

Curriculum Vitae



Personal information

Surname/Name **CORDARO Massimiliano**

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E-mail mcordaro@unime.it

Nationality Italian

Date of birth 24/04/1974

Gender Male

Occupation 2008 - present
Researcher RTI sector: Organic Chemistry
Department of Chemical, Biological, Pharmaceutical and Environmental Sciences
University of Messina

Affiliations 2016 - present
National Council of Research (CNR) – “Istituto di Tecnologie Avanzate per l’Energia” (ITAE)

Education and training

Dates 2000-2003

Name and type of organisation providing education and training University of Messina - Department of Organic and Biological Chemistry

Title of thesis: “Synthesis of heterocyclic using mesoionic compounds. The oxazolone system”

Supervisor: Prof. G. Grassi

Title of qualification awarded Ph.D. in Chemistry

Dates 1993-1998

Name and type of organisation providing education and training University of Messina

Title of experimental thesis: “First example of synthesis of [4.5]-spiroisoxazolone derivatives”

Supervisor: Prof. F. Risitano

Title of qualification awarded Degree in Chemistry

Professional experiences

Dates 2015 (2 months)

Name and address of employer Institute for Molecules and Materials Molecular Materials
Radboud University Nijmegen (The Netherlands)

Occupation or position held Visiting researcher

Dates 2010 – 2011 (6 months)

Name and address of employer Laboratoire de Synthèse des Assemblages Moléculaires Multifonctionnels
Chemistry Department - University of Strasbourg (France)

Occupation or position held Visiting researcher

Dates 2003-2007

Name and address of employer University of Messina - Department of Organic and Biological Chemistry

Occupation or position held	"Synthesis of new heterocycles with nitrogen and/or oxygen by cascade multi-component processes " Post-doctoral fellowship, sector: Organic Chemistry
Dates	2002 (6 months)
Name and address of employer	Department of Chemical and Biological Science University of Huddersfield (UK)
Occupation or position held	Visiting PhD student
Teaching	Supervisor of Giuseppe Magazzù for the XXV PhD Cycle in Chemical Sciences AY 2010/2012 - Title of the doctoral thesis: Synthesis of new boronic acids based on BODIPY core as sensors for 1,2-diols. 2022-2021 "Elements of Organic Chemistry" (Degree in Sustainability and Environmental Innovation) 2021-2020 "Advanced Organic Chemistry 1" and "Advanced Organic Chemistry 2" (PhD in Chemical Sciences) 2020-2017 "Organic Chemistry of Biological Processes" (Degree in Chemistry) 2017-2016 "Design and synthesis of organic sensors" (Degree in Chemistry) 2016-2015 "Pharmacologically active heterocyclic compounds" (Degree in Chemistry) 2016-2015 "Chemical analysis of food substances and natural organic substances" (Degree in Food Chemistry) 2015-2010 "Organic Chemistry with exercises" (Degree in Industrial Chemistry) 2010-2009 "Organic Chemistry II with laboratory" (Degree in Industrial Chemistry) 2009-2008 "Organic Chemistry I with laboratory" (Degree in Industrial Chemistry)
Research	<ul style="list-style-type: none"> • Organic synthesis of N,O,S heterocycles • Pericyclic reactions • Multicomponent reactions • Synthesis of functionalised BODIPY for energy/charge transfer studies and for sensor applications • Functionalization of polymers for electrochemical devices • NMR analysis of weak complexes of biomolecules with metals <p>H-index: 14, Citation N. 486 (Source: Scopus). Total number of articles: 46 Author and co-author of 44 conference communications</p>
Recent Projects participations	<p>"TETI – TEcnologie innovative per il controllo, il moniToraggio e la sicurezza in mare", Asse II "Sostegno all'innovazione", Avviso n. 1735/Ric del 13 luglio 2017 - Codice CUP B45F21000050005.</p> <p>Progetto "Drug delivery: veicoli per un'innovazione sostenibile" Codice domanda PON03PE_00216_1/9- CUP J42I15000010005.</p> <p>PRIN 2015 –Member of operative Unit of CNR-ISMN. Prot. 2015XBZ5YA_004 Project Title: Towards quantum-photovoltaics: ultrafast energy and charge transport in hybrid nanomaterials.</p>
Collaborations	Prof. M. I Page – University of Huddersfield (UK); Prof. J. P. Sauvage and Prof. Valerie Heitz – University of Strasbourg (France); Dr. M. Castriciano – ISMN CNR (Italia); Prof. E. Collini – Università di Padova; Prof. A. Rowan, Prof. R. J. M. Nolte and Prof. J. A. A. W. Elemans – University of Nijmegen (Netherlands); Dr. A. Carbone – ITAE CNR (Italia).
Publications (last 10 years)	High-Efficiency FRET Processes in BODIPY-Functionalized Quantum Dot Architectures Panniello, A., Trapani, M., Cordaro, M., ...Castriciano, M.A., Striccoli, M. Chemistry - A European Journal, 2021, 27(7), pp. 2371–2380.

The effect of hydrogen bonds on the ultrafast relaxation dynamics of a BODIPY dimer
Fresch, E., Peruffo, N., Trapani, M., ...Castriciano, M.A., Collini, E.
Journal of Chemical Physics, 2021, 154(8), 084201.

Supramolecular BODIPY based dimers: synthesis, computational and spectroscopic studies
Trapani, M., Castriciano, M.A., Collini, E., Bella, G., Cordaro, M.
Organic and Biomolecular Chemistry, 2021, 19(37), pp. 8118–8127.

A Convenient Approach to meso-Uracil-4,4-Difluoro-4-bora-3a, 4a-diaza-s-indacene Derivatives
Trapani, M., Castriciano, M.A., Elemans, J.A.A.W., ...Mineo, P., Cordaro, M.
Synlett, 2021, 32(17), pp. 1714–1718.

Do Secondary Electrostatic Interactions Influence Multiple Dihydrogen Bonds? AA-DD Array on an Amine-Borane Aza-Coronand: Theoretical Studies and Synthesis
Bella, G., Santoro, A., Nicolò, F., Bruno, G., Cordaro, M.
ChemPhysChem, 2021, 22(6), pp. 593–605.

PEGylated bis-adamantane carboxamide as guest bridge for graphene poly-cyclodextrin gold nanoassemblies
Neri, G., Cordaro, A., Scala, A., ...Mazzaglia, A., Piperno, A.
Journal of Molecular Structure, 2021, 1240, 130519.

Understanding the behaviour of carnosine in aqueous solution: An experimental and quantum-based computational investigation on acid-base properties and complexation mechanisms with Ca^{2+} and Mg^{2+}
Abate, C., Cassone, G., Cordaro, M., ...Trusso, S., Foti, C.
New Journal of Chemistry, 2021, 45(43), pp. 20352–20364.

Ca^{2+} complexation with relevant bioligands in aqueous solution: A speciation study with implications for biological fluids
Aiello, D., Carnamucio, F., Cordaro, M., ...Napoli, A., Giuffrè, O.
Frontiers in Chemistry, 2021, 9, 640219.

5-(2,6-Diacetamidopyridin-4-yl)-kryptoBODIPY
Cordaro, M., Trapani, M.
MolBank, 2021, 2021(3), M1271.

3-(3-hydroxypropyl)-2,6-dioxo-1,2,3,6-tetrahydropyrimidine-4-carboxaldehyde methyl hemiacetal
Cordaro, M.
MolBank, 2021, 2021(3), M1272.

Development of polymeric membranes based on quaternized polysulfones for AMFC applications
Carbone, A., Pedicini, R., Gatto, I., ...Bella, G., Cordaro, M.
Polymers, 2020, 12(2), 283.

Isoxazolone Reactivity Explained by Computed Electronic Structure Analysis
Bella, G., Santoro, A., Cordaro, M., Nicolò, F., Bruno, G.
Chinese Journal of Chemistry, 2020, 38(2), pp. 163–168.

Phosphonic Derivatives of Nitrotri-acetic Acid as Sequestering Agents for Ca^{2+} in Aqueous Solution: A Speciation Study for Application in Natural Waters
Cordaro, M., Foti, C., Giacobello, F., Giuffrè, O., Sammartano, S.
ACS Earth and Space Chemistry, 2019, 3(9), pp. 1942–1954.

Interactions of Inosine 5'-Monophosphate with Ca^{2+} and Mg^{2+} : A Thermodynamic and Spectroscopic Study in Aqueous Solution
Cardiano, P., Chillè, D., Cordaro, M., Foti, C., Giuffrè, O.
Journal of Chemical and Engineering Data, 2019, 64(6), pp. 2859–2866.

Two-Dimensional Electronic Spectroscopy Reveals Dynamics and Mechanisms of Solvent-Driven Inertial Relaxation in Polar BODIPY Dyes
Bolzonello, L., Polo, A., Volpato, A., ...Castriciano, M.A., Collini, E.
Journal of Physical Chemistry Letters, 2018, 9(5), pp. 1079–1085.

Metal Complexes as Self-Indicating Titrants for Acid-Base Reactions in Chloroform
Giannetto, A., Cordaro, M., Campagna, S., Lanza, S.
Inorganic Chemistry, 2018, 57(4), pp. 2175–2183.

On the complexation of metal cations with pure diethylenetriamine-N,N',N'',N'''-pentakis(methylenephosphonic) acid
Cardiano, P., Cigala, R.M., Cordaro, M., ...Milea, D., Sammartano, S.
New Journal of Chemistry, 2017, 41(10), pp. 4065–4075.

Environmental and safety aspects of tertiary amino-functionalized ILs' use as efficient recyclable catalysts for direct α -bromination of cyclic conjugated enones
Primerano, P., Milazzo, M.F., Risitano, F., Cordaro, M., Scala, A.
Journal of Industrial and Engineering Chemistry, 2016, 43, pp. 20–27.

A functionalized, ethynyl-decorated, tetracobalt(III) cubane molecular catalyst for photoinduced water oxidation
La Ganga, G., Nardo, V.M., Cordaro, M., ...Nastasi, F., Campagna, S.
Journal of the Chemical Society. Dalton Transactions, 2014, 43(40), pp. 14926–14930.

Acid-base properties and alkali and alkaline earth metal complex formation in aqueous solution of diethylenetriamine- N,N,N',N'',N'''-pentakis(methylenephosphonic acid) obtained by an efficient synthetic procedure
Cigala, R.M., Cordaro, M., Crea, F., ...Milea, D., Sammartano, S.
Industrial and Engineering Chemistry Research, 2014, 53(23), pp. 9544–9553.

Direct synthesis of C3-mono-functionalized oxindoles from N-unprotected 2-oxindole and their antileishmanial activity
Scala, A., Cordaro, M., Grassi, G., ...Cascio, A., Risitano, F.
Bioorganic and Medicinal Chemistry, 2014, 22(3), pp. 1063–1069.

Facile synthesis of boronic acids on a BODIPY core with promising sensitivity towards polyols
Cordaro, M., Mineo, P., Nastasi, F., Magazzù, G.
RSC Advances, 2014, 4(83), pp. 43931–43933.

Recent highlights in the synthesis of anti-HCV ribonucleosides
Piperno, A., Cordaro, M., Scala, A., Iannazzo, D.
Current Medicinal Chemistry, 2014, 21(16), pp. 1843–1860.

Fast transport of HCl across a hydrophobic layer over macroscopic distances by using a Pt(II) compound as the transporter
Giannetto, A., Lanza, S., Puntoriero, F., Cordaro, M., Campagna, S.
Chemical Communications, 2013, 49(69), pp. 7611–7613.

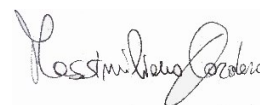
Aldol-type compounds from water-soluble indole-3,4-diones: Synthesis, kinetics, and antiviral properties
Scala, A., Cordaro, M., Mazzaglia, A., ...Sciortino, M.T., Grassi, G.
Molecular Diversity, 2013, 17(3), pp. 479–488.

Direct sustainable bromination of alkenes in aqueous media and basic ionic liquids
Primerano, P., Cordaro, M., Scala, A.
Tetrahedron Letters, 2013, 54(31), pp. 4061–4063.

Self-catalyzed Mannich-type reaction of enolizable cyclic 1,3-dicarbonyls to acyclic nitrones: An entry to functionalized β -enamino diones
Cordaro, M., Risitano, F., Scala, A., ...Chiacchio, U., Grassi, G.
Journal of Organic Chemistry, 2013, 78(8), pp. 3972–3979.

Diastereoselective multicomponent synthesis and anti-HSV-1 evaluation of dihydrofuran-fused derivatives
Scala, A., Cordaro, M., Risitano, F., ...Primerano, P., Grassi, G.
Molecular Diversity, 2012, 16(2), pp. 325–333.

Messina, 12 February 2022



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