

## PERSONAL INFORMATION



## PROFESSIONAL EXPERIENCE

01 March 2021 – today

## Francesca D'Anna

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| Nationality Italian

01 January 2019 – 31 December 2021

President of the Sicily Section of the Italian Chemical Society.

01 January 2023 -31 December 2025

Vice President of the Organic Chemistry Division of the Italian Chemical Society

01 November 2016 – today

Manager of the Chemistry Section of the STEBICEF Department, University of Palermo.

- Delegate of the Director of STEBICEF Department for the management of the building, technician staff and for research and teaching laboratories.

09 March 2017 – 31 October 2019

Co-Chair of Chemistry Degree Course Coordinator, University of Palermo, Italy

- Management of the degree course, of the safety class and responsible for the administrative organization (SUA).

01- November 2023 –Today

Chair of Chemistry Degree Course Coordinator, University of Palermo, Italy

- Management of the Bachelor and Master degree courses in Chemistry at the University of Palermo

2002 – 2015

Permanent Researcher in Organic Chemistry (CHIM/06)

University of Palermo, STEBICEF Department

- Professor of "Reaction Mechanisms in Organic Chemistry" and "Organic Chemistry Laboratory" for Chemistry degree
- Professor of "Organic Analysis" for Chemistry degree
- Professor of "Elements of Applied Spectroscopy" for Biotechnology for Industry and Scientific Research degree
- Professor of "Teaching laboratory for Chemistry and Physics experiments" for qualifying class to become teacher in High School
- Principal research topics: **Stereoselective synthesis; Chiral recognition ability of host-guest systems formed in the presence of cyclodextrins; Study of mononuclear rearrangement of**

**heterocycles in conventional solvents and Ionic liquids.**

- 2015 – 2021 **Associate Professor in Organic Chemistry (CHIM/06)**  
University of Palermo, STEBICEF Department
- Professor of Green Chemistry for Chemistry degree
  - Professor of Complements of Organic Chemistry for Biotechnology for Industry and Scientific Research degree
  - Principal research topics: *Ionic liquids and Deep Eutectic Solvents, reaction media with low environmental impact. Organic salts as fluorescent monomers for self-assembly processes. Organic salts as low molecular weight gelators for the obtainment of organo-, hydro-, ionic- and eutectogel. Thermochromic systems based on Ionic Liquids.*
- 2011– 2016 **Principal Investigator of the five years research grant “Firb 2010” funded by Italian MIUR**
- Title of the project: *“Multifunctional Hybrid Materials for the Development of Eco-sustainable Catalytic Processes”*.
  - Scientific Tutor of 3 post-doctoral and 3 post-lauream fellowships.
- October 2023-today
  - Component of the Technical Scientific Committee and Chair of the Pillar “Environment” Ecosistema dell’Innovazione “Sicilian MicronanoTech Research And Innovation Center – SAMOTHRACE, funded by MUR, within PNRR (PNRR), Missione 4 “Istruzione e Ricerca” – Componente 2 “Dalla Ricerca all’Impresa” – Investimento 1.5, finanziato dall’Unione europea. NextGenerationEU, a valere sull’Avviso pubblico del Ministero dell’Università e della Ricerca (MUR) 3277 del 30/12/2021.

#### BACKGROUND FORMATION

1999 - 2003

##### PhD in Chemistry

University of Palermo

- Title of PhD thesis: *“Host-guest systems formed by cyclodextrins. Recognition and Transformation of organic substrates”* (Tutor: Prof. Renato Noto).

1997

##### Master's degree in Chemistry

University of Palermo

- Thesis in the field of Physical Organic Chemistry, title: *“Kinetic study di 1-chloro-4-SO<sub>2</sub>R-2-nitrobenzene e di 1-chloro-2-SO<sub>2</sub>R-4-nitrobenzene with piperidine and benzenthiolate”* (Tutor: Prof. Renato Noto).

#### PERSONAL SKILLS

Mother tongue

Italian

Other languages

English  
French

	COMPREHENSION		SPEAKING		WRITING
	Listening	Reading	Interaction	Oral speaking	
English	B2	B2	B2	B2	B2
French	A2	A2	A2	A2	A2

#### OTHER INFORMATION

Excellent and extremely relevant

## Publications

136 publications (123 full papers, 11 review and 2 book chapters;  $h_{\text{index}} = 34$ ) on international journals and numerous national and international communications to congresses. Francesca D'Anna is corresponding author of 88 full papers.

- 1) P. Lo Meo, C. Aprile, F. D'Anna, M. Gruttaduria, S. Riela and R. Noto  
Studies on the cyclization of semicarbazones and related molecules: an overview.  
*Res. Adv. Org. Chem.* **2000**, 1, 107.
- 2) M. Gruttaduria, C. Aprile, F. D'Anna, P. Lo Meo, S. Riela, R. Noto  
A joint experimental and *ab initio* study on the reactivity of several hydroxy selenides. Stereoselective synthesis of *cis*-disubstituted tetrahydrofurans via seleniranium ions.  
*Tetrahedron* **2001**, 57, 6815.
- 3) F. D'Anna, P. Lo Meo, S. Riela, M. Gruttaduria, R. Noto  
Spectrophotometric determinations of binding constants between cyclodextrins and aromatic nitrogen substrates at various pH values.  
*Tetrahedron* **2001**, 57, 6823.
- 4) R. Noto, F. D'Anna, M. Gruttaduria, P. Lo Meo, D. Spinelli  
Protonation equilibria of some *ortho*-substituted and anellated aryl and thiophen-2-yl and 3-yl ketones.  
*J. Chem. Soc., Perkin Trans. 2*, **2001**, 2043.
- 5) P. Lo Meo, F. D'Anna, M. Gruttaduria, S. Riela, R. Noto  
Spectrophotometric determination of binding constants between some aminocyclodextrins and nitrobenzene derivatives at various pH values.  
*Tetrahedron* **2002**, 58, 6039.
- 6) F. D'Anna,\* P. Lo Meo, S. Riela, M. Gruttaduria, R. Noto\*  
The binary pyrene/heptakis-(6-amino-6-deoxy)- $\beta$ -cyclodextrin complex: a suitable chiral discriminator.  
Spectrofluorimetric study of the effect of some  $\alpha$ -amino acids and esters on the stability of the binary complex.  
*Tetrahedron: Asymmetry* **2002**, 13, 1755.
- 7) F. D'Anna,\* M. L. Turco Liveri, R. Noto\*  
A kinetic study of the basic hydrolysis of 2-phenylethyl nitrite in the presence of borate buffer and  $\beta$ -cyclodextrin.  
*Arkivoc* **2002**, (XI), 187.
- 8) C. Aprile, M. Gruttaduria, M. E. Amato, F. D'Anna, P. Lo Meo, S. Riela, R. Noto  
Studies on the stereoselective selenolactonization, hydroxy and methoxy selenylation of  $\alpha$ - and  $\beta$ -hydroxy acids and esters. Synthesis of  $\delta$ - and  $\gamma$ -lactones.  
*Tetrahedron* **2003**, 59, 2241.
- 9) P. Lo Meo, F. D'Anna, S. Riela, M. Gruttaduria, R. Noto  
Spectrophotometric study on the thermodynamics of binding of  $\alpha$ - and  $\beta$ -cyclodextrin towards some *p*-nitrobenzene derivatives.  
*Org. Biomol. Chem.* **2003**, 1, 1584.
- 10) F. D'Anna,\* S. Riela, P. Lo Meo, R. Noto\*  
Stability and stoichiometry of some binary fluorophore-cyclodextrin complexes.  
*Tetrahedron* **2004**, 60, 5309.
- 11) M. Gruttaduria, S. Riela, P. Lo Meo, F. D'Anna, R. Noto  
Supported ionic liquid asymmetric catalysis. A new method for chiral catalysts recycling. The case of proline-catalyzed aldol reaction.  
*Tetrahedron Lett.* **2004**, 45, 6113.
- 12) P. Lo Meo, F. D'Anna, M. Gruttaduria, S. Riela, R. Noto  
Thermodynamics of binding between  $\alpha$ - and  $\beta$ -cyclodextrins and some *p*-nitro-aniline derivatives: reconsidering the enthalpy-entropy compensation effect.  
*Tetrahedron* **2004**, 60, 9099.
- 13) F. D'Anna, V. Frenna, G. Macaluso, S. Morganti, P. Nitti, V. Pace, D. Spinelli, R. Spisani.  
On the dichotomic behavior of the Z-2,4-dinitrophenylhydrazone of 5-amino-3-benzoyl-1,2,4-oxadiazole with acids in toluene and in dioxane/water: rearrangement versus hydrolysis.  
*J. Org. Chem.* **2004**, 69, 8718.
- 14) F. D'Anna, F. Ferroni, V. Frenna, S. Guernelli, C. Z. Lanza, G. Macaluso, V. Pace, G. Petrillo, D. Spinelli, R. Spisani.  
On the application of the extended Fujita-Nishioka equation to polysubstituted systems. A kinetic study of the rearrangement of several poly-substituted Z-arylhydrazones of 3-benzoyl-5-phenyl-1,2,4-

- oxadiazole into 2-aryl-4-benzoylamino-5-phenyl-1,2,3-triazoles in dioxane/water.  
*Tetrahedron* **2005**, 61, 167.
- 15) F. D'Anna,\* V. Frenna, R. Noto, V. Pace, D. Spinelli  
Can the absence of solvation of neutral reagents by ionic liquids be responsible for the high reactivity in base-assisted intramolecular nucleophilic substitutions in these solvents?  
*J. Org. Chem.* **2005**, 70, 2828.
- 16) F. D'Anna,\* S. Riela, M. Gruttaduria, P. Lo Meo, R. Noto\*  
A spectrofluorimetric study of binary fluorophore-cyclodextrin complexes used as chiral selectors.  
*Tetrahedron* **2005**, 61, 4577.
- 17) E. Mezzina, D. Spinelli, L. Lamartina, F. D'Anna, V. Frenna, G. Macaluso  
NMR study of the (Z)-phenylhydrazones of 5-alkyl- and 5-aryl-3-benzoyl-1,2,4-oxadiazoles: support for the interpretation of kinetic results on the rearrangement of 1,2,4-oxadiazoles to 1,2,3-triazoles.  
*Eur. J. Org. Chem.* **2005**, 3980.
- 18) M. Gruttaduria, S. Riela, C. Aprile, P. Lo Meo, F. D'Anna, R. Noto.  
Supported ionic liquids. New recyclable materials for the L-proline-catalyzed aldol reaction.  
*Adv. Synth. Catal.* **2006**, 348, 82.
- 19) F. D'Anna,\* V. Frenna, V. Pace, R. Noto\*  
Effect of ionic liquid organizing ability and amine structure on the rate and mechanism of base induced elimination of 1,1,1-tribromo-2,2-bis(phenyl-substituted)ethanes.  
*Tetrahedron* **2006**, 62, 1690.
- 20) S. Riela, F. D'Anna,\* P. Lo Meo, M. Gruttaduria, R. Giacalone, R. Noto\*  
Chiral recognition of protected amino acids by means of fluorescent binary complex pyrene / heptakis-(6-amino)-(6-deoxy)- $\beta$ -cyclodextrin.  
*Tetrahedron* **2006**, 62, 4323.
- 21) F. D'Anna, P. Lo Meo, R. Noto, S. Riela  
Cyclodextrins: heterocyclic molecules able to perform chiral recognition (Part I).  
*Targets in Heterocyclic Systems* **2005**, 1.
- 22) F. D'Anna,\* V. Frenna, R. Noto,\* V. Pace, D. Spinelli\*  
Study of aromatic nucleophilic substitution with amines on nitrothiophenes in room-temperature ionic liquids: are the different effects on the behavior of *para*-like and *ortho*-like isomers on going from conventional solvents to room-temperature ionic liquids related to solvation effects?  
*J. Org. Chem.* **2006**, 71, 5144.
- 23) F. D'Anna, V. Frenna, G. Macaluso, S. Marullo, S. Morganti, V. Pace, D. Spinelli, R. Spisani, C. Tavani  
On the rearrangement in dioxane/water of (Z)-arylhydrazones of 5-amino-3-benzoyl-1,2,4-oxadiazole into (2-aryl-5-phenyl-2H-1,2,3-triazol-4-yl)ureas: substituent effects on the different reaction pathways.  
*J. Org. Chem.* **2006**, 71, 5616.
- 24) F. Giacalone, F. D'Anna, R. Giacalone, M. Gruttaduria, S. Riela, R. Noto  
Cyclodextrin-[60] fullerene conjugates: synthesis, characterization and electrochemical behavior.  
*Tetrahedron Lett.* **2006**, 47, 8105.
- 25) M. Gruttaduria, P. Lo Meo, S. Riela, F. D'Anna, R. Noto  
Lipase-catalysed resolution of  $\beta$ -hydroxy selenides.  
*Tetrahedron: Asymmetry* **2006**, 17, 2713.
- 26) P. Lo Meo, F. D'Anna, S. Riela, M. Gruttaduria, R. Noto  
Polarimetry as a useful tool for the determination of binding constants between cyclodextrins and organic guest molecules.  
*Tetrahedron Lett.* **2006**, 47, 9099.
- 27) F. D'Anna,\* V. Frenna, R. Noto,\* V. Pace, D. Spinelli\*  
Room temperature ionic liquids structure and its effect on the mononuclear rearrangement of heterocycles: an approach using thermodynamic parameters.  
*J. Org. Chem.* **2006**, 71, 9637.
- 28) F. D'Anna, P. Lo Meo, R. Noto, S. Riela  
Cyclodextrins: heterocyclic molecules able to perform chiral recognition (Part II).  
*Targets in Heterocyclic Systems* **2006**, 91.
- 29) P. Lo Meo, F. D'Anna, S. Riela, M. Gruttaduria, R. Noto  
Host-guest interactions involving cyclodextrins: useful complementary insights achieved by polarimetry.  
*Tetrahedron* **2007**, 63, 9163.
- 30) F. D'Anna,\* R. Noto\*  
Amine basicity: measurements of ion pair stability in ionic liquid media.  
*Tetrahedron* **2007**, 63, 11681.
- 31) F. D'Anna,\* V. Frenna, S. La Marca, R. Noto,\* V. Pace, D. Spinelli\*  
On the characterization of some [bmim][X]/co-solvent binary mixtures: a multidisciplinary approach by using kinetic, spectrophotometric and conductometric investigations.  
*Tetrahedron* **2008**, 64, 672.

- 32) F. Giacalone, M. Gruttaduria, A. Mossuto Marculescu, F. D'Anna, R. Noto  
Polystyrene-supported proline as recyclable catalyst in the Baylis-Hillman reaction of arylaldehydes and methyl or ethyl vinyl ketone.  
*Catal. Commun.* **2008**, 9, 1477.
- 33) F. D'Anna,\* V. Frenna, S. Guernelli, G. Macaluso, S. Marullo, D. Spinelli\*  
Isomerization and rearrangement of (*E*)- and (*Z*)-phenylhydrazones of 3-benzoyl-5-phenyl-1,2,4-oxadiazole: evidence for a "new" type of acid catalysis by copper (II) salts in mononuclear rearrangement of heterocycles.  
*J. Phys. Org. Chem.* **2008**, 21, 306.
- 34) F. D'Anna,\* S. La Marca, R. Noto\*  
Kemp elimination: a probe reaction to study ionic liquids properties.  
*J. Org. Chem.* **2008**, 73, 3397.
- 35) F. D'Anna,\* S. Marullo, R. Noto\*  
Ionic liquids/[bmim][N<sub>3</sub>] mixtures: promising media for the synthesis of aryl azides by S<sub>N</sub>Ar.  
*J. Org. Chem.* **2008**, 73, 6224.
- 36) F. D'Anna,\* V. Frenna, S. Marullo, R. Noto, \* D. Spinelli  
Mononuclear rearrangement of heterocycles in ionic liquids catalyzed by copper(II) salts.  
*Tetrahedron* **2008**, 64, 11209.
- 37) F. D'Anna, V. Frenna, S. Guernelli, G. Macaluso, G. Petrillo, E. Rizzato, D. Spinelli.  
Substituent effects on the mechanism changeover in a multipathway reaction: a model for the behavior of biological systems?  
*Arkivoc* **2009**, (vi), 15.
- 38) F. D'Anna,\* M. Cascino, P. Lo Meo, S. Riela, R. Noto.\*  
The effect of some amines and alcohols on the organized structure of [bmim][BF<sub>4</sub>] investigated by <sup>1</sup>H NMR spectroscopy.  
*Arkivoc* **2009**, (vii), 30.
- 39) F. D'Anna, V. Frenna, S. Guernelli, C. Z. Lanza, G. Macaluso, S. Marullo, D. Spinelli  
New examples of specific-base catalysis in mononuclear rearrangements of heterocycles found via a designed modification of the side-chain structure.  
*Arkivoc* **2009**, (viii), 125.
- 40) P. Lo Meo, F. D'Anna, S. Riela, M. Gruttaduria, R. Noto.  
Binding equilibria between  $\beta$ -cyclodextrin and *p*-nitro-aniline derivatives: the first systematic study in mixed water-methanol solvent systems.  
*Tetrahedron* **2009**, 65, 2037.
- 41) F. D'Anna,\* S. La Marca, R. Noto.\*  
*p*-Nitrophenolate: a probe for determining acids strength in ionic liquids.  
*J. Org. Chem.* **2009**, 74, 1952.
- 42) F. D'Anna,\* S. La Marca, P. Lo Meo, R. Noto.\*  
A study of the influence of ionic liquids properties on the Kemp elimination reaction.  
*Chem. Eur. J.* **2009**, 15, 7896.
- 43) F. D'Anna,\* P. Vitale, R. Noto.  
Determination of basic strength of aliphatic amines through ion pair formation in some ionic liquid solutions.  
*J. Org. Chem.* **2009**, 74, 6224.
- 44) P. Lo Meo, F. D'Anna, M. Gruttaduria, S. Riela, R. Noto.  
Binding properties of mono-(6-deoxy-6-amino)- $\beta$ -cyclodextrin towards *p*-nitroaniline derivatives: a polarimetric study.  
*Tetrahedron* **2009**, 65, 10413.
- 45) F. D'Anna, F. Ferrante, R. Noto.  
Geminal ionic liquids: a combined approach to investigate their tridimensional organization.  
*Chem. Eur. J.* **2009**, 15, 13059.
- 46) F. D'Anna,\* S. Marullo, R. Noto.\*  
Aryl azides formation under mild conditions: a kinetic study in some ionic liquid solutions.  
*J. Org. Chem.* **2010**, 75, 767.
- 47) F. D'Anna, V. Frenna, C. Z. Lanza, G. Macaluso, S. Marullo, D. Spinelli, R. Spisani, G. Petrillo.  
On the use of multi-parameter free energy relationships: the rearrangement of (*Z*)-arylhydrazones of 5-amino-3-benzoyl-1,2,4-oxadiazole into (2-aryl-5-phenyl-2*H*-1,2,3-triazol-4-yl)ureas.  
*Tetrahedron* **2010**, 66, 5442.
- 48) F. D'Anna,\* S. Marullo, P. Vitale, R. Noto.\*  
Electronic and steric effects: how do they work in ionic liquids? The case of benzoic acid dissociation.  
*J. Org. Chem.* **2010**, 75, 4828.
- 49) F. D'Anna, V. Frenna, F. Ghelfi, G. Macaluso, S. Marullo, D. Spinelli.  
Apolar versus polar solvents: a comparison of the strength of some organic acids against different bases in toluene and in water.  
*J. Phys. Chem. A* **2010**, 114, 10969.

- 50) F. D'Anna, G. Fontana, V. Frenna, G. Macaluso, S. Marullo, D. Spinelli.  
A deep insight into the mechanism of the acid-catalyzed rearrangement of the (*Z*)-phenylhydrazone of 5-amino-3-benzoyl-1,2,4-oxadiazole in a non-polar solvent.  
*J. Phys. Org. Chem.* **2011**, 24, 185.
- 51) F. D'Anna, V. Frenna, F. Ghelfi, S. Marullo, D. Spinelli.  
Acid- and Base-catalysis in the mononuclear rearrangement of some (*Z*)-arylhydrazones of 5-amino-3-benzoyl-1,2,4-oxadiazole in toluene: effect of substituents on the course of reaction.  
*J. Org. Chem.* **2011**, 76, 2672.
- 52) P. Lo Meo, F. D'Anna, S. Riela, M. Gruttaduria, R. Noto.  
Binding properties of heptakis-(2,6-di-O-methyl)- $\beta$ -cyclodextrin and mono-(3,6-anhydro)- $\beta$ -cyclodextrin: a polarimetric study.  
*J. Incl. Phenom. Macrocycl. Chem.* **2011**, 71 (1-2), 121.
- 53) F. D'Anna,\* S. Marullo, P. Vitale, R. Noto.\*  
The effect of the cation  $\pi$ -surface area on the 3D Organization and catalytic ability of imidazolium-based ionic liquids.  
*Eur. J. Org. Chem.* **2011**, 5681.
- 54) S. Riela, G. Lazzara, P. Lo Meo, S. Guermelli, F. D'Anna, S. Milioto, R. Noto,  
Microwave-assisted synthesis of novel cyclodextrin-cucurbituril complexes.  
*Supramol. Chem.* **2011**, 23, 819.
- 55) F. D'Anna,\* S. Marullo, P. Vitale, R. Noto\*  
Synthesis of aryl azides: a probe reaction to study the synergistic action of ultrasounds and ionic liquids.  
*Ultrason. Sonochem.* **2012**, 19, 136.
- 56) P. Lo Meo, F. D'Anna, M. Gruttaduria, S. Riela, R. Noto.  
Synthesis and characterization of new polyamino-cyclodextrin materials.  
*Carbohydr. Res.* **2012**, 347, 32.
- 57) F. Bellesia, F. D'Anna, F. Felluga, V. Frenna, F. Ghelfi, A. F. Parsons, F. Reverberi, D. Spinelli.  
Breakthrough in the  $\alpha$ -perchlorination of acyl chlorides.  
*Synthesis* **2012**, 44, 605.
- 58) F. D'Anna,\* S. Marullo, P. Vitale, R. Noto.\*  
Binary mixtures of ionic liquids: a joint approach to investigate their properties and catalytic ability.  
*ChemPhysChem* **2012**, 13, 1877.
- 59) F. D'Anna,\* P. Vitale, S. Marullo, R. Noto.\*  
Geminal imidazolium salts: a new class of gelators.  
*Langmuir* **2012**, 28, 10849.
- 60) F. D'Anna,\* P. Vitale, F. Ferrante, S. Marullo, R. Noto\*  
The Gelling Ability of Some Diimidazolium Salts: Effect of Isomeric Substitution of the Cation and Anion.  
*ChemPlusChem* **2013**, 78, 331.
- 61) F. D'Anna,\* H. Q. Nimal Gunaratne, G. Lazzara, R. Noto,\* C. Rizzo, K. R. Seddon  
Solution and thermal behaviour of novel dicationic imidazolium ionic liquids  
*Org. Biomol. Chem.* **2013**, 11, 5836.
- 62) S. Marullo, F. D'Anna,\* M. Cascino, R. Noto\*  
Molecular "Pincer" from a Diimidazolium Salt: A Study of Binding Ability.  
*J. Org. Chem.* **2013**, 78, 10203.
- 63) C. Rizzo, F. D'Anna,\* S. Marullo, P. Vitale, R. Noto\*  
Two-Component Hydrogels Formed by Cyclodextrins and Dicationic Imidazolium Salts  
*Eur. J. Org. Chem.* **2014**, 1013.
- 64) A. Paternò, F. D'Anna, G. Musumarra, R. Noto, S. Scirè  
A Multivariate Insight into Ionic Liquids Toxicities  
*RSC Adv.* **2014**, 4, 23985.
- 65) F. D'Anna,\* S. Marullo, P. Vitale, C. Rizzo, P. Lo Meo, R. Noto\*  
Ionic Liquids Binary Mixtures: Promising Reaction Media for Carbohydrate Conversion into 5-Hydroxymethylfurfural  
*Appl. Catal. A: Gen.* **2014**, 482, 287.
- 66) F. D'Anna,\* R. Noto\*  
Di- and Tricationic Organic Salts: an Overview of their Properties and Applications  
*Eur. J. Org. Chem.* **2014**, 4201.
- 67) C. Rizzo, F. D'Anna,\* S. Marullo, R. Noto\*  
Task Specific Dicationic Ionic Liquids: Recyclable Reaction Media for the Mononuclear Rearrangement of Heterocycles.  
*J. Org. Chem.* **2014**, 79, 8678.
- 68) F. D'Anna,\* C. Rizzo, P. Vitale, G. Lazzara, R. Noto  
Dicationic organic salts: gelators for ionic liquids  
*Soft Matter* **2014**, 10, 9281.

- 69) S. Marullo, \* F. D'Anna, \* C. Rizzo, R. Noto  
The Ultrasounds-Ionic Liquids Synergy on the Copper Catalyzed Azide-Alkyne Cycloaddition between Phenylacetylene and 4-azidoquinoline.  
*Ultrason. Sonochem.* **2015**, 23, 317.
- 70) M. Feroci, I. Chiarotto, F. D'Anna, G. Forte, R. Noto, A. Inesi  
Stability and organocatalytic efficiency of *N*-heterocyclic carbenes electrogenerated in organic solvents from imidazolium ionic liquids.  
*Electrochim. Acta* **2015**, 53, 122.
- 71) S. Riela, F. Arcudi, G. Lazzara, P. Lo Meo, S. Guermelli, F. D'Anna, S. Milioto, R. Noto  
Binding abilities of new cyclodextrin-cucurbituril supramolecular hosts.  
*Supramol. Chem.* **2015**, 27, 233.
- 72) F. D'Anna\*, D. Millan, R. Noto  
The ionic liquid effect on the Boulton-Katritzsky reaction: a comparison between substrates of different structure.  
*Tetrahedron*, **2015**, 71, 7361.
- 73) P. Vitale, F. D'Anna\*, S. Marullo, R. Noto  
Organic salts and aromatic substrates in two-component gel phase formation: the study of properties and release processes.  
*Soft Matter* **2015**, 11, 6652.
- 74) F. D'Anna, \* S. Marullo, \* G. Lazzara, P. Vitale, R. Noto  
Aggregation processes of perylene bisimide diimidazolium salts.  
*Chem. Eur. J.* **2015**, 21, 14780.
- 75) P. Vitale, F. D'Anna, \* F. Ferrante, C. Rizzo, R. Noto  
 $\pi$ -conjugated diimidazolium salts: rigid structure to obtain organized materials.  
*Phys. Chem. Chem. Phys.* **2015**, 17, 26903.
- 76) M. Feroci, I. Chiarotto, F. D'Anna, L. Ormano, C. Rizzo, A. Inesi  
Azonium and acetate ions in DMF: Formation of free *N*-heterocyclic carbene. A voltammetric analysis.  
*Electrochim. Commun.* **2016**, 67, 55.
- 77) A. Paternò, F. D'Anna, C. G. Fortuna, G. Musumarra  
Polarity study of ionic liquids with the solvatochromic dye Nile Red: a QSPR approach using in silico VolSurf+ descriptors.  
*Tetrahedron* **2016**, 72, 3282.
- 78) N. T. Dintcheva, R. Arrigo, R. Teresi, B. Megna, C. Gambarotti, S. Marullo, F. D'Anna  
Tunable radical scavenging activity of carbon nanotubes through sonication.  
*Carbon* **2016**, 107, 240.
- 79) C. Rizzo, F. D'Anna, \* R. Noto  
Functionalised diimidazolium salts: the anion effect on the catalytic ability.  
*RSC Adv.* **2016**, 6, 58477.
- 80) F. Billeci, F. D'Anna, \* S. Marullo, R. Noto  
Self-assembly of fluorescent diimidazolium salts: tailor properties of the aggregates changing alkyl chain features.  
*RSC Adv.* **2016**, 6, 59502.
- 81) M. Feroci, I. Chiarotto, F. D'Anna, F. Gala, R. Noto, L. Ormano, G. Zollo, A. Inesi  
*N*-Heterocyclic carbenes (NHC) and parent cations (NHCH<sup>+</sup>): role of the scaffold on the acidity, nucleophilicity, stability and hydrogen bond. An electrochemical evaluation and ab initio calculations.  
*ChemElectroChem* **2016**, 3, 1133.
- 82) C. Rizzo, F. D'Anna, \* M. Zhang, R. Noto, R. G. Weiss  
Insights into the Formation and Structures of Molecular Gels by Diimidazolium Salt Gelators in Ionic Liquids or "Normal" Solvents.  
*Chem. Eur. J.* **2016**, 22, 11269.
- 83) S. Marullo, F. D'Anna, \* P. R. Campodonico, R. Noto  
Ionic liquid binary mixtures: how different factors contribute to determine their effect on the reactivity.  
*RSC Adv.* **2016**, 6, 90165.
- 84) P. Cancemi, M. Buttacavoli, F. D'Anna, \* S. Feo, R. M. Fontana, R. Noto, A. Sutera, P. Vitale and G. Gallo.  
The effects of structural changes on the anti-microbial and anti-proliferative activities of diimidazolium salts.  
*New J. Chem.* **2017**, 41, 3574.
- 85) C. Rizzo, R. Arrigo, F. D'Anna, \* F. Di Blasi, N. T. Dintcheva, G. Lazzara, F. Parisi, S. Riela, \* G. Spinelli and M. Massaro  
Hybrid supramolecular gels of Fmoc-F/halloysite nanotubes: systems for sustained release of camptothecin.  
*J. Mater. Chem. B* **2017**, 5, 3217.
- 86) S. Marullo, M. Feroci, R. Noto, F. D'Anna\*  
Insights into the anion effect on the self -assembly of perylene bisimide diimidazolium salts.

- Dyes Pigm. **2017**, 146, 54.
- 87) F. D'Anna\*, C. Rizzo, P. Vitale, S. Marullo, F. Ferrante  
Supramolecular complexes formed by dimethoxypillar[5]arene and imidazolium salts: a joint experimental and computational investigation.  
*New J. Chem.* **2017**, 41, 12490
- 88) F. Billeci, F. D'Anna,\* I. Chiarotto, M. Feroci, S. Marullo  
The anion impact on the self-assembly of naphthalene diimide diimidazolium salts.  
*New J. Chem.* **2017**, 41, 13889.
- 89) C. Rizzo, R. Arigo, N. Tz. Dintcheva, G. Gallo, F. Giannici, R. Noto, A. Sutera, P. Vitale and F. D'Anna\*  
Supramolecular Hydro- and Ionogels: a study of their properties and antibacterial activity.  
*Chem. Eur. J.* **2017**, 23, 16297.
- 90) S. Marullo, C. Rizzo, N.Tz. Dintcheva, F. Giannici, F. D'Anna\*  
Ionic Liquids Gels: soft materials for environmental remediation  
*J. Colloid. Interface Sci.* **2018**, 517, 182.
- 91) C. Rizzo, F. Arcudi, L. Đorđević, N. Tz. Dintcheva, R. Noto, F. D'Anna\* and Maurizio Prato\*  
Nitrogen-doped carbon nanodots-ionogels: preparation, characterization and radical scavenger activity  
*ACS Nano* **2018**, 12, 1296.
- 92) C. Rizzo, S. Marullo, P. R. Campodonico, I. Pibiri, N. Tz. Dintcheva, R. Noto, D. Millan, and F. D'Anna\*  
Self-sustaining Supramolecular Ionic Liquid Gels for Dye Adsorption  
*ACS Sustainable Chem. Eng.* **2018**, 6, 12453.
- 93) F. Billeci, F. D'Anna,\* N. H. Q. Gunaratne, N. Pletchkova, K. R. Seddon  
"Sweet" ionic liquid gels: materials for sweetening of fuels  
*Green Chem.* **2018**, 20, 4260.
- 94) S. Marullo, A. Meli, F. Giannici, F. D'Anna\*  
Supramolecular Eutecto Gels: Fully Natural Soft Materials  
*ACS Sustainable Chem. Eng.* **2018**, 6, 12598.
- 95) M. Massaro, G. Buscemi, L. Arista, G. Biddeci, G. Cavallaro, F. D'Anna, F. Di Blasi, A. Ferrante, G. Lazzara, C. Rizzo, G. Spinelli, T. Ullrich, S. Riela  
Multifunctional Carrier Based on Halloysite/Laponite Hybrid Hydrogel for Kartogenin Delivery  
*ACS Med. Chem. Lett.* **2019**, 10, 419.
- 96) M. Feroci, D. Rocco, I. Chiarotto, F. D'Anna, L. Mattiello, F. Pandolfi, C. Rizzo  
Cathodic Behaviour of Dicationic Imidazolium Bromides: the Role of the Spacer  
*ChemElectroChem* **2019**, 6, 4275.
- 97) F. Billeci, H.Q. N. Gunaratne, F. D'Anna,\* G. Morgan, K. R. Seddon, N. V. Pletchkova  
A magnetic self-contained thermochromic system with convenient temperature range  
*Green Chem.* **2019**, 21, 1412.
- 98) S. Marullo, C. Rizzo, F. D'Anna\*  
Task-specific Organic Salts and Ionic Liquids Binary mixtures: a Combination to Obtain 5-hydroxymethylfurfural from Carbohydrates  
*Front. Chem.* **2019**, 7, 134.
- 99) S. Marullo, C. Rizzo, A. Meli, F. D'Anna\*  
Ionic liquids binary mixtures, zeolites and ultrasound irradiation: a combination to promote carbohydrates conversion into 5-hydroxymethylfurfural  
*ACS Sustainable Chem. Eng.* **2019**, 7, 5818 (Published on invitation).
- 100) C. Rizzo, J. L. Andrews, J. W. Steed, F. D'Anna\*  
Carbohydrate-supramolecular gels: Adsorbents for chromium (VI) removal from wastewater  
*J. Colloid. Interface Sci.* **2019**, 548, 184.
- 101) C. Rizzo, A. Mandoli, S. Marullo, F. D'Anna\*  
Ionic Liquid Gels: Supramolecular Reaction Media for the Alcoholysis of Anhydrides  
*J. Org. Chem.* **2019**, 84, 6356.
- 102) N. Dintcheva, F. D'Anna  
Anti-/Pro- oxidant behaviour of naturally occurring molecules in polymers and biopolymers: a brief review  
*ACS Sustainable Chem. Eng.* **2019**, 7, 12656.
- 103) S. Marullo, C. Rizzo, F. D'Anna\*  
The Activity of a Heterogeneous Catalyst in Deep Eutectic Solvents: the Case of Carbohydrate Conversion into 5-Hydroxymethylfurfural  
*ACS Sustainable Chem. Eng.* **2019**, 7, 13359.
- 104) C. Rizzo, S. Marullo, N. Dintcheva, F. D'Anna\*  
Carbon Nanomaterial Doped Ionic Liquid Gels for the Removal of Pharmaceutically Active Compounds from Water  
*Molecules* **2019**, 24, 2788.

- 105) C. Rizzo, S. Marullo, N. Dintcheva, C. Gambarotti, F. Billeci, F. D'Anna\*  
Ionic liquid gels and antioxidant carbon nanotubes: Hybrid soft materials with improved radical scavenging activity  
*J. Colloid. Interface Sci.* **2019**, 556, 628.
- 106) R. Teresi, S. Marullo, C. Gambarotti, F. Parisi, B. Megna, G. Lazzara, F. D'Anna, Nadka Tz. Dintcheva  
Improvement of oxidation resistance of polymer-based nanocomposites through sonication of carbonaceous nanoparticles  
*Ultrason. Sonochem.* **2020**, 61, 10487.
- 107) F. Billeci, F. D'Anna,\* M. Feroci, P. Cancemi, S. Feo, A. Fortino, F. Tonnelli, K.R. Seddon, H. Q. N. Gunaratne,\* and N. V. Plechkova  
When Functionalization Becomes Useful: Ionic Liquids with a “Sweet” Appended Moiety Demonstrate Drastically Reduced Toxicological Effects  
*ACS Sustainable Chem. Eng.* **2020**, 8, 926.
- 108) S. Marullo, A. Meli, N. Tz. Dintcheva; G. Infurna, C. Rizzo, F. D'Anna\*  
*Environmentally friendly eutectogels comprising L-Amino Acids and Deep Eutectic Solvents: Efficient Materials for Wastewater Treatment*  
*ChemPlusChem* **2020**, 85, 301.
- 109) S. Marullo, A. Meli, F. D'Anna\*  
A Joint Action of Deep Eutectic Solvents and Ultrasound to promote Diels Alder Reaction in Sustainable Way  
*ACS Sustainable Chem. Eng.* **2020**, 8, 4889.
- 110) N. Tz. Dintcheva, G. Infurna, M. Baiamonte, F. D'Anna  
Natural Compounds as Sustainable Additives for Biopolymers  
*Polymers* **2020**, 12, 732.
- 111) F. D'Anna\*, M. L. Grilli, R. Petrucci, M. Feroci  
WO<sub>3</sub> and Ionic Liquids: A Synergic Pair for Pollutant Gas Sensing and Desulfurization  
*Metals* **2020**, 10, 475.
- 112) S. Marullo, A. Sutera, G. Gallo, F. Billeci, C. Rizzo, F. D'Anna\*  
Chemo-enzymatic Conversion of Glucose in 5-hydroxymethylfurfural: the joint effect of Ionic Liquids and Ultrasound  
*ACS Sustainable Chem. Eng.* **2020**, 8, 11204.
- 113) C. Rizzo, S. Marullo, P. Cancemi, F. D'Anna\*  
Naphthalimide Imidazolium-Based Supramolecular Hydrogels as Bioimaging and Theranostic Soft Materials  
*ACS Appl. Mater. Interfaces* **2020**, 12, 48442.
- 114) N. Tz. Dintcheva, G. Infurna, F. D'Anna  
End-of-life and waste management of disposable beverage cups  
*Sci. Total Environ.* **2021**, 763, 143044.
- 115) C. Rizzo, S. Marullo, M. Feroci, V. Accurso, F. D'Anna\*  
Insights into the Effect of the Spacer Nature on the Properties of Imidazolium based AIE Luminogens  
*Dyes Pigm.* **2021**, 186, 109035.
- 116) C. Rizzo; S. Marullo, F. D'Anna\*  
*Carbon Based Ionic Liquid Gels: Alternative Adsorbents for Pharmaceutically Active Compounds in Wastewater*  
*Environ. Sci. Nano* **2021**, 8, 131.
- 117) S. Marullo, F. D'Anna\*  
*The Interplay of Acidity and Ionic Liquid Structure on the Outcome of an Heterocyclic Rearrangement Reaction*  
*J. Org. Chem.* **2021**, 86, 4045.
- 118) S. Marullo, F. D'Anna,\* C. Rizzo, F. Billeci  
*Ionic Liquids: “normal” solvents or nanostructured fluids?*  
*Org. Biomol. Chem.* **2021**, 19, 2076.
- 119) F. Billeci, H. Q. N. Gunaratne, P. Licence, K. R. Seddon, N. V. Plechkova, F. D'Anna\*  
*Ionic Liquids–Cobalt(II) Thermochromic Complexes: How the Structure Tunability Affects “Self-Contained” Systems*  
*ACS Sustainable Chem. Eng.* **2021**, 9, 4064.
- 120) C. Rizzo, S. Marullo, F. Billeci, F. D'Anna\*  
*Catalysis in Supramolecular Systems: the Case of Gel phases*  
*Eur. J. Org. Chem.* **2021**, 3148.
- 121) F. D'Anna,\* F. Pandolfi, D. Rocco, S. Marullo, M. Feroci, L. Mattiello  
*Solvatochromic behaviour of new donor-acceptor oligothiophenes*  
*New J. Chem.* **2021**, 26, 11636.
- 122) Beatriz Saavedra, Alessandro Meli, Carla Rizzo, Diego J. Ramon, F. D'Anna\*  
*Natural Eutecto gels: Sustainable Catalytic Systems for C-C Bond Formation Reactions*

- Green Chem.* **2021**, 23, 6555.  
123) Salvatore Marullo, Carla Rizzo, Nadka Tz. Dintcheva, F. D'Anna\*  
*Amino acid-based Cholinium Ionic Liquids as sustainable catalysts for PET depolymerization*  
*ACS Sustainable Chem. Eng.* **2021**, 9, 15157.
- 124) F. D'Anna, \* Maria Sbacci, Giulia Infurna, Nadka Tz. Dintcheva, Salvatore Marullo  
*Boosting the Methanolysis of Polycarbonate by the Synergy between Ultrasound Irradiation and Task Specific Ionic Liquids*  
*Green Chem.* **2021**, 23, 9957.
- 125) C. Rizzo; G. Misia, S. Marullo, F. Billeci, F. D'Anna\*  
*Bio-based chitosan and cellulose ionic liquid gels: polymeric soft materials for the desulfurization of fuel*  
*Green Chem.* **2022**, 24, 1318.
- 126) S. Marullo, F. D'Anna\*  
*The Role Played by Ionic Liquids in Carbohydrates Conversion into 5-Hydroxymethylfurfural: A Recent Overview*  
*Molecules*, **2022**, 27, 2210.
- 127) P. Lo Meo, F. D'Anna, M. Gruttaduria, S. Riela, R. Noto  
*A competitive reactivity study on the oxidative cyclization of thiosemicarbazones into 1,3,4-thiadiazoles*  
*Arkivoc* **2022**, 2, 118.
- 128) S. Marullo, M. Tiecco\*, R. Germani, F. D'Anna\*  
*Highly recyclable Surfactant-based supramolecular eutectogels for Iodine removal*  
*J. Mol. Liq.* **2022**, 362, 119712
- 129) G. Infurna, L. Botta, M. Maniscalco, E. Morici, G. Caputo, S. Marullo, F. D'Anna, N. Tz. Dintcheva  
*Biochar Particles Obtained from Agricultural Carob Waste as a Suitable Filler for Sustainable Biocomposite Formulations*  
*Polymers* **2022**, 14, 3075.
- 130) S. Marullo, F. D'Anna\*  
*How Ionic Liquid Gels Work on the Removal of Bisphenol A from Wastewater*  
*ACS Materials AU*, **2023**, 3, 112.
- 131) S. Marullo, G. Gallo, G. Infurna, N. Tz. Dintcheva, F. D'Anna\*  
*Antimicrobial and Antioxidant Supramolecular Ionic Liquid Gels from Biopolymer Mixtures*  
*Green Chem.* **2023**, 23, 3692.
- 132) S. Marullo, F. Petta, G. Infurna, N. Tz. Dintcheva and F. D'Anna\*  
*Polysaccharide-based supramolecular bicomponent eutectogels as sustainable antioxidant materials*  
*Green Chem.* **2023**, 25, 4513.
- 133) C. Rizzo, P. Cancemi, M. Buttacavoli, G. Di Cara, C. D'Amico, F. Billeci, S. Marullo, F. D'Anna\*  
*Insights about the ability of folate based supramolecular gels to act as targeted therapeutic agents.*  
*J. Mater. Chem. B* **2023**,
- 134) C. Rizzo, S. Marullo, M. Benaglia, F. D'Anna\*  
*DBS-based Eutectogels: organized “vessels” to perform the Michael Addition Reaction.*  
*Eur. J. Org. Chem.* **2023**, 26, e202300263

### Book Chapters

- 1) C. Rizzo, S. Marullo, F. Billeci, F. D'Anna\*  
*Ionic liquids as extraction solvents for dyes removal*  
*In “Ionic liquids based technologies for environmental sustainability”*  
*1<sup>st</sup> Edition, 4 December 2021*  
*Edited by M. Jawai; A. Ahmad; A.V. Bhaskar Reddy*  
*Elsevier, Inc. Cambridge, USA. ISBN: 978-0-12-824545-3*
- 2) S. Marullo, C. Rizzo, F. D'Anna\*  
*Organic Salts as Tectons for Self-assembly Processes in Solution*  
*In “Supramolecular Assemblies Based on Electrostatic Interactions”*  
*Edited by M. Ali Aboudzadeh Antonio Frontera Editors*  
*Springer Nature Switzerland AG 2022, ISBN 978-3-031-00656-2*
- 3) S. Marullo, F. D'Anna\*  
*Ionic liquid gel materials: Applications in green and sustainable chemistry*  
*In “ Ionic Liquids and Their Application in Green Chemistry”*  
*Edited by J. A. Siddique, A. A., M. Jawaid*  
*Elsevier 2023 Paperback ISBN: 9780323959315 eBook ISBN: 9780323959322*

### Invited lectures

- 11 - 15 March 2013, Santiago del Cile  
**First International School on Ionic Liquids: Design and Applications**  
Title: *The Effect of Ionic Liquids as Organized Media on the Kinetic of Some Probe Reactions.*

Title: *The solvent effect of Ionic Liquids on the kinetic of some Probe Reactions.*

- 17 -20 July 2014, Firenze

**10<sup>th</sup> Spanish-Italian Symposium on Organic Chemistry**

Title: *Dicationic Organic Salts: Our Recent "Journey" in their Properties and Applications*

- 31 August-3 September 2014, Palermo

**IX Summer School on Advanced Biotechnology**

Title: *Ionic Liquids Binary Mixtures: Promising Reaction Media for Carbohydrates Conversion into 5-Hydromethylfurfural*

- 11-14 September 2016, Palermo

**XI Summer School on Advanced Biotechnology**

Title: *Imidazolium Salts: a Journey from Ionic Liquids to Biactive Materials*

- 27 March 2019, **Organic Chemistry Department, Alicante**

Title: *From Ionomers to Eutectogels: A Journey into Ionic Soft Materials*

- 23-27 May 2021, **IberoAmerican Meeting on Ionic Liquids (IMIL2020), Santiago del Cile**
- Title: *Ionic Liquid Gels: Challenges and Opportunities*

- 23 June 2021, **Seminari Virtuali di Chimica Supramolecolare**

**Titolo: Eutecto- e Ionomer: una Panoramica dalle Proprietà alle Applicazioni**

- 13-15 September 2021, Palermo

**XV Summer School on Advanced Biotechnology**

Title: *Organic Salts: Playing the Game of the Structure to Tune the Applications*

- 27 October 2021

**AeroTalks, Aerogels Cost Action 18125**

Title: A virtual "journey" on the Properties and Applications of Ionic Liquid Gels

- 20 December 2021, Palermo

**Look to the Future**

Title: Green Chemistry-Una strategia per l'Ambiente.

- 29 May – 2 June 2022

**1th International Supramolecular Chemistry School, Santa Margherita di Pula (CA)**

Title: Walking through Soft Materials to Join Supramolecular Gels: an Overview about Properties and Applications.

- 24-28 May 2023

**COIL 9: Congress on Ionic Liquids, Lyon France**

Title: Ionic liquids: a highway with many lanes

**Principal Investigator of Research Grants**

- 2017 - Principal Investigator of the research Grant "Fondo di Finanziamento per la Ricerca di Base per la Fascia dei Professori Associati" funded by MIUR
- 2017 - Principal Investigator of the research Grant Bando CORI 2017 funded by the University of Palermo to favor mobility of foreign researchers in Italy. In the context of this financing, she hosted Dr. Natalia V. Plechkova and Dr. Nimal H. Q. Gunaratne, from the QUILL of Belfast for a week stay in Palermo.
- 2016 - Principal Investigator of the research Grant Bando CORI 2016 funded by the University of Palermo to favor mobility of foreign researchers in Italy. In the context of this financing, she hosted Prof. Richard Weiss, from the Georgetown University of Washington D.C., for a week stay in Palermo.
- 2011 - 2016, Principal Investigator of the five years research grant **FIRB 2010**, funded by Italian MUR and entitled: "*Multifunctional Hybrid Materials for the Development of Eco-sustainable Catalytic Processes*".
- 2003 - 2004, Principal Investigator of the research project funded by the University of Palermo and entitled: "*Synthesis and Properties of Functionalized Cyclodextrins*".

**Participation in Research Grant**

- 2023 Coordinator of the Research Unit at the University of Palermo for the Grant PRIN 2022PNR, titled: "*The Second Life of Posidonia Oceanica: Sustainability-guided Isolation and Valorization of its Main Constituents*"(PI: Prof. Lidia Vera De Luca, University of Sassari)
- 2021 Member of the network of the research project funded by U.S. National Science Foundation (Principal Investigator Prof. Richard G. Weiss), titled: "*Structures, Dynamics and Mechanical Properties of Complex Assemblies and Gels Derived from Simple Reactions of Simple Molecules and Polymers*".
- 2018 SHARPER - SHAring Researchers' Passion for Evidences and Resilience for the European Researcher Night 2018-2019; PI: Prof. Michelangelo Gruttaduria.
- 2017 Italian Government Grant (PRIN) "Unlocking Sustainable Technologies Through Nature-Inspired Solvents - (NATUREChem)" PI: Prof. Maurizio Benaglia, Università degli Studi di Milano.

**National and International Collaborations**

- 2016 European Researchers' Night – SHARPER, Programma Quadro Horizon 2020; PI: Prof. Michelangelo Gruttaduria.
- 2016-2018 Member of the network of the research project funded by U.S. National Science Foundation (Principal Investigator Prof. Richard G. Weiss), titled: "*Investigation of new ionic gelators and their ionic gels and dispersions for cleaning works of cultural heritage*" Supplement for NSF grant, "Design of Molecular Gels with Exceptional Structural, Dynamic and Mechanical Properties".
- PRIN 2008: "*Ionic Liquids and Organocatalysis in Regio- and Stereoselective Synthesis*"; PI: Prof. Renato Noto, Università degli Studi di Palermo.
- PRIN 2006: "*The Use of Ionic Liquids and Cyclodextrins in the Regio- and Stereoselective Synthesis*"; PI: Prof. Francesco Fringuelli, Università degli Studi di Perugia.
- FP VI 2005: INTERREG III B-Medocc-AQUATEX; PI: Prof. Michelangelo Gruttaduria.
- PRIN 2004: "*Synthesis and Reactivity/Activity of Functionalized Heterocyclic Systems*". PI: Prof. Giovanni Petrillo, Università degli Studi di Genova.
- PRIN 2003: "*Mononuclear Rearrangement and Substitution-Opening Reactions in Thiophene and Benzothiophene Systems*", PI: Prof. Domenico Spinelli, Università degli Studi di Bologna.
- 2017 – today: Collaboration with Prof. Jonathan W. Steed, from Durham University, UK. (*J. Colloid. Interface Sci.* **2019**, 548, 184).
- 2014 – today: Collaboration with Prof. Marta Feroci, University Sapienza of Rome (New *J. Chem.* **2017**, 41, 13889-13901; *ChemElectroChem* **2016**, 3, 1133-1141; *Electrochem. Commun.* **2016**, 67, 55-58; *Electrochimica Acta* **2015**, 153, 122-129; *Dyes and Pigments* **2017**, 146, 54-65; *ChemElectroChem*, **2019**, 6, 4275-4283; *Dyes Pigm.* **2021**, 186, 109035; *New J. Chem.* **2021**, 26, 11636).
- 2014 – today: Collaboration with Prof. Richard G. Weiss, from the Georgetown University of Washington D.C. (*Chem. Eur. J.* **2016**, 22, 11269).
- 2013 – today: Collaboration with Prof. Kenneth R. Seddon, Dr. Nimal Gunaratne and Dr. Natalia Pletckova of Queen's University Ionic Liquid Laboratories of Belfast. (*Org. Biomol. Chem.* **2013**, 11, 5836; *Green Chem.* **2018**, 20, 4260; *Green Chem.* **2019**, 21, 1419; *ACS Sustainable Chem. Eng.* **2020**, 8, 926; *ACS Sustainable Chem. Eng.* **2021**, 9, 4064). From 2015 to 2017 she has was co-tutoring a PhD student with Queen's University Ionic Liquid Laboratories of Belfast.
- 2019-today: Collaboration with Prof. Peter Licence of the University of Nottingham (*ACS Sustainable Chem. Eng.* **2021**, 9, 4064).
- 2019-today: Collaboration with Prof. Diego J. Ramon of the University of Alicante (*Green Chem.* **2021**, 23, 6555).
- 2013 –today: Collaboration with University of Santiago, Chile. Dr. Daniela Millan and Dr. Paola Campodonico spend research activity in the Laboratory of Francesca D'Anna at University of Palermo. (*Tetrahedron* **2015**, 71, 7361; *RSC Adv.* **2016**, 6, 90165; *ACS Sustainable Chem. & Eng.* **2018**, 6, 12453).
- 2020: From 28 May 2020, Francesca D'Anna is member of the Cost Action 18125 "Advanced Engineering and Research of aeroGels for Environment and Life Sciences", coordinated by Dr. Carlos A. Garcia Gonzalez of University of Santiago de Compostela (Spain).

**Awards**

- 2003 - Awarded for the best scientific work presented at the II Sigma-Aldrich Young Chemists Symposium (SAYCS) that was held in Riccione (Italy).
- 1999 - Awarded the "*Michele Ruccia*" prize for the best thesis in the field in Organic Chemistry developed at the University of Palermo, during the Academic Year 1996/97.

**Membership of scientific society**

Italian Chemical Society (SCI)  
01 January 2022 Fellow of the Royal Society of Chemistry

**Editorial and reviewing activity**

- 2021 Associate Editor of Frontiers in Chemistry and Frontiers in Environmental Science-Speciality Section: Green and Sustainable Chemistry.
- 2021 Associated Guest Editor of the Special Issue: "Supramolecular Gels II" published by Molecules [https://www.mdpi.com/journal/molecules/special\\_issues/Gel\\_II](https://www.mdpi.com/journal/molecules/special_issues/Gel_II)
- 2020- Member of the Editorial Board of the journal *Molecules* for the Section *Molecular*

**Liquids (Casa Editrice: MDPI):**

[https://www.mdpi.com/journal/molecules/sectioneditors/molecular\\_liquids](https://www.mdpi.com/journal/molecules/sectioneditors/molecular_liquids)) and she has edited the following Special Issues:

- Molecules: Greener Ionic Liquids 2020.  
([https://www.mdpi.com/journal/molecules/special\\_issues/Greener\\_Ionic\\_Liquids](https://www.mdpi.com/journal/molecules/special_issues/Greener_Ionic_Liquids))
- Ionic Liquids in Organic Synthesis (  
[https://www.mdpi.com/journal/molecules/special\\_issues/Ionic\\_Liquids\\_Organic\\_Synthesis](https://www.mdpi.com/journal/molecules/special_issues/Ionic_Liquids_Organic_Synthesis))
- 2018 - Associated Guest Editor of the Special Issue: "Ionic Liquids: Properties and Applications" published by *Frontiers in Chemistry* [www.frontiersin.org/research-topics/7972/ionic-liquids-properties-and-applications](http://www.frontiersin.org/research-topics/7972/ionic-liquids-properties-and-applications).
- 2018 - Associated Guest Editor of the Special Issue: "Supramolecular Gels" published by *Molecules* [www.mdpi.com/journal/molecules/special\\_issues/gel](http://www.mdpi.com/journal/molecules/special_issues/gel).
- 2008 – Member of Editorial Board of following International Journals:
- ISRN Organic Chemistry (Hidawi Publishing Corporation); Arkivoc (Arkat USA, Inc).
- 2008 – Review panel member of ISI Journals such as The Journal of Organic Chemistry, Tetrahedron, Chemistry A European Journal, Chemistry Select, Chemistry Asian Journal, ACS Applied Materials & Interfaces, Tetrahedron Letters, Ultrasonics Sonochemistry, Industrial and Engineering Chemistry Research.

**Reviewing activity of National and International Research Grants**

- Expert evaluator member for proposals submitted to Romanian Government Evaluation Process (RONO2018).
- External reviewer member for proposals submitted to the National Fund for Scientific and Technological Development (FONDECYT) of the Chilean Government Commission for Scientific and Technological Development (CONICYT).
- Reviewer of Italian Government Grant application
- Expert evaluator of European Marie Curie action
- Member of GEV 03 for the Evaluation of Research Quality (VQR 2015-2019) of the Italian Agency ANVUR.

**Organisation of scientific meetings**

- 2022 Member of the Organising Committee of the XL National Congress of the Organic Chemistry Division of the Italian Chemical Society, Palermo 11-15 September 2022.
- 2021 President of scientific committee of "Workshop della Sezione Sicilia", Catania (Italy)
- 2020 President of scientific committee of "Workshop della Sezione Sicilia", Messina (Italy)
- 2019 President of scientific committee of "Convegno SCI Sicilia e Calabria", Palermo, Italy.
- 2018 Member scientific committee of "Convegno SCI Sicilia e Calabria", Catania, Italy.
- 2017 Member scientific committee of "WorkShop SCI Sicilia e Calabria", Messina, Italy.

**Communications to Congress****Oral communications**

1. 23-26 June 2004, San Servolo (Venezia)

Cofem 2004; F. D'Anna, V. Frenna, R. Noto, V. Pace, D. Spinelli.

*The effect of ionic liquids on the rate of an intramolecular nucleophilic substitution: the study of a monocyclic rearrangement of heterocycles.*

2. 2-3 December 2004, Messina

Convegno Regionale SCI; F. D'Anna, V. Pace, V. Frenna, R. Noto.

*Studio cinetico della reazione di eliminazione di 1,1,1-tribromo- 2,2-bis(dimetossifenil)etano in liquidi ionici.*

3. 19-23 September 2005, Siena

XXX Convegno Nazionale della Divisione di Chimica Organica SCI; F. D'Anna, R. Noto, V. Frenna, V. Pace, D. Spinelli.

*Studio cinetico della reazione di sostituzione nucleofila aromatica di alcuni 2-X-3-nitro e 2-X-5-nitrotiofeni in BMIMBF<sub>4</sub>.*

4. 21-23 September 2006, Catania

Cofem 2006; F. D'Anna, R. Noto, V. Frenna, V. Pace, D. Spinelli.

*Effetto del cosolvente sulla velocità della reazione di trasposizione eterociclica mononucleare della Z-fenilidrazone del 3-benzoil-5-fenil-1,2,4-ossadiazolo in liquido ionico.*

5. 26-30 July 2008, Taormina (Me)  
XXXII Convegno Nazionale della Divisione di Chimica Organica della SCI; F. D'Anna, V. Frenna, S. Marullo, R. Noto, D. Spinelli  
*Miscela binaria liquido ionico/[bmim][N<sub>3</sub>]: un mezzo efficace per la sintesi di arilazidi mediante S<sub>N</sub>Ar.*
6. 24-26 September 2008, Sestri Levante (Ge)  
COFEM 2008, Giornate di Chimica Organica Fisica e Meccanicistica; F. D'Anna, V. Frenna, S. La Marca, R. Noto  
*Protonazione del p-nitrofenato di sodio in liquidi ionici: una "sonda" per la determinazione della forza acida.*
7. 10-12 May 2012, Catania  
XIII RSC-SCI Joint Meeting on Heterocyclic Chemistry; F. D'Anna, C. Rizzo, S. Marullo, P. Vitale, R. Noto  
*Ionogels formed by geminal imidazolium salts: a preliminary investigation.*
8. 16-19 October 2016, Kiel  
8<sup>th</sup> Green Solvents Conference; F. D'Anna, A. Meli, P. Vitale, F. Billeci, S. Marullo, R. Noto  
*Ionic liquids binary mixtures and zeolites: a combination to promote carbohydrates conversion into 5-hydroxymethylfurfural.*
9. 8-12 September 2019, Torino  
XXXIX Convegno Nazionale della Divisione di Chimica Organica della SCI; F. D'Anna  
*Ionic Liquid Gels: Tunable and Multifaceted Materials*
10. 16-18 November 2021  
6<sup>th</sup> Green and Sustainable Chemistry Conference; F. D'Anna, C. Rizzo, F. Billeci, S. Marullo  
*Ultrasounds and ionic liquids assisted methanolysis of polycarbonate: The route towards a more sustainable recycling*
11. 13 December 2021  
Virtual Molten Salts and Ionic Liquids Discussion Group-Christmas Research Meeting: F. D'Anna, S. Marullo, F. Billeci, C. Rizzo.  
*How the Combination of Bio-based Polymers and Ionic Liquids in Gel Phases Works for the Desulfurisation of Fuels*

#### **Poster Communications**

1. 5–8 December 2004, Mosca  
Advances in Synthetic, Combinatorial and Medicinal Chemistry; F. D'Anna, S. Riela, P. Lo Meo, R. Noto.  
*Enantioselective recognition of α-amino acids by binary complexes fluorophore/cyclodextrin.*
2. 28-31 October 2004 Riccione  
II Meeting Prin 2001-2004; F. D'Anna, V. Frenna, G. Macaluso, V. Pace, D. Spinelli.  
*Reattività degli Z-idrazoni, semicarbazoni e fenilsemicarbazoni del 3-benzoil-5-fenil-1,2,4-ossadiazolo: effetto della struttura della catena laterale.*
3. 19-22 June 2005, Salisburgo  
1<sup>st</sup> International Congress on Ionic Liquids; F. D'Anna, V. Frenna, V. Pace, R. Noto.  
*Evidences of the organising ability of ionic liquids on the rate of the elimination reaction.*
4. 14- 17 May 2006, Torino  
XII International Cyclodextrin Symposium; P. Lo Meo, F. D'Anna, S. Riela, R. Giacalone, R. Noto.  
*Polarimetric study of binding equilibria between cyclodextrins and some suitable organic guests.*
5. 10-15 September 2006 Dresden, Germania  
1<sup>st</sup> International IUPAC Conference on Green-Sustainable Chemistry; F. D'Anna, V. Frenna, V. Pace, R. Noto.  
*The "perturbative" effect of cosolvents on the structure of neat bmimBF<sub>4</sub> and bmimNTf<sub>2</sub> evaluated by means of kinetic measurements.*
6. 10-14 September 2007, Rende (CS)  
XXXI Convegno Nazionale della Divisione di Chimica Organica della SCI; F. D'Anna, P. Vitale, R. Noto  
*Studio spettrofotometrico della formazione di coppie ioniche ammina/p-nitrofenolo in liquido ionico.*
7. 2-7 August 2009 Glasgow, Scotland (UK)  
42nd IUPAC Congress, Chemistry Solution; F. D'Anna, F. Ferrante, P. Vitale, R. Noto  
*A joint of experimental investigations about the structural organization of two geminal ionic liquids.*

8. 12-16 September 2010, San Benedetto del Tronto (AP).  
Convegno Nazionale della Divisone di Chimica Organica della SCI. F. D'Anna, S. Marullo, P. Vitale, R. Noto  
*Ionic liquids: as the different structural order degree can affect the outcome of a reaction.*
9. 22-24 August 2011, Belfast (Irlanda)  
Faraday Discussion 154: Ionic Liquids; F. D'Anna, S. Marullo, P. Vitale, R. Noto  
*Ionic liquids binary mixture: the influence of the composition on their properties and catalytic ability.*
10. 10-14 September 2012, Pavia  
XXXI Convegno Nazionale della Divisione di Chimica Organica della SCI; F. D'Anna, C. Rizzo, S. Marullo, P. Vitale, R. Noto  
*Anion and ionic liquid effects on ionogel phases formation.*
11. 9-13 September 2013, Sassari  
XXXV Convegno Nazionale della Divisione di Chimica Organica della SCI; F. D'Anna, H. Q. N. Gunaratne, G. Lazzara, C. Rizzo, K. R. Seddon, R. Noto  
*NMR spectroscopic characterization and thermal behaviour of a new class of dicationic imidazolium ionic liquids.*
12. 13-15 October 2013, Budapest  
1<sup>st</sup> EucheMS Congress on Green and Sustainable Chemistry; F. D'Anna, S. Marullo, C. Rizzo, P. Vitale, R. Noto  
*Ionic Liquids Binary Mixtures: Promising Reaction Media for Carbohydrates Conversion in 5-HMF.*
13. 13-17 September 2015, Bologna  
XXXVI Convegno Nazionale della Divisione di Chimica Organica della SCI; C. Rizzo, F. D'Anna, S. Marullo, P. Vitale, R. Noto  
*Task specific dicationic ionic liquids used as reaction media for Michael addition.*
14. 27-30 September 2015, Giardini Naxos (ME)  
XII Congresso Nazionale di Chimica Supramolecolare; F. D'Anna, S. Marullo, P. Vitale, C. Rizzo, R. Noto  
*Host-guest interactions between DMpillary[5]arene and fluorescent imidazolium salts.*
15. 10-14 September 2017, Paestum  
XXVI Congresso Nazionale della Società Chimica Italiana; F. D'Anna, V. Accurso, C. Rizzo, S. Marullo, M. Feroci, I. Chiarotto, R. Noto  
*New "AIE" Luminogens based on  $\pi$ -conjugated imidazolium salts.*
16. 7-12 October 2018, Lisbona  
27<sup>th</sup> EuChems Conference Molten Salts and Ionic Liquids; F. D'Anna, F. Billeci, S. Marullo, R. Noto, C. Rizzo,  
*Ionogels: multifaced materials.*

Francesca D'Anna is **coauthor** of the following **communications**:

1. 17-19 May 2004, Riccione  
4<sup>o</sup> Sigma Aldrich Young Chemists Symposium  
**Poster:** V. Pace, F. D'Anna, F. Ferroni, V. Frenna, S. Guermelli, C. Z. Lanza, G. Macaluso, G. Petrillo, D. Spinelli, R. Spisani.  
*Trasposizioni eterocicliche mononucleari. Applicazione dell'equazione di Fujita-Nishioka alla reattività di Z-fenilidrazoni di e poli-sostituiti del 3-benzoil-5-fenil-1,2,4-ossadiazolo.*
2. 28-31 October 2004, Riccione  
II Meeting Prin 2001-2004  
**Oral:** B. Cosimelli, F. D'Anna, V. Frenna, G. Macaluso, V. Pace, D. Spinelli, R. Spisani.  
*Trasposizioni mononucleari di eterocicli. Reattività di Z-arylidrazoni del 5-ammino-3-benzoil-1,2,4-ossadiazolo in D/W: effetto dei sostituenti.*  
**Oral:** F. D'Anna, V. Frenna, G. Macaluso, S. Morganti, P. Nitti, V. Pace, D. Spinelli, R. Spisani.  
*Reattività di Z-arylidrazoni del 5-ammino-3-benzoil-1,2,4-ossadiazolo in presenza di acido tricloroacetico e di piperidina in toluene: confronto con i dati in diossano-acqua.*
3. 23-27 November 2004, Marrakesh  
Transmediterranean colloquium on heterocyclic chemistry  
**Oral:** M. Gruttaduria, C. Aprile, F. D'Anna, P. Lo Meo, S. Riela, R. Noto.

- Stereoselective synthesis: from organoselenium to organocatalysis.
4. 31 July – 5 August 2005, Palermo  
20<sup>th</sup> International Congress of Heterocyclic Chemistry  
**Poster:** M. Gruttaduria, S. Riela, C. Aprile, P. Lo Meo, F. D'Anna, R. Noto.  
*New recyclable materials for L-proline-catalysed aldol reactions.*
5. 5-6 December 2005, Catania  
SCI Convegno Congiunto delle Sezioni Calabria e Sicilia  
**Poster:** F. D'Anna, V. Frenna, G. Macaluso, S. Marullo, V. Pace, D. Spinelli.  
*Reattività dei fenilidrazoni E e Z del 3-benzoil-5-fenil-1,2,4-ossadiazolo in presenza di Sali di Cu(II).*
6. 14- 17 May 2006, Torino  
XII International Cyclodextrin Symposium  
**Poster:** F. Giacalone, F. D'Anna, R. Giacalone, M. Gruttaduria, S. Riela.  
*Cyclodextrin-[60]fullerene conjugates: Synthesis, characterization and electrochemical behavior.*  
**Poster:** R. Giacalone, S. Riela, F. D'Anna, F. Giacalone, P. Lo Meo.  
*As the change in ternary agent structure influence the chiral recognition ability of pyrene/heptakis-(6-amino)-(6-deoxy)- $\beta$ -cyclodextrin.*
7. 9- 12 June 2006 Harrogate, UK  
The 10th RSC-SCI Joint Meeting in Heterocyclic Chemistry  
**Poster:** P. Lo Meo, F. D'Anna, S. Riela, R. Giacalone, R. Noto.  
*Polarimetry as a useful tool for the study of binding equilibria between cyclodextrins and some suitably sized and structured organic molecules.*
8. 2-6 September 2006, Bari  
XXII European Colloquium on Heterocyclic Chemistry  
**Poster:** S. Riela, C. Aprile, P. Lo Meo, F. D'Anna, R. Noto, M. Gruttaduria.  
*Supported ionic liquids. New recyclable materials for L-proline-catalyzed aldol reaction.*
9. 21-23 September 2006, Catania  
Cofem 2006  
**Poster:** F. D'Anna, V. Frenna, S. La Marca, R. Noto, V. Pace, D. Spinelli.  
*Abilità organizzante di liquidi ionici: effetto sulla velocità di reazioni di trasposizione mononucleare di eterocicli.*
10. 6-8 May 2007, Asti  
Congresso Nazionale di Chimica e Tecnologie delle Ciclodestrine  
**Oral:** P. Lo Meo, F. D'Anna, S. Riela, M. Gruttaduria, R. Noto  
*Studio polarimetrico degli equilibri di inclusione tra ciclodestrine native ed opportuni guest modello alifatici e aromatici.*  
**Poster:** F. D'Anna, R. Giacalone, P. Lo Meo, R. Noto, S. Riela  
*Riconoscimento di peptidi mediante complessi PY/Am- $\square$ -CD.*
11. 3-4 December 2007, Messina  
Convegno congiunto delle sezioni Calabria e Sicilia della SCI  
**Oral:** S. La Marca, F. D'Anna, V. Frenna, D. Spinelli  
*Reazione di eliminazione di Kemp: una sonda per lo studio delle proprietà microscopiche di liquidi ionici.*
12. 8-11 May 2008 Lerici  
The 11<sup>th</sup> RSC-SCI Joint Meeting On Heterocyclic Chemistry  
**Poster:** P. Lo Meo, F. D'Anna, S. Riela, M. Gruttaduria, R. Noto  
*Complexation equilibria between  $\beta$ -cyclodextrin and p-nitroaniline derivatives in mixed solvent media: a polarimetric study.*
13. 12-14 October 2009, Pesaro  
9° SAYCS  
**Poster:** P. Vitale, F. D'Anna, R. Noto  
*Determinazione di costanti di formazione di coppie ioniche in liquidi ionici.*
14. 2-4 September 2010, Roma  
COFEM 2010  
**Poster:** F. D'Anna, S. Marullo, V. Frenna, G. Macaluso, F. Ghelfi, D. Spinelli  
*The influence of steric effects on the strength of some organic acids in toluene and water.*  
**Poster:** S. Marullo, F. D'Anna, R. Noto  
*[bmim][F]: a TSIL differently acting on aromatic nuclei.*

15. 2-3 December 2010, Palermo  
Convegno Congiunto delle Sezioni Sicilia e Calabria della SCI  
**Oral:** F. D'Anna, V. Frenna, S. Marullo, P. Vitale, R. Noto  
*Organizzazione strutturale di liquidi ionici mono- e dicationici: un approccio combinato.*  
**Oral:** F. D'Anna, S. Marullo, P. Vitale, R. Noto  
*Sali di dialchilimidazolio: dai liquidi ionici agli organogel.*
16. 30 January-4 February 2011, Bressanone  
European Winter School on Physical Organic Chemistry  
**Poster:** P. Vitale, F. D'Anna, S. Marullo, R. Noto  
*Geminal imidazolium salts: a new class of gelators.*
17. 25-28 September 2011, Perugia  
X Congresso Nazionale di Chimica Supramolecolare.  
**Poster:** P. Vitale, F. D'Anna, S. Marullo, R. Noto  
*Organogel formed by imidazolium salts: molecular recognition processes.*  
**Poster:** S. Marullo, F. D'Anna, P. Vitale, R. Noto  
*A preliminary study on the anion binding ability of geminal diimidazolium salts.*
18. 10-14 September 2012, Pavia  
XXXI Convegno Nazionale della Divisione di Chimica Organica della SCI  
**Poster:** P. Lo Meo, D. La Corte, M. Russo, F. D'Anna, M. Gruttaduria, S. Riela, R. Noto  
*Binding properties of polyaminocyclodextrin materials towards polyanions and p-nitroaniline derivatives.*  
**Poster:** F. D'Anna, C. Rizzo, S. Marullo, P. Vitale, R. Noto  
*Anion and Ionic Liquid Effect on the Ionogels Formation.*
19. 1-3 October 2012, Riccione  
12° SAYCS  
**Poster:** C. Rizzo, F. D'Anna, G. Lazzara, S. Marullo, P. Vitale, R. Noto  
*Studio delle proprietà di ionogel formati da sali organici dicationici*
20. 27 January-1 February 2011, Bressanone  
European Winter School on Physical Organic Chemistry  
**Poster:** P. Vitale, F. D'Anna, S. Marullo, C. Rizzo, R. Noto  
*Diimidazolium-based organic salts as low molecular weight hydro- and organogelators*
21. 17-21 June 2013, Gargnano  
XXXVIII "A. Corbella" Summer School"  
**Poster:** F. D'Anna, P. Vitale, S. Marullo, C. Rizzo, R. Noto  
*Two components organogels as molecular recognition systems: properties, behavior and future applications.*
22. 24-27 September 2013, Padova  
Suprachem 2013  
**Oral:** C. Rizzo, F. D'Anna, S. Marullo, P. Vitale, R. Noto  
*Two component hydrogels formed by host-guest interactions*
23. 27 January-1 February 2011, Bressanone  
European Winter School on Physical Organic Chemistry  
**Poster:** C. Rizzo, F. D'Anna, S. Marullo, P. Vitale, R. Noto  
*Functionalised dicationic imidazolium ionic liquids used as reaction media for base catalyzed reactions.*
24. 29 June – 1 July 2014, Windsor  
14<sup>th</sup> Anglo-Italian Meeting on Heterocyclic Chemistry  
**Oral:** S. Marullo, F. D'Anna, C. Rizzo, P. Vitale, R. Noto  
*Supramolecular Aggregation of Bis-imidazolium Functionalized Perylenebisimide.*
25. 6-11 July 2014, Tallin  
Molten Salts and Ionic Liquids XXV  
**Poster:** I. Chiarotto, F. D'Anna, M. Di Pilato, M. Feroci, G. Forte, A. Inesi, R. Noto, S. Vecchio Ciprioti.  
*Stability of electrogenerated N-heterocyclic carbenes from ionic liquids. The boundary conditions.*
26. 31 August – 4 September 2014, Istanbul  
5<sup>th</sup> EuCheMS Chemistry Congress  
**Poster:** F. D'Anna, P. Vitale, S. Marullo, C. Rizzo, R. Noto  
*Self-Assembly Process of Diimidazolium Salts: the Effect of Alkyl Chain Length and Isomeric*

*Substitution.*

27. 1-2 December 2014, Palermo

Convegno Congiunto delle Sezioni Sicilia e Calabria della SCI

**Oral:** P. Vitale, F. D'Anna, S. Marullo, C. Rizzo, R. Noto*Sali organici: "tectoni" per lo studio di processi di self-assembly.*

28. 14-18 June 2015, Gargnano

XXXVIII "A. Corbella" Summer School"

**Oral:** C. Rizzo, F. D'Anna, P. Vitale, S. Marullo, R. Noto*Functionalised dicationic ionic liquids applied to the study of Michael addition.*

29. 27-30 September 2015, Giardini Naxos (ME)

XII Congresso Nazionale di Chimica Supramolecolare

**Oral:** C. Rizzo, F. D'Anna, R. Noto, R. G. Weiss*Non-stoichiometric dicationic organic salts form supramolecular gels.***Poster:** P. Vitale, F. D'Anna, S. Marullo, C. Rizzo, R. Noto*Two-component chiral gels: a study of properties and behaviouras recognition systems***Poster:** S. Marullo, F. D'Anna, C. Rizzo, P. Vitale, R. Noto*Fully ionic metallogels from dicationic diimidazolium salts*

30. 12-15 May 2016, Taormina

XV RSC-SCI Joint Meeting on Heterocyclic Chemistry

**Oral:** C. Rizzo, F. D'Anna, G. Gallo, P. Vitale, A. Sutera, A. M. Puglia, R. Noto*Diimidazolium organic salts and supramolecular gels exerting antimicrobial activity.*

31. 16-19 October 2016, Kiel

8<sup>th</sup> Green Solvents Conference**Poster:** C. Rizzo, F. D'Anna, F. Billeci, S. Marullo, P. Vitale, R. Noto*Acidic Imidazolium Salts: Catalyst for Biomass Transformation.***Poster:** F. Billeci, F. D'Anna, S. Marullo, R. Noto*Self-assembly of a fluorescent diimidazolium naphtalenediimide salt: the effect of increasing alkyl chain length.***Poster:** S. Marullo, F. D'Anna, F. Billeci, C. Rizzo, P. Vitale, R. Noto*How mixing ionic liquids affects a Diels-Alder reaction.*

32. 10-14 September 2017 Paestum (SA)

XXVI Congresso Nazionale della Società Chimica Italiana

**Oral:** S. Marullo, F. D'Anna, R. Arrigo, N. Tz. Dintcheva, R. Noto, C. Rizzo*Diimidazolium-based supramolecular ionogels for dye removal from wastewaters*

33. 9-10 February 2018, Catania

Congresso Congiunto delle Sezioni Sicilia e Calabria della SCI

**Oral:** S. Marullo, C. Rizzo, R. Noto, F. D'Anna*Ionogel da sali di imidazolo per la rimozione di coloranti da acque.***Oral:** A. Meli, S. Marullo, R. Noto, F. D'Anna*L'azione combinata di DES e ultrasuoni per la reazione di Diels Alder.*

34. 23 March 2018, Newcastle

8th Annual Chemical Nanoscience Symposium

**Poster:** C. Rizzo, R. Noto, J. Andrews, J. Steed, F. D'Anna*Supramolecular gels of carbohydrates derived salts able to adsorb and reduce Cr (VI).*

35. 12 October 2018, Lisbona

27<sup>th</sup> EuChemS Conference Molten Salts and Ionic Liquids**Poster:** F. Billeci, F. D'Anna, R. Noto, N. Gunaratne, N. Plechkova, K. R. Seddon*Ionic liquid-Cobalt complexes: a thermochromich interaction***Oral:** F. D'Anna, A. Mandoli, R. Noto, C. Rizzo*The importance of supramolecular reaction media in catalysis.***Poster:** F. D'Anna, C. Rizzo, R. Noto, S. Marullo*Self strengthening, Load Bearing Ionic Liquid Gels for Environmental Remediation.*

36. Palermo 1-2 March 2019

Congresso Congiunto delle Sezioni Sicilia e Calabria della Società Chimica Italiana

**Poster:** F. Billeci, F. D'Anna, R. Noto, N. Gunaratne, N. Plechkova, K. R. Seddon*Complessi liquido ionico-cobalto: un'interazione termocromica.***Poster:** A. Meli, S. Marullo, C. Rizzo, R. Noto, F. D'Anna*Eutectogel: Materiali per il risanamento ambientale.*

- Poster:** C. Rizzo, P. Cancemi, S. Marullo, R. Noto, F. D'Anna  
*Idrogel fluorescenti per applicazioni biomediche.*  
37. Lecce 2-6 June 2019  
14<sup>th</sup> International Symposium on Macrocyclic and Supramolecular Chemistry
- Poster:** S. Marullo, C. Rizzo, R. Noto, F. D'Anna  
*Hybrid nanocarbon doped Supramolecular Ionogels for the Removal of Pharmaceutically Active Compounds from Water.*
- Poster:** A. Meli, S. Marullo, C. Rizzo, R. Noto, F. D'Anna  
*Eutectogels: Materials for Environmental Recovery.*
- Poster:** C. Rizzo, P. Cancemi, M. Feroci, S. Marullo, R. Noto, F. D'Anna  
*Fluorescent Supramolecular Hydrogels for Biomedical Applications.*  
38. Torino 8-12 September 2019
- Poster:** S. Marullo, C. Rizzo, R. Noto, F. D'Anna  
*Conversion of carbohydrates into 5-HMF in Deep Eutectic Solvents under mild reaction conditions.*
- Poster:** F. Billeci, H. Q. N. Gunaratne, N. V. Plechkova, K. R. Seddon, P. Cancemi, A. Forlino, R. Noto, F. D'Anna  
*Gluconic acid for eco-friendly Ionic Liquids: chemical and biological investigations.*
- Poster:** C. Rizzo, F. Billeci, N. Tz. Dintcheva, R. Noto, S. Marullo, F. D'Anna  
*Hybrid ionogels as potential antioxidant agents*  
39. 25-27 November 2019, Rimini  
*Merck Young Symposium Chemistry*
- Oral:** C. Rizzo, P. Cancemi, S. Marullo, R. Noto, F. D'Anna  
*Fluorescent naphthalimide-imidazolium hydrogels for biomedical applications*  
40. November 2020
- 1st SCI Virtual Symposium for Young Organic Chemists
- Poster:** F. Billeci, P. Licence, C. Rizzo, S. Marullo, F. D'Anna  
*Fluorescent interaction Eu-IL: when the anion plays a role*
- Oral:** C. Rizzo, F. Billeci, S. Marullo, F. D'Anna  
*Hybrid ionogels: adsorbent for the removal of pharmaceutical active compounds from wastewater*  
41. 14-23 September 2021
- XXVII CONGRESSO NAZIONALE DELLA SOCIETÀ CHIMICA ITALIANA
- Oral:** S. Marullo, C. Rizzo, F. Billeci, F. D'Anna  
*Cholinium-based ionic liquids as catalysts for the glycolysis of post-consumer PET waste*
- Oral:** C. Rizzo, S. Marullo, F. Billeci, F. D'Anna  
*Supramolecular Catalytic Gels*  
42. 2 December 2021, Catania  
*Workshop della Sezione Sicilia della SCI*
- Poster:** C. Rizzo, S. Marullo, F. Billeci, F. D'Anna  
*Gel fluorescenti Supramolecolari formati da derivati delle Riboflavina e  $\beta$ -ciclodestrine*
- Poster:** F. Billeci, C. Rizzo, S. Marullo, M. Benaglia, F. D'Anna  
*Sintesi stereoselettiva in Iono-Eutectogel Supramolecolari.*

**Member of PhD school**

- 2013, member of PhD school in Chemical Science and **co-tutor** of:  
-Dr. Vitalba Pace (thesis: "Reazioni organiche in solventi convenzionali e liquidi ionici: uno studio cinetico");  
- Dr. Paola Vitale (thesis: "Strutture organizzate formate da liquidi ionici: sintesi, studio delle proprietà e applicazioni");  
- **Tutor** of Dr. Carla Rizzo (thesis: *Synthesis and properties of policationic organic salts used as reaction media*).  
 2013 member of PhD school in Molecular and Biomolecular Science and **tutor** of:  
-Dr. Carmelo Giuseppe Colletti (thesis: *Synthesis, characterisation, and study of new nanostructured materials*. Co-tutoring with Prof. Renato Noto).  
-Dr. Floriana Billeci (thesis: *Sweet ionic liquids-based materials for environmental applications*. Co-tutoring with Prof. Kenneth R. Seddon, Dr. H. Q. Nimal Gunaratne and Dr. Natalia V. Plechkova of Queen's University Ionic Liquid Laboratories di Belfast).  
- Dr. Alessandro Meli (thesis: *Deep Eutectic Solvents e Ionic Liquids: Solvents for the Development of Ecosustainable Processes Processi*).

**Teaching activity in PhD school**

- 2017 -2019: member of PhD school in Material Science of the University of Catania.
- 2019-to date: member of PhD school in Technologies and Sciences for the Human Health of the University of Palermo and **tutor** of:  
- Antonella Di Vincenzo; (XXXV Cycle, Research Project: "Nanosponge Smart Systems for Advances Applications
- 2021-to date: member of PhD school in Molecular and Biomolecular Science, tutor of:  
-Giovanna Raia (XXXVIII Cycle, Research Project: "*The Combined Use of Non Conventional Reaction Media and Methodologies for Biomass and Plastic Waste Valorisation in Products of Added Value*")

**Tutoring of student for thesis**

2005 - 2008, Professor for PhD students in Chemical Science.

2007 – to date, tutor of 43 students for the experimental thesis:

- 17 students of Bachelor Degree in Chemistry;
- 13 students of Master Degree in Chemistry;
- 12 students of Master Degree in Biotechnology for Industry and Scientific Research
- 1 student of Master Degree in Chemical Engineering.

Palermo, October 7<sup>th</sup> 2023

