman spectroscopy in micro- and nano- Electronic Strain-engineered Systems and devices.
2018->current	Coordinator of the Project ATOM "Advanced Tomography and Microscopies", granted by Lazio Region - Regional call "open infrastructures for research", Global cost: 2.5 M€. The project aims to investigate the 3D structure of biological materials and tissues, down to nanoscopic dimensions and to make innovative instrumental platforms available to companies with applications to the bio-medical, micro- and nano-electronics and cultural heritage sectors.

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2018	Foundation of Start-up NanoShare 4.0 Srl, granted by Lazio Region - call "Pre-Seed", POR FESR LAZIO 2014 – 2020 with the aim of developing and marketing instrumentation inherent to the development of new nanostructured materials to be used as electrodes in advanced batteries.
2018 -> current	Project NEMESI "NanotEcnologie chiMiche green per la protEzione Sostenibile delle piante", granted by the Italian Ministry of Education, University and Research, PON "Ricerca e Innovazione" 2014-2020. Global cost: 2M€. The project foresees the development and validation of bio-based products coming from an ambitious reuse of forest and/or agricultural waste. The proposed biomaterial is nanocellulose.
2016 - 2019	Project NANOFAB, granted by the Italian Ministry of Economic Development MISE (F/030004/02/X28). Project global cost: 4650 k€. PI of the Local RU @ CNIS Sapienza with a local cost of about 30 k€. Scientific Coordinator of the R&D activities of Nanoshare Srl with a budget of about 200 k€. The project aims to develop innovative technological process solutions for the use of nanomaterials for the manufacture of sensorized fabrics.
2014 - 2017	Project DITCA "Diamond Insulating Thermal Conductive Adhesive for Electronics" - Italy-Israel R&D Cooperation Program, granted by Ministry of Foreign Affairs and International Cooperation (MAECI); Global cost: 175 keuro. The project goal is the development and implementation of novel heat conductive insulating PNC meeting the rising requirements of modern electronic and LED industries, above all, die attach and PCB adhesives.
2012 - 2014	Project "ADIMENA"; granted by Regione Lazio, call 2012 Co-Research, supported in the framework POR FESR Lazio 2007/13 - Ref. FILAS-CR-20 11-1110; Global cost: 341 keuro. The project aims at the assembly of microwave and brazing devices with eutectic alloy and for bonding with nano-structured materials for transmitting equipment applications.
2012 - 2014	Project "TOMOSEM"; granted by Regione Lazio, call 2012 Co-Research, supported in the framework POR FESR Lazio 2007/13 - Ref. FILAS-CR-20 11-1110; Global cost: 412 keuro. Principal Investigator of the Local Unit of Research @ Research Center for Nanotechnology (CNIS) of Sapienza. The project aims to develop a tomographic system for Scanning Electron Microscopy.
2010 - 2013	Project "SENSATIONAL", Call Industria 2015 - Made in Italy, granted by Ministry of Economic Development (prot. MI01_00070, 01.09.2010 – 30.08.2012) Project global cost: 6.218 k€. Principal Investigator of the Local Unit of Research @ the Dept. of Basic and Applied Sciences for Engineering (SBAI) with a local cost of 239 k€. The project aims to develop fabrics integrated with gas nanosensors for personal protective equipment production.
2012	Principal Investigator of the project "Nanodiamond for selective and highly sensitive biosensors", funded by Sapienza after external peer reviewing process (prot.C26A12H4E8), with about € 60 keuro
2011 - 2012	Principal Investigator in the R&D contract "Nano-diamond Application (NADIA)" granted by SELEX Sistemi Integrati SpA (Finmeccanica group).

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2010 – 2014	<p>Scientific coordinator of the project "STOR-AGE Realization of an innovative system for Hydrogen storage by hybrid nanocomposites materials embedded in conductive polymeric matrices" finalized to the creation of a start-up company for technology transfer. Call based on art. 11, D.M. n. 593, 8/8/2000. Project approved (Prog. 13/8) and supported by MIUR (Italian Ministry of Education, University and Research) with a financial support of 437 k€. The R&D activities started on September 2010 with the foundation of the spin-off company Nanoshare Srl (www.nanoshare.com). The core-business of the company is the developing of new products and methodologies in the field of micro- and nano-technologies.</p>
2010 - 2012	<p>Project "Advanced nanomaterials and nanostructures for field- and photoemission based devices" call PRIN (Projects of Relevant National Interest) 2008 under the coordination of prof. Luigi Palumbo, supported by MIUR for 134 k€ and comprising 5 research units. Vice-coordinator of the project and of the local research unit (cost: 58 k€)</p>
2010 - 2011	<p>Principal Investigator in the R&D contract "Software Infrastructures for DBNano data Bases" granted by SELEX Sistemi Integrati SpA (Finmeccanica group). Principal Investigator in the R&D contract "Environmental Impact of Nanomaterials and Nanotechnologies" granted by SELEX Sistemi Integrati SpA (Finmeccanica group).</p>
2008 - 2011	<p>Project "NANORAY", (Call FP7-SME-2007 - Grant Agreement N. 222426: 11.11.2008 - 30.01.2011, global cost: 1.467 k€) Scientific coordinator of the local research partner @ Dept. of Fundamental and Applied Sciences for Engineering (ex-Dept. of Energetics), supported by EU for 238 k€. The project aims at the realization of X-rays sources based on carbon nanotubes.</p>
2009 - 2010	<p>Co-Principal Investigator in the R&D contract "Thermal Management for power chips and CNT synthesis process for Microelectronics" granted by SELEX Sistemi Integrati SpA (Finmeccanica group).</p>
2009	<p>Principal investigator of the Project "Implementation of a multi-beam platform for lithography and chemical-physical characterization at the nanoscale", funded by Sapienza with € 130 keuro for the needs of the Laboratory of Nanotechnologies and Nanosciences of Sapienza under the CNIS management.</p>
2004 - 2006	<p>Project "Synthesis and preparations techniques, functional characterizations and innovative applications of carbon-based nanostructures and nanocomposites", call PRIN 2008 under the coordination of prof. Maria Letizia Terranova, supported by MIUR for 210 k€ and comprising 4 research units. Principal investigator of the local research unit at Sapienza, with a funded support of 64 k€.</p>
2002 – 2006	<p>Project "Development of technologies and modeling processes for the synthesis of nanophases and nanostructured materials", call FISR (Special Supplemental Funding for Research) 2002. Principal investigator of the local research unit at Sapienza, with a funded support of about 42 k€.</p>

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ADDITIONAL INFORMATION (CONFERENCES)

Over 300 oral and poster presentations in national and international Conferences.

CONFERENCES:

2021 "NanoInnovation VI edition": Rome, September 21-24, Coordinator of the Organizing Committee.

2020 "NanoInnovation V edition": Rome, September 15-18, Coordinator of the Organizing Committee.

2019 "NanoInnovation IV edition": Rome, June 11-14, Coordinator of the Organizing Committee.

2018 "Eurasia 17th": Rome, September 5-8, Conference secretary

2018 "NanoInnovation III edition": Rome, September 11-14, Coordinator of the Organizing Committee.

2017 "NanoInnovation II edition": Rome, September 26-29, Coordinator of the Organizing Committee.

2016 "NanoInnovation I edition": Rome, September 20-23, Coordinator of the Organizing Committee.

2015 "Nanoltaly": Rome, September 21-24; Coordinator of the Promoting Committee.

2015 "Techniques of Microscopy and Electronic Diffraction Characterization of Semiconductor Devices": L'Aquila, June 29-30. In collaboration with Lfoundry and Gran Sasso Science Institute (GSSI). Co-chair of the Organizing Committee.

2015 "International Workshop on Micro-Nano-Bio-ICT Convergence": Lecce, July 13-15. Member of the Scientific Committee.

2014 "Nanoforum X edition": Rome, September 22-24; Coordinator of the Promoting Committee.

2013 "Nanoforum IX edition": Rome, September 18-20; Coordinator of the Promoting Committee.

2013 "IV International Symposium on Surface and Interface of Biomaterials": Rome, September 24-28; Member of the Organising Committee.

2012 "Nanoforum VIII edition": Rome, September 24-26; Coordinator of the Promoting Committee.

2010-11 "Nanoforum VII edition": Rome, September 14-15; Coordinator of the Promoting Committee.

2007-08 "Study Days on the new opportunities for bio & nano science and nanotechnology": Rome, March 7, June 28, October 24, 2008, Member of the Scientific Committee.

2006-07 "Workshop on Carbon Nanotubes for Electronic Applications", ICNTE 2007: Bologna, May 24-25, 2007; Member of the Organising Committee and of the Scientific Committee.

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2002-03 "Euronoise 2003": Napoli, May 19-21 2003, Member of the Organising Committee.

1999-02 "17th International Congress on Acoustics", 17th ICA: Rome, September 2-7, 2001; Member of the Organizing Committee, with responsibility as Treasurer and General Supervisor; approximately 1750 registered participants of which over 90% foreign.

ADDITIONAL INFORMATION (PUBLICATIONS)

[A208] D. Dini, F. Cognigni, D. Passeri, F.A. Scaramuzzo, M. Pasquali, M. Rossi: Multiscale Characterization of Li-Ion Batteries through the Combined Use of Atomic Force Microscopy and X-ray Microscopy and Considerations for a Correlative Analysis of the Reviewed Data; Journal of The Electrochemical Society (2021)

[A207] M. Fidaleo, S. Tacconi, C. Sbarigia, D. Passeri, M. Rossi, A.M. Tata, L. Dini: Current nanocarrier strategies improve vitamin B12 pharmacokinetics, ameliorate patients' lives, and reduce costs; Nanomaterials 11 (3), 743 (2021), doi: <https://doi.org/10.3390/nano11030743>

[A206] L. Dini, S. Mariano, S. Tacconi, M. Fidaleo, M. Rossi: Micro and nanoplastics identification: classic methods and innovative detection techniques; Frontiers in Toxicology 3, 2 (2021); doi: 10.3389/ftox.2021.636640

[A205] D. Passeri, L. Angeloni, M. Rossi: Magnetic Force Microscopy and Magnetic Nanoparticles: Perspectives and Challenges; New Trends in Nanoparticle Magnetism, 285-300 (2021); doi: https://doi.org/10.1007/978-3-030-60473-8_12

[A204] L. Angeloni, D. Passeri, F.A. Scaramuzzo, P.G. Schiavi, F. Pagnanelli, M. Rossi: Magnetic force microscopy characterization of core-shell cobalt-oxide/hydroxide nanoparticles; J. Magn. Magn. Mater. 516, Article Number: 167299, pp. 1-9 (2020); doi: 10.1016/j.jmmm.2020.167299

[A203] F. Aureli, M. Ciprotti, M. D'Amato, E. do Nascimento da Silva, S. Nisi, D. Passeri, A. Sorbo, A. Raggi, M. Rossi, F. Cubadda: Determination of total silicon and SiO₂ particles using an ICP-MS based analytical platform for toxicokinetic studies of synthetic amorphous silica; Nanomaterials 10, Article Number: 888, pp. 1-17 (2020); doi: 10.3390/nano10050888

[A202] F. Rinaldi, P. N. Hanieh, A. Imbriano, D. Passeri, E. Del Favero, M. Rossi, C. Marianecchi, S. De Panfilis, M. Carafa: Different instrumental approaches to understand the chitosan coated niosomes/mucin interaction; Journal of Drug Delivery Science and Technology, 55 (2020) 101339; doi: 10.1016/j.jddst.2019.101339

[A201] M. Reggente, L. Angeloni, D. Passeri, P. Chevallier, S. Turgeon, D. Mantovani, and M Rossi, Mechanical characterization of methanol plasma treated fluorocarbon ultrathin films through atomic force microscopy; Frontiers on Materials, 6, Article Number: 338, pp. 1-13 (2020); doi: 10.3389/fmats.2019.00338

[A200] L. Angeloni, D. Passeri, P.G. Schiavi, F. Pagnanelli, M. Rossi: Magnetic force microscopy characterization of cobalt nanoparticles: A preliminary study, AIP Conference Proceedings 2257 (1), 020005, doi: 10.1063/5.0023608

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- [A199] R. Petrucci, I. Chiarotto, L. Mattiello, D. Passeri, M. Rossi, G. Zollo: Graphene Oxide: A Smart (Starting) Material for Natural Methylxanthines Adsorption and Detection; *Molecules* 24 (2020) 4247; doi: 10.3390/molecules24234247
- [A198] F. Marzoli, C. Marianecchi, F. Rinaldi, D. Passeri, M. Rossi, P. Minosi, M. Carafa and S. Pieretti: Long-lasting, antinociceptive effects of pH-sensitive niosomes loaded with ibuprofen in acute and chronic models of pain; *Pharmaceutics*, 11 (2019) 62; doi: 10.3390/pharmaceutics11020062
- [A197] A. Dell'Era, F.A. Scaramuzzo, M. Stoller, C. Lupi, M. Rossi, D. Passeri and M. Pasquali: Spinning Disk Reactor Technique for the Synthesis of Nanometric Sulfur TiO₂ Core–Shell Powder for Lithium Batteries; *Applied Sciences*, 9 (2019) 1913; doi: 10.3390/app9091913
- [A196] M. Reggente, S. Kriegel, W. He, P. Masson, G. Pourroy, F. Mura, J. Faerber, D. Passeri, M. Rossi and H. Palkowski: How alkali-activated Ti surfaces affect the growth of tethered PMMA chains: a close-up study on the PMMA thickness and surface morphology; *Pure and Applied Chemistry*, 91 (2019); doi: 10.1515/pac-2019-0223
- [A195] F. Rinaldi, E. del Favero, J. Moeller, PN. Hanieh, D. Passeri, M. Rossi, L. Angeloni, I. Venditti, C. Marianecchi and M. Carafa: Hydrophilic Silver Nanoparticles Loaded into Niosomes: Physical–Chemical Characterization in View of Biological Applications; *Nanomaterials*, 9 (2019) 1177; doi: 10.3390/nano9081177
- [A194] M. Reggente, P. Masson, C. Dollinger, H. Palkowski, S. Zafeiratos, L. Jacomine, D. Passeri, M. Rossi, NE. Vrana and G. Pourroy: Novel Alkali Activation of Titanium Substrates to Grow Thick and Covalently Bound PMMA Layers; *ACS applied materials & interfaces*, 10 (2018) 5967-5977; doi: 10.1021/acsami.7b17008
- [A193] M. Natali, L. Angeloni, M. Reggente, M. Rossi and D. Passeri: Identification of nanoparticles and nanosystems in biological matrices with scanning probe microscopy; *Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology*, 10 (2018) 1521. doi: 10.1002/wnan.1521
- [A192] F. Rinaldi, P. Hanieh, L. Chan, L. Angeloni, D. Passeri, M. Rossi, J. Wang, A. Imbriano, M. Carafa, C. Marianecchi and I. Fratoddi: Chitosan glutamate-coated niosomes: A proposal for nose-to-brain delivery; *Pharmaceutics*, 10 (2018) 38; doi: 10.3390/pharmaceutics10020038
- [A191] F. Matteucci, R. Giannantonio, F. Calabi, A. Agostiano, G. Gigli and M. Rossi: Deployment and exploitation of nanotechnology nanomaterials and nanomedicine; *AIP Conference Proceedings*, 1990 (2018) 20001; doi: 10.1063/1.5047755
- [A190] E. Panzarini, S. Mariano, E. Carata, F. Mura, M. Rossi and L. Dini: Intracellular transport of silver and gold nanoparticles and biological responses: an update; *International journal of molecular sciences*, 19 (2018) 1305; doi: 10.3390/ijms19051305
- [A189] V. Montaña-Machado, L. Angeloni, P. Chevallier, MC. Klak, S. Turgeon, M. Rossi and D. Mantovani: Oxidative Plasma Treatment of Fluorocarbon Surfaces for Blood-Contacting Applications; *Materials Science Forum*, 941 (2018) 2528-2533; doi: 10.4028/www.scientific.net/MSF.941.2528
- [A188] V. Misti, A. Cavallo, M. Natali, L. Angeloni, M. Reggente, A. Bettucci, M. Rossi, D. Passeri, F. Mura and J. Vlassak: Nanomechanical characterization of K-basalt from Roman comagmatic province: A preliminary study; *AIP Conference Proceedings*, 1990 (2018) 20009; doi: 10.1063/1.5047763
- [A187] L. Angeloni, D. Passeri, S. Corsetti, D. Peddis, D. Mantovani and M. Rossi: Single nanoparticles magnetization curves by controlled tip magnetization magnetic force microscopy; *Nanoscale*, 9 (2017) 18000-18011; doi: 10.1039/c7nr05742c

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[A186] L. Smeraglia, A. Bettucci, A. Billi, E. Carminati, A. Cavallo, G. Di Toro, M. Natali, D. Passeri, M. Rossi and E. Spagnuolo: Microstructural evidence for seismic and aseismic slip along clay-bearing, carbonate faults; *JGR Solid Earth*, 122 (2017) 3895-3915; doi: 10.1002/2017JB014042

[A185] M. Reggente, M. Natali, D. Passeri, M. Lucci, I. Davoli, G. Pourroy, P. Masson, H. Palkowski, U. Hangen, A. Carradò and M. Rossi: Multiscale mechanical characterization of hybrid Ti/ PMMA layered materials *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 532 (2017) 244-251. doi: 10.1016/j.colsurfa.2017.05.011

[A184] M. Reggente, D. Passeri, L. Angeloni, F.A. Scaramuzza, M. Barteri, F. De Angelis, I. Persiconi, M.E. De Stefano and M. Rossi: Detection of stiff nanoparticles within cellular structures by contact resonance atomic force microscopy subsurface nanomechanical imaging *Nanoscale*, 9 (2017) 5671-5676; doi:10.1039/c7nr01111c

[A183] A. Lucia, O.A. Cacioppo, E. Iulianella, L. Latessa, G. Moccia, D. Passeri and M. Rossi: Capability of tip-enhanced Raman spectroscopy about nanoscale analysis of strained silicon for semiconductor devices production; *Applied Physics Letters*, 110 (2017) 1-5; doi: 10.1063/1.4978261

[A182] S. Irrera, S.E Ruiz-Hernandez, M. Reggente, M. Rossi and G. Portalone: Self-assembling of calcium salt of the new DNA base 5-carboxylcytosine; *Applied Surface Science*, 407 (2017) 297-306; doi: 10.1016/j.apsusc.2017.02.171

[A181] E. Panzarini, S. Mariano, C. Vergallo, E. Carata, GM. Fimia, F. Mura, M. Rossi, V. Vergaro, G. Ciccarella, M. Corazzari and L. Dini: Glucose capped silver nanoparticles induce cell cycle arrest in HeLa cells; *Toxicology in Vitro*, 41 (2017) 64-74; doi: 10.1016/j.tiv.2017.02.014

[A180] M. Angjellari, E. Tamburri, L. Montaina, M. Natali, D. Passeri, M. Rossi and M.L. Terranova: Beyond the concepts of nanocomposite and 3D printing: PVA and nanodiamonds for layer-by-layer additive manufacturing; *Materials & Design*, 119 (2017) 12-21; doi: 10.1016/j.matdes.2017.01.051

[A179] M. Reggente, D. Passeri, M. Rossi, E. Tamburri and M.L. Terranova: Electrochemical atomic force microscopy: In situ monitoring of electrochemical processes; *AIP Conference Proceedings*, 1873 (2017) 1-6; doi: 10.1063/1.4997138

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