

# Ilaria Cacciotti Curriculum Vitae

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- Personal details**      FIRST NAME :      Ilaria  
SURNAME :            Cacciotti  
NATIONALITY :        Italian  
ADDRESS: University of Rome "Niccolò Cusano", INSTM RU, Via Don Carlo Gnocchi 3, 00166 Rome-Italy  
**e-mail:** [ilaria.cacciotti@unicusano.it](mailto:ilaria.cacciotti@unicusano.it)
- Studies**
- International and Interfaculty Master Course of Second Level in "Protection against CBRNe events" (IV Cycle, Academic Year 2012-2013)  
Votation: 110/110 summa cum laude
  
  - Second Level Master Course in "Forensic Genetics" (III cycle, Academic Year 2011-2012)  
Thesis topic: "*Extraction of ancient DNA from bones: state of the art, applications and perspectives*"  
Votation: 110/110 summa cum laude
  
  - Ph.D in Materials Engineering (XXIII cycle, Academic Year 2009-2010)  
Thesis topic: "*Novel nanostructured ceramics, glass-ceramics and composites for biomedical and catalytic applications*"  
Awards: - *European Biomaterials and Tissue Engineering Doctoral Award (EDA), ESB (European Society of Biomaterials)*  
          - *Ph.D Thesis Award 'Marco Ramoni 2011'*  
          - *Ph.D Thesis Award 'AIMAT 2012'*
  
  - Master of Science in Medical Engineering (summa cum laude)  
Dissertation topic: "*Synthesis and characterization of hydroxyapatite and tricalcium phosphate nanopowders for bone tissue engineering*"  
Award: Master of Science Award '*Fondazione Raeli*'  
       X International Award "*Giuseppe Sciacca*"
- Current position**
- May 2014-present**  
Associate Professor (SSD ING-IND/22) of Materials Science & Technology and Biomaterials & Tissue Engineering at University of Rome "Niccolò Cusano"
- Regional Secretary of the Youth Committee for UNESCO (Lazio)
- Erasmus + Coordinator for Engineering Area at University of Rome "Niccolò Cusano"
- Member of Expert Committee for National Science Foundation (NSF)
- Member of Expert Committee for Canada Foundation for Innovation (CFI) and the Government of Quebec
- Member of Expert Committee for the evaluation of projects submitted for RIS3 Campania
- EXPERT peer reviewers for italian scientific evaluation-MIUR
- November 2015-present**  
Member of the Board of PhD. Course in "Industrial and Civil Engineering"
- October 2015-June 2017**  
Regional Secretary of the Youth Committee for UNESCO (Lazio)
- Work Experiences**
- September 2013-May 2014**  
Assistant Professor at University of Rome "Niccolò Cusano"
- March 2014- April 2014**  
Incarico per l'erogazione della docenza inerente la seguente disciplina: La Diffrattometria applicata a Restauro dei BB.CC., nell'ambito del Progetto "L'Innovazione tecnologica nel Restauro dei Beni Culturali", Soggetto attuatore: Iciet Engineering Srl - Comune di svolgimento: Castelli (TE)
- April 2013-May 2014**  
Post-doc at Enterprise Engineering Department of University of Rome 'Tor Vergata', INSTM Research Unit.  
Project: CARIPLO 2012  
Project title: "*Magnetic nanoparticle filled conductive polymer composites for emi reduction*"

**May 2012- March 2013**

Post-doc at Industrial Engineering Department of University of Rome 'Tor Vergata', INSTM Research Unit.

**June 2011- April 2012**

Post-doc at Industrial Engineering Department of University of Rome 'Tor Vergata', INSTM Research Unit.

Fellowship: *L'ORÉAL-UNESCO Italy for Women and Science 2011-IX Edition*

Project: *"Bioresorbable nanospheres and microspheres loaded with human neurons as dopamine release systems: development of a potential innovative therapy for the Parkinson disease treatment"*

**November 2010-May 2011**

Post-doc at Chemical Science and Technology Department of University of Rome 'Tor Vergata', INSTM Research Unit.

**February 2005-December 2005**

Student collaboration contract at University of Rome "Tor Vergata"

University of Rome 'Tor Vergata', Rome-Italy.

**March 2016**

*Seminar S06 - La corretta interpretazione dei tracciati termoanalitici - GTAP™*

organized by Mettler Toledo

10<sup>th</sup> March 2016, *Hotel Antonella*, Pomezia, Rome-Italy.

**February 2016**

*Seminar S02 - La buona pratica di pipettaggio - GPP™*

organized by Mettler Toledo

23<sup>rd</sup> February 2016, *Hotel Antonella*, Pomezia, Rome-Italy.

**October 2015**

*Workshop "Tecniche analitiche di spettroscopia molecolare per il settore agroindustriale"*

organized by Thermo Scientific™ and Antaris™ II FT-NIR Analyzer

27<sup>th</sup> October 2015, Centro di Ricerca per la Frutticoltura (CREA FRU), Rome-Italy.

*Seminar S03 GEP di Roma "Buona pratica di misura del pH-GEP™"*

organized by METTLER TOLEDO and Ordine dei Chimici LUAM (Lazio, Umbria, Abruzzo e Molise)

20<sup>th</sup> October 2015, Pick Center, Rome-Italy

**July 2015**

*"Nuovi orientamenti per la protezione e la sicurezza del lavoro nei laboratori scientifici, didattici e di ricerca"*

LABOZETA (La sicurezza nel laboratorio)

7<sup>th</sup> July 2015, Great Hall "F. Cacace", Dipartimento di Chimica e tecnologie del farmaco, University of Rome "Sapienza", Rome-Italy

**November 2014**

*Corso "D.Lgs. 230/95: disciplina delle attività lavorative con utilizzo di sorgenti radiogene" (durata di 8 ore)*

5<sup>th</sup> November 2014, Centro Gestione Sicurezza "Futura", Via Cambridge, snc - 00133 Roma

**April 2014**

*"The thermal analysis for the characterization of polymers and composites with practical demonstrations by DSC and DEA"*

NETZSCH

10<sup>th</sup> April 2014, Hotel "Antonella", Pomezia-Italy

**March 2014**

*"Corso di formazione in materia di sicurezza e salute nei luoghi di lavoro: RISCHIO CHIMICO"*

27<sup>th</sup> March 2014, University of Rome "Tor Vergata"

**February 2013-December 2013**

International and Interfaculty Master of Second Level in "Protection against CBRNe events" (IV Cycle, Academic Year 2012-2013)

University of Rome "Tor Vergata"

School of Engineering (Department of Industrial Engineering)-School of Medicine (Department of Biomedicine and Prevention)

**Education and Training**

in collaboration with Esercito Italiano, Corpo Nazionale dei Vigili del Fuoco, ISSI (Istituto Superiore di Sanità), ENEA (Ente Nazionale Energia e Ambiente), INGV (Istituto Nazionale Geofisica e Vulcanologia), COPIT (Comitato Parlamentare per l'Innovazione Tecnologica), CRATI, SCIRE.

#### **November 2013**

- Seminar "*Investigation and Criminology*" by Dr. Roberta Bruzzone
- 9<sup>th</sup> November 2013, University of Rome "Tor Vergata", in the context of International and Interfaculty Master of Second Level in "Protection against CBRNe events", Rome-Italy.

#### **July 2013**

- *RECONnet Workshop: La bonifica dei siti contaminati: aggiornamento tecnico su tematiche di rilievo nazionale*
- 4<sup>th</sup> July 2013, INAIL, Auditorium, Rome, Italy

#### **May 2013**

Course JCBRN Def CoE

*"Introduction to the International CBRN Training Curriculum Course"*

20<sup>th</sup>-24<sup>th</sup> May 2013, Excellent Center NATO, Vyskov, Czech Republic

#### **January 2012-December 2012**

Master of Second Level in "Forensic Genetics" (first in the admission graduatory)

University of Rome "Tor Vergata"

School of Medicine and Surgery- Chairs of Medical Genetics and Forensic Medicine

in collaboration with the State Police Scientific Division, Orga Bio Human S.r.l., Applied Biosystems

#### **July-August 2012**

Internship Master of Second Level in "Forensic Genetics"

University of Rome "Tor Vergata"

Centro di Eccellenza per lo Studio del Rischio Genomico in Patologie Complesse Multifattoriali

Department of Biopathology and Diagnostic Imaging

School of Medicine- Human Genetics

30<sup>th</sup> July- 3<sup>rd</sup> August 2012

#### **June 2012**

- *Workshop "TEM & SEM samples preparation"*

20<sup>th</sup> June 2012, organised by *MEDIA System & Fischione Instruments*, in collaboration with *University of Rome "Roma Tre"*, *Faculty of Engineering*, LIME Laboratory, Rome-Italy

- *"CMS3-Cell Model Systems Summer School"*

11<sup>th</sup>-15<sup>th</sup> June 2012, Congress Room CNR-ISM "Tor Vergata", Rome-Italy

#### **May 2012**

*Nanomaterials for practitioner*

28<sup>th</sup> May 2012, University of Rome "Roma Tre", Faculty of Engineering, Rome-Italy

#### **November 2011**

- *"Course about the protection towards radiative sources" ("Corso D.Lgs. 230/95 disciplina delle attività lavorative con utilizzo di sorgenti radiogene")*

14<sup>th</sup> November 2011, University of Rome "Tor Vergata", Rome-Italy

- *"2011 ROADSHOW Particle Characterization"*

*Alfatest e Malvern Instruments*

14<sup>th</sup> November 2011, Hotel "Antonella", Pomezia-Italy

#### **12<sup>th</sup> November 2011**

*X International Award "Giuseppe Sciacca"-*

*Young Students: Sector Economy-Research and Development*

Aula Magna della Pontificia Università Urbaniana – Città del Vaticano, Rome-Italy

#### **September 2011**

*XXX Bioengineering School*

*Neuroinformatica*

19<sup>th</sup>-23<sup>rd</sup> September 2011, Sede Estiva dell'Università di Padova, Brixen (BZ)-Italy

#### **March 2011**

- *"Giornata sulla Microfluorescenza"*

Bruker Italia, 22<sup>nd</sup> March 2011, Milano-Italy

**June 2010**

- *“Seconda Giornata della Ricerca di Ateneo: Biotecnologie a Tor Vergata”*

Aula Fleming, Facoltà di Medicina e Chirurgia, 16<sup>th</sup> June 2010, Rome-Italy

- *“Seminar on Esperienze applicative e Soluzioni strumentali per la Caratterizzazione di sistemi Micro e Nanometrici: Dimensione - Morfologia – Reologia”*

Dipartimento di Chimica e Tecnologie del Farmaco, in collaboration with Alfatest and Malvern Instruments, Aula D - Plesso 'Giorgio Tecce', University of Rome 'La Sapienza', 24<sup>th</sup> June 2010, Rome-Italy.

**September 2007- June 2009**

English Courses *“General English”* and *“Business English”* at *“Wall Street Institute”*

Completed Levels: *MASTERY Level* (C2 secondo il Quadro Comune di Riferimento Europeo) for

*“General English”* Course

*MASTERY Level* (C2 secondo il Quadro Comune di Riferimento Europeo) for

*“Business English”* Course

**April 2009**

*“Workshop on Nanoindentation Technologies”*

University of Rome 'Rome3', 24<sup>th</sup> April 2009, Rome-Italy.

**September 2008**

*14<sup>th</sup> National School of Materials Science*

*“Tecnologie Convergenti per i Materiali: Problematiche nella Scienza, Energia e Ambiente”*

Brixen, Sede Estiva Università di Padova, 22<sup>nd</sup>-30<sup>th</sup> September 2008, Brixen (BZ)-Italy.

**July 2008**

*15<sup>th</sup> CIRMIB BIOMATERIALS SCHOOL and EXPERTISSUES SCHOOL & WORKSHOP*

*“Strategies and Materials for regenerative medicine: Focus on Bone and Cartilage”*

Hotel Continental Terme, 07<sup>th</sup>-11<sup>th</sup> July 2008, Ischia Porto (NA)-Italy.

**September 2007**

*“Sviluppi e prospettive delle attività di ricerca nel network europeo KMM”*

Accademia Nazionale dei Lincei, 28<sup>th</sup> September 2007, Rome-Italy.

**July 2007**

Abilitation to the engineer profession (chartered engineer) (2<sup>nd</sup> session 2007)

**June 2007**

Master of Science Award *“Fondazione Raeli”* 2007

**May 2007**

- *“Mechanical and tribological properties characterisation of thin films and thick coatings”*

University of Rome 'Roma Tre', Rome-Italy.

- *“Presentation of novel Malvern Instruments systems for powders granulometric, shape, chemical mapping analyses”*

17<sup>th</sup> May 2007, Rome-Italy.

**February 2007**

*Training course on “Protection rules against ionizing radiations”*

Chemical Science and Technology Department, University of Rome 'Tor Vergata', 22<sup>nd</sup> February 2007, Rome-Italy.

**October 2006**

*Seminar on FT-IR, NIR, Raman and TD-NMR spectroscopies*

5<sup>th</sup> October 2006, Rome-Italy.

Certamen Ciceroniarum Arpinas, 19<sup>th</sup> Edition

**Research experiences****August 2010-November 2010**

Visiting Researcher at **Center for Material and Fibre Innovation**  
Institute for Technology Research and Innovation (ITRI)

Geelong Technology Precinct, Geelong Campus at Waurn Ponds, Deakin University, Geelong, Victoria, Australia

Subject of the research project: *“Production and characterization of titania and titanate nanofibers and nanotubes by the combination of electrospinning technique and sol-gel process”*.

**January 2009-April 2009**

Stage INSTM-Piezotech

Visiting Researcher at **Kyoto Institute of Technology (KIT)**-Piezotech, Kyoto, Japan

Subject of the research project: "*Spectroscopic characterization of (i) rare earth-doped ceramic and polymeric fibrous mats obtained by electrospinning and (ii) bioglasses and glass-ceramics prepared by sol-gel*".

## Awards

### **26<sup>th</sup> September 2016**

*Good Energy Award 2016-VII Edition*

(in occasion of 16<sup>o</sup> Italian Energy Summit, 26<sup>th</sup>-27<sup>th</sup> September 2016, Sole24Ore Building, Milan, Italy)

Awards NO PROFIT Sector to UNESCO Youth Committee-Lazio for the project "*UNESCO in the school for the sustainability*"

### **July 2015**

- Certificate of Excellence in Reviewing (in recognition of an outstanding contribution to the quality of the journal) (*Materials and Design* 2015)

### **17<sup>th</sup> February 2014**

*Young Researcher Award Elsevier" Materials Science and Engineering C" 2014*

(in occasion of the TMS 2014 143<sup>rd</sup> ANNUAL MEETING & EXHIBITION, 16<sup>th</sup>-20<sup>th</sup> February 2014, San Diego Convention Center, San Diego, California)

17<sup>th</sup> February 2014, *Mission Beach ABC Room, Manchester Grand Hyatt, San Diego, California, USA*

### **2013**

- Top Cited Author for 2011 and 2012 for the paper Cacciotti I., Bianco A., Pezzotti G., Gusmano G., **Synthesis, thermal behaviour and luminescence properties of rare earth doped titania nanofibers**, *Chemical Engineering Journal*, 2011, Volume 166, pp. 751-764

- Certificate of Excellence in Reviewing (in recognition of an outstanding contribution to the quality of the journal) (*Materials Chemistry and Physics* 2013)

### **18<sup>th</sup> September 2012**

*Ph.D. thesis award 'AIMAT 2012'*

(in occasion of the 11<sup>th</sup> Congress AIMAT (Associazione Italiana Ingegneria dei Materiali) 2012

16<sup>th</sup>-19<sup>th</sup> September 2012, *GAETA (LT) - Hotel Summit*)

### **8<sup>th</sup> May 2012**

*30 Beautiful stories Under 35 in Lazio: A talent is forever*

YOUNG INTERNATIONAL FORUM

"La Pelanda" Testaccio-Rome, Italy

### **12<sup>th</sup> November 2011**

*X International Award "Giuseppe Sciacca"-*

*Young Students: Sector Economy-Research and Development*

Aula Magna della Pontificia Università Urbaniana – Città del Vaticano, Rome-Italy

### **21<sup>st</sup> September 2011**

*Ph.D. Thesis Award 'Marco Ramoni'*

(in occasion of the *XXX Bioengineering School*, 19<sup>th</sup>-23<sup>rd</sup> September 2011, Sede Estiva dell'Università di Padova, Brixen (BZ)-Italy)

Motivation: "*to have developed innovative, reliable and reproducible methodologies for the synthesis of calcium phosphate nanopowders and bioglasses and for the fabrication of electrospun bioresorbable nanocomposites for biomedical applications in the field of the tissue engineering and regenerative medicine.*"

### **6<sup>th</sup> September 2011**

*European Biomaterials and Tissue Engineering Doctoral Award (EDA), ESB (European Society of Biomaterials) Award*

(in occasion of the *24<sup>th</sup> European Conference on Biomaterials (ESB)*, 4<sup>th</sup>-8<sup>th</sup> September 2011, *Convention Centre Dublin (CCD)*, Dublin-Ireland)

Motivation: "*The Award is a proof of quality and an added value for the CV of the young scientist, stating that the person has a clear European/international dimension in his/her PHD work, that provides an extra benefit in his/her professional career in industry or academia.*"

### **30<sup>th</sup> May 2011**

Award "*L'ORÉAL-UNESCO Italy for Women and Science 2011-IX Edition*"

Project: "*Bioresorbable nanospheres and microspheres loaded with human neurons as dopamine release systems:*

*development of a potential innovative therapy for the Parkinson disease treatment”*  
University of Milan, Milan-Italy

**19<sup>th</sup> May 2011**

8<sup>th</sup> CCT Award “Best Oral Presentation for Young Researchers”

Title: “*Sol-gel derived RKKP glass-ceramics: microstructure, sintering behaviour and biological evaluation*”

13<sup>th</sup> Annual Seminar & Meeting, *Ceramics, cells and tissues, International Congress on Bioceramics, Surface-reactive biomaterials as scaffolds and coatings: interactions with cells and tissues*

17<sup>th</sup>-20<sup>th</sup> May 2011, Faenza (RA)-Italy

Motivation: *'for the high quality and originality of the scientific content, logical pathway exhibited by the research work, the technological and individual potential, likelihood of the technology transfer, and standard of the oral and visual presentation'*

**21<sup>st</sup> June 2007**

Master of Science Award ‘Fondazione Raeli’ 2007

**Foreign languages**

**English:** Good knowledge of written and spoken english language

English courses “*General English*” and “*Business English*” at ‘*Wall Street Institute*’

Completed Levels: *MASTERY Level* (C2 secondo il Quadro Comune di Riferimento Europeo) for “*General English*” Course

*MASTERY Level* (C2 secondo il Quadro Comune di Riferimento Europeo) for “*Business English*” Course

**Informatic skills**

- Optimal Knowledge of MICROSOFT OFFICE package
- Good Knowledge of software AUTOCAD
- Good Knowledge of languages MATLAB/ FORTRAN/ C++

**Research interests and activities**

- **Biomedical applications in the tissue engineering sector and for drug-delivery**

*Bioceramics*

- ✓ Synthesis and characterization of bioglass and bioactive glass ceramics of conventional and innovative compositions by sol-gel process
- ✓ Synthesis and characterization of pure and substituted calcium phosphates nanostructured powders via wet precipitation
- ✓ Ceramic foams based on hydroxyapatite and wollastonite composites starting from ceramic fillers and preceramic polymers

*Biopolymers*

- ✓ Processing of synthetic and biologically-derived bioresorbable polymers by electrospinning technique
- ✓ Processing of micro- and nano-spheres and capsules based on hydrogels for cellular encapsulation and drug-delivery
- ✓ Processing of luminescent polymers doped with RE salts and organometallic compounds
- ✓ Processing of polymeric blends from co-solutions by electrospinning
- ✓ Processing of nanocomposites based on bioresorbable polymers (e.g. PCL, PLLA, PHBV...) and bioceramics (e.g. HAp, CaP, BG) by electrospinning

- **Energetic and catalitic applications**

*Ceramic nanofibers and nanotubes*

- ✓ Fabrication of pure and doped ceramic nanofibers (*i.e. TiO<sub>2</sub>, ZnO, Al<sub>2</sub>O<sub>3</sub>, BaTiO<sub>3</sub>*) by traditional

electrospinning set-up

- ✓ Fabrication of ceramic nanotubes by coaxial electrospinning (core-shell set-up)
- ✓ Synthesis and characterisation of ceramic short fibers by liquid-liquid dispersion emulsion methodology
- ✓ Synthesis and characterisation of composites at high dielectric constant

*Ceramic coatings by sol-gel process*

- ✓ Fabrication and characterisation of TCO (transparent conductive oxide) coatings by dipping
- ✓ Fabrication and characterisation of transparent hydrophobic coatings on ceramic and glass substrates by sol-gel spraying
- ✓ Characterisation of arc-PVD derived coatings for corrosion protection of several kinds of austenitic and martensitic steels

- **Dielectric polymers, ceramics and composites**

- ✓ Synthesis and characterisation of dielectric powders by sol-gel process
- ✓ Fabrication and characterisation of dielectric polymeric and hybrid films by solvent casting and spin coating

- **Applications in the food packaging sector**

- ✓ Production and characterisation of polymeric and composite films and fibers based on biodegradable and/or compostable polymers (e.g. polylactide, chitosan, polyhydroxyalkanoates, polycaprolactone...) and porous and/or dense nanoparticles (e.g. nanoclay, silica, diatomite..), possibly functionalised with antioxidant and antimicrobial agents via chemi/physi-sorption.
- ✓ Design and production of multilayer and sandwich structures, composed of alternate films and fibrous mats

- **Application in the sensing sector**

- ✓ Production and characterisation of films and fibers for the immobilization and stabilization of enzymes for the selective sensing of specific analytes, such as pesticides, nerve gases, bacteria and viruses.
- ✓ Production and characterisation of modifiers able to make the work electrode of electrochemical sensors selectively sensible to specific analytes.

## Patents

Applications of the following patents for registration:

1) N°: RM2013A000572

Deposition date: 18/10/2013

Title: "Microsfere di idrogeli di polimeri polisaccaridici contenenti cellule neurali secernenti dopamina, procedimento per la loro preparazione e loro usi in campo medico."

Inventors: Giuseppa Pistrutto, Alessandra Bianco, Ilaria Cacciotti, Claudia Ceci

Assignee: INSTM

2) N°: RM2014A000636

Filing date: 04/11/2014

Publication date: 05/05/2016

Title: "Mescole in gomma per porzioni di pneumatico - rubber compounds for tyre portions"

Inventors: Ilaria Cacciotti, Ludovica Caliano, John House, Francesca Romana Lamastra, Francesca Nanni,

Assignee: Bridgestone Corporation

3) N°: 102017000074199

Filing date: 03/07/2017

Title: "Procedimento per la produzione di nicotina a partire da rifiuti urbani e relativo sistema di attuazione"

Assignee: University of Rome Niccolò Cusano

**Responsibilities of Framework Agreement**

- *Framework Agreement INSTM-UNICUSANO*
- *Framework Agreement UNICUSANO-CREA*
- *Framework Agreement UNICUSANO-ISS*

**Invited Talks/Keynote-Plenary Lectures**

- *Advances in Bioceramics - 7th International Congress on Ceramics*, 17-21 June 2018, Brazil
- *INTERNATIONAL CONFERENCE ON CERAMICS AND COMPOSITE MATERIALS*, 14-15 May, 2018, Rome, Italy.
- *International Conference and Exhibition on Materials & Engineering (Materials 2018)*, Feb 7-9, 2018 San Diego, USA
- *"TISSUE REGENERATION: ADVANCED CERAMICS AND COMPOSITES" (TRACE)*, October 19-20, 2017, Aula Convegni NH Collection Genova Marina Molo, Italy
- *International Seminar on Biomaterials and Regenerative Medicine (BioReMed 2017)*, 5<sup>th</sup>-8<sup>th</sup> October 2017, Timisoara, Romania. (KEYNOTE )
- *41<sup>st</sup> International Conference and Expo on Advanced Ceramics and Composites (ICACC 2017), SYMPOSIUM 5: Next Generation Bioceramics and Biocomposites*, 22<sup>nd</sup>-27<sup>th</sup> January 2017, Daytona Beach, United States Of America.
- *International Conference on Sustainable Bioplastics: "Bioplastics: A Genuine Alternative"*, 10<sup>th</sup>-11<sup>th</sup> November 2016, Alicante, Spain.
- *EMN MEETING ON BIOMATERIALS 2016*, 4<sup>th</sup>-7<sup>th</sup> April 2016, *Holiday Inn Resort Phuket, Phuket, Thailand*
- *"6<sup>th</sup> International Seminar on Biomaterials & Regenerative Medicine" (BIOREMEDIATION 2015)*, 17<sup>th</sup>-20<sup>th</sup> September 2015, Oradea, Romania.
- *5<sup>th</sup> Molecular Materials Meeting @ Singapore 2015*, 3<sup>rd</sup>-5<sup>th</sup> August 2015, Resorts World™ Sentosa Convention Center, Singapore
- *Industrial Workshop- Applicazioni Industriali di Nanomateriali: Prospettive & Criticità*, 27<sup>th</sup> January 2015, University of Rome "Tor Vergata", Aula Seminari "Galileo", Rome, Italy.

**Conference attendance**

**October 2017**

*International Conference TISSUE REGENERATION: ADVANCED CERAMICS AND COMPOSITES (TRACE)*  
19<sup>th</sup>-20<sup>th</sup> October 2017, Palazzo della Meridiana-Genova, Italy.

*International Seminar on Biomaterials and Regenerative Medicine - BIOREMEDIATION 2017 - Today's research for tomorrow medicine*  
05<sup>th</sup>-07<sup>th</sup> October 2017, Victor Babeş University for Medicine and Pharmacy Timișoara, Timișoara-România.

**July 2017**

*XI Convegno Nazionale sulla Scienza e Tecnologia dei Materiali INSTM*  
12<sup>th</sup>-15<sup>th</sup> July 2017, Hotel Continental Terme, Ischia Porto (Na)-Italy.

*XIV Convegno Nazionale AIMAT 2017*  
12<sup>th</sup>-15<sup>th</sup> July 2017, Hotel Continental Terme, Ischia Porto (Na)-Italy.

**May 2017**

*4° Convegno Nazionale del Forum On Regenerative Methods: Tecnologie innovative nelle metodiche di rigenerazione tissutale (FORM 2017)*  
11<sup>th</sup>-12<sup>th</sup> May 2017, , Istituto Superiore di Sanità (ISS), Rome, Italy.

**March 2017**

*STAMPA 3D IN MEDICINA: REGOLE, TUTELE, MERCATO E FORMAZIONE*  
31<sup>st</sup> March 2017, OPIFICIO GOLINELLI, Bologna

**January 2017**

*"2<sup>nd</sup> National Assembly of Youth Committees for UNESCO"*  
14<sup>th</sup>-15<sup>th</sup> January 2017, Naples, Italy



**November 2016**

*3<sup>rd</sup> International CBRNe Workshop*

25<sup>th</sup> November 2016, Villa Mondragone-Rome, Italy

*"Il Microbiota. L'Organo sconosciuto"*

12<sup>th</sup> November 2016, University of Rome "Niccolò Cusano", Rome-Italy.

*International Conference on Sustainable Bioplastics: "Bioplastics: A Genuine Alternative"*

10<sup>th</sup>-11<sup>th</sup> November 2016, Alicante, Spain.

*3<sup>rd</sup> Workshop on sustainable mobility*

7<sup>th</sup> November 2016, University of Rome "Niccolò Cusano", Rome-Italy.

**September 2016**

*#UNESCO4SCIENCE-Notte Europea dei Ricercatori 2016*

30<sup>th</sup> September 2016, Great Hall-Engineering Department, University of RomaTre, Rome, Italy.

*16<sup>o</sup> Italian Energy Summit*

26<sup>th</sup>-27<sup>th</sup> September 2016, Sole24Ore, Milan, Italy.

IX ECNP International Conference on Nanostructured Polymers and Nanocomposites (ECNP 2016)

18<sup>th</sup>-21<sup>st</sup> September 2016, Roma Eventi-Fontana di Trevi, Rome, Italy.

European Research Council (ERC) Giornata Nazionale di Lancio dei Bandi 2017 in Horizon 2020

14<sup>th</sup> September 2016, Aula Pocchiari, Istituto Superiore di Sanità, Rome, Italy.

Terza Giornata sul Grafene e Ossido di Grafene -Graphene Polymer Composite

9<sup>th</sup> September 2016, Salerno-Italy

**July 2016**

*Congresso AIMAT 2016*

13<sup>th</sup>-15<sup>th</sup> July 2016, Hotel Continental, Ischia Porto (Na), Italy

*Congresso SIB 2016*

13<sup>th</sup>-15<sup>th</sup> July 2016, Hotel Continental, Ischia Porto (Na), Italy

**June 2016**

*V Convegno GNB (Gruppo Nazionale Bioingegneria)*

20<sup>th</sup>-22<sup>nd</sup> June 2016, Facoltà di Ingegneria, Università degli Studi di Napoli "Federico II", Naples-Italy.

**April 2016**

*II Convegno Nazionale: Nanotecnologie e nanomateriali nel settore alimentare e loro valutazione di sicurezza*

29<sup>th</sup> April 2016, Aula Pocchiari, Istituto Superiore di Sanità (ISS), Rome-Italy.

*PROGETTO RinnovaReNano: Sviluppo Responsabile dei Nanomateriali ed opportunità per il sistema industriale regionale*

18<sup>th</sup> April 2016, Aula Pocchiari, Istituto Superiore di Sanità (ISS), Rome-Italy.

*Le Prospettive Professionali dell'Ingegnere Biomedico*

18<sup>th</sup> April 2016, Sala del Chiostro Università La Sapienza di Roma, Rome-Italy

*3<sup>o</sup> Convegno Nazionale del Forum On Regenerative Methods (FORM) 2016*

*Metodiche rigenerative: Applicazioni innovative in odontostomatologia e ortopedia*

7<sup>th</sup>-8<sup>th</sup> April 2016, Aula Pocchiari, Istituto Superiore di Sanità (ISS), Rome-Italy.

*EMN MEETING ON BIOMATERIALS 2016 (INVITED)*

4<sup>th</sup>-7<sup>th</sup> April 2016, *Holiday Inn Resort Phuket, PHUKET, THAILAND*

**March 2016**

COMSOL Multiphysics Workshop

09<sup>th</sup> March 2016, Great Hall, University of Rome "Niccolò Cusano", Rome, Italy

**January 2016**

*"1<sup>st</sup> National Assembly of Youth Committees for UNESCO"*

15<sup>th</sup>-16<sup>th</sup> January 2016, Rome, Italy (15<sup>th</sup> January at Senato, Rome-Italy; 16<sup>th</sup> January at University of Rome)

"Niccolò Cusano", Rome-Italy)

#### **November 2015**

*1<sup>st</sup> International Congress Advances in the Packaging Industry-Product and Process (API)*  
19<sup>th</sup>-20<sup>th</sup> November 2015, Castel dell'Ovo, Naples, Italy.

*2<sup>nd</sup> International CBRNe Workshop "IW CBRNe 2015"*  
20<sup>th</sup> November 2014, University of Rome "Tor Vergata", Rome, Italy.

*2<sup>nd</sup> Workshop on the State-of-the-art and future trends for a sustainable development of road vehicles*  
16<sup>th</sup> November 2015, Great Hall-University of Rome "Niccolò Cusano", Rome, Italy.

#### **October 2015**

*Congress: "Il cantiere dell'energia dai rifiuti: tecnologie ed esperienze"*  
29<sup>th</sup> October 2015, Great Hall-University of Rome "Niccolò Cusano", Rome, Italy.

*INBB (Istituto Nazionale Biostrutture e Biosistemi Consorzio Interuniversitario) Congress: Ricerche Bio-Mediche di Frontiera*  
22<sup>nd</sup>-23<sup>rd</sup> October 2015, Aula Marconi, CNR Piazzale Aldo Moro, Rome, Italy.

*2<sup>nd</sup> Bilateral Italian/Indian workshop "Nanoscale Excitations in Emergent Materials" (NEEM)*  
12<sup>th</sup>-14<sup>th</sup> October 2015, Aula Marconi, CNR Piazzale Aldo Moro, Rome, Italy.

*Panel Discussion: "Il problem solving nella gestione del k mammario "innovazione tecnologica e biotecnologie nello screening del k mammario: potenzialità e limiti"*  
2<sup>nd</sup> October 2015, Great Hall-University of Rome "Niccolò Cusano", Rome, Italy.

#### **September 2015**

*Nanoscience & Nanotechnology 2015 (NN15)*  
28<sup>th</sup> September- 2<sup>nd</sup> October 2015, INFN-Laboratori Nazionali di Frascati, Rome-Italy.

*ICNAAM 2015, Second Minisymposium on Mathematics in Engineering and Technology,*  
23<sup>rd</sup>-29<sup>th</sup> September 2015, Rodos Palace Hotel, Rhodes, Greece.

*"6<sup>th</sup> International Seminar on Biomaterials & Regenerative Medicine" (BIOREMEDI 2015) (INVITED)*  
17<sup>th</sup>-20<sup>th</sup> September 2015, Oradea, Romania.

#### **August 2015**

*5<sup>th</sup> Molecular Materials Meeting @ Singapore 2015 (INVITED)*  
3<sup>rd</sup>-5<sup>th</sup> August 2015, Resorts World™ Sentosa Convention Center, Singapore

#### **July 2015**

*"X Convegno Nazionale sulla Scienza e Tecnologia dei Materiali INSTM"*  
28<sup>th</sup> June-1<sup>st</sup> July 2015, Favignana (TP), Italy.

#### **June 2015**

*VI WORKSHOP NAZIONALE AICING, Molecules and Materials: Chemistry for Engineering*  
22<sup>nd</sup>-23<sup>rd</sup> June 2015, Chiostro di San Pietro in Vincoli, University of Rome "Sapienza", Rome-Italy.

*IDBN Italian Digital Biomanufacturing Network - Foundation Conference*  
19<sup>th</sup> June 2015, Aula Magna del Centro di Ricerca Codivilla-Putti, Istituto Ortopedico Rizzoli (IOR), Bologna-Italy.

*"L'alimentazione nella pratica sportiva per il benessere psico-fisico dell'atleta e per il miglioramento delle performance"*  
06<sup>th</sup> June 2015, Aula Magna, University of Rome "Niccolò Cusano", Rome-Italy.

#### **March 2015**

*2<sup>o</sup> Convegno Nazionale del Forum On Regenerative Methods (FORM) 2015*  
*Le metodiche rigenerative nel Servizio Sanitario Nazionale (SSN): applicazioni attualmente utilizzate-*  
19<sup>th</sup>-20<sup>th</sup> March 2015, Aula Pocchiarri, Istituto Superiore di Sanità (ISS), Rome-Italy.

#### **January 2015**

*Industrial Workshop- Applicazioni Industriali di Nanomateriali: Prospettive & Criticità (INVITED)*  
27<sup>th</sup> January 2015, University of Rome "Tor Vergata", Aula Seminari "Galileo", Rome, Italy.

#### **November 2014**

*Workshop on Sustainable Mobility - WSM2014*  
17<sup>th</sup> November 2014, University of Rome "Niccolò Cusano", Rome, Italy.

*1st International CBRNe Workshop "IW CBRNe 2014" - Strategies and Solutions to Face Ongoing Global CBRNe Threats.*

21<sup>st</sup> November 2014, University of Rome "Tor Vergata", Rome, Italy.

#### **September 2014**

*ICNAAM 2014, First Minisymposium on Mathematics in Engineering and Technology,*

22<sup>nd</sup>-28<sup>th</sup> September 2014, Rodos Palace Hotel, Rhodes, Greece.

*XII Convegno Nazionale AIMAT 2014*

21<sup>st</sup>-24<sup>th</sup> September 2014, Officine Cantelmo, Lecce, Italy.

#### **February 2014**

*Nuove metodologie e applicazioni dell'antropologia e genetica forensi*

14<sup>th</sup> February 2014, Aula Magna "Pietro Gismondi", Macroarea di Scienze Matematiche Fisiche e Naturali,

University of Rome "Tor Vergata", Rome-Italy.

#### **December 2013**

*VIII Convegno di Dermatologia Militare*

3<sup>rd</sup> December 2013, Palazzo Salviati, Centro Alti Studi per la Difesa (CASD), Rome-Italy.

#### **November 2013**

*1° Convegno Nazionale del Forum On Regenerative Methods (FORM) 2013*

*Le metodiche rigenerative nel SSN: una speranza per il futuro*

28<sup>th</sup>-29<sup>th</sup> November 2013, Aula Pocchiarri, Istituto Superiore di Sanità (ISS), Rome-Italy.

#### **September 2013**

*9<sup>th</sup> Edition Nanoforum*

*Micro, Nano & Advanced technologies: where research meets business*

18<sup>th</sup>-20<sup>th</sup> September 2013, Faculty of Engineering, University of Rome "La Sapienza", Rome-Italy

#### **June-July 2013**

*IX Convegno Nazionale sulla Scienza e Tecnologia dei Materiali INSTM*

30<sup>th</sup> June-3<sup>rd</sup> July 2013, Bari, Italy.

#### **December 2012**

*Convegno di studi: DNA e il Processo Penale: la scienza in ausilio della conoscenza*

Associazione Culturale Osservatorio Penale

14<sup>th</sup> December 2012, Residenza Farnese, Rome-Italy.

#### **November 2012**

*97° Congresso Nazionale Società Italiana di Ortopedia e Traumatologia (SIOT) 2012*

*Lesioni capsulo-legamentose acute, le protesi dolorose*

10<sup>th</sup>-14<sup>th</sup> November 2012, Marriott Park Hotel, Rome-Italy.

#### **September 2012**

*8<sup>th</sup> Edition Nanoforum*

*Micro, Nano & Advanced technologies: where research meets business*

24<sup>th</sup>-26<sup>th</sup> September 2012, Faculty of Engineering, University of Rome "La Sapienza", Rome-Italy

*11<sup>th</sup> Congress AIMAT (Associazione Italiana Ingegneria dei Materiali) 2012*

16<sup>th</sup>-19<sup>th</sup> September 2012, Hotel Summit, Gaeta (LT)-Italy

#### **June 2012**

*3<sup>rd</sup> Congress GNB (National Bioengineering Group) 2012*

26<sup>th</sup>-29<sup>th</sup> June 2012, University of Rome "Roma Tre", Faculty of Letters and Philosophy

*SNETP Open Day: "Research and Development for a Sustainable Nuclear Energy in Europe: Status and Perspectives"*

19<sup>th</sup> June 2012, ENEA Headquarters, Rome-Italy

#### **May 2012**

*YOUNG INTERNATIONAL FORUM*

8<sup>th</sup>-11<sup>th</sup> May 2012, "La Pelanda" Testaccio-Rome, Italy

#### **April 2012**

*International Workshop on innovative nuclear reactors cooled by heavy liquid metals: status and perspectives*

17<sup>th</sup>-20<sup>th</sup> April 2012, University of Pisa-Faculty of Engineering, Pisa-Italy

**December 2011**

*Third International Conference: Regenerative Surgery*  
14<sup>th</sup>-16<sup>th</sup> December 2011, Eurostars Roma Aeterna Hotel, Rome-Italy

**October 2011**

*96<sup>th</sup> Congresso Nazionale della Società Italiana di Ortopedia e Traumatologia (SIOT 2011)*  
*Materiali e Rivestimenti in Ortopedia/Biotecnologie applicate alla Traumatologia*  
1<sup>st</sup>-5<sup>th</sup> October 2011, Pala Congressi, Rimini-Italy.

**September 2011**

*7<sup>th</sup> Edition Nanoforum*  
*Micro & Nanotechnologies: where research meets business*  
13<sup>th</sup>-15<sup>th</sup> September 2011, Faculty of Engineering, University of Rome "La Sapienza", Rome-Italy

*24<sup>th</sup> European Conference on Biomaterials (ESB)*  
4<sup>th</sup>-8<sup>th</sup> September 2011, Convention Centre Dublin (CCD), Dublin-Ireland

**July 2011**

*National Congress on Corrosion and Protection-IX Edition*  
6<sup>th</sup>-8<sup>th</sup> July 2011, Monte Porzio Catone (RM)-Italy

**May 2011**

*13<sup>th</sup> Annual Seminar & Meeting, Ceramics, cells and tissues, International Congress on Bioceramics, Surface-reactive biomaterials as scaffolds and coatings: interactions with cells and tissues*  
17<sup>th</sup>-20<sup>th</sup> May 2011, Faenza (RA)-Italy

**May 2010**

BIOMATERIALI PER LA MEDICINA DEL BENESSERE: Farmaci, termalismo, protesi tradizionali, ingegneria tissutale e genetica: ruolo della nanotecnologia  
6° PROGETTO GIACOBBE JACOB PROJECT (6<sup>th</sup> edition)  
28<sup>th</sup> May 2010, Exposanità Exhibition area – Bologna

**March 2010**

*III Forum Nazionale Giovani Ricercatori di Scienza e Tecnologia dei Materiali*  
22<sup>nd</sup>-24<sup>th</sup> March 2010, Centro civico di arte e cultura Altinate San Gaetano, Padua-Italy

**November-December 2009**

*SAMIC 2009: From molecules to nanosystems: syntheses and methodologies in inorganic chemistry, chemistry and materials for energy and health*  
30<sup>th</sup> November-3<sup>rd</sup> December 2009, Bressanone/Brixen (BZ)-Italy.

**October 2009**

*4<sup>th</sup> International Conference on surfaces, coatings and nanostructured materials (NanoSmat 2009)*  
19<sup>th</sup>-22<sup>nd</sup> October 2009, Rome-Italy

**June 2009**

*11<sup>th</sup> International Conference and Exhibition of the European Ceramic Society (ECERS) 2009*  
21<sup>st</sup>-25<sup>th</sup> June 2009, Cracow, Poland

**May 2009**

*12<sup>th</sup> Annual Seminar & Meeting, Ceramics, cells and tissues, International Congress on Bioceramics, Surface-reactive biomaterials as scaffolds and coatings: interactions with cells and tissues*  
19<sup>th</sup>-22<sup>nd</sup> May 2009, Faenza (RA)-Italy

**September 2008**

*Congresso 2008 della Società Italiana Biomateriali*  
17<sup>th</sup> -19<sup>th</sup> September 2008, Follonica-Italy

**June-July 2008**

*2<sup>nd</sup> International congress on ceramics*  
29<sup>th</sup> June- 4<sup>th</sup> July 2008, Verona-Italy

**May-June 2008**

*8<sup>th</sup> World Biomaterials Congress*  
28<sup>th</sup> May-01<sup>st</sup> June 2008, Amsterdam-Poland

**October 2007**

## Technical skills and competences

Several year experience in laboratory activities:

- Wet chemistry
- Synthesis of inorganic materials by precipitation and titolation
- Synthesis by sol gel process
- Chemical functionalization of particles and fibers
- Films by sol-gel processes (dip coating and spin coating)
- Production of fibers and tubes by electrospinning technique
- Preparation of short fibers by emulsion
- Production of capsules and spheres by extrusion, cross-linking and emulsion routes.

Excellent experience and practical knowledge of the following characterisation techniques:

- ✓ Optical Microscopy
- ✓ Fluorescence Microscopy
- ✓ Scanning Electron Microscopy (FE-SEM) equipped with EDS
- ✓ X-ray diffraction analysis (XRD and HT-XRD) for powder, thin films and bulk samples
- ✓ Infrared spectroscopy (FT-IR, ATR)
- ✓ UV-Vis spectroscopy
- ✓ Raman spectroscopy
- ✓ High performance liquid chromatography (HPLC)
- ✓ Optical properties measurements (photoluminescence and cathodoluminescence)
- ✓ Rheometer
- ✓ Thermal analysis (TG-DTA, DSC)
- ✓ Mechanical characterization (universal tensile test machine, Vickers and Knoop microhardness)
- ✓ Dynamico-mechanical thermoanalysis (DMTA)
- ✓ Porosimetry and specific surface area measurements (Hg-porosimetry and N<sub>2</sub> absorption)
- ✓ Electrospinning set-up (conventional and coaxial)
- ✓ Tests *in vitro* in simulated body fluids (SBF) in CO<sub>2</sub> incubator
- ✓ Dynamic viscosimetry and conductimetry

## Teaching Experiences

### A.Y. 2017-2018

Associate Professor of the Materials Science and Technology (9CFU) and of Biomaterials & Tissue Engineering (9CFU) Courses at the bachelor degree in Industrial Engineering (Curricula Biomedical, Management, Electronic, Agroindustrial and Mechanical) and in Civile Engineering, at the University of Rome "Niccolò Cusano".

Seminar (invited):

26-27/10/2017: "*Cementi innovativi per applicazioni in odontoiatria, chirurgia maxillo-facciale e ortopedia*", in the context of the IV Course *Biomateriali (BIOMAT2017): Tecnologie innovative in odontoiatria, chirurgia maxillo-facciale e ortopedia*", Rome 26<sup>th</sup>-27<sup>th</sup> October 2017, organised by ISTITUTO SUPERIORE DI SANITÀ "Dipartimento di Tecnologie e Salute", in collaboration with Seriem Management & Consulting in Sanità e ENCON Engineering & Consulting.

### A.Y. 2016-2017

Associate Professor of the Materials Science and Technology (9CFU) and of Biomaterials & Tissue Engineering (9CFU) Courses at the bachelor degree in Industrial Engineering (Curricula Biomedical, Management, Electronic, Agroindustrial and Mechanical) and in Civile Engineering, at the University of Rome "Niccolò Cusano".

Seminar (invited):

20-21/10/2016: "*Drug delivery e incapsulamento cellulare: materiali, dispositivi, meccanismi di rilascio e interazione con le cellule.*", in the context of the III Course "*BIOMATERIALI: Applicazioni di rigenerazione tissutale in odontostomatologia e ortopedia*", Rome 20<sup>th</sup>-21<sup>st</sup> October 2016, organised by ISTITUTO SUPERIORE DI SANITÀ "Dipartimento di Tecnologie e Salute", in collaboration with Seriem Management & Consulting in Sanità e ENCON Engineering & Consulting.

### A.Y. 2015-2016

Associate Professor of the Materials Science and Technology (9CFU) and of Biomaterials & Tissue Engineering (9CFU) Courses at the bachelor degree in Industrial Engineering (Curricula Biomedical, Management, Electronic, Agroindustrial and Mechanical) and in Civile Engineering, at the University of Rome "Niccolò Cusano".

Seminar (invited):

10/11/2015: "*Tissue engineering and regenerative medicine in dentistry and maxillofacial surgery: materials, technologies and interaction with cells*" In the context of the Course "*Biomaterials evolution in dentistry and maxillofacial surgery*", Rome 09<sup>th</sup>-10<sup>th</sup> November 2015, organised by ISTITUTO SUPERIORE DI SANITÀ "Dipartimento di Tecnologie e Salute", in collaboration with SerialeM Management & Consulting in Sanità e ENCON Engineering & Consulting

#### A.Y. 2014-2015

Associate Professor of the Materials Science and Technology (9CFU) and of General Chemistry (9CFU) Courses at the bachelor degree in Industrial Engineering and in Civile Engineering, at the University of Rome "Niccolò Cusano".

#### A.Y. 2013-2014

Lecturer of the General Chemistry Course (9CFU) at the bachelor degree in Industrial Engineering and in Civile Engineering, at the University of Rome "Niccolò Cusano".

Seminar (invited):

03/10/2013: "*Bioceramics: properties, synthesis methodologies, applications and clinical cases*" In the context of the Course "*Biomaterials: applications in medical devices and regeneration methods- Present and Future*", Rome 03<sup>rd</sup>-04<sup>th</sup> October 2013, organised by ISTITUTO SUPERIORE DI SANITÀ "Dipartimento di Tecnologie e Salute", in collaboration with SerialeM Management & Consulting in Sanità e ENCON Engineering & Consulting

#### A.Y 2012-2013

Lecturer of the General Chemistry Course (9CFU) at the bachelor degree in Mechanical Engineering and in Civile Engineering, at the University UniCusano of Rome.

#### A.Y 2012-2013

Exercitations, seminars and lessons for the following courses at University of Rome 'Tor Vergata':

*Construction and Architectural Engineering* (course: Technology of Materials and Applied Chemistry)  
*Medical Engineering* (course: Science and Technology of Biomaterials)  
*Mechanical Engineering* (course: Science and Technology of Materials)  
*Materials Science and Technology* (course: Materials for biomedical devices)  
*Materials Science and Technology* (course: Composites and Ceramics)  
*Orthopedic Techniques* (course: Science and Technology of Materials)  
*Cardiovascular perfusion and cardiocirculatory physiopatology techniques* (course: Science and Technology of Materials)

#### A.Y 2011-2012

Exercitations, seminars and lessons for the following courses at University of Rome 'Tor Vergata':

*Construction and Architectural Engineering* (course: Technology of Materials and Applied Chemistry)  
*Medical Engineering* (course: Science and Technology of Biomaterials)  
*Mechanical Engineering* (course: Science and Technology of Materials)  
*Materials Science and Technology* (course: Materials for biomedical devices)  
*Materials Science and Technology* (course: Composites and Ceramics)  
*Orthopedic Techniques* (course: Science and Technology of Materials)  
*Cardiovascular perfusion and cardiocirculatory physiopatology techniques* (course: Science and Technology of Materials)

#### A.Y 2010-2011

Exercitations, seminars and lessons for the following courses at University of Rome 'Tor Vergata':

*Medical Engineering* (course: Science and Technology of Biomaterials)  
*Materials Science and Technology* (course: Materials for biomedical devices)  
*Cardiovascular perfusion and cardiocirculatory physiopatology techniques* (course: Science and Technology of Materials)

#### A.Y 2009-2010

Exercitations, seminars and lessons for the following courses at University of Rome 'Tor Vergata':

*Medical Engineering* (course: Science and Technology of Biomaterials)

*Materials Science and Technology* (course: Materials for biomedical devices)  
*Cardiovascular perfusion and cardiocirculatory physiopatology techniques* (course: Science and Technology of Materials)

A.Y 2008-2009

Exercitations, seminars and lessons for the following courses at University of Rome 'Tor Vergata':

*Medical Engineering* (course: Science and Technology of Biomaterials)

A.Y 2007-2008

Exercitations, seminars and lessons for the following courses at University of Rome 'Tor Vergata':

*Medical Engineering* (course: Science and Technology of Biomaterials)

A.Y 2006-2007

Exercitations, seminars and lessons for the following courses at University of Rome 'Tor Vergata':

*Medical Engineering* (course: Science and Technology of Biomaterials)

- Member of the examination committee
- Member of the graduate degree committee
- Member of Ph.D. Examination Procedure at University of Erlangen-Nuremberg Cauerstr. Erlangen, Germany (Doctoral Examination Procedure of Wei Li, 29/07/2015)
- Member of Committee for RTD-A Competition (SSD ING-IND/16) (05/06/2015)

Supervisor of Ph.D Students (Ph.D Course in Industrial Engineering)

November 2017-now

- PhD Student: Michela Raio

Cycle: XXXIII

University: University of Rome Niccolò Cusano

Department: Engineering

Group: Materials Science & Engineering, Biomaterials Group

February 2016-now

- PhD Student: Ilaria Campioni

Cycle: XXXI

University: University of Rome Niccolò Cusano

Department: Engineering

Group: Materials Science & Engineering, Biomaterials Group

November 2016-now

- PhD Student: Federica Nigro

Cycle: XXXII

University: University of Rome Niccolò Cusano

Department: Engineering

Group: Materials Science & Engineering, Biomaterials Group

Supervisor of Erasmus + Students

June 2015-August 2015

- Erasmus + Student: Cristina Elena Poenaru  
University: University POLITEHNICA of Bucharest  
Faculty: Engineering  
Department: Materials Science & Engineering, Biomaterials Group  
Project: "*Mechanical characterisation of innovative dental implants*"
- Erasmus + Student: Claudia Georgiana Milea  
University: University POLITEHNICA of Bucharest  
Faculty: Engineering  
Department: Materials Science & Engineering, Biomaterials Group  
Project: "*Re-use of sea shell particles for the production of biopolymeric matrix composites and*"

*for the hydroxyapatite synthesis"*

Supervisor of Erasmus + Students

June 2017-September 2017

- Erasmus + Student: Daniela Gheorghita

University: University POLITEHNICA of Bucharest

Faculty: Engineering

Department: Materials Science & Engineering, Biomaterials Group

Project: "*Fabrication and characterisation of composite fibers*"

- Erasmus + Student: Ghițică Alexandra

University: University POLITEHNICA of Bucharest

Faculty: Engineering

Department: Materials Science & Engineering, Biomaterials Group

Project: "*Preparation and characterisation of composite films*"

Supervisor of Visiting Researchers

November 2017-December 2017

PhD.: Marina Ramos

University: University of Alicante

Faculty: Science

Department: Analytical Chemistry, Nutrition and Food Science, Food Science & Engineering

Group: Nanomaterials and Polymer Analysis

Project: "*Preparation and characterisation of natural fibers based on the use of orange waste*"

Supervisor of Visiting PhD. Students

March 2016-September 2016

PhD. Student: Farhad Garavand

University: University of Tehran

Faculty: Agricultural Engineering and Technology

Department: Food Science & Engineering

Project: "*Preparation and characterisation of compostable films based on poly(lactic acid) and fruit waste extracts for applications in the food packaging*"

Supervisor of Visiting Students

March 2016-September 2016

Student: Nooshin Vahedikia

University: University of Tehran

Faculty: Agricultural Engineering and Technology

Department: Food Science & Engineering

Project: "*Preparation and characterisation of alginate and fruit waste extract based composites for applications in the food sector*"

Supervisor for more than 50 theses for Bachelor and Master degrees in Mechanical Engineering, Industrial Engineering, Biomedical Engineering, Materials Science and Technology, Chemistry, Electronical Engineering, Environmental Engineering, Energetic Engineering.

Projects

**Other**

Years: 2017-now

Project: COST Actions | COST Association | CA COST Action CA16122

Title: Biomaterials and advanced physical techniques for regenerative cardiology and neurology (BIONECA)



Years: 2016-now  
Project: LIFE+ 2015  
Title: LIFE15 ENV/IT/000417, LIFE Paint-it; Call: LIFE+; Topic: A new environment-friendly manufacturing approach for marine antifouling coating

Years: 2016-now  
Project: Toscana FAR-PAS  
Title: SCIADRO-Sciame di Droni

Years: 2013-now  
Project: CARIPLO 2012  
Title: *"Magnetic nanoparticle filled conductive polymer composites for emi reduction"*

Years: 2013-now  
BRIDGESTONE Scientific and Technological Project  
Title: *"Development of the use of recycled and non-petrochemical derived materials for industrial applications in the fire sector"*

Years: 2012-now  
Comital Industrial Research Project  
Title: *"Technical and scientific state of the art about the preparation of thermostable, biodegradable and compostable resins"*

Years: 2011-now  
Enea Project PAR 2011  
Accordo di Programma Ministero dello Sviluppo Economico ENEA  
Progetto: Nuovo nucleare da fissione: collaborazioni internazionali e sviluppo competenze in materia nucleare  
Attività di ricerca: *"Caratterizzazione di rivestimenti PVD di TiN, FeAl, FeCrAl su substrati metallici"*  
Title: *"Characterisation of TiN, FeAl, FeCrAl based coatings on metallic substrates by PVD"*

Years 2011-2012  
*"L'ORÉAL-UNESCO Italy for Women and Science 2011-IX Edition" Project*  
Title: *"Bioresorbable nanospheres and microspheres loaded with human neurons as dopamine release systems: development of a potential innovative therapy for the Parkinson disease treatment"*

Years: 2012  
Alitalia Industrial Research Project  
Title: *"Oil Monitoring"*

Years: 2012  
Stellini Textile Group S.r.l. Industrial Research Project  
Title: *"Determination of HALS in polymeric pellets"*

Years: 2006-2009  
Trial Project (CONSORZIO MATRIS)  
Title: *"Technologies and innovative materials for high temperatures oxidation resistance coatings for elevated performances aerospace components"*

Years: 2007-2009  
INSTM-PRISMA project 2007  
Title: *"Study of the alignment and segregation phenomena induced in hybrid polymeric matrices and in electrospun polymeric blends"*

Years: 2006-2008  
PRIN project 2006  
Title: *"Design and manufacture of organic, inorganic and hybrid nanostructured scaffolds as substrates for the differentiation of stem cells in regenerative medicine"*

#### Affiliations to Scientific Associations

- Italian Interuniversity Consortium on Materials Science and Technology (INSTM)
- Italian Society of Materials Engineering (AIMAT)
- Biomaterials Italian Society (SIB)
- European Society for Biomaterials (ESB)
- Center for Regenerative Medicine (CIMER)
- International Association of Advanced Materials

- Metallurgy Italian Society (AIM-Associazione Italiana Metallurgia)
- American NanoSociety
- Athens Institute for Education and Research (ATINER)
- Società Ticinese delle Scienze Biomediche e Chimiche (STSBC)
- IDBN Italian Digital Biomanufacturing Network
- Mediterranean Institute of Fundamental Physics (MIFP)

Editor for books:

'*Bone and biomaterials for bone tissue engineering*', Special Issue volume published in *Key Engineering Materials, Trans Tech Publication (TTP) Inc.*, 2013

'*Nanomaterials and Nanotechnologies in Biomedical and Tissue Engineering*', Special Issue volume to be published in *Journal of Nanomaterials, Hindawi Publishing Corporation*, 2015, In Press.

Member of Scientific/Organizing Committee of Conferences

*INTERNATIONAL CONFERENCE ON CERAMICS AND COMPOSITE MATERIALS*, 14-15 May, 2018, Rome, Italy.

"*TISSUE REGENERATION: ADVANCED CERAMICS AND COMPOSITES*" (*TRACE*), October 19-20, Aula Convegna NH Collection Genova Marina Molo, Italy

*International Conference and Exhibition on Materials & Engineering (Materials 2018)*  
Feb 7-9, 2018 San Diego, USA

*Baltic Conference Series 2017*, 8<sup>th</sup>-11<sup>th</sup> October 2017, Stockholm-Sweden

*International Seminar on Biomaterials and Regenerative Medicine (BioReMed 2017)*  
5<sup>th</sup>-8<sup>th</sup> October 2017, Timisoara, Romania.

*3<sup>rd</sup> Int'l Conference on Biomaterials and Applications (ICBA 2017)*  
20-22 July 2017, Guilin, China.

*41<sup>st</sup> International Conference and Expo on Advanced Ceramics and Composites (ICACC 2017)*  
SYMPOSIUM 5: Next Generation Bioceramics and Biocomposites  
22<sup>nd</sup>-27<sup>th</sup> January 2017, Daytona Beach, United States Of America.

*#UNESCO4SCIENCE-Notte Europea dei Ricercatori 2016*  
30<sup>th</sup> September 2016, Great Hall-Engineering Department, University of RomaTre, Rome, Italy.  
in collaboration with Comitato Giovani Lazio della CNI per l'Unesco

"*High value bio-based compounds for food packaging applications*"  
Dr. Marina Ramos, University of Alicante, Department of Analytical Chemistry, Nutrition and Food Science, Group Nanomaterials and Polymer Analysis  
29<sup>th</sup> November 2017, Aula IV, University of Rome "*Niccolò Cusano*", Rome, Italy

"*Polymer composites with metal nanoparticles for organic optoelectronics*" hold by  
Dr. Jiri Plfeger, Macromolecular Chemistry Institute (Ústav makromolekulární chemie AV ČR, v. v. i.)  
Praha- Česká Republika  
22<sup>nd</sup> September 2016, Great Hall, University of Rome "*Niccolò Cusano*", Rome, Italy

*Lectures in the context of Erasmus+ programme from Adana University*  
"*Analytical solution for shallow-water wave equations*", hold by Dr. Baran Aydin, Adana Science and Technology University, Department of Civil Engineering  
"*Evaluation of unbound granular pavement layers with non-destructive test methods*", hold by Dr. Volkan Emre Uz, Adana Science and Technology University, Department of Civil Engineering  
20<sup>th</sup> June 2016, Classroom IV, University of Rome "*Niccolò Cusano*", Rome, Italy

"*EDILIZIA LOW COST/LOW TECH: Una progettazione modulare e tecnologicamente semplice*"  
*Lectures in the context of Erasmus+ programme from University of Osijek*  
"*Pratiche urbane e processi di autoconstruzione*", hold by Prof. Antonella Valitutti, Università degli Studi di Roma "Niccolò Cusano", Dipartimento di Ingegneria  
"*Traditional rural low-tech architecture of the Croatian part of Middle Europe*", hold by Prof. Sanja Lončar-Vickovi? University of Osijek, Department of Architecture and Urban Planning  
*Sistemi modulari di assemblaggio a secco: il pannello home done*, hold by Dott.ssa Sara Scagliotti,

Sapienza - Università di Roma  
01<sup>st</sup> June 2016, Classroom IV, University of Rome "Niccolò Cusano", Rome, Italy

*"UNESCO Let's Jazz"*

30<sup>th</sup> April 2016, International Jazz Day, in collaboration with Comitato Giovani Lazio della CNI per l'Unesco, Faramusic and I-jazz, Sala Consiliare del Comune di Rieti e Auditorium Vallone, Rieti, Italy.

*World Water Day: Acqua, sostenibilità e partecipazione*

22<sup>th</sup> March 2016, in collaboration with Comitato Giovani Lazio della CNI per l'Unesco and Consorzio Tiberina, Great Hall, University of Rome "Niccolò Cusano", Rome, Italy

*COMSOL Multiphysics Workshop*

09<sup>th</sup> March 2016, Great Hall, University of Rome "Niccolò Cusano", Rome, Italy

*"1<sup>st</sup> National Assembly of Youth Committees for UNESCO"*

15<sup>th</sup>-16<sup>th</sup> January 2016, Rome, Italy (15<sup>th</sup> January, at Senato, Rome-Italy; 16<sup>th</sup> January at University of Rome "Niccolò Cusano", Rome-Italy)

*"6<sup>th</sup> International Seminar on Biomaterials & Regenerative Medicine"* (BIOREMED 2015)

17<sup>th</sup>-20<sup>th</sup> September 2015, Oradea, Romania.

*"Some Stem Cells Studies in Orthopedics, Neurology and Cardiology by Synchrotron Radiation"* hold by Prof. Franco Rustichelli, Polytechnical University of Marches, Ancona, Italy

26<sup>th</sup> September 2015, Great Hall, University of Rome "Niccolò Cusano", Rome, Italy

*"Composite materials for electronic applications"* hold by

Dr. Francesco Piana, Macromolecular Chemistry Institute (Ústav makromolekulární chemie AV ČR, v. v. i.) Praha- Česká Republika

09<sup>th</sup> July 2015, Great Hall, University of Rome "Niccolò Cusano", Rome, Italy

*"New Trends in Biomaterials Research and Characterization: The potential of BIOCERAMICS"* hold by Prof. Iulian Antoniac, University Politehnica of Bucharest, Romania

21<sup>st</sup> May 2015, Great Hall, University of Rome "Niccolò Cusano", Rome, Italy

*"Functional ceramic materials for biomedical, biotechnological and environmental applications"* hold by Dr. Laura Treccani, University of Bremen-Germany

14<sup>th</sup> April 2015, Great Hall, University of Rome "Niccolò Cusano", Rome, Italy

Member of Editorial Board:

*Biomedical glasses-DE GRUYTER OPEN*

*International Journal of Nanomaterials, Nanotechnology and Nanomedicine*

*Frontiers in Biomaterials*

*Chemical Science Communications*

*Elyns Journal of Material Science and Techniques*

*International Journal of Emerging Science and Engineering*

*International Journal of Engineering and Advanced Technology(TM) (IJEAT)*

*International Journal of Innovative Science and Modern Engineering*

*International Journal of Innovative Technology and Exploring Engineering*

*International Journal of Management and Humanities*

*Nanomedicine and Nanotechnology Journal*

*Open Journal of Materials Science (Bentham Science)*

*Portico Journal of Chemistry - PJC*

*Recent Patents on Materials Science (Bentham Science)*

*Scientific Journal International (SJI): Chemical & Bioengineering*

*The Open Materials Science Journal-Bentham Open*

*World Journal of Textile Engineering and Technology*

Member of Technical Program Committee for the 2<sup>nd</sup> International Conference on Biomedical Engineering and Biotechnology (ICBEB 2013), Wuhan, China, 11<sup>th</sup>-13<sup>th</sup> October 2013

Member of Committee for the "I Giovani e la Scienza- Fast Award 2015"

11<sup>th</sup>-13<sup>th</sup> April 2015, Milan-Italy

Member of Technical Program Committee for the 4<sup>th</sup> International Conference on Biomedical Engineering and Biotechnology (ICBEB 2015), Shanghai, China, 18<sup>th</sup>-20<sup>th</sup> August 2015

Member of Technical Program Committee for the 3<sup>rd</sup> International Conference on Biomedical

*Engineering and Biotechnology* (ICBEB 2014), Beijing, China, 25<sup>th</sup>-28<sup>th</sup> September 2014

Member of Technical Program Committee for the 2<sup>nd</sup> *International Conference on Biomedical Engineering and Biotechnology* (ICBEB 2013), Wuhan, China, 11<sup>th</sup>-13<sup>th</sup> October 2013

Invited Reviewer for 2014 *Global Conference on Polymer and Composite Materials* (PCM 2014), Ningbo, China, 27<sup>th</sup>-29<sup>th</sup> May 2014

Invited Reviewer for 2015 *Global Conference on Polymer and Composite Materials* (PCM 2015), Beijing, China, 16<sup>th</sup>-18<sup>th</sup> May 2015

Reviewer for International journals

*Acta Biomaterialia*  
*Advances in Colloid and Interface Science*  
*Advanced Powder Technology*  
*Applied Physics A: Materials Science & Processing*  
*Applied Surface Science*  
*Arabian Journal of Chemistry*  
*Biofabrication*  
*Bioceramics Development and Applications (Medical Science)*  
*Biointerphases*  
*Biomaterials Science-RSC Publishing*  
*Biomedical Materials*  
*Biomed Research International*  
*Carbon*  
*Cellulose*  
*Ceramics International*  
*Chemical Engineering & Technology*  
*Chemical Engineering Journal*  
*Colloids and Surfaces A: Physicochemical and Engineering Aspects*  
*Desalination and Water Treatment Science and Engineering*  
*Displays*  
*Fibers and Polymers*  
*Food Chemistry*  
*Hazardous Materials*  
*Fibers and Polymers*  
*International Journal of Applied Ceramic Technology*  
*International Journal of Applied Glass Science*  
*International Journal of Industrial Chemistry*  
*International Journal of Molecular Science*  
*International Journal of Physical Sciences*  
*International Journal of Polymeric Materials and Polymeric Biomaterials*  
*Iranian Journal of Chemistry and Chemical Engineering (IJCCE)*  
*Journal of Alloys and Compounds*  
*Journal of Applied Biomaterials & Functional Materials*  
*Journal of Applied Crystallography*  
*Journal of Biomaterials Applications*  
*Journal of Biomedical Materials Research Part A*  
*Journal of Industrial and Engineering Chemistry*  
*Journal of Inorganic and Organometallic Polymers and Material*  
*Journal of Inorganic Materials*  
*Journal of Luminescence*  
*Journal of Materials Chemistry B*  
*Journal of Materials Science*  
*Journal of Materials Science and Engineering C*  
*Journal of Micromechanics and Microengineering*  
*Journal of Microencapsulation*  
*Journal of Nanoscience and Nanotechnology*  
*Journal of non-crystalline solids*  
*Journal of Physics D: Applied Physics*  
*Journal of Porous Materials*  
*Journal of the American Ceramic Society*  
*Journal of The Minerals, Metals & Materials Society (JOM) (TMS)*  
*Journal of Thermal Analysis and Calorimetry*  
*Journal of the Royal Society Interface*  
*Journal of Tissue Engineering and Regenerative Medicine*  
*Journal of Zhejiang University-SCIENCE A*

*Materials*  
*Materials & Design*  
*Materials Characterization*  
*Materials Chemistry and Physics*  
*Materials Express*  
*Materials Letters*  
*Materials Research*  
*Materials Research Express*  
*Materials Science and Engineering B*  
*Materials Science and Engineering C*  
*Medical Engineering & Physics*  
*Microencapsulation*  
*Nanoscience and Nanotechnology Letters*  
*Nanotechnology*  
*New Journal of Chemistry*  
*Optical Materials*  
*Optics and Laser Technology*  
*Physical Chemistry Chemical Physics*  
*Polymer Bulletin*  
*Polymers*  
*Polymers for Advanced Technology*  
*Powder Technology*  
*Research on Chemical Intermediates*  
*Smart Materials and Structures*  
*Spectroscopy Letters*  
*Thin Solid Films*

### Collaborations

- Institute of Biochemistry and Clinical Biochemistry, Università Cattolica del Sacro Cuore
- Departments of Chemical Science and Technology, Physics, Biomedicine & Prevention, Industrial Engineering, Enterprise Engineering, University of Rome "Tor Vergata", Rome-Italy
- Department of Materials Science and Chemical Engineering, LINCE Lab, Politecnico di Torino, Torino-Italy
- Department of Chemistry, University of Rome "Sapienza", Rome-Italy.
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- Department of Chemical Science, University of Catania, Catania-Italy
- Centro Sviluppo Materiali S.p.a., Rome-Italy
- Enea, Centro Ricerche Brasimone, Bologna-Italy
- Mechanical and Industrial Engineering Department, University of Rome 'Roma Tre', Rome-Italy
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- Department of Technology and Health, Istituto Superiore di Sanità, Rome-Italy
- Ceramic Physics Laboratory & Research Institute for Nanoscience, RIN, Kyoto Institute of Technology, Kyoto-Japan
- Materials Science and Technology Center, UdR INSTM, NIPLAB, University of Perugia, Terni-Italy
- Department of Experimental Medicine and Biochemical Science, Section of Biochemistry and Molecular Biology, Perugia-Italy
- Department of Mechanical Engineering and Department of Biology, University of Padova, Padova-Italy
- Istituto di Struttura della Materia, Consiglio Nazionale delle Ricerche, Rome-Italy
- Parco Torricelli delle Arti e delle Scienze, Faenza (RA)-Italy
- Department of Materials and Environmental Engineering, University of Modena-Reggio Emilia, Italy
- Centre for Material and Fibre Innovation, Deakin University, Geelong, Victoria-Australia
- Advanced Ceramics Group, Faculty of Production Engineering, University of Bremen, Germany
- WMG Institute, University of Warwick, UK
- Institute of Macromolecular Chemistry, Prague, Česká republika
- CREA-FRU, Rome-Italy
- Department of Mechanical and Aerospace Engineering, Tandon School of Engineering, New York University (NYU)

### **Publications**

#### *(a) International Journals*

- *Published*

(1) Alessandra Bianco, Ilaria Cacciotti, Mariangela Lombardi, Laura Montanaro, Gualtiero Gusmano

**Thermal stability and sintering behaviour of hydroxyapatite nanopowders**, *J. Thermal Anal. Calor.* 88 (2007): 237-243.

(2) Alessandra Bianco, Ilaria Cacciotti, Mariangela Lombardi, Laura Montanaro, **Si-substituted hydroxyapatite nanopowders: synthesis, thermal stability and sinterability**, *Materials Research Bulletin* 44 (2009): 345-354.

(3) Ilaria Cacciotti, Alessandra Bianco, Mariangela Lombardi, Laura Montanaro (corresponding Author: I. Cacciotti), **Mg-substituted hydroxyapatite nanopowders: synthesis, thermal stability and sinterability**, *J. Europ. Ceram. Soc.* 29[14] (2009): 2969-2978. doi:10.1016/j.jeurceramsoc.2009.04.038

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(5) Alessandra Bianco, Ilaria Cacciotti, Mariangela Lombardi, Laura Montanaro, Edoardo Bemporad, Marco Sebastiani (corresponding Author: I. Cacciotti), **F-substituted hydroxyapatite nanopowders: thermal stability, sintering behavior and mechanical properties**, *Ceramics International* 36[1] (2010): 313-322.

(6) Alessandra Bianco, Ilaria Cacciotti, Maria Elena Fragalà, Francesca Romana Lamastra, Adolfo Speghini, Fabio Piccinelli, Graziella Malandrino and Gualtiero Gusmano (corresponding Author: I. Cacciotti), **Eu-doped titania nanofibers: processing, thermal behaviour and luminescent properties**, *Journal of Nanoscience and Nanotechnology* 10 (2010): 5183-5190, DOI:10.1166/jnn.2010.2215.

(7) Alessio Mezzi, Saulius Kaciulis, Ilaria Cacciotti, Alessandra Bianco, Gualtiero Gusmano, Francesca Romana Lamastra, Maria Elena Fragalà, **Structure and Composition of Electrospun Titania Nanofibres Doped with Eu**, *Surface and Interface Analysis* (SIA) 42 (2010): 572-575.

(8) Giorgia Lehmann, Paola Palmero, Ilaria Cacciotti, Raffaella Pecci, Luisa Campagnolo, Rossella Bedini, Gregorio Siracusa, Alessandra Bianco, Antonella Camaioni, Laura Montanaro, **Design, production and biocompatibility of nanostructured porous HAp and Si-HAp ceramics as three-dimensional scaffolds for stem cell culture and differentiation**, *Ceramics Silikaty* 54[2] (2010): 90-96.

(9) Maria Elena Fragalà, Ilaria Cacciotti, Yana Aleeva, Raffaella Lo Nigro, Alessandra Bianco, Graziella Malandrino, Corrado Spinella, Giuseppe Pezzotti and Gualtiero Gusmano, **Core-shell Zn doped TiO<sub>2</sub>-ZnO nanofibers fabricated via a combination of electrospinning and metal-organic chemical vapour deposition**, *CrystEngComm* 12 (2010): 3858-3865.

(10) Ilaria Cacciotti, Francesca Romana Lamastra, Alessandra Bianco, Adolfo Speghini, Fabio Piccinelli, Maria Elena Fragalà, Graziella Malandrino and Gualtiero Gusmano (corresponding Author: I. Cacciotti), **Microstructure, thermal behaviour and luminescent properties of electrospun Eu-doped TiO<sub>2</sub> nanofibers**, *Materiały Ceramiczne/Ceramic Materials* 62[4] (2010): 516-520.

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(12) Ilaria Cacciotti and Alessandra Bianco (corresponding Author: I. Cacciotti), **High thermally stable Mg-substituted tricalcium phosphate by precipitation**, *Ceramics International* 37 (2011): 127-137. DOI: 10.1016/j.ceramint.2010.08.023

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(15) Enrico Bernardo, Paolo Colombo, Ilaria Cacciotti, Alessandra Bianco, Rossella Bedini, Raffaella Pecci, Karoline Pardun, Laura Treccani, Kurosch Rezwan, **Porous wollastonite-hydroxyapatite bioceramics from a preceramic polymer and micro- or nano-sized fillers**, *Journal of the European Ceramic Society* 32 (2012): 399-408, doi:10.1016/j.jeurceramsoc.2011.08.010.

- (16) Alessandra Bianco, Ilaria Cacciotti, Julietta V. Rau, Sara Laureti, Marco Fosca, Valerio Rossi Albertini, Antonio Ravaglioli, Monica Celi, Irene Cerocchi, Umberto Tarantino, **Innovative hydroxyapatite nanostructured coatings on titanium substrates by Pulsed Laser Deposition (PLD)**, *Journal of Orthopaedics and Traumatology* 12 (Suppl 1) [S125–S164] (2011): S153-S154, DOI 10.1007/s10195-011-0151-1.
- (17) Alessandra Bianco, Erica Di Federico, Ilaria Cacciotti (corresponding Author: I. Cacciotti), **Electrospun poly( $\epsilon$ -caprolactone)-based composites using synthesized  $\beta$ -tricalcium phosphate**, *Polymers for advanced technology* 22[12] (2011): 1832–1841, December 2011 DOI: 10.1002/pat.1680.
- (18) Francesca Romana Lamastra, Ilaria Cacciotti, Alessandra Bellucci, Francesca Nanni, **Innovative Al-Ni-Ir composition for bond coats: microstructure, phase analysis and oxidation behaviour**, *Intermetallics* 22 (2012) 241-250, doi:10.1016/j.intermet.2011.11.018.
- (19) Julietta V. Rau, Roberto Teghil, Marco Fosca, Angela De Bonis, Ilaria Cacciotti, Alessandra Bianco, Ruggero Caminiti, Valerio Rossi Albertini, Antonio Ravaglioli, **Bioactive glass-ceramic coatings deposited by pulsed laser deposition from RKKP targets (sol-gel vs melt-processing route)**, *Materials Research Bulletin* 47 (2012) 1130–1137, doi: 10.1016/j.materresbull.2012.02.011.
- (20) Francesco D'Angelo, Ilaria Armentano, Ilaria Cacciotti, Roberto Tiribuzi, Mattia Quattrocchi, Costantino Del Gaudio, Elena Fortunati, Enrica Saino, Auro Caraffa, Giuliano Giorgio Cerulli, Livia Visai, Josè Maria Kenny, Maurilio Sampaolesi, Alessandra Bianco, Sabata Martino and Aldo Orlacchio, **Tuning multi-/pluri-potent stem cell fate by electrospun poly(L-lactic acid)-calcium-deficient hydroxyapatite nanocomposite mats**, *Biomacromolecules* 13 [5] (2012): 1350-1360, DOI: 10.1021/bm3000716.
- (21) Ilaria Cacciotti, Mariangela Lombardi, Alessandra Bianco, Antonio Ravaglioli, Laura Montanaro (corresponding Author: I. Cacciotti), **Sol-gel derived 45S5 bioglass: synthesis, microstructural evolution and thermal behaviour**, *Journal of Materials Science: Materials in Medicine* 23[8] (2012): 1849-1866.
- (22) Giorgia Lehmann, Ilaria Cacciotti, Paola Palmero, Laura Montanaro, Alessandra Bianco, Luisa Campagnolo, Antonella Camaioni, **Differentiation of osteoblast and osteoclast precursors on pure and silicon-substituted synthesized hydroxyapatites**, *Biomedical Materials* 7 (2012) 055001 (13pp) doi:10.1088/1748-6041/7/5/055001.
- (23) Alessandra Bianco, Manuela Calderone and Ilaria Cacciotti (corresponding Author: I. Cacciotti), **Electrospun PHBV/PEO co-solution blends: microstructure, thermal and mechanical properties**, *Materials Science and Engineering: C* 33[3] (1 April 2013): 1067–1077, doi: 10.1016/j.msec.2012.11.030.
- (24) Alessandra Bianco, Ilaria Cacciotti, Ilaria Cappelloni, Preface to "*Bone and Biomaterials for Bone Tissue Engineering*", Special Issue Volume published in *Key Engineering Materials* Vol. 541 (2013), *Trans Tech Publications (TTP) Inc.*, Switzerland.
- (25) Ilaria Cacciotti, Giorgia Lehmann, Antonella Camaioni, Alessandra Bianco (corresponding Author: I. Cacciotti), **AP40 bioactive glass ceramic by sol-gel synthesis: in vitro dissolution and cell-mediated bioresorption**, *Bone and biomaterials for bone tissue engineering*, Special Issue Volume published in *Key Engineering Materials* Vol. 541 (2013) pp 41-50, *Trans Tech Publications (TTP) Inc.*, Switzerland, doi:10.4028/www.scientific.net/KEM.541.41
- (26) Mariangela Lombardi, Laurent Gremillard, Jerome Chevalier, Leila Lefebvre, Ilaria Cacciotti, Alessandra Bianco, Laura Montanaro, **A comparative study between melt-derived and sol-gel synthesized 45S5 bioactive glasses**, '*Bone and biomaterials for bone tissue engineering*', Special Issue Volume published in *Key Engineering Materials* Vol. 541 (2013) pp 15-30, *Trans Tech Publications (TTP) Inc.*, Switzerland, doi:10.4028/www.scientific.net/KEM.541.15
- (27) Julietta V. Rau, Marco Fosca, Ilaria Cacciotti, Sara Laureti, Alessandra Bianco, Roberto Teghil, **Nanostructured Si-substituted hydroxyapatite coatings for biomedical applications**, *Thin Solid Films* 543 (2013): 167–170, DOI: 10.1016/j.tsf.2012.12.113.
- (28) Ashish Yadav, Roberta De Angelis, Mauro Casalboni, Fabio De Matteis, Paolo Proposito, Francesca Nanni, Ilaria Cacciotti, **Spectral properties of self-assembled polystyrene nanospheres photonic crystals doped with luminescent dyes**, *Optical Materials* 35[8], June 2013: 1538–1543, <http://dx.doi.org/10.1016/j.optmat.2013.03.020>.
- (29) Ilaria Cacciotti, Manuela Calderone, Alessandra Bianco (corresponding Author: I. Cacciotti), **Tailoring the properties of electrospun PHBV mats: co-solution blending and selective removal of PEO**, *European Polymer Journal* 49 (2013) 3210–3222. DOI: 10.1016/j.eurpolymj.2013.06.024.
- (30) Francesca Nanni, Francesca Romana Lamastra, Fabio Franceschetti, Francesco Biccari, Ilaria Cacciotti (corresponding Author: I. Cacciotti), **Mo-doped indium oxide films by dip-coating: synthesis, microstructure and optical properties**, *Ceramics International* 40(1 Part B) (2014): 1851-1858, DOI:

- (31) Laura Fiocco, Enrico Bernardo, Paolo Colombo, Ilaria Cacciotti, Alessandra Bianco, Devis Bellucci, Antonella Sola, Valeria Cannillo, **Novel processing of bioglass ceramics from silicone resins containing micro- and nano-sized oxide particle fillers**, *Journal of Biomedical Materials Research - Part A* 102[8](2014):2502-2510; DOI: 10.1002/jbm.a.34918.
- (32) Roberta De Angelis, Iole Venditti, Ilaria Fratoddi, Fabio De Matteis, Paolo Proposito, Ilaria Cacciotti, Liliana D'Amico, Francesca Nanni, Ashish Yadav, Mauro Casalboni, Maria V. Russo, **From nanospheres to microribbons: self-assembled Eosin Y doped PMMA nanoparticles as photonic crystals**, *Journal of Colloid and Interface Science* 414 (2014) 24–32.
- (33) Claudia Mazzuca, Gianfranco Bocchinfuso, Ilaria Cacciotti, Laura Micheli, Giuseppe Palleschi, Antonio Palleschi, **Versatile hydrogels: an efficient way to clean paper artworks**, *RSC Advances* 3 (2013): 22896-22899, DOI: 10.1039/C3RA44387F.
- (34) Ilaria Cacciotti, Elena Fortunati, Debora Puglia, José Maria Kenny, Francesca Nanni (corresponding Author: I. Cacciotti), **Effect of silver nanoparticles and cellulose nanocrystals on electrospun poly(lactic) acid mats: morphology, thermal properties and mechanical behaviour**, *Carbohydrate Polymers* 103 (2014): 22– 31, DOI: 10.1016/j.carbpol.2013.11.052.
- (35) Ilaria Cacciotti, Francesca Nanni, Valeria Campaniello, Francesca Romana Lamastra (corresponding Author: I. Cacciotti), **Development of transparent hydrorepellent modified SiO<sub>2</sub> coatings for glazed sanitarywares**, *Materials Chemistry and Physics* 146[3] (2014): 240-252, DOI: 10.1016/j.matchemphys.2014.03.005.
- (36) Ilaria Cacciotti, Pio Ciro Aspetti, Orlando Cenciarelli, Mariachiara Carestia, Daniele Di Giovanni, Andrea Malizia, Fabrizio D'Amico, Alessandro Sassolini, Carlo Bellecci, Pasquale Gaudio (corresponding Author: I. Cacciotti), **Simulation of Caesium-137 (<sup>137</sup>Cs) Local Diffusion as a Consequence of the Chernobyl Accident Using Hotspot**, *Defence S&T Technical Bulletin* 7[1] (2014): 18-26.
- (37) J.V. Rau, I. Cacciotti, A. De Bonis, M. Fosca, V.S. Komlev, A. Latini, A. Santagata, R. Teghil, **Fe-doped hydroxyapatite coatings for orthopaedic and dental implant applications**, *Applied Surface Science* 307(2014): 301-305; DOI:10.1016/j.apsusc.2014.04.030.
- (38) Devis Bellucci, Antonella Sola, Ilaria Cacciotti, Cristina Bartoli, Matteo Gazzari, Alessandra Bianco, Federica Chiellini, Valeria Cannillo, **Mg- and/or Sr- doped Tricalcium phosphate/bioactive glass composites: synthesis, microstructure and biological responsiveness**, *Materials Science and Engineering C* 42(2014): 312-324; DOI: 10.1016/j.msec.2014.05.047.
- (39) Stefano Cinti, Fabiana Arduini, Giada Vellucci, Ilaria Cacciotti, Francesca Nanni, Danila Moscone, **Carbon black assisted tailoring of Prussian Blue nanoparticles to tune sensitivity and detection limit towards H<sub>2</sub>O<sub>2</sub> by using screen-printed electrode**, *Electrochemistry Communications* 47 (2014) 63–66. DOI: <http://dx.doi.org/10.1016/j.elecom.2014.07.018>.
- (40) Ilaria Cacciotti, Manlio Valentini, Francesca Nanni (corresponding Author: I. Cacciotti), **Ternary Systems Based on PVDF, BaTiO<sub>3</sub> and MWCNTs: Fabrication, Characterization, Electromagnetic Simulation**, *AIP (American Institute of Physics) Conference Proceedings* 1648 (2015), 570020-1/570020-4, doi: 10.1063/1.4912806.
- (41) Fabiana Arduini, Matteo Forchielli, Aziz Amine, Daniela Neagu, Ilaria Cacciotti, Francesca Nanni, Danila Moscone, Giuseppe Palleschi, **Screen-printed biosensor modified with carbon black nanoparticles for the determination of paraoxon based on the inhibition of butyrylcholinesterase**, *Microchimica Acta* 182[3-4] (2015): 643-651. DOI: 10.1007/s00604-014-1370-y.
- (42) Mariangela Lombardi, Ilaria Cacciotti, Alessandra Bianco, Laura Montanaro (corresponding Author: I. Cacciotti), **RKKP bioactive glass-ceramic material via an aqueous sol-gel process**, *Ceramics International* 41[3] (2015), 1 April 2015: 3371-3380. DOI: 10.1016/j.ceramint.2014.10.064.
- (43) M. Zappino, I. Cacciotti, I. Benucci, F. Nanni, K. Liburdi, F. Valentini, M. Esti, **Bromelain immobilization on microbial and animal source chitosan film for application in wine-like medium: microstructural, mechanical and catalytic characterisations**, *Food Hydrocolloids* 45 (2015) 41-47, doi:10.1016/j.foodhyd.2014.11.001.
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- (45) Francesco De Nicola, Paola Castrucci, Manuela Scarselli, Francesca Nanni, Ilaria Cacciotti, and Maurizio De



Crescenzi, **Exploiting the Hierarchical Morphology of Single-Walled and Multi-Walled Carbon Nanotube Films for Nearly Super-Hydrophobic Coatings**, *Beilstein Journal of Nanotechnology* 6 (2015): 353–360; DOI:10.3762/bjnano.6.34.

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