



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Donatella Armentano**
Address(es) 14c, via Pietro Bucci, 87036 Arcavacata di Rende (CS), Italy
E-mail donatella.armentano@unical.it
Nationality Italian
Date of birth
Gender Female
Researcher codes
WoS Researcher ID: E-9054-2016
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Open Researcher and Contributor ID (ORCID): orcid.org/0000-0002-8502-8074

Work experience

Dates October 2016 onwards
Occupation or position held Associate Professor
Main activities and responsibilities Professor of General and Inorganic Chemistry, Scientific Sector CHIM03
Head of Research Laboratories: X-ray Diffraction Laboratory
Member of the Laboratory of Molecular and Inorganic Materials (MAT-inLAB)
President of Research Commission of Department of Chemistry and Chemical Technologies
Delegate for the Quality of the Research of Department of Chemistry and Chemical Technologies
Name and address of employer Department of Chemistry and Chemical Technologies CTC
University of Calabria
Type of business or sector University/General and Inorganic Chemistry, Scientific Sector CHIM03
Dates January 2005 - October 2016
Occupation or position held Researcher (Assistant Professor)
Main activities and responsibilities Teacher of General and Inorganic Chemistry, Scientific Sector CHIM03
Head of Research Laboratories: X-ray Facility
Member of the Laboratory of Molecular and Inorganic Materials (MAT-inLAB)
Member of Research Commission of Department of Chemistry and Chemical Technologies
Supervisor of Bachelor and Master thesis in Chemistry and Material Science
Name and address of employer Faculty of Science
Department of Chemistry
University of Calabria
Type of business or sector General and Inorganic Chemistry, Scientific Sector CHIM03 1986
Dates October 2014 - March 2015
Occupation or position held Visiting Professor at University of Valencia, Department of Inorganic Chemistry, Valencia (Spain)

Education and training

Dates January 2003 – January 2004
Title of qualification awarded Post- Doctoral Fellow
Principal subjects/occupational skills covered Inorganic and Coordination Chemistry, Scientific Sector CHIM03
Name and type of organisation providing education and training Department of Inorganic Chemistry
University of Valencia - Spain
Under the supervision of Prof. Miguel Julve Olcina

Level in national or international classification	Post-Doc
Dates	November 1998 – December 2001
Title of qualification awarded	Philosophy Doctor (Ph.D.) (with excellent award) in “Chemical Science” Thesis Title: “Sintesi, Caratterizzazione Strutturale e Proprietà Magnetiche di Composti di Coordinazione Contendenti Ossalato” Under the supervision of Prof. Giovanni De Munno
Principal subjects/occupational skills covered	“Chemical Science” - Inorganic and Coordination Chemistry, Materials Science, Scientific Sector CHIM03
Name and type of organisation providing education and training	Department of Chemistry University of Calabria
Level in national or international classification	Doctor Ph.D
Dates	February 1998
Title of qualification awarded	Master Degree in Chemistry <i>cum Laude</i>
Principal subjects/occupational skills covered	Chemistry/ Inorganic and Coordination Chemistry/ Chemistry of Materials
Name and type of organisation providing education and training	University of Calabria Under the supervision of Prof. Giovanni De Munno
Level in national or international classification	Doctor (National) Pre-doct (International)

Personal skills and competences

She is high skilled in synthesis of coordination compounds and advanced X-ray structural characterization methods for huge polymeric coordination compounds/Metal Organic Frameworks and general crystallography. She is mainly devoted to the design, synthesis, post-modification and characterization of the physical–chemical properties of **high surface area nanostructured materials (MOFs) used as nano-reactors for materials for adsorption/capture, separation and storage, heterogeneous catalysts, photocatalysts**, through *in situ* X-ray studies by in house sources or Synchrotron radiation facilities, together with their implementation in Mixed Matrix Membranes. **She is actively contributing to the development of the emerging field of Porous Metallorganic Frameworks synthesising new materials** while unveiling structural reasons for their implementation as promising platforms for either **heterogeneous catalysis** or **water remediation** together with drug delivery, both contributing to the understanding of known materials and developing new ones for specific applications. **She is particularly active on finding practical solutions to take care of environment as common home and inspired to actively participate in reducing environmental pollution.** With focus on new materials, her research goals will be a lower environmental impact and more efficient use of energy resources, for a more sustainable society. The uniqueness of her work in the field of characterization is to develop a versatile experimental platform based on the combined use of both in-house instruments and advanced techniques available at the synchrotron beamlines in controlled atmosphere to realize, thanks to her expertise, X-ray snapshots of the confined space. Broad aim of the work is to describe the structure and the number of the active/binding sites; the structure of the guests of each kind, organic and inorganic; the origin of capture properties. Most of these activities are performed thanks to strong collaborations with international partners she has. Her contribution to the synthesis and structural characterization of MOFs and their retained guests clusters and molecules has led in 2017 to the first report on crystallographically precise subnanometer Pd4 cluster published on Nature Materials.

Mother tongue(s)
Other language(s)
Self-assessment
European level ()*
English
Spanish

Italian
English, Spanish

Understanding		Speaking		Writing	
Listening	Reading	Spoken interaction	Spoken production		
C2	C2	C2	C2	C2	
C2	C2	B1	B1	B1	

(*) [Common European Framework of Reference for Languages](#)

Institutional responsibilities	<p>1) 2019 onwards President of Research Commission of the Department of Chemistry and Chemical Technologies of University of Calabria.</p> <p>2) 2019 onwards Delegate of Research Quality of Department of Chemistry and Chemical Technologies of University of Calabria.</p> <p>3) Member of Directive of Quality for Department (CQD)</p> <p>4) 2014 - Member of Lecture Commission in Science of Material Course.</p> <p>5) 2013- onwards Member of PhD School of Physical and Chemical techniques in Material Science.</p>
JCR articles	<p>155 articles in international well-indexed scientific articles in the most prestigious journals in the field of Chemistry and Materials Science. The majority of publications belong to the first quartile and have illustrated several covers of prestigious journals (7 covers: 1 Journal of Materials Chemistry A, 2 Chemistry European Journal, 1 Inorganic Chemistry, 2 Dalton Trans, 1 Advanced Materials Interfaces) and classified as Hot or Highlights.</p>
Citations, h Index (Hirsch)	<p>>4700, h index 37 (source and date: SCOPUS, September 2021)</p>
Teaching Activity	<p>- From A. A. 2004/2005 to A. A. 2005/2006</p> <p>- the course of Chemistry Laboratory Complements (2 CFU) for the first year of the Degree Course in Biological Sciences (D.M. 509/99).</p> <p>- From A. A. 2004/2005 to A. A. 2009/2010</p> <p>- the course of Solid State Chemistry (5 CFU) for the second year of the Degree Course in Materials Science (D.M. 509/99).</p> <p>- From A. A. 2004/2005 to - A. A. 2010/2011</p> <p>- the course of Innovative Molecular Materials (2 CFU) for the third year of the Degree Course in Chemistry (D.M. 509/99).</p> <p>-From A. A. 2007/2008 to - A. A. 2008/2009</p> <p>- the course entitled "Lattice Defects and Diffusion: Structure and Properties of Ordered-Solid Materials" (1 ECTS) for the second year of the PhD Program in Inorganic Chemical Methodologies of the Doctorate School Bernardino Telesio.</p> <p>- From A. A. 2012/2013 to - A. A. 2015/2016</p> <p>the course of Chemistry of Materials (10 CFU) for the third year of the Degree Course in Science of Innovative Materials and for Nanotechnologies (D.M. 270/04).</p> <p>- From A. A. 2011/2012 onwards</p> <p>- the course of Chemistry of Materials (10 CFU) for the third year of the Degree Course in Science of Innovative Materials and for Nanotechnologies (D.M. 270/04).</p> <p>- From A. A. 2015/2016 onwards</p> <p>the course of General Chemistry (6 CFU) for the first year of the Degree Course in Science of Innovative Materials and for Nanotechnologies and the Degree Course in Physics</p> <p>A.A. 2018/2019</p> <p>- the course entitled Synchrotron X-ray diffraction techniques for time-resolved and in-situ studies of Metal Organic Frameworks (MOFs): porous structures under change(3 CFU) for the second year of the PhD Course in Science and Technology Physical, Chemical and Materials..</p>
Experience supervising doctoral thesis and/or final year projects	<p>She has supervised 1 Ph.D Thesis:</p> <p>"Metal-Organic Frameworks as advanced porous materials for gas separation and water remediation." Rosaria Bruno Università della Calabria. 2020. Obtained qualification: Excellent Cum Laude.</p> <p>26 thesis projects for Bachelor</p> <p>15 for Master degree courses in Chemistry and Material Science at University of Calabria.</p>
Lecturer's Committee of the PhD- Programmes	<p>1) 2007 - 2012 Member of PhD programme "Bernardino Telesio" – School of Science and Techniques</p> <p>2) 2013 onwards Member of PhD programme Physical, Chemical and Materials Sciences and Technologies.</p>

Past Academic and Institutional Commitments

1) Member of Scientific Board for the Master in REACH: Registration, Evaluation, Authorisation and restriction of CHemical substances (EC 1907/2006) E CLP (EC 1272/2008) Academic Years 2013/2014 and 2020/2021.

2) Member of Scientific Board for Bachelor in Science of Innovative Materials and for Nanotechnologies and Master in Science and Engineering of Innovative and Functional Materials.

Divuligation Activity

1) 2014 - International Year of Crystallography (IYCr2014). President of the organizing committee for National and International Celebrations.

2) 2019 - International Year of Periodic Table (IYPT2019). President of the organizing committee for National and International Celebrations.

2) 2018 - onwards Member of Scientific Board of project "SuperScienceMe: knowledge in search of scientific and cultural Calabrian wonders. Visitors are involved in experiments, games, and artistic performances offered by partners and cooperation bodies. The aim is to create opportunities for matching researchers and citizens, with a special focus on young people. The researcher plays the role of a superhero - SuperScienceMe—that tells the science in a simply way to participants, demonstrating them that it is not separated from real life. Moreover, in line with "European Year of Cultural Heritage" the project aims to promote Calabrian cultural heritage and the superhero will lead visitors in museums and archaeological sites where will be carry out the pre-events..

3) President of the organizing committee of permanent exhibition "CRISTALLI!", Rende, Dipartimento di Chimica e Tecnologie Chimiche in the framework of International Year of Crystallography. 2014.

External reviewer or Jury of PhD Defense

1. "Synthesis, Structural Characterization and Magnetic Properties of Polynuclear Re(IV) Complexes" Francisco José Lillo-Martinez, Departamento de Química Inorgánica, Universitat de València (Spagna) 2007.
2. "New Multifunctional Materials: Organo-Inorganic Polymers of Gd³⁺" Laura Cañadillas-Delgado, Departamento de Física Fundamental II, Facultad de Física, Universidad de la Laguna, Tenerife (Spagna), 2008.
3. "Synthesis, Structural Characterization and Magnetic Properties Studies of Polynuclear Cu(II) Complexes with Nitrogen Bridging Ligands" Consuelo Yuste-Vivas, Departamento de Química Inorgánica, Universitat de València (Spagna), 2009.
4. "Synthesis of New Multifunctional Magnetic Materials with Polyoxamate Aromatic Ligands" candidato Jesús Ferrando-Soria, Departamento de Química Inorgánica, Universitat de València (Spagna), 2012.
5. "Oxamate-containing palladium(II) complexes: An open gate in fundamental and applied chemistry" Francisco-Ramon Fortea-Perez, Departamento de Química Inorgánica, Universitat de València (Spagna), 2015.
6. "Estudio de Imanes Moleculares de Co(II): desde sistemas aislados hasta sistemas organizados y multifuncionales" Julia Vallejo, Departamento de Química Inorgánica, Universitat de València (Spagna), 2016.
7. "Photoactive molecular systems: a journey with electrons and excitation energy" candidato Antonino Arrigo. l'Università degli Studi di Messina, esame finale svolto in data 27/03/2015:
8. "Proprietà strutturali e fotocatalitiche di composti polimetallici di cobalto, manganese, zinco e vanadio" Viviana Mollica Nardo. 'Università degli Studi di Messina, 27/03/2015.
9. "Kinetic Control of Chirality in supramolecular porphirin J-Aggregates" candidato Roberto Zagami. Università degli Studi di Messina, 27/03/2015.
10. "Diseño de matrices ordenadas de imanes moleculares basados en porfirinas" Alejandro Pascual Álvarez, Departamento de Química Inorgánica, Universitat de València (Spagna), 2017.
11. "Oxamate/Oxamidato-Based Multifunctional Porous Coordination Polymers" Thais María Granca Marco, Departamento de Química Inorgánica, Universitat de València (Spagna), 2017.
12. "Recognition processes based on molecular cages and tripodal receptors" Ana Miljković, Dipartimento di Chimica, Università di Pavia (Italia), 2017.
13. "Metal-Organic Frameworks for technological and Environmental Applications" Marta Mon Conejero, Departamento de Química Inorgánica, Universitat de València (Spagna), 2019.

Patents

1. Mon, M.; Pardo, E.; Ferrando-Soria, J.; Armentano, D.
Red híbrida metal-orgánica multivariante constituida por dos metales y ligandos oxamidato diferentes y su utilización como adsorbente simultaneo de contaminantes orgánicos y orgánicos.
Es. Pat. Appl. P201831167 Granted on 05/11/2020.
2. Mon, M.; Pardo, E.; Ferrando-Soria, J.; Armentano, D.
"Multivariant metal-organic hybrid network formed by two different metals and oxamide ligands and its use as a simultaneous adsorbent of inorganic and organic pollutants" **International Patent Application No. PCT/ES2019/070798 published with number WO2020109638 on June 4, 2020**
3. Armentano, D; Bruno, R.; Tagarelli, A.; Jansen, C. J.; Mon, M.; Pardo, E.; Ferrando-Soria, J.;
"MEMBRANA POLIMERICA BASATA SU MATERIALI METALLO ORGANICI POROSI PER LA DECONTAMINAZIONE DI ACQUE INQUINATE".
Italian Pat. Appl. 10202000014074, 12 Giugno 2020.

Recent Publications
20 Selected (in last five years)
2020-2016

- Bruno, R., Mon, M., Escamilla, P., Ferrando-Soria, J.,* Esposito, E., Fuoco, A., Monteleone, M., Jansen, J.C.,* Elliani, R., Tagarelli, A., Armentano, D.,* Pardo, E.* Bioinspired Metal-Organic Frameworks in Mixed Matrix Membranes for Efficient Static/Dynamic Removal of Mercury from Water " *Adv. Funct. Mater.*, DOI: 10.1002/adfm.202008499. **IF: 15.621**
- M. Viciano-Chumillas, M. Mon, R. Bruno, J. Ferrando-Soria, A. Corma, A. Leyva-Pérez, D. Armentano and E. Pardo, "Metal-Organic Frameworks as Chemical Nanoreactors: Synthesis and Stabilization of Catalytically Active Metal Species in Confined Spaces" *Acc. Chem. Res* **2020**, *53*, 520–531. **IMPACT FACTOR (IF): 21.661**
- M. Mon, R. Bruno, S. Sanz-Navarro, C. Negro, J. Ferrando-Soria,* L. Bartella, L. Di Donna, M. Prejanò, T. Marino, A. Leyva-Pérez,* D. Armentano,* E. Pardo.* "Hydrolase-like catalysis and structural resolution of natural products by a metal-organic framework." *Nat. Commun.*, **11**, **2020**, 3080. **IF: 11.880**
- M. Mon, R. Bruno, E. Tiburcio, M. Viciano-Chumillas, L. H. G. Kalinke, J. Ferrando-Soria,* D. Armentano* and E. Pardo,* "Multivariate Metal-Organic Frameworks for the Simultaneous Capture of Organic and Inorganic Contaminants from Water" *J. Am. Chem. Soc.*, **2019**, *141*, 13601–13609. **IF: 14.695**
- R. Adam, M. Mon, R. Greco, L. H. G. Kalinke, A. Vidal-Moya, A. Fernandez, R. E. P. Winpenny, A. Doménech-Carbó, A. Leyva-Pérez, D. Armentano,* E. Pardo* and J. Ferrando-Soria,* "Self-Assembly of Catalytically Active Supramolecular Coordination Compounds within Metal-Organic Frameworks" *J. Am. Chem. Soc.*, **2019**, *141*, 10350–10360. **IF: 14.695**
- M. Mon, R. Bruno, E. Tiburcio, A. Grau-Atienza, A. Sepúlveda-Escribano, E. V. Ramos-Fernandez, A. Fuoco, E. Esposito, M. Monteleone, J. C. Jansen, J. Cano, J. Ferrando-Soria,* D. Armentano* and E. Pardo,* "Efficient Gas Separation and Transport Mechanism in Rare Hemilabile Metal-Organic Framework" *Chem. Mater.*, **2019**, *31*, 5856–5866. **IF: 10.159**
- E. Fresta, J. M. Carbonell-Vilar, J. Yu, D. Armentano, J. Cano, M. Viciano-Chumillas,* and R. D. Costa* "Deciphering the Electroluminescence Behavior of Silver(I)-Complexes in Light-Emitting Electrochemical Cells: Limitations and Solutions toward Highly Stable Devices" *Adv. Funct. Mater.* **2019**, 1901797. **IF: 15.621**
- A. Nuñez-Lopez, M. Galbiati, N. M. Padial, C. R. Ganivet, S. Tatay, E. Pardo, D. Armentano, and C. Martí-Gastaldo* "Direct Visualization of Pyrrole Reactivity upon Confinement within a Cyclodextrin Metal-Organic Framework" *Angew. Chem. Int. Ed.* **2019**, *58*, 9179–9183. **IF: 12.257**
- M. Mon, X. Qu, J. Ferrando-Soria,* I. Pellicer-Carreño, A. Sepulveda-Escribano, E. V. Ramos-Fernandez, J. C. Jansen, D. Armentano* and E. Pardo* "Fine-tuning of the confined space in microporous metal-organic frameworks for efficient mercury removal" *J. Mater. Chem. A*, **2017**, *5*, 20120 and Invited Journal Cover. **IF: 10.733**
- M. Mon, R. Bruno, J. Ferrando-Soria, D. Armentano, E. Pardo* "Metal-organic framework technologies for water remediation: towards a sustainable ecosystem" *J. Mater. Chem. A*, **2018**, *6*, 4912. **IF: 10.733**
- M. Mon, M. A. Rivero-Crespo, J. Ferrando-Soria, A. Vidal-Moya, M. Boronat, A. Leyva-Pérez,* A. Corma,* J. C. Hernández-Garrido, M. Llópez-Haro, J. J. Calvino, G. Ragazzon, A. Credi, D. Armentano,* and E. Pardo* "Synthesis of Densely Packaged, Ultrasmall Pt₀ Clusters within a Thioether-Functionalized MOF: Catalytic Activity in Industrial Reactions at Low Temperature" *Angew. Chem. Int. Ed.* **2018**, *57*, 6186–6191. **IF: 12.257**
- M. A. Rivero-Crespo, M. Mon, J. Ferrando-Soria, C. W. Lopes, M. Boronat, A. Leyva-Pérez,* A. Corma, J. C. Hernández-Garrido, M. Llópez-Haro, J. J. Calvino, E. V. Ramos-Fernandez, D. Armentano,* and Emilio Pardo* "Confined Pt₁₁₊ Water Clusters in a MOF Catalyze the Low-Temperature Water-Gas Shift Reaction with both CO₂ Oxygen Atoms Coming from Water" *Angew. Chem. Int. Ed.* **2018**, *57*, 17094–17099. **IF: 12.257**
- M. Tejada-Serrano, M. Mon, B. Ross, F. Gonell, J. Ferrando-Soria, A. Corma, A. Leyva-Pérez,* D. Armentano,* E. Pardo* "Isolated Fe(III)-O Sites Catalyze the Hydrogenation of Acetylene in Ethylene Flows under Front-End Industrial Conditions" *J. Am. Chem. Soc.* **2018**, *140*, 8827–8832. **IF: 14.695**
- M. Mon, R. Bruno, J. Ferrando-Soria, L. Bartella, L. Di Donna, M. Talia, R. Lappano, M. Maggolini, D. Armentano* and E. Pardo* "Crystallographic snapshots of host-guest interactions in drugs@metal-organic frameworks: towards mimicking molecular recognition processes" *Mater. Horiz.*, **2018**, *5*, 683. **IF: 14.356**
- M. Mon, R. Adam, J. Ferrando-Soria, A. Corma, D. Armentano,* E. Pardo* and A. Leyva-Pérez,* "Stabilized Ru[(H₂O)₆]³⁺ in Confined Spaces (MOFs and Zeolites) Catalyzes the Imination of Primary Alcohols under Atmospheric Conditions with Wide Scope" *ACS Catal.*, **2018**, *8*, 10401–10406. **IF: 12.221**
- Mon, M.; Ferrando-Soria, J.; Verdaguer, M.; Train, C.; Paillard, C.; Dkhil, B.; Versace, C.; Bruno, R.; Armentano, D.; Pardo, E.* "Postsynthetic Approach for the Rational Design of Chiral Ferroelectric Metal-Organic Frameworks" *J. Am. Chem. Soc.* **2017**, *139*, 8098–8101. **IF: 14.695**
- F.R. Fortea-Pérez, Mon, M.; Ferrando-Soria, Boronat, M.; Leyva-Pérez, A.;* Corma, A.;* Herrera, J.M.; Osadchii, D.; Gascon, J.; Armentano, D.;* Pardo, E.* "The MOF-driven synthesis of supported palladium clusters with catalytic activity for carbene-mediated chemistry" *Nat. Mater.* **2017**, *16*, 760–766. **(highlighted with news and views: Dong Yang and Bruce C. Gates "Heterogeneous Catalysis: Uniformity begets selectivity", Nat. Mater. 2017, 16, 703–704). IF: 38.887**
- T. Grancha, M. Mon, J. Ferrando-Soria,* J. Gascon, B. Seoane, E. V. Ramos-Fernandez, D. Armentano* and E. Pardo* "Tuning the selectivity of light hydrocarbons in natural gas in a family of isoreticular MOFs" *J. Mater. Chem. A*, **2017**, *5*, 11032. **IF: 10.733**
- Mon, M.; Lloret, F.; Ferrando-Soria,* J.; Martí-Gastaldo, C.; Armentano, D.;* Pardo, E.* "Selective and Efficient Removal of Mercury from Aqueous Media with the Highly Flexible Arms of a BioMOF" *Angew. Chem., Int. Ed.* **2016**, *55* (37), 11167. **IMPACT FACTOR: 12.257**
- Mon, M.; Ferrando-Soria, J.; Grancha, T.; Fortea-Pérez, F. R.; Gascon, J.; Leyva-Pérez, A.;* Armentano, D.;* Pardo, E.* "Selective Gold Recovery and Catalysis in a Highly Flexible Methionine-Decorated Metal-Organic Framework" *J. Am. Chem. Soc.* **2016**, *138* (25), 7864. **IF: 14.695**

Invited Book Chapter	<p>Book Title: Reactivity in Confined Spaces Chapter Title: Atomically precise metal clusters in confined spaces of Metal-Organic Frameworks Chapter Authors: Donatella Armentano and Emilio Pardo Edited by Ross Forgan and Gareth Lloyd 2020 Royal Society of Chemistry (RSC) Published on 25 August 2021</p> <p>Book Title: Supramolecular Nanotechnology Chapter Title: Controlled Supramolecular self-assembly in MOF confined spaces Chapter Authors: Donatella Armentano and Emilio Pardo Edited by Omar Azzaroni and Conda Sheridan 2021 VCH- Wiley</p>
Invited Talks	<p>Seven invited talks as keynote and plenary speaker:</p> <ul style="list-style-type: none"> • XV Symposium del Grupo Especializado de Cristalografía, (Tenerife - Spain-2004), • XXV Congresso Nazionale della Società Chimica Italiana (Cosenza-Italy-2014), • XLIV Annual Meeting of the AIC, (Vercelli, Italy – 2015), • XXVI Congresso Nazionale della Società Chimica Italiana, (Paestum, Italy – 2017), • The third joint conference of the Italian Crystallographic Association (AIC) and of the Italian Synchrotron Radiation Society (SILS), (Rome, Italy, 2018); • 32nd European Crystallographic Meeting (ECM32), (Vienna, Austria – 2019). • GDCh Science Forum Chemistry (WiFo 2021), (Monaco, Germania – 2021).
Professional honors and awards	<ul style="list-style-type: none"> • On February 2020, she was invited to be part of the Review Panel (beamlines I19 and I15) @ Diamond Light Source in Oxford for her reputation in the fields of MOFs and advanced crystallography methods. • On December 2019 she has been invited by Professor Jim Atwood, Editor in Chief of the <i>Journal of Coordination Chemistry</i> to join the editorial board.

Research projects and grants (in last three years)

- **CARIPO 2019. Economia Circolare: ricerca per un futuro sostenibile** – “Metal Organic frameworks and organic CAgEs for highly selective gas separation membranes and heavy metal capture devices (MOCA)”. **Project leader of Unical: Donatella ARMENTANO.** (CTC–UNICAL). 2020– 2023. 300.000,00 €.
- PONR2014–2020 Innovative Ph.D. course. EUROPEAN SOCIETY FOR REGIONAL AND INTERNATIONAL SOCIAL RESEARCH Proponente del progetto di Dottorato finanziato “Studio di materiali porosi (MOF, metallo-organici Frameworks), con dimensione dei pori dell'ordine del nanometro, come scavengers per decontaminazione e/o separazione e per la sintesi di materiali avanzati per nuove applicazioni tecnologiche” MiUR (by European Social Fund). **Project leader: Donatella ARMENTANO.** (CTC–UNICAL). 2016– 2019. 75.177,00 €.
- 2018-2019: Miur. Ministero dell'Università e della Ricerca, Governo Italiano. “Metodi cristallografici avanzati per la caratterizzazione di interazioni host-guest in materiali porosi” **Project leader: Donatella Armentano;** 15.000 €.
- RESIFAC 2017-2018: PON Mise. Ministero dello Sviluppo Economico. Progetto numero F/050218/01-02/X32 “REALIZZAZIONE E SPERIMENTAZIONE DI IMPIANTI PILOTA PER IL FAST COMPOSTING DI RIFIUTI ORGANICI CIVILI ED INDUSTRIALI (RESIFAC)” Progetto finanziato nell'ambito “Programma Operativo Nazionale “Imprese e Competitività” 2014-2020 FESR, in favore di progetti di ricerca e sviluppo negli ambiti tecnologici identificati dal Programma quadro di ricerca e innovazione “Horizon 2020”” Project Leader: Prof. Giuseppe Chidichimo
- 2018 Granted with the prestigious FFABR, “Fondo per il finanziamento delle attività base di ricerca” deliberated on law 2017 232/2016, comma 295, awarded only to top 12,5% of national Associate Professors with excellent evaluation by the ANVUR (AGENZIA NAZIONALE DI VALUTAZIONE DEL SISTEMA UNIVERSITARIO E DELLA RICERCA) for the periods 2013-2017.

Funded Project in Synchrotron radiation facilities

- **2** Institut Laue Langevin, Neutron Source, Grenoble 2013 and 2014 **PI: Donatella ARMENTANO**
- **3** scientific projects at SOLEIL Synchrotron Light Source facility (2016-2017) and 2 scientific project at neutron source (2013 and 2014, doi:10.5291/ILL-DATA.5-41-791) at ILL - Institut Laue-Langevin (Grenoble, France). **PI: Donatella ARMENTANO**
- **10** scientific projects at DIAMOND Synchrotron Light Source facility (2016-2020) (Didcot, London, UK) **PI: Donatella ARMENTANO.**

Memberships of scientific societies

Associazione Italiana di Cristallografia (**AIC**)
European Crystallographic Association (**ECA**)
Consorzio Interuniversitario Nazionale per la Scienza e Tecnica dei Materiali (**INSTM**)

Relevant collaborations:

- **Metal Organic Framework's chemistry: Dr. Emilio Pardo,** Departament de Química Inorgànica/Instituto de Ciencia Molecular (ICMol), Universitat de València, València, Spain.
- **Photophysical characterization: Prof. Alberto Credi,** Dipartimento di Scienze e Tecnologie Agro-alimentari, Università di Bologna, Italy.
- **Catalysis: Dr. Antonio Leyva-Perez and Prof. Avelino Corma,** Instituto de Tecnología Química, ITQ, Valencia.
- **Membrane proteins: Prof. Martin Caffrey,** Trinity College Dublin, Ireland.
- **Mixed Matrix Membranes: Dr. Johannes Carolus Jansen,** Institute of Membrane Technology (ITM-CNR), Rende (Cosenza), Italy.
- **Topology in crystallography: Prof. Davide M. Proserpio,** Università degli Studi di Milano, Dipartimento di Chimica, Milano, Italy.
- **Magnetism: Prof. Miguel Julve,** Departament de Química Inorgànica/Instituto de Ciencia Molecular (ICMol), Universitat de València, València, Spain.
- **Magnetism and Quantum Tunneling Studies: Jurek Krzystek,** National High Magnetic Field Laboratory, Florida State University, Tallahassee, Florida (USA)