

Nanoscience and Nanotechnology

Report of Contributions

Contribution ID: 1

Type: **not specified**

Polysaccharide nanohydrogels: a smart tool for drug delivery

Thursday 17 October 2019 09:40 (40 minutes)

Author: Prof. MATRICARDI, Pietro (Department of Drug Chemistry and Technologies, Sapienza University, Roma, Italy)

Presenter: Prof. MATRICARDI, Pietro (Department of Drug Chemistry and Technologies, Sapienza University, Roma, Italy)

Session Classification: Opening Lecture

Contribution ID: 2

Type: **not specified**

Hyaluronic Acid/Chitosan Nanoparticles for Nucleic Acid Delivery

Thursday 17 October 2019 10:50 (25 minutes)

Author: Prof. LALLANA, Enrique (University of Manchester, Department of Pharmacy and Optometry)

Presenter: Prof. LALLANA, Enrique (University of Manchester, Department of Pharmacy and Optometry)

Session Classification: Nanomedicine

Contribution ID: 3

Type: **not specified**

Hyaluronan derivatives as building blocks for targeted and responsive delivery

Thursday 17 October 2019 11:15 (25 minutes)

Author: Dr MONTANARI, Elita (Department of Drug Chemistry and Technologies, Sapienza University, Roma, Italy)

Presenter: Dr MONTANARI, Elita (Department of Drug Chemistry and Technologies, Sapienza University, Roma, Italy)

Session Classification: Nanomedicine

Contribution ID: 4

Type: **not specified**

Real-time investigations in biomedicine: the Nanomotion Sensor

Thursday 17 October 2019 11:40 (25 minutes)

Author: Prof. DINARELLI, Simone (CNR-Istituto di Struttura della Materia, Roma, Italy)

Presenter: Prof. DINARELLI, Simone (CNR-Istituto di Struttura della Materia, Roma, Italy)

Session Classification: Nanomedicine

Contribution ID: 5

Type: **not specified**

Neuronal-derived exosomes: a promising tool to identify alterations of brain insulin signaling in Alzheimer disease and Down syndrome

Thursday 17 October 2019 12:05 (25 minutes)

Author: Prof. BARONE, Eugenio (Department of Biochemical Sciences, Sapienza University, Roma, Italy)

Presenter: Prof. BARONE, Eugenio (Department of Biochemical Sciences, Sapienza University, Roma, Italy)

Session Classification: Nanomedicine

Contribution ID: 6

Type: **not specified**

Optimization of Gene Electro-Transfer protocols of DNA-based drug delivery to improve anti-cancer nanomedicine approaches

Thursday 17 October 2019 12:30 (25 minutes)

Author: Prof. DE ROBERTIS, Mariangela (CNR-Institute of Biomembrane, Bioenergetics and Molecular Biotechnology, Bari, Italy)

Presenter: Prof. DE ROBERTIS, Mariangela (CNR-Institute of Biomembrane, Bioenergetics and Molecular Biotechnology, Bari, Italy)

Session Classification: Nanomedicine

Contribution ID: 7

Type: **not specified**

Biomedical cements with specific functions for orthopaedic and dental applications

Thursday 17 October 2019 12:55 (25 minutes)

Author: Dr FOSCA, Marco (CNR-Istituto di Struttura della Materia, Roma, Italy)

Presenter: Dr FOSCA, Marco (CNR-Istituto di Struttura della Materia, Roma, Italy)

Session Classification: Nanomedicine

Contribution ID: 9

Type: **not specified**

New avenues on target characterization and nanotools design from advancements in cryo-electron microscopy

Thursday 17 October 2019 15:20 (40 minutes)

Author: Prof. VALLONE, Beatrice (Department of Biochemical Sciences, Sapienza University, Roma, Italy)

Presenter: Prof. VALLONE, Beatrice (Department of Biochemical Sciences, Sapienza University, Roma, Italy)

Session Classification: Opening Lecture

Contribution ID: 10

Type: **not specified**

A 3D-printed multi-chamber device allows culturing cells on buckypapers coated with PAMAM dendrimer and obtain innovative materials for biomedical applications

Thursday 17 October 2019 17:00 (25 minutes)

Author: Prof. PAOLINI, Alessandro (Research Laboratories Bambino Gesù Children's Hospital, IRCCS, Roma, Italy)

Presenter: Prof. PAOLINI, Alessandro (Research Laboratories Bambino Gesù Children's Hospital, IRCCS, Roma, Italy)

Session Classification: Nanomedicine

Contribution ID: 11

Type: **not specified**

Exploration of drug loaded polymer-containing nanoparticles produced with microfluidic platforms

Thursday 17 October 2019 17:25 (25 minutes)

Author: Prof. LU , Yu (University of Manchester, Department of Pharmacy and Optometry)

Presenter: Prof. LU , Yu (University of Manchester, Department of Pharmacy and Optometry)

Session Classification: Nanomedicine

Contribution ID: 12

Type: **not specified**

Graphene oxide and cytotoxicity studies in different cell lines

Thursday 17 October 2019 17:50 (25 minutes)

Presenter: Prof. MARDENTE, Stefania (Department of Experimental Medicine, Sapienza University, Roma, Italy)

Session Classification: Nanomedicine

Contribution ID: 13

Type: **not specified**

Cryo-EM structure of the human ferritin–transferrin receptor 1 complex

Thursday 17 October 2019 18:15 (25 minutes)

Presenter: Prof. MONTEMIGLIO, Linda (Department of Biochemical Sciences, Sapienza University, Roma, Italy)

Session Classification: Nanomedicine

Contribution ID: 14

Type: **not specified**

A new scaffold for 3D cell line cultures for transfection tests

Thursday 17 October 2019 18:40 (25 minutes)

Presenter: Prof. SIENI, Elisabetta (Insubria University, Department of Theoretical and Applied Sciences –DiSTA, Varese, Italy)

Session Classification: Nanomedicine

Contribution ID: 15

Type: **not specified**

Multipurpose sensors and lab-on-chip for medical diagnostics

Wednesday 16 October 2019 09:40 (40 minutes)

Presenter: Prof. MARUCCIO, Giuseppe (UniSalento)

Session Classification: Opening Lecture

Contribution ID: 16

Type: **not specified**

Optical Nanospectroscopy for Tissue Imaging and Early Cancer Diagnostics

Wednesday 16 October 2019 10:20 (40 minutes)

Presenter: Prof. CRICENTI, Antonio (Istituto di Struttura della Materia - CNR)

Session Classification: Opening Lecture

Contribution ID: 17

Type: **not specified**

High internal phase emulsion-templated biomaterials for drug delivery

Wednesday 16 October 2019 11:30 (25 minutes)

Presenter: Prof. TRIPODO, G (UniPV)

Session Classification: Biomaterials and tissue engineering

Contribution ID: 18

Type: **not specified**

Intranasal delivery of dopamine to the striatum using lipid carriers or polymer conjugates: a comparative study

Wednesday 16 October 2019 11:55 (25 minutes)

Presenter: Prof. TRAPANI, Adriana (UniBA)

Session Classification: Biomaterials and tissue engineering

Contribution ID: 19

Type: **not specified**

Recent findings in the development of super-nano-antimicrobials: synergistic antimicrobial nanomaterials with enhanced functionality

Thursday 17 October 2019 14:40 (40 minutes)

Presenter: DITARANTO, Nicoletta (UNIVERSITA' DEGLI STUDI DI BARI "ALDO MORO")

Session Classification: Opening Lecture

Contribution ID: 20

Type: **not specified**

Green bioactive nanomaterials for Cultural Heritage applications

Friday 18 October 2019 11:55 (25 minutes)

Presenter: Prof. PICCA, R.A. (UniBa)

Session Classification: Nanomaterial

Contribution ID: 21

Type: **not specified**

In vitro platforms for mechanobiological studies

Wednesday 16 October 2019 14:40 (40 minutes)

Presenter: RAINER, Alberto (Università Campus Bio-Medico di Roma)

Session Classification: Opening Lecture

Contribution ID: 23

Type: **not specified**

Freeze-dried extracellular vesicles for regenerative nanomedicine

Wednesday 16 October 2019 16:30 (25 minutes)

Presenter: Prof. PERTEGHELLA, Sara (UniPV)

Session Classification: Biomaterials and tissue engineering

Contribution ID: 24

Type: **not specified**

Extracellular vesicles for lung regeneration in alpha-1-antitrypsin deficiency

Wednesday 16 October 2019 16:55 (25 minutes)

Presenter: Prof. BARI, E (UniPV)

Session Classification: Biomaterials and tissue engineering

Contribution ID: 27

Type: **not specified**

Dynamical charge density fluctuations pervading the phase diagram of a Cu-based high-T_c superconductor

Tuesday 15 October 2019 11:30 (25 minutes)

Presenter: Prof. CAPRARA , Sergio (UniRoma1)

Session Classification: Fundamental Properties

Contribution ID: 28

Type: **not specified**

Phase transition and electronic structure of the antimonene/Bi₂Se₃ van der Waals heterostructure

Tuesday 15 October 2019 17:20 (25 minutes)

Presenter: Prof. HOGAN, Conor (ISM-CNR)

Session Classification: Fundamental Properties

Contribution ID: 29

Type: **not specified**

Spin and Charge Transport in Two-dimensional systems in the Presence of Rashba Spin-Orbit Coupling

Tuesday 15 October 2019 11:55 (25 minutes)

Presenter: Prof. RAIMONDI, Roberto (UniRoma3)

Session Classification: Fundamental Properties

Contribution ID: 30

Type: **not specified**

Feynman diagrams in the new era of super-computers. Is the gap between theory and computation any smaller?

Tuesday 15 October 2019 10:20 (40 minutes)

Presenter: Prof. MARINI , Andrea (CNR-ISM)

Session Classification: Opening Lecture

Contribution ID: **31**

Type: **not specified**

Interaction of MXene and Perovskites

Tuesday 15 October 2019 16:55 (25 minutes)

Presenter: Prof. PECCHIA , Alessandro (CNR)

Session Classification: Fundamental Properties

Contribution ID: 32

Type: **not specified**

Phonon assisted luminescence in hexagonal Boron Nitride

Tuesday 15 October 2019 16:30 (25 minutes)

Presenter: Prof. CANNUCCIA , Elena (ROMA II and CNRS- Marsiglia)

Session Classification: Fundamental Properties

Contribution ID: 33

Type: **not specified**

A monolayer transition metal dichalcogenide as a topological excitonic insulator

Tuesday 15 October 2019 12:45 (25 minutes)

Presenter: Prof. VARSANO , Daniele (CNR-NANO Modena)

Session Classification: Fundamental Properties

Contribution ID: 34

Type: **not specified**

Silicene on insulating substrates and in heterostructures

Tuesday 15 October 2019 17:45 (25 minutes)

Presenter: Prof. GORI , Paola (Roma III)

Session Classification: Fundamental Properties

Contribution ID: 36

Type: **not specified**

First-principles nonequilibrium Green's function approach to real-time simulations of correlated electrons in molecular systems

Tuesday 15 October 2019 12:20 (25 minutes)

Presenter: Prof. PERFETTO , Enrico (UniRoma Tor Vergata)

Session Classification: Fundamental Properties

Contribution ID: 37

Type: **not specified**

Reflectance Anisotropy spettrosco of GaAsBi(001) alloys

Friday 18 October 2019 09:40 (40 minutes)

Presenter: GOLETTI, Claudio (Physics Department, University of Rome Tor Vergata)

Session Classification: Opening Lecture

Contribution ID: 38

Type: **not specified**

Time-Dependent Density Functional Methods for Real Scale Systems

Tuesday 15 October 2019 14:40 (40 minutes)

Presenter: SINDONA, Antonio (CS)

Session Classification: Opening Lecture

Contribution ID: 39

Type: **not specified**

Giant Effective charges and Piezoelectricity in Gapped Graphene

Tuesday 15 October 2019 15:20 (40 minutes)

Presenter: MAURI, Francesco (universita Roma 1)

Session Classification: Opening Lecture

Contribution ID: 40

Type: **not specified**

The impact of the European defence fund on the European and National technological research

Tuesday 15 October 2019 09:40 (40 minutes)

Presenter: RICCARDI, Luisa (Deputy Chief of Cabinet of the Italian Ministry of Defence)

Session Classification: Opening Lecture

Contribution ID: 41

Type: **not specified**

Development of new polymer-based hydrogels with inherent antimicrobial properties

Wednesday 16 October 2019 12:20 (25 minutes)

Presenter: Dr ROSSETTI, Arianna (Politecnico di Milano Dept. of Chemistry, Materials and Chemical Engineering "Giulio Natta")

Session Classification: Biomaterials and tissue engineering

Contribution ID: 42

Type: **not specified**

Formulated nanogels: a strategy for selective intracellular drug delivery

Wednesday 16 October 2019 12:45 (25 minutes)

Presenter: Dr MAURI, Emanuele (Campus Biomedico)

Session Classification: Biomaterials and tissue engineering

Contribution ID: 43

Type: **not specified**

Screen-printed electrodes for biosensing: characteristics and applications

Wednesday 16 October 2019 15:20 (40 minutes)

Presenter: Prof. MICHELI, Laura (Uniroma2)

Session Classification: Opening Lecture

Contribution ID: 44

Type: **not specified**

Nanomaterials-modified screen-printed electrodes: a powerful platform for sensor and biosensor set-up

Wednesday 16 October 2019 17:20 (25 minutes)

Presenter: Mr CANCELLIERE, Rocco (Uniroma2)

Session Classification: Biomaterials and tissue engineering

Contribution ID: 46

Type: **not specified**

Nanocomposite Sensor of Biological and Chemical Agents Based on Resonant Photonic Crystal Structure

Friday 18 October 2019 12:20 (25 minutes)

Presenter: Prof. SMIRNOVA, Tatiana (Institute of Physics, Nat. Acad. of Sci. of Ukraine)

Session Classification: Special Nato project session

Contribution ID: 47

Type: **not specified**

Modelling of surface acoustic waves and e.m. fields in opto-mechanical systems

Thursday 17 October 2019 12:05 (25 minutes)

Presenter: MENCARELLI, Davide (Università Politecnica delle Marche)

Session Classification: Nanoelectronics

Contribution ID: 48

Type: **not specified**

Depth-invariant Optical Phase Imaging with Sub-Nanometric Spectral Resolution

Thursday 17 October 2019 11:40 (25 minutes)

Presenter: DI DONATO, Andrea (Università Politecnica delle Marche)

Session Classification: Nanoelectronics

Contribution ID: 50

Type: **not specified**

TBA

Thursday 17 October 2019 12:30 (25 minutes)

Presenter: Prof. PIERANTONI, Luca (Università Politecnica delle Marche)

Session Classification: Nanoelectronics

Contribution ID: 51

Type: **not specified**

Driving with temperature the synthesis of graphene on Ge(001) and Ge(110) substrates

Friday 18 October 2019 13:10 (25 minutes)

Presenter: SGARLATA, Anna

Session Classification: Nanomaterial

Contribution ID: 52

Type: **not specified**

TBA

Thursday 17 October 2019 17:00 (25 minutes)

Presenter: Dr DE ANGELIS, Sonia (AirLiquide)

Session Classification: Industrial solution

Contribution ID: 53

Type: **not specified**

Carbon properties and applications, and new materials

Thursday 17 October 2019 17:25 (25 minutes)

Presenter: Dr BONFIGLIO, Alfredo (RAIT88)

Session Classification: Industrial solution

Contribution ID: 54

Type: **not specified**

Functionalization of Graphene nanoplates using NP100 by THINKY

Thursday 17 October 2019 18:15 (25 minutes)

Presenter: Dr MICCIULLA, Federico (QI technologies)

Session Classification: Industrial solution

Contribution ID: 55

Type: **not specified**

Formulation of nanocomposites of silver nanowires and graphene for the fabrication of SERS substrates for GMOs detection

Friday 18 October 2019 12:20 (25 minutes)

Presenter: Dr AMICUCCI, Chiara (Nanesa)

Session Classification: Nanomaterial

Contribution ID: 56

Type: **not specified**

Study of the influence of Pt nanoparticles on the bone marrow mesenchymal stem cells under adipogenic and chondrogenic differentiation

Friday 18 October 2019 11:55 (25 minutes)

Presenter: FESENKO, Olena (Institute of Physics of the National Academy of Sciences of Ukraine)

Session Classification: Special Nato project session

Contribution ID: 57

Type: **not specified**

Resonance phenomena in the lattice and possible applications of such periodic structures

Friday 18 October 2019 11:30 (25 minutes)

Presenter: Prof. A BENDZIAK, V Fito (Lviv Polytechnic National University)

Session Classification: Special Nato project session

Contribution ID: 58

Type: **not specified**

Reinforcement of paper artworks with cellulose nanocrystals

Friday 18 October 2019 11:30 (25 minutes)

Presenter: Prof. MAZZUCA, Claudia (UniRoma2)

Session Classification: Nanomaterial

Contribution ID: 59

Type: **not specified**

Holographic organic-inorganic nanomaterials for functional diffraction gratings

Friday 18 October 2019 12:45 (25 minutes)

Presenter: Prof. SAKHNO, Oksana (Fraunhofer Institut)

Session Classification: Special Nato project session

Contribution ID: 60

Type: **not specified**

First evidence of quantum well states at the Ag/ β -Si₃N₄(0001)/Si(111) interface

Thursday 17 October 2019 10:50 (25 minutes)

Presenter: FLAMMINI, Roberto (CNR-Istituto di Struttura della Materia)

Session Classification: Nanoelectronics

Contribution ID: **61**

Type: **not specified**

All-metal 3D Printing of Microwave Components for Space-borne Applications

Thursday 17 October 2019 11:15 (25 minutes)

Presenter: PEVERINI, Oscar (IEIIT - CNR)

Session Classification: Nanoelectronics

Contribution ID: 62

Type: **not specified**

Multifunctional properties of nanocomposites at very high content of Graphene Nanoplatelets

Friday 18 October 2019 10:20 (40 minutes)

Presenter: Prof. GIORDANO, Michele (IPCB-CNR)

Session Classification: Opening Lecture

Contribution ID: 63

Type: **not specified**

Effective reinforcement in Graphene Nanoplatelets high content biomimetic films

Friday 18 October 2019 12:45 (25 minutes)

Presenter: Prof. MARTONE, Alfonso (IPCB-CNR)

Session Classification: Nanomaterial

Contribution ID: 64

Type: **not specified**

Obsolescence & Reverse Engineering

Thursday 17 October 2019 17:50 (25 minutes)

Presenter: Dr PUNZO, Giovanni (RAIT 88)

Session Classification: Industrial solution

Contribution ID: 65

Type: **not specified**

A Monitorable and Renewable Pollution Filter Based on Graphene Nanoplatelets

Thursday 17 October 2019 12:55 (25 minutes)

Presenters: MAFFUCCI, Antonio (L); Prof. FERRIGNO, Luigi (Unicas)

Session Classification: Nanoelectronics