Dr. Matteo Bonomo
Curriculum Vitae

Part I – General Information

Full Name	Matteo Bonomo
E-mail	matteo.bonomo@unito.it
Spoken Languages	Italian, English

Part II – Education

Type	Year	Institution	Notes (Degree, Experience,…)
PhD	2018	La Sapienza, University of Rome	Cum Laude
University graduation	2015	La Sapienza, University of Rome	Votation 110/110 cum laude

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
10/2022	Ongoing	University of Turin	Fixed Time Researcher (RTD-B)
12/2020	09/2022	University of Turin	Fixed Time Researcher (RTD-A)
04/2020	11/2020	University of Turin	Research Fellow
03/2019	03/2020	University of Turin	Research Fellow
11/2018	02/2019	University of Turin	PostDoc Fellow
12/2019	02/2020	BCMaterials	Visiting Researcher
10/2017	03/2018	UCD Dublin	Visiting Ph.D. Student
06/2016	07/2016	University of Turin	Visting Ph.D. Student
2023	Ongoing	University of Turin, Department of Chemistry	Referent for Energy Cluster in *ApertaMente Chimica* (Public Engagement Event)
2022	Ongoing	University of Turin, Department of Chemistry	Referent for Energy Cluster in U-NIGHT (European Researcher Night)
01/2021	Ongoing	University of Turin, Department of Chemistry	ERASMUS Referent for the Master Degree in Industrial Chemistry
01/2021	Ongoing	University of Turin, Department of Chemistry	Member of the Commission for Internazionalization

IIIB – Other Appointments

Start	End	Institution	Position
2023	Ongoing	Italian Society of Chemistry	Member of *Struttura Operativa*

			Permanente (SOP) Scientifica
2023	2023	MYCS2023 (Rimini)	Scientific & Organizing Committee
2023	2023	Enerchem School (Firenze)	Scientific Committee
2023	2023	GEI 2023 (Cefalù, PA)	Scientific Committee
2023	2023	Workshop Y-RICh 2023 (Bari)	Scientific & Organizing Committee
2022	Ongoing	Italian Society of Chemistry	Board member of the *Young Group*
2022	Ongoing	Italian Society of Chemistry	Invited member of *Enerchem Interdivisional Group*
2022	Ongoing	Italian Society of Chemistry	Board member of the Electrochemistry Division
2022	2022	MYCS2022 (Rimini)	Scientific & Organizing Committee
2022	2022	GEI 2022 (Orvieto)	Scientific Committee
2022	2022	Workshop Y-RICh 2022 (Roma)	Scientific & Organizing Committee
2021	2021	GIF2021 (Torino)	Organizing Commitee
2021	Ongoing	Slovak Academy of Science	Evaluator for *IMPUTZ Project*
2021	Ongoing	European Commission	Evaluator *ERC-Starting Grant Call*
2021	Ongoing	Polymers	Topic Editor
2020	Ongoing	Italian Ministry of University	Evaluator *Bando Vinci*
2016	Ongoing	(Inter)National Chemistry Congresses	Presenter at > 20 (Inter)National Congresses in the field of Chemical Science
2016	Ongoing	International Chemistry Journals	Reviewer for > 50 Chemical Science Journals, among which: - Advanced Energy Materials - Applied Surface Science - Advanced Functional Materials - ACS Catalysis - Small - Chemical Communication - Journal of Power Sources - ACS Applied Materials & Interfaces - Journal of Material Chemistry C - Materials Today Chemistry - Materials Today Communication - Nanoscale

IIIC – ASN (Abilitazione Scientifica Nazionale)

Start	End	Sector	Role
02/2022	02/2032	03/B2 – FONDAMENTI CHIMICI DELLE TECNOLOGIE	Associate Professor (II Fascia)
02/2022	02/2032	03/B1 – FONDAMENTI DELLE SCIENZE CHIMICHE E SISTEMI INORGANICI	Associate Professor (II Fascia)

05/2021	05/2030	03/A2 - MODELLI E METODOLOGIE PER LE SCIENZE CHIMICHE	Associate Professor (II Fascia)
05/2021	05/2030	03/C2 - CHIMICA INDUSTRIALE	Associate Professor (II Fascia)

Part IV – Teaching experience

IVA – Courses in Third Level (Ph.D. or higher) Degrees or Jury Member of Ph.D. Defence

Year	Institution	Lecture/Course
23/10/2023	Polytechnic of Turin	Jury Member of Ph.D. Defence (Ph.D. in *Materials Science and Technology*)
07/06/2023	University of Siena	Jury Member of Ph.D. Defence (Ph.D. in *Chemical and Environmental Sciences*) – 3 Ph.D. Candidates
20/04/2023	University of Milan - Bicocca	Jury Member of Ph.D. Defence (Ph.D. in *Chemical, Geological and Environmental Sciences*)
2022/2023	University of Turin	SSD CHIM/07 - Materials in optoelectronic applications for energy generation – Ph.D. in Chemical and Materials Science (ENG) (3 CFU – 10 Students)
2021/2022	University of Turin	SSD CHIM/07 - Materials in optoelectronic applications for energy generation – Ph.D. in Chemical and Materials Science (ENG) (3 CFU – 7 Students)
15-18/12/ 2020	University of Perugia	NiPS Winter School "Powering the Internet of Things 2020" (ENG) (0.5 CFU > 50 Students)

IVB – Courses in Bachelor and Master Degrees

Year	Institution	Lecture/Course
2023/2024	University of Turin	SSD CHIM/04 Synthetic Chemistry for Smart Application – LM in Material Science (ENG) (1.5 CFU > 40 Students) Satisfaction index = n.a.
2023/2024	University of Turin	SSD CHIM/04 - Chimica Industriale – LT in Chimica e Tecnologie Chimiche (IT) (1 CFU > 40 Students) Satisfaction index = n.a.
2022/2023	University of Rome, Tor Vergata	SSD CHIM/03 - General and Bio-Inorganic Chemistry – International Degree Course of Pharmacy (ENG) (1.5 CFU > 50 Students) Satisfaction index not calculated.

2022/2023	University of Turin	SSD CHIM/04 Synthetic Chemistry for Smart Application – LM in Material Science (ENG) (1.5 CFU > 40 Students) Satisfaction index > 80%
2022/2023	University of Turin	SSD CHIM/04 - Chimica Industriale – LM in Chimica Industriale (IT) (1.5 CFU > 30 Students) Satisfaction index > 70%
2022/2023	University of Turin	SSD CHIM/04 - Chimica Industriale – LT in Chimica e Tecnologie Chimiche (IT) (1 CFU > 40 Students) Satisfaction index > 70%
2021/2022	University of Rome, Tor Vergata	SSD CHIM/03 - General and Bio-Inorganic Chemistry – International Degree Course of Pharmacy (ENG) (2 CFU > 50 Students) Satisfaction index not calculated.
2021/2022	University of Turin	SSD CHIM/04 - Synthetic Chemistry for Smart Application – LM in Material Science (ENG) (1.5 CFU > 40 Students) Satisfaction index > 75%
2021/2022	University of Turin	SSD CHIM/04 - Chimica Industriale – LM in Chimica Industriale (IT) (1.5 CFU > 30 Students) Satisfaction index > 75%
2021/2022	University of Turin	SSD CHIM/04 - Chimica Industriale – LT in Chimica e Tecnologie Chimiche (IT) (1 CFU > 40 Students) Satisfaction index > 70%
2020/2021	University of Turin	SSD CHIM/04 - Chimica Industriale – LM in Chimica Industriale (IT) (1.5 CFU > 30 Students) Satisfaction index > 70%
2020/2021	University of Turin	SSD CHIM/04 - Chimica Industriale – LT in Chimica e Tecnologie Chimiche (IT) (1 CFU > 40 Students) Satisfaction index > 70%

IVC – Tutoring as Supervisor (S), Co-supervisor (CoS), Hosting Supervisor (HS) of Ph.D. Students (Ph.D.) or Early State Researchers (ESR)

Year	Institution (Role)	Student (Course)	Title
2022-ongoing	University of Turin (S)	S. Nejrotti (ESR)	Sintesi e caratterizzazione spettroscopica di leganti per complessi a base rame e loro implementazione in Metal Organic Frameworks per applicazioni catalitiche
2023-ongoing	University of Yaounde – Cameroon (HS)	S. Mondahchouo (Ph.D. in Electrochemical Sensors) 9 months stay – founded by MAECI	Elaboration of an electrochemical sensor-based trachyte and its composite for the detection of SCN- and I- in solution
2023-ongoing	University of Turin (CoS)	D. Motta (Ph.D. in Chemical and	The circular economy in special paper production waste

		Materials Science)	
2022-ongoing	University of Turin (S)	D. Gallo (Ph.D. in Innovation for the Circular Economy)	The circular economy in special paper production waste
2022-ongoing	University of Turin (S)	G. Viada (Ph.D. in Innovation for the Circular Economy)	Formulation of thermosetting aliphatic polyurethane resins with characteristics of innovation and sustainability
2022-ongoing	University of Turin (CoS)	A.Y. Segura Zarate (Ph.D. in Chemical and Materials Science) co-founded by Costarica	Innovative materials for emerging photovoltaics
2018-2022	University of Turin (CoS)	N. Mariotti (Ph.D. in Innovation for the Circular Economy)	Applying circular economy to innovative materials for energy

IVD – Tutoring as Supervisor (S), Co-supervisor (CoS) of Bachelor (B) or Master (M) students

Year	Institution (Role)	Student (Course)	Title
2023/2024	University of Turin (S)	G. Di Dio (M in Materials Science)	Sustainable polyurethane formulations for Light Solar Concentrators
2023/2024	University of Turin (S)	G. Tedde (M in Chimica Industriale)	Deep Eutectic Solvent-assisted soft-recovery of CRMs from battery wastes
2023/2024	University of Turin (S)	L. Morandini (M in Materials Science)	Synthesis and characterization of innovative materials for semi-transparent Dye-Sensitized Solar Cells
2022/2023	University of Turin (S)	D. Motta (M in Chimica Industriale)	Multi-technique investigation of polyol-based Deep Eutectic Solvents as innovative and sustainable electrolytes in electrochemical energy storage devices
2021/2022	University of Turin (S)	I. Puntuniero (B in Scienze dei Materiali)	Realizzazione di celle DSSC trasparenti con assorbimento selettivo nel NIR per lo sviluppo di dispositivi fotovoltaici incolori
2021/2022	University of Turin (S)	G Pollini (B in Chemistry)	Processi di conversione metano-metanolo
2021/2022	University of Turin (S)	C. Persico (B in Chemistry)	Dispositivi elettronici su substrato cartaceo: recenti sviluppi in campo fotovoltaico
2021/2022	University of Turin (S)	R. Baio (B in Chemistry)	Studio dei Deep Eutectic Solvents e applicazione come

			solventi nell'elettrodeposizione dei metalli
2021/2022	University of Turin (S)	L. Armando (B in Chemistry)	Solventi eutettici profondi (DES) come solventi emergenti nei processi di estrazione
2021/2022	University of Turin (S)	V. Francavilla (M in Chimica Industriale)	Caratterizzazione preliminare di solventi eutettici profondi come elettroliti in sistemi di accumulo di energia
2020/2021	University of Turin (S)	D. Gallo (M in Chimica Industriale)	Perovskite solar cells toward commercialization: thermosetting polyurethane resin encapsulants for long term stability
2020/2021	University of Turin (CoS)	D.G. Dante (B in Scienze dei Materiali)	Applicazione di coatings per la riduzione del surriscaldamento solare delle celle fotovoltaiche
2020/2021	University of Turin (S)	L. Leonardi (M in Biotecnologie Industriali)	Polymers-protein bioconjugation as a stable and effective platform for the partial oxygenation of methane
2020/2021	University of Turin (S)	C. Bertucci (B in Chemistry)	Mediatori redox biologici e biopolimeri nelle dye-sensitized solar cells
2020/2021	University of Turin (S)	D. Motta (B in Chemistry)	Applicazione di molecole biologiche in dye sensitized solar cells (dsscs)
2020/2021	University of Turin (CoS)	S. Grosso (B in Chemistry)	Dal sole alla produzione di biodiesel: un percorso sostenibile
2019/2020	University of Turin (CoS)	G. Rampanti (B in Chemistry)	Materiali per celle fotovoltaiche organiche e ibride integrate in serre
2019/2020	University of Turin (CoS)	S. Porporato (M in Chemistry)	Synthesis and characterization of protein-bioconjugates towards the catalytic conversion of methane into methanol
2019/2020	University of Turin (CoS)	G. Peruzzi (B in Industrial Chemistry)	Applicazione del fotovoltaico nel settore tessile
2019/2020	Polytechnic of Turin (CoS)	S. Primo (M in Materials Engineering)	Indagine preliminare su strati compatti di TiO2 come blocking layer in celle solari acquose
2019/2020	University of Turin (CoS)	S. Cortassa (B in Chemistry)	Bio-based and waste-derived polyurethanes: synthesis and production methods
2018/2019	Polytechnic of Turin (CoS)	V. Alberti (M in Chemical	Fotoreticolazione di elettroliti polimerici acquosi per dye-

		Engineering)	sensitized solar cells
2018/2019	University of Turin (CoS)	P. Tallone (B in Industrial Chemistry)	Fotovoltaico indoor: celle solari di terza generazione per l'assorbimento di luce artificiale
2018/2019	University of Turin (CoS)	A.Y. Bettozzi (M in Industrial Chemistry)	Formulazione e caratterizzazione di materiali incapsulanti a base poliuretanica per applicazioni fotovoltaiche

Part V - Society memberships, Awards and Honors

VA – Society Memberships

Year	Title
2021-	Member of the **GISEL** (Gruppo Italiano per lo Storage Elettrochimico)
2020-	Member of the **INSTM** (Consorzio Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali),
2019-	Member of the **Italian Group of PhotoChemistry (GIF)**
2019-	Member of the **European Photochemistry Association (EPA)**
2018-	Member of the **European Young Chemistry Network (EYCN)**
2016-	Member of the **Italian Chemical Society (SCI)**
2016-	Member of the **International Society of Electrochemistry (ISE)**

VB – Awards and Honors

Personal Awards

Year	Title
2023	**World Ranking of Top 2% Scientists** in 2022 database by Stanford University, USA
2023	Appointed as Member of **Struttura Operativa Permanente (SOP) Scientifica SCI**
2023	**Outstanding Reviewer for Sustainable Energy & Fuels in 2022** by RSC
2022	**World Ranking of Top 2% Scientists** in 2021 database by Stanford University, USA
2022	**GIF Young Investigator Award 2022** (Riconoscimento al merito assegnato ad un giovane ricercatore - under 35- per la sua ricerca di rilevante importanza scientifica nel campo della fotochimica e della fotofisica) assegnato dal Gruppo Italiano di Fotochimica
2021	**Premio Minerva 2021 (Menzione di Onore)** (Riconoscimento al merito assegnato come Dottorato Eccellente nella Macroarea A) assegnato da La Sapienza, Università di Roma)
2020	**Junior Researcher Award "ENERCHEM 2020"** by Società Chimica Italiana (Gruppo Interdivisionale EnerChem)
2019	**"Engitec Technologies" Award** (Best Ph.D. Thesis in Electrochemistry) by Società Chimica Italiana (Divisione di Elettrochimica)
2019	**"Top Peer Reviewer Award"** (For placing in the top 1% of reviewers in Cross -Field on Publons global reviewer database) by Publons©
2019	Scholarship at **"UK-IT Joint Meeting on Photochemistry 2019"** by Società Chimica Italiana (Gruppo Interdivisionale di Fotochimica)

2016	**"Photoanalytical" Award** (Best Master Thesis in Electrochemistry) by Società Chimica Italiana (Divisione di Elettrochimica)
2016-	**4 Award Lectures** at National and International Conferences **3 Invited Lectures** at National and International Conferences **2 Keynote Lectures** at National and International Conferences

Research-related Awards

Year	Title
2023	**"Wiley Top Downloaded Article"** for the paper "Solid-state post Li metal ion batteries: a sustainable forthcoming reality?" Advanced Energy Materials 11 (43), 2100785"
2022	**"Wiley Top Cited Article"** and **"Wiley Top Downloaded Article"** for the paper "Poly(3,4-ethylenedioxythiophene) in dye-sensitized solar cells: toward solid-state and platinum-free photovoltaics" Advanced Sustainable Systems 5 (11), 2100025
2021	**Award "Best Oral Contribution – TCI Chemicals"** at the congress HOPV21
2020	"**Green Chemistry (RSC) Hot Article**" for the paper "Recent advances in eco-friendly and cost-effective materials towards sustainable dye-sensitized solar cells" - GreenChemistry, 2020, 22, 7168-7218.
2017	**"Physical Chemistry Chemical Physics (RSC) Hot Article"** for the paper "Intriguing transport dynamics of ethylammonium nitrate–acetonitrile binary mixtures arising from nano-inhomogeneity" - Phys. Chem. Chem. Phys., 2017,19, 27212-27220

Part VI - Funding Information [grants as PI-principal investigator, LPI – Local PI, WPL-Work Package Leader, P-Proponent or I-investigator] – Budget is referred to the Research Unit

Year	Title	Program	Grant value
2023-**WPL, LPI**	Stable printed perovskite/organic tandem solar cells and modules for indoor & IoT (SPOT-IT)	CET-Partnership 2022	UNITO 155K€
2023-**WPL, LPI**	Green Electrolyte and Biomass-derived Electrodes for Sustainable Electrochemical Storage Devices (GENESIS)	PRIN 2022	UNITO 65K€
2023-**WPL, P**	nuovi Concetti, mAteriali e tecnologie per l'iNtegrazione del fotoVoltAico negli edifici in uno scenario di generazione diffuSa (CANVAS)	Bando A: Ricerca di Sistema Energetico – Italian Minister for University and Research	UNITO 500K€ (WP 200k€)
2023-**PI**	Glycerol-inspiRed dEep Eutectic solveNt: Characterization and Application as greeN solvEntS and electrolyteS (GREENNESS)	GFI – Grant For Internationalization (Università di Torino)	UNITO 12.5K€
2022 -**P**	LEC: il futuro dell'illuminazione a basso consumo	Bando CRT – Intesa San Paolo	UNITO 50K€
2022-**I**	MultiSensor sorting tools in a circular economy approach for the efficient recycling of PVB interlayer material in high-quality prodUcts from laminated	H2020-LCCI-2020-EASME-twostage - H2020-LOW-CARBON-CIRCULAR-	UNITO 50K€

	glass coNstRuction and demolItion waStEs (SUNRISE)	INDUSTRIES-2020	
2022- **PI**	Innovative and Sustainable Materials for Photovoltaic Applications	Bando Ricerca Locale – Università di Torino	UNITO 10.5K€
2020 - **I**	Unravelling the secrets of Cu-based catalysts for C-H activation (CUBE)	ERC Synergy Grant 2019	UNITO 2.08 M€
2020 - **I**	Tecnologia per Celle Solari Bifacciali ad Alta Efficienza a 4 Terminali per "Utility Scale" (BEST-4U)	PON Ricerca e Innovazione 2014-2020	UNITO 50K€
2019 - **I**	International Network on Ionic Liquid Deep Eutectic Solvent Based Metal Organic Frameworks Mixed Matrix Membranes (INDESMOF)	H2020-MSCA-RISE-2017	UNITO 162 K€
2019 - **I**	Ground-Breaking Tandem of Transparent Dye Sensitised and Perovskite Solar Cells (IMPRESSIVE)	H2020-LC-SC3-2018-Joint-Actions-3 LC-SC3-RES-2-2018 Disruptive innovation in clean energy technologies	UNITO 465 K€
2018-2019 **P**	Perovskite and Other Printable Materials for Energy Application in Space" (PEROSKY)	Progetti di ricerca industriale e/o sviluppo sperimentale pubblicato Agenzia Spaziale Italiana "Nuove Idee Per La Componentistica Spaziale Del Futuro"	UNITO 70K€
2018-2019 **P**	Crescita e caratterizzazione di buffer layer in $Zn_xCd_{1-x}S$ per celle a base di CZTS	Progetto B.1.2 - Ricerca su tecnologie fotovoltaiche Ministero Sviluppo Economico – ENEA (PAR 2017)	UNIROMA 64K€
2018 - **P**	Structural and chemical-physical characterization of new DESs for advanced applications in electrochemistry	Progetti di Ricerca Grandi (RG11816430F719B5) La Sapienza Università di Roma	UNIROMA 25K€
2017 - **PI**	Applicazione del principio di funzionamento della DSC (Dye-Sensitized Solar Cell) per la fotoproduzione di idrogeno	Progetti per Avvio alla Ricerca - Tipo 1. (AR11715C7F641B8C) La Sapienza Università di Roma	UNIROMA 1.8 K€

Part VII – Research Activities

Keywords	Brief Description
Nanomaterials	Dr. Matteo Bonomo (MB)'s research activity is mainly devoted to the SYNTHESIS and CHARACTERIZATION of the chemical and physical properties of inorganic and hybrid nanostructured materials to be applied in energy production and storage application with specific attention to the
Semiconductor Oxide	
Photovoltaic	

Deep Eutectic Solvent Ionic Liquids Green & Sustainable Materials	electronic, structural and superficial properties. MB's main expertise deals with: a) the synthesis of inorganic and hybrid (e.g. Metal Organic Frameworks) nanostructured materials, organ(ometall)ic functional molecules and innovative molecular solvents (Ionic Liquids and Deep Eutectic Solvent) with peculiar attention to the exploitation of sustainable processes with low cost and reduced environmental impact b) the experimental investigation of the structure and propertied of innovative nanostructured materials to be exploited in photocatalysis and solar energy conversion. Since the beginning, MB's research activity is devoted to the chemical-physical CHARACTERIZATION and to the APPLICATION of nanostructured materials by the exploitation of different techniques. i) Electrochemical and photoelectrochemical characterization: Cyclic Voltammetry (CV), Electrochemical Impedance Spectroscopy (EIS, IMPS, IMVS). ii) Fundamental characterization of materials: X-ray Diffraction (XRD), Scanning Electron Microscopy (SEM), Thermogravimetric Analysis (TGA) iii) Advanced Characterization of Materials: InfraRed and Raman Spectroscopy, UV-Vis-NIR spectroscopy (both absorption and emission), Nuclear Magnetic Resonance Spectroscopy (^{1}H, ^{13}C, ^{19}F NMR, DOSY, PGSE, HOESY). More recently (since 2018), MB's research interests deals also with the a) SYNTHEIS and STRUCTURAL CHARACTERIZATION of innovative molecular solvent (e.g. Deep Eutectic Solvents) as Green Solvent, Electrolytes for batteries and photovoltaic devices, molecular sieves and for wastewater treatment; b) SYNTHESIS and APPLICATION of encapsulant polymers for the protection of photovoltaic devices.

VIIA – International Collaboration proved by co-authored publications

Organization	Nation	People	Publication (years)	Subject	Join projects
Karlsruhe Institute of Technology	Germany	Dr. A. Mariani	4 (2017-2023)	Ionic Liquids	----------
University College Dublin	Ireland	Prof. D.P. Dowling	6 (2016-2021)	Nanostructured Materials	----------
Universidade Estadual Paulista	Brasil	Prof- C.F.O. Graeff	4 (2016-2021)	Innovative Materials and Deposition Methods	PAR2016
Centre national de la recherche scientifique (CNRS)*	France	Dr. F. Sauvage	2 (2020-2022)	Innovative Materials for Photovoltaic applications	IMPRESSIVE

VIIB – National Collaboration proved by co-authored publications

Organization	City	People	Publication (years)	Subject	Join projects
Università Tor Vergata*	Rome	Prof. A.Di Carlo Dr. F. Matteocci Prof. F. Brunetti	> 15 (2016-2023)	Photovoltaic Devices	IMPRESSIVE PEROVSKY CANVAS SPOT-IT

Università Federico II*	Naples	Prof. A Carella Prof. R. Centore	6 (2017-2023)	Photovoltaic Devices	----------
Università Tor Vergata*	Rome	Dr. L. Gontrani	>10 (2017-2023)	Deep Eutectic Solvent and Ionic Liquids	----------
Università La Sapienza*	Rome	Prof. A.G. Marrani	6 (2016-2021)	Nanostructured Materials	----------
Politecnico di Torino*	Turin	Prof. C. Gerbaldi Prof. F. Bella Dr. G.A. Elia	8 (2019-2021)	Energy Storage and Production	SUNRISE GENESIS

VIIC – Research at International Large Scale Facilities

Year	Title	Facilities	Role
10/2023	InfraRed-Based investigation of Hydrogen Bond Network evolution in Deep Eutectic Solvents (DESs)	Elettra Synchrotron (SISSI)	Proponent
01/2023	In situ XAS on bioinspired Cu-MOFs as methane partial oxidation catalysts	ESFR (BM 31)	Co-Proponent
11/2022	Combined in situ XAS-XES of bioinspired Cu-MOFs as methane partial oxidation catalysts	ESFR (BM 23)	Co-Proponent
07/2021	Redox chemistry of model Cu complexes for direct alkanes to alcohols conversion investigated by in situ/operando UV-Raman spectroscopy (OFF-LINE)	Elettra Synchrotron (IUVS)	Co-Proponent and Partecipant
04/2021	Investigation of redox chemistry of model Cu-complexes for direct alkanes to alcohols conversion by combined XAS-UVvis-IR spectroscopies	ESFR (BM 31)	Co-Proponent
02/2021	Redox chemistry of model Cu complexes for direct alkanes to alcohols conversion investigated by in situ/operando UV-Raman spectroscopy (ON-LINE)	Elettra Synchrotron (IUVS)	Co-Proponent and Partecipant

Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	74	SCOPUS	05/2016	11/2023
Papers [national]				
Books [scientific]	1	Google Scholar	2019	2019
Books [teaching]				

Total Impact factor	412.0

Average Impact Factor per Product	5.7
Total Citations	1819
Average Citations per Product	24.6
Hirsch (H) index	23
Normalized H index*	3.3
Number of Products as First Author	16 (21.6%)
Number of Products as Corresponding Author	16 (21.6%)
Number of Products as First and Corresponding Author	15 (20.3%)

*****H index divided by the academic seniority.

Part IX– Selected Publications

List of Dr. **Matteo Bonomo**'s publications, reported with an inverted chronological order and divided in:

- Papers (Indexed on Scopus with IF, **A**)
- Reviews (Indexed on Scopus with IF, **B**)
- Papers/Reviews (not indexed on Scopus or without IF, **C**)
- Book Chapter (**D**)

For each Journal, the **Impact Factor (IF)** (**IF2022**) related to the publication year (or closer one, i.e. 2022 for papers/reviews published in 2022/2023). The **underlining** evidence the publication where MB is corresponding author (*****).

Citations are referred to Google Scholar Database (GS) or to Scopus Database(S)

Papers on Journal (Indexed on Scopus with IF)

A1. Scarano, V.; Gontrani, L.; Segura Zarate, A.Y.; Galliano, S.; Borrelli, R.; Carbone, M.; Dini, D.; Mirante, D.; Feroci, M.; **Bonomo, M.**; **Mattiello, L.**
A new push-pull dye for semi-transparent p-type dye-sensitized solar cells: Tuning conjugation by sexithiophene chain engineering
Solar Energy, 2023, 265, 112143, DOI: 10.1016/j.solener.2023.112143.
(IF_{2022}: 6.700, Q2)
Citazioni GS = 0
Citazioni S = 0

A2. Carlotto, A.; Chiasera, A.; Ferrari, M.; Varas, S-; Zanetti, G.; Sayginer, O.; Bonomo, M.; Galliano, S.; Barolo, C.; Farina, A.; Pietralunga, S.
Multi-Cavity Dielectric Mirrors for Spectral-Splitting Photovoltaic Applications
2023 Photonics North (PN), Montreal, QC, Canada, 2023, 1-3, DOI: 10.1109/PN58661.2023.10223005
(IF_{2022}: n.a., Q2)
Citazioni GS = 0
Citazioni S = 0

A3. Rottach, K.; Gastaldi, M.; Longus, R.; Gerbaldi, C.; **Bonomo, M.**

On the Impact of Electrolyte Temperature on Contact Glow Discharge Electrolysis
Electrochemistry Communication, 2023, 153, 107542, DOI: 10.1016/j.elecom.2023.107542
(IF_{2022}: 5.400, Q2)
Citazioni GS = 0
Citazioni S = 0

A4. Zanetti, G.; Carlotto, A.; Tran, T.N.L; Szczurek, A.; Babiarczuk, B.; Sayginer, O.; Varas, S.; Krzak, J.; Bursi, O.; Zonta, D.; Baldi, G.; Bonomo, M.; Galliano, S.; Barolo, C.; Bazzanella, N.; Pietralunga, S.M.; **Chiasera, A.**
Under bending optical assessment of flexible glass-based multilayer structures fabricated on polymeric substrates,
Optical Material X, 2023, 19, 100241, DOI: 10.1016/j.omx.2023.100241
(IF_{2022}: n.a., Q2)
Citazioni GS = 1
Citazioni S = 1

A5. Mariotti, N.; Viada G.; Galliano, S.; Menozzi, A.; Tammaro, F.; Gianelli, W.; **Bonomo, M.**; Barolo, C.
Increasing circular and bio-based content of a thermosetting polyurethane for encapsulation of optoelectronic devices: A multivariate investigation
Journal of Cleaner Production, 2023, 408, 137161, DOI: 10.1016/j.jclepro.2023.137161
(IF_{2022}: 11.1, Q1)
Citazioni GS = 0
Citazioni S = 0

A6. D'Annibale, V.; Chen, G.; **Bonomo, M.;** Dini D., D'Abramo M.
P1 Push-Pull Dye as a Case Study in QM/MM Theoretical Characterization for Dye-sensitized Solar Cell Organic Chromophores
Chemistry Select, 2023, 8, e20220490, DOI: 10.1002/slct.202204904 **(IF_{2022}: 2.100, Q3)**
Citazioni GS = 1
Citazioni S = 1

A7. Yildirim, O.; Tsaturyan, A.; Damin, A.; Nejrotti, S.; Crocellà, V.; Gallo, A.; Chierotti, M.R.; **Bonomo, M.**; Barolo, C.
Quinoid-Thiophene-Based Covalent Organic Polymers for High Iodine Uptake: When Rational Chemical Design Counterbalances the Low Surface Area and Pore Volume
ACS Applied Materials & Interfaces, 2023, 15, 12, 15819-15831, DOI: 10.1021/acsami.2c20853 **(IF_{2022}: 9.500, Q1)**
Citazioni GS= 3
Citazioni S = 1

A8. **Bonomo, M.**; Segura Zarate, A.Y.; Fagiolari, L.; Damin, A.; Galliano, S.; Gerbaldi, C.; Bella, F.; Barolo, C.
Unreported resistance in charge transport limits the photoconversion efficiency of aqueous dye-sensitised solar cells: an electrochemical impedance spectroscopy study

Materials Today Sustainability, 2023, 21, 100271, DOI: 10.1016/j.mtsust.2022.100271 **(IF_{2022}: 7.800, Q1)**
Citazioni GS = 23
Citazioni S = 20

A9. Palmieri, E.; Montaina, L.; Polino, G.; **Bonomo, M.**; Giordanengo, G.; Barolo, C.; Paradossi, G.; Brunetti, F.; Tamburri, E.; Orlanducci, S.
Engineered surface for high performance electrodes on paper
Applied Surface Science, 2023, 608, 155117, DOI: 10.1016/j.apsusc.2022.155117 **(IF_{2022}: 6.7, Q1)**
Citazioni GS = 2
Citazioni S = 1

A10. Antenucci, A.; **Bonomo, M.**; Ghinato, S.; Blangetti, M.; Dughera, S.
Design of a New Chiral Deep Eutectic Solvent Based on 3-Amino-1,2-propanediol and Its Application in Organolithium Chemistry
Molecules, 2022, 27, 8566, DOI: 10.3390/molecules27238566 **(IF_{2022}: 4.600, Q2)**
Citazioni GS = 1
Citazioni S = 1

A11. Carella, A.; Franzini, M.; Fusco, S.; Centore, R.; Barra, M.; Chiarella, F.; Cassinese, A.; **Bonomo, M.**; Nejrotti, S.; Carbone, M.; Gontrani, L.
Isoindigo dyes functionalized with terminal electron-withdrawing groups: Computational, optical and electrical characterization
Dyes & Pigments, 2022, 208, 110866, DOI: 10.1016/j.dyepig.2022.110866 **(IF_{2022}: 4.500, Q1)**
Citazioni GS = 1
Citazioni S = 1

A12. Cappelluti F.; Mariani, A.; **Bonomo, M.**; Damin, A.; Bencivenni, L.; Passerini, S.; Carbone, M.; Gontrani, L.;
Stepping away from serendipity in Deep Eutectic Solvent formation: Prediction from precursors ratio
Journal of Molecular Liquids, 2022, 367, 120443, DOI: 10.1016/j.molliq.2022.120443 **(IF_{2022}: 6.000, Q1)**
Citazioni GS = 7
Citazioni S = 7

A13. Ghigo, G.; **Bonomo, M.**; Antenucci, A.; Damin, A.; Dughera, S.
Ullmann homocoupling of arenediazonium salts in a deep eutectic solvent. Synthetic and mechanistic aspects
RSC Advances, 2022, 12, 26640-26647, DOI: 10.1039/D2RA05272E **(IF_{2022}: 3.900, Q2)**
Citazioni GS = 4
Citazioni S = 4

A14. Centrella, B.; Deplano, Damin, A.; Signorile, M.; Tortora, M.; Barolo, C.; **Bonomo, M.**; Bordiga, S.
A multi-technique approach to unveil the redox behaviour and potentiality of homoleptic CuI complexes based on substituted bipyridine ligands in oxygenation reactions
Dalton Transactions, 2022, 51, 14439-14451 DOI: 10.1039/D2DT01234K **(IF_{2022}: 4.000, Q1)**
Citazioni GS = 1
Citazioni S = 1

A15. Ghigo, G.; **Bonomo, M.**; Antenucci, A.; Reviglio, C.; Dughera, S.
Copper-Free Halodediazoniation of Arenediazonium Tetrafluoroborates in Deep Eutectic Solvents-like Mixtures
Molecules, 2022, 27, 1909 DOI: 10.3390/molecules27061909 **(IF_{2022}: 4.600, Q2)**
Citazioni GS = 7
Citazioni S = 8

A16. Fusco, S.; Barra, M., Gontrani, L.; **Bonomo, M.**; Chianese, F.; Galliano, S.; Centore, R.; Cassinese, A.; Carbone, M.; Carella, A.
Novel Thienyl DPP derivatives Functionalized with Terminal Electron-Acceptor Groups: Synthesis, Optical Properties and OFET Performance
Chem. Eur. J., 2022, 28, 25, e202104552, DOI: 10.1002/chem.202104552 **(IF_{2022}: 4.300, Q2)**
Citazioni GS = 10
Citazioni S = 9

A17. De Rossi, F.; Taheri, B.; **Bonomo, M.**; Gupta, V.; Renno, G.; Yaghoobi Nia, N.; Rech, P.; Frost, C.; Cazzaniga, C.; Quagliotto, P.; Di Carlo, A.; Barolo, C.; Ottavi, M.; Brunetti, F.
Neutron irradiated perovskite films and solar cells on PET substrates
NanoEnergy, 2022, 93, 106879, DOI: 10.1016/j.nanoen.2021.106879 **(IF_{2022}: 17.600, Q1)**
Citazioni GS = 12
Citazioni S = 10

A18. **Bonomo, M.**; Ekoi, E.J.; Marrani, A.G.; Segura Zarate, A.Y.; Dowling, D.P.; Barolo, C.; Dini, D.
NiO/ZrO_2 nanocomposites as photocathodes of tandem DSCs with higher photoconversion efficiency with respect to parent single-photoelectrode p-DSCs
Sust. Energy & Fuels, 2021, 5, 4736-4748, DOI: 10.1039/D1SE00566A **(IF_{2021}: 6.813, Q2)**
Citazioni GS = 6
Citazioni S = 6

A19. Giordano, M.; Volpi, G.; **Bonomo, M.**; Mariani, P.; Garino, C.; Viscardi, G.
Methoxy-Substituted Copper Complexes as possible Redox Mediators in Dye-Sensitized Solar Cells
New Journal of Chemistry, 2021, 45, 15303-15311, DOI: 10.1039/D1NJ02577E **(IF_{2021}: 3.925, Q2)**
Citazioni GS = 10
Citazioni S = 10

A20. Antenucci A.; **Bonomo, M.**; Ghigo, G.; Gontrani, L.; Barolo, C.; Dughera, S.
How do arenediazonium salts behave in deep eutectic solvents? A combined experimental and computational approach
J. Mol. Liquids, 2021, 339, 116743 DOI: 10.1016/j.molliq.2021.116743 **(IF_{2021}: 6.633 Q1)**
Citazioni GS = 12
Citazioni S = 11

A21. de Haro, J.C., Tatsi, E.; Fagiolari, L.; **Bonomo, M.**; Barolo, C.; Turri, S.; Bella, F.; Griffini, G.
Lignin-Based Polymer Electrolyte Membranes for Sustainable Aqueous Dye-Sensitized Solar Cells
ACS Sustainable Chem. Eng. 2021, 9, 25, 8550–8560, DOI: 10.1021/acssuschemeng.1c01882 **(IF_{2021}: 9.224, Q1)**
Citazioni GS = 95
Citazioni S = 79

A22. Yaghoobi Nia, N.; **Bonomo, M.**; Zendehdel, M.; Lamanna, E.; Desoky, M.M.H.; Paci, B.; Zurlo, F.; Generosi, A.; Barolo, C.; Viscardi, G.; Quagliotto, P.; Di Carlo, A.
Impact of P3HT Regioregularity and Molecular Weight on the Efficiency and Stability of Perovskite Solar Cells
ACS Sustainable Chem. Eng. 2021, 9, 5061-5073, DOI: 10.1021/acssuschemeng.0c09015 **(IF_{2021}: 9.224, Q1)**
Citazioni GS = 29
Citazioni S = 23

A23. De Rossi, F.; Renno, G.; Taheri, B.; Yaghoobi Nia, N.; Ilieva, V.; Fin, A.; Di Carlo, A.; **Bonomo, M.**, Barolo C.; Brunetti, C.
Modified P3HT materials as hole transport layers for flexible perovskite solar cells
J. Power Sources, 2021, 494, 229735, DOI: 10.1016/j.jpowsour.2021.229735 **(IF_{2021}: 9.794, Q1)**
Citazioni GS = 27
Citazioni S = 18

A24. Galliano, S.; Bella, F.; **Bonomo, M.**; Giordano, F.; Grätzel, M.; Viscardi, G.; Hagfeldt, A.; Gerbaldi, C.; Barolo, C.
Xanthan-based Hydrogel for Stable and Efficient Quasi-Solid Truly Aqueous DSSC with Cobalt Mediator
Solar RRL, 2021, 5, 2000823, DOI: 10.1002/solr.202000823 **(IF_{2021}: 9.173, Q1)**
Citazioni GS = 82
Citazioni S = 79

A25. Bodo, E.; **Bonomo, M.**; Mariani, A.
Assessing the Structure of Protic Ionic Liquids Based on Triethylammonium and Organic Acid Anions
J Phys. Chem. B, 2021, 125, 2781-2792 DOI: 10.1021/acs.jpcb.1c00249 **(IF_{2021}: 3.466, Q3)**
Citazioni GS = 20
Citazioni S = 18

A26. **Bonomo, M.**; Mariani A.; Gao X.; Centrella B.; Nucara A.; Buscaino R.; Barge A.; Barbero N.; Gontrani L.; Passerini S.

The unseen evidence of reduced Ionicity: The elephant in (the) room temperature ionic liquids
J. Mol. Liquids, 2021, 324, 115069 DOI: 10.1016/j.molliq.2020.115069 **(IF_{2021} 6.633, Q1)**
Citazioni GS = 31
Citazioni S = 25

A27. Fusco S.; Barra M.; **Bonomo M.**; Cassinese A.; Centore R.; Chiarella F.; Senneca F.; Carella A.
Novel DPP derivatives functionalized with auxiliary electron-acceptor groups and characterized by narrow bandgap and ambipolar charge transport properties
Dyes & Pigments, 2021, 186, 109026 DOI: 10.1016/j.dyepig.2020.109026 **(IF_{2021}: 5.122, Q1)**
Citazioni GS = 12
Citazioni S = 10

A28. **Bonomo, M.**; Taheri, B.; Bonandini, L.; Castro-Hermosa, S.; Brown, T. M.; Zanetti, M.; Menozzi, A.; Barolo, C.; Brunetti, F.
Thermosetting Polyurethane Resins as Low-Cost, Easily Scalable, and Effective Oxygen and Moisture Barriers for Perovskite Solar Cells
ACS Appl. Mater. Interfaces, 2020, 12, 54862-54875, DOI: 10.1021/acsami.0c17652 **(IF_{2020}: 9.229, Q1)**
Citazioni GS = 30
Citazioni S = 28

A29. Fagiolari, L.; **Bonomo, M.**; Cognetti, A.; Meligrana, G.; Gerbaldo, C.; Barolo, C.; Bella, F.
Photoanodes for Aqueous Solar Cells: Exploring Additives and Formulations Starting from a Commercial TiO2 Paste
ChemSusChem, 2020, 13, 6562-6573, DOI: 10.1002/cssc.202001898 **(IF_{2020}: 8.928, Q1)**
Citazioni GS = 70
Citazioni S = 71

A30. Alteri, G.B.; **Bonomo, M.**; Decker, F.; Dini, D.
Contact Glow Discharge Electrolysis: Effect of Electrolyte Conductivity on Discharge Voltage
Catalysts, 2020, 10, 1104, DOI: 10.3390/catal10101104 **(IF_{2020}: 4.146, Q2)**
Citazioni GS = 15
Citazioni S = 15

A31. **Bonomo, M.**; Gontrani, L.; Capocefalo, A.; Sarra, A.; Nucara, A.; Carbone, M.; Postorino, P.; Dini, D.
A combined electrochemical, infrared and EDXD tool to disclose Deep Eutectic Solvents formation when one precursor is liquid: Glyceline as case study
J. of Mol. Liq., 2020, 319, 114292 DOI: 10.1016/j.molliq.2020.114292 **(IF_{2020}: 6.165, Q1)**
Citazioni GS = 16
Citazioni S = 13

A32. Galliano, S.; Bella, F.; **Bonomo, M.**; Viscardi, G.; Gerbaldi, C.; Boschloo, G.; Barolo, C.
Hydrogel Electrolytes Based on Xanthan Gum: Green Route towards Stable Dye-Sensitized Solar Cells
Nanomaterials, 2020, 10, 1585 DOI: 10.3390/nano10081585 **(IF_{2020}: 5.076, Q1)**
Citazioni GS = 106

Citazioni S = 102

A33. **Bonomo M.**; Di Girolamo, D.; Piccinni, M.; Dowling, D.P.; Dini, D.
Electrochemically Deposited NiO Films as a Blocking Layer in p-Type Dye-Sensitized Solar Cells with an Impressive 45% Fill Factor
Nanomaterials, 2020, 10, 167 DOI: 10.3390/nano10010167 **(IF_{2020}: 5.076, Q1)**
Citazioni GS = 27
Citazioni S = 25

A34. Congiu M.; **Bonomo, M.**; Di Girolamo, D.; Graeff, C.F.O.; Malerba, C.; Valentini, M.; Mittiga, A.; Dini, D.
Towards an ink-based method for the deposition of ZnxCd1-xS buffer layers in CZTS solar cells
J Mater Sci: Mater Electron, 2020, 31, 2575-2582 DOI: 10.1007/s10854-019-02796-7 **(IF_{2020}: 2.478 Q3)**
Citazioni GS = 4
Citazioni S = 4

A35. **Bonomo, M.**; Carella A.; Borbone, F.; Rosato, L.; Dini, D.; Gontrani, L.
New pyran-based molecules as both n- and p-type sensitizers in semi-transparent Dye Sensitized Solar Cells
Dyes and Pigments, 2020, 175, 108140 DOI: 10.1016/j.dyepig.2019.108140 **(IF_{2020}: 4.889, Q1)**
Citazioni GS = 24
Citazioni S = 18

A36. Mariani, A.; **Bonomo, M.**; Passerini, S.
Statistic-Driven Proton Transfer Affecting Nanoscopic Organization in an Ethylammonium Nitrate Ionic Liquid and 1,4-Diaminobutane Binary Mixture: A Steamy Pizza Model
Symmetry, 2019, 11, 1425, DOI: 10.3390/sym11111425 **(IF_{2019}: 2.143, Q1)**
Citazioni GS = 5
Citazioni S = 6

A37. Gontrani, L.; Plechkova, N.V.; **Bonomo, M.**
In-Depth Physico-Chemical and Structural Investigation of Dicarboxylic Acid/Choline Chloride NaDES: a Spotlight on the Importance of a Rigorous Preparation Procedure
ACS Sustainable Chem. Eng., 2019, 166, D1-D11 DOI: 10.1021/acssuschemeng.9b02402 **(IF_{2019}: 6.970, Q1)**
Citazioni GS = 41
Citazioni S = 40

A38. **Bonomo, M.**; Mariani, P.; Mura, F.; Di Carlo, A.; Dini, D.
Nanocomposites of nickel oxide and zirconia for the preparation of photocathodes with improved performance in p-type dye-sensitized solar cells
J. Electrochem. Soc., 2019, 166, D1-D11 DOI: 10.1149/2.0691908jes **(IF_{2019}: 3.120, Q1)**
Citazioni GS = 12
Citazioni S = 10

A39. **Bonomo, M.**; Barbero, N.; Naponiello, G.; Giordano, M.; Dini, D.; Barolo, C.
Sodium Hydroxide Pretreatment as an Effective Approach to Reduce the Dye/Holes Recombination Reaction in p-Type DSCs

Front. Chem. 2018, 7, 99 DOI: 10.3389/fchem.2019.00099 **(IF_{2018}: 3.782, Q1)**
Citazioni GS = 7
Citazioni S = 7

A40. Marrani, A.G.; **Bonomo, M.**; Dini, D.
Adsorption Dynamics of Redox Active Species onto Polarized Surfaces of Sensitized NiO
ACS Omega, 2019, 4, 1690-1699 DOI: 10.1021/acsomega.8b02543 **(IF_{2018}: 2.548, Q1)**
Citazioni GS = 3
Citazioni S = 3

A41. Gontrani, L.**; Bonomo, M.;** Plechkova, N.V.; Dini, D.; Caminiti, R.
X-Ray structure and ionic conductivity studies of anhydrous and hydrated choline chloride and oxalic acid deep eutectic solvents
Phys. Chem. Chem. Phys. 2018, 20, 30120-30124 DOI: 10.1039/C8CP06728G **(IF_{2018}: 3.567, Q1)**
Citazioni GS = 39
Citazioni S = 30

A42. **Bonomo, M.**; Di Carlo, A.; Dini, D.
Study of the Influence of the I-based Electrolyte Composition on the Photoconversion Properties of p-Type Dye-Sensitized Solar Cells
J. Electrochem. Soc. 2018, 165, H889, DOI: 10.1149/2.0261814jes **(IF_{2018}: 3.120, Q1)**
Citazioni GS = 16
Citazioni S = 14

A43. **Bonomo, M.**; Gatti, D.; Barolo C.; Dini, D.
Effect of Sensitization on the Electrochemical Properties of Nanostructured NiO
Coatings 2018, 8, 232 DOI: 10.3390/coatings8070232 **(IF_{2018}: 2.330, Q1)**
Citazioni GS = 6
Citazioni S = 5

A44. **Bonomo, M.**; Sheehan S.; Dowling, D.P.; Gontrani, L.; Dini, D.
First Evidence of Electrode Reconstruction in Mesoporous NiO After Operation as Photocathode of Dye-Sensitized Solar Cells
ChemistrySelect 2018, 3, 6729-6736 DOI: 10.1002/slct.201800827 **(IF_{2018}: 1.716, Q2)**
Citazioni GS = 7
Citazioni S = 6

A45. **Bonomo, M.**; Centore, R.; Di Carlo A.; Dini, D.; Carella, A.
New pyran-based dyes as efficient sensitizers of p-type dye-sensitized solar cells
Solar Energy 2018, 169, 237-242 DOI: 10.1016/j.solener.2018.04.050 **(IF_{2018}: 4.674, Q1)**
Citazioni GS = 17
Citazioni S = 17

A46. **Bonomo, M.**; Naponiello, G.; Dini, D.
Oxidative dissolution of NiO in aqueous electrolyte: An impedance study
J. ElectroAnal. Chem. 2018, 801, 205-214, DOI: 10.1016/j.jelechem.2018.03.058 **(IF_{2018}: 3.218, Q1)**
Citazioni GS = 7
Citazioni S = 7

A47. Marrani, A.G.; Coico, A.C.; Giacco, D.; Zanoni, R.; Scaramuzzo F.A.; Schrebler, R.; Dini, D.; **Bonomo, M.**; Dalchiele, E.A.
Integration of Graphene onto Silicon Through Electrochemical Reduction of Graphene Oxide Layers in Non-Aqueous Medium
Appl. Surf. Scie. 2018, 445, 404-414. DOI: 10.1016/j.apsusc.2018.03.147 **(IF_{2018}: 5.155, Q1)**
Citazioni GS = 30
Citazioni S = 27

A48. **Bonomo, M.**; Magistris, C.; Buscaino, R.; Fin, A.; Barolo, C.; Dini, D.
Effect of Sodium Hydroxide pretreatment on the performance of squaraine-sensitized p-type dye-sensitized solar cells
ChemistrySelect 2018, 3, 1066; DOI: 10.1002/slct.201702867 **(IF_{2018}: 1.716, Q2)**
Citazioni GS = 12
Citazioni S = 9

A49. **Bonomo, M.**; Saccone, D.; Magistris, C.; Barolo, C.; Ciná, L.; Di Carlo, A.; Dini
Influence of the Conditions of Sensitization on the Characteristics of p-DSCs Sensitized with Asymmetric Squaraines
J. Electrochem. Soc. 2017, 164, H1099; DOI: 10.1149/2.0971714jes **(IF_{2017}: 3.662, Q1)**
Citazioni GS = 7
Citazioni S = 5

A50. **Bonomo, M.**; Carella, A.; Centore, R.; Di Carlo A.; Dini, D.
First Examples of Pyran Based Colorants as Sensitizing Agents of p-Type Dye-Sensitized Solar Cells
J. Electrochem. Soc. 2017, 164, F1412 DOI: 10.1149/2.0671713jes **(IF_{2017}: 3.662, Q1)**
Citazioni GS = 17
Citazioni S = 13

A51. Mariani A.; **Bonomo, M.**; Wu, B.; Centrella, B.; Dini, D.; Castner Jr., E.W.; Gontrani, L.;
Intriguing Transport Dynamics of Ethylammonium Nitrate-Acetonitrile Binary Mixtures Arising from Nano-inhomogeneity
Phys. Chem. Chem. Phys. 2017, 19, 27212 DOI: 10.1039/C7CP04592A **(IF_{2017}: 3.906, Q1)**
Citazioni GS = 27
Citazioni S = 21

A52. **Bonomo M**.; Saccone, D.; Magistris, C.; Di Carlo, A.; Barolo, C.; Dini, D.
Effect of alkyl chain length on the sensitizing action of substituted non symmetric squaraines for p-type dye-sensitized solar cells
ChemElectroChem, 2017, 4, 2385 DOI: 10.1002/celc.201700191 **(IF_{2017}: 4.446, Q1)**
Citazioni GS = 20
Citazioni S = 19

A53. **Bonomo, M.**; Dini, D.; Marrani, A.G.; Zanoni, R.
X-ray photoelectron spectroscopy investigation of nanoporous NiO electrodes sensitized with Erythrosine B
Colloids and Surface A 2017, 532, 464 DOI: 10.1016/j.colsurfa.2017.04.029 **(IF_{2017}: 2.829, Q2)**
Citazioni GS = 13

Citazioni S = 13

A54. **Bonomo M.**; Congiu, M.; De Marco, M.L.; Dowling, D.P.; Di Carlo, A.; Graeff, C.F.O.; Dini, D.
Limits on the use of cobalt sulfide as anode of p-type dye-sensitized solar cells
J. Phys. D, 2017, 50, 205501 DOI: 10.1088/1361-6463/aa6a79 **(IF$_{2017}$: 2.373, Q1)**
Citazioni GS = 10
Citazioni S = 8

A55. **Bonomo, M.**; Sabuzi, F.; Di Carlo, A.; Conte, V.; Dini, D.; Galloni, P.
KuQuinones as sensitizers of NiO based p-type dye-sensitized solar cells
New J. Chem. 2017, 41, 2769. DOI: 10.1039/C6NJ03466G **(IF$_{2017}$: 3.201, Q1)**
Citazioni GS = 30
Citazioni S = 26

A56. **Bonomo, M.**; Marrani, A.G.; Novelli, V.; Awais, M; Dowling, D.P. Vos, J.G.; Dini, D.
Surface properties of nanostructured NiO undergoing electrochemical oxidation in 3-methoxy-propionitrile
Appl. Surf. Sci. 2017, 403, 441. DOI: 10.1016/j.apsusc.2017.01.202 **(IF$_{2017}$: 4.439, Q1)**
Citazioni GS = 28
Citazioni S = 27

A57. **Bonomo, M.**; Naponiello, G.; Venditti, I.; Zardetto, V.; Di Carlo, A.; Dini, D.
Electrochemical and photoelectrochemical properties of screen-printed nickel oxide thin films obtained from precursor pastes with different compositions
J. Electrochem. Soc. 2017, 164, 4, H137 DOI: 10.1149/2.0051704jes **(IF$_{2017}$: 3.662, Q1)**
Citazioni GS = 49
Citazioni S = 43

A58. Congiu, M.; De Marco M.L.; **Bonomo M.**; Dini D.; Graeff, C.F.O.
Pristine and Al-doped hematite printed films as Photoanodes for p-Type Dye Sensitized Solar Cells
J. Nanopart. Res. 2017, 19, 7 DOI 10.1007/s11051-016-3707-4 **(IF$_{2017}$: 2.127, Q2)**
Citazioni GS = 18
Citazioni S = 11

A59. **Bonomo M.**; Dini D.; Marrani A.G.
Adsorption Behavior of I_3^- and I^- Ions at a Nanoporous NiO/Acetonitrile Interface Studied by X-ray Photoelectron Spectroscopy
Langmuir 2016, 32, 44, 11540-11550 DOI: 10.1021/acs.langmuir.6b03695 **(IF$_{2017}$: 3.833, Q1)**
Citazioni GS = 35
Citazioni S = 31

A60. **Bonomo M.**; Barbero N.; Matteocci F.; Di Carlo A.; Barolo C.; Dini D.
Beneficial Effect of Electron-Withdrawing Groups on the Sensitizing Action of Squaraines for p-Type Dye-Sensitized Solar Cells
J. Phys. Chem. C 2016, 120, 30, 16340. DOI: 10.1021/acs.jpcc.6b03965 **(IF$_{2017}$: 4.536, Q1)**
Citazioni GS = 48
Citazioni S = 43

A61. Congiu M.; **Bonomo M.**; De Marco M.L.; Dowling D.P.; Di Carlo A.; Dini D.; Graeff C.F.O.
Cobalt Sulfide as Counter Electrode in p-Type Dye-Sensitized Solar Cells
ChemistrySelect 2016, 1, 2808. DOI: 10.1002/slct.201600297 **(IF_{2017}: 1.505, Q2)**
Citazioni GS = 21
Citazioni S = 19

Reviews on Journal (Indexed on Scopus with IF)

B1. Nejrotti, S.; Antenucci, A.; Pontremoli, C.; Gontrani, L.; Barbero, N.; Carbone, M.; **Bonomo, M.**
Critical Assessment of the Sustainability of Deep Eutectic Solvents: A Case Study on Six Choline Chloride-Based Mixtures
ACS Omega, 2022, 7, 47449–47461, DOI: 10.1021/acsomega.2c06140 **(IF_{2022}: 4.100, Q2)**
Citazioni GS = 15
Citazioni S = 13

B2. Gontrani, L.; Tagliatesta, P.; Donia, D.T.; Bauer, M.E.; Bonomo M.; Carbone, M.
Recent Advances in the Synthesis of Inorganic Materials Using Environmentally Friendly Media
Molecules, 2022, 27, 2045 DOI: 10.3390/molecules27072045 **(IF_{2022}: 4.600, Q2)**
Citazioni GS = 4
Citazioni S = 4

B3. **Bonomo, M.**; Grifoni, F.; Naim, W.; Barbero, N.; Alnasser, T.; Dzeba, I.; Giordano, M.; Tsaturyan, A.; Urbani, M.; Torres, T.; Barolo, C.; Sauvage, F.
Toward Sustainable, Colorless, and Transparent Photovoltaics: State of the Art and Perspectives for the Development of Selective Near-Infrared Dye-Sensitized Solar Cells
Adv. Energy Mater. 2021, 2101598 DOI: 10.1002/aenm.202101598 **(IF_{2021}: 29.698, Q1)**
Citazioni GS = 66
Citazioni S = 55

B4. Ferrari, S., Falco, M., Muñoz-García, A. B., **Bonomo, M.**, Brutti, S., Pavone, M., Gerbaldi, C.
Solid-State Post Li Metal Ion Batteries: A Sustainable Forthcoming Reality?
Adv. Energy Mater. 2021, 2100785 DOI: 10.1002/aenm.202100785 **(IF_{2021}: 29.698, Q1)**
Citazioni GS = 51
Citazioni S = 42

B5. Desoky, M.M.H.; **Bonomo, M.**; Barbero, N.; Viscardi, G.; Barolo, C.; Quagliotto P.
Polymeric Dopant-Free Hole Transporting Materials for Perovskite Solar Cells: Structures and Concepts towards Better Performances
Polymers, 2021, 13, 10, 1652, DOI: 10.3390/polym13101652 **(IF_{2021}: 4.967, Q1)**
Citazioni GS = 22
Citazioni S = 19

B6. Fagiolari, L.; Varaia, E.; Mariotti, N.; **Bonomo, M.**; Barolo, C.; Bella, F.

Poly(3,4-ethylenedioxythiophene) in Dye-Sensitized Solar Cells: Toward Solid-State and Platinum-Free Photovoltaics
Adv. Sust. Syst. 2021, 2100025, DOI: 10.1002/adsu.202100025 **(IF$_{2021}$: 6.737, Q2)**
Citazioni GS = 66
Citazioni S = 59

B7. Desoky, M.M.H.; **Bonomo, M.**; Buscaino, R.; Fin, A.; Viscardi, G.; Barolo, C.; Quagliotto P.
Dopant-Free All-Organic Small-Molecule HTMs for Perovskite Solar Cells: Concepts and Structure–Property Relationships
Energies, 2021, 14, 8, 2279, DOI: 10.3390/en14082279 **(IF$_{2021}$: 3.252, Q3)**
Citazioni GS = 17
Citazioni S = 14

B8. Yldirim, O.; **Bonomo, M.**; Barbero N.; Atzori, C.; Civalleri, B.; Bonino, F.; Viscardi, G.; Barolo, C.
Application of Metal-Organic Frameworks and Covalent Organic Frameworks as (Photo)Active Material in Hybrid Photovoltaic Technologies
Energies, 2020, 13, 5602, DOI: 10.3390/en13215602 **(IF$_{2020}$: 3.004, Q3)**
Citazioni GS = 20
Citazioni S = 19

B9. Mariotti, N.; **Bonomo, M.**; Fagiolari, L.; Barbero, N.; Gerbaldi, C.; Bella, F.; Barolo, C.
Recent advances in eco-friendly and cost-effective materials towards sustainable dye-sensitized solar cells
GreenChemistry, 2020, 22, 7168-7218, DOI:10.1039/D0GC01148G **(IF$_{2020}$: 10.182, Q1)**
Citazioni GS = 301
Citazioni S = 246

B10. Dini, D.; **Bonomo, M.**; Decker F.;
Electrochemical and photoelectrochemical properties of nickel oxide (NiO) with nanostructured morphology for photoconversion applications
Front. Chem. 2018, 6, 601 DOI: 10.3389/fchem.2018.00601 **(IF$_{2018}$: 4.155, Q1)**
Citazioni GS = 49
Citazioni S = 42

B11. **Bonomo, M.**
Synthesis and characterization of NiO nanostructures: a review
J. Nanopart. Res. 2018, 20, 222 DOI: 10.1007/s11051-018-4327-y **(IF$_{2018}$: 2.009, Q2)**
Citazioni GS = 104
Citazioni S = 79

B12. Cavallo C.; Di Pascasio F.; Latini A.; **Bonomo M.**; Danilo D.
Nanostructured Semiconductor Materials for Dye-Sensitized Solar Cells
Journal of Nanomaterials 2017, Article ID 5323164, DOI: 10.1155/2017/5323164 **(IF$_{2017}$: 2.207, Q2)**
Citazioni GS = 129
Citazioni S = 93

B13. **Bonomo M.**; Dini D.

Nanostructured p-Type Semiconductor Electrodes and Photoelectrochemistry of Their Reduction Processes
Energies 2016, 9(5), 37JO3 DOI: 10.3390/en9050373 **(IF_{2016}: 2.262, Q1)**
Citazioni GS = 51
Citazioni S = 46

Paper on Journal (not indexed on SCOPUS or without IF)

C1. **Bonomo M.**; Naponiello G.; Di Carlo A.; Dini D.
Characterization of Screen-Printed Nickel Oxide Electrodes for p-type Dye-Sensitized Solar Cells
J. Mater. Sci. Nanotechnol. 2016, 4(2), 201. DOI: 10.15744/2348-9812.4.201 **(I.F. n.a.)**
Citazioni GS= 18
Citazioni S= n.a.

Book Chapter

D1. Mariotti, N.; **Bonomo, M.**; Barolo, C.
Emerging Photovoltaic technologies and eco-design - Criticisms and potential improvement in ***Environmental Impacts of Solar Panels***,
Dr. Abdülkerim Gok (Ed.), Publisher: IntechOpen, 2019, in press, DOI: 10.5772/intechopen.8832
Citazioni GS= 16
Citazioni S= n.a.

Part X– Selected Contribution at Congress

List of Dr. **Matteo Bonomo**'s contribution (Poster, P, or Oral Communication, C) in National (N) and International (I) congresses, reported with an inverted chronological order and divided in:

- A (Invited Lectures)
- B (Oral Contribution – Presenting Author)
- C (Poster – Presenting Author)
- D (Poster Oral Contribution – Co-author) – Only a selection is reported for this category

A1. [I, C, Invited] **M. Bonomo** "Vibrational spectroscopies insights on the molecular interactions in Deep Eutectic Solvents: a step forward in the rational design of electrolytes for energy devices" presented at BathSynch, Trieste (Italy), November 2023
A2. [N, C, Award] **M. Bonomo** "Innovative and Sustainable Materials for Emerging Photovoltaics: From Panchromatic to Colourless" presented at IPM22, Ferrara (Italy), December 2022
A3. [I, C, Keynote] **M. Bonomo** "Nanomaterials for PhotoVoltaic: a spotlight on sustainability" presented at NanoInnovation2022, Rome (Italy), September 2022

A4. [I, C, Invited] **M. Bonomo** "Polyurethanes as Low Cost and Sustainable Moisture and Oxygen Barriers for Flexible Perovskite Solar Cells" presented at Polymers2022, Turin (Italy), May 2022.

A5. [N, C, Keynote] **M. Bonomo** "NiO/ZrO2 nanocomposites as photocathodes of tandem DSCs with higher photoconversion efficiency with respect to parent single-photoelectrode p-DSCs" presented at *SCI2021*, Congresso On-line, September 2021.

A6. [I, C, Invited] **M. Bonomo** "Innovative approaches toward fully sustainable dye-sensitized solar cells" presented at *SPTech Conference*, Oporto (Portugal), July 2021.

A7. [I, C, Award] **M. Bonomo** "Design, synthesis and application of innovative organic and hybrid materials for emerging PV devices" presented at *ENERCHEM 2*, Padova (Italia), February 2020.

A8. [N, C, Award] **M. Bonomo** "Photo-electrochemistry of sensitized semiconductingoxides as photocathodes in p-type DSCs" presented at *Giornate dell'elettrochimica Italiane 2019*, Padova (Italia), September 2019.

A9. [N, C, Award] **M. Bonomo** "p-type dye sensitized solar cells: effect of synthetic parameters of photoactive cathode and comparison of new conception dyes" presented at *Giornate dell'elettrochimica Italiane 2016*, Gargnano (Italia), September 2016.

B1. [N, C] **M. Bonomo**, S. Nejrotti, A. Damin, A. Antenucci, G. Ghigo, S. Dughera, D. Motta, G. Lingua, G.A. Elia, E. Pires, J.M. Fraile, C. Gerbaldi, C. Barolo "Polyol-based Deep Eutectic Solvents as ubiquitous and sustainable mixtures: from organic chemistry to electrochemical energy storage" presented at *X Workshop Gruppo Interdivisionale Green Chemistry – Chimica Sostenibile*, Firenze (Italy), October 2023

B2. [I, C] **M. Bonomo**, D. Motta,G.A. Elia, A. Damin, G. Lingua, G. Montalbano, S. Nejrotti, S. Galliano, C. Barolo, C. Gerbaldi "Polyol-based Deep Eutectic Solvents as sustainable electrolytes in electrochemical energy storage devices" presented at *EuChemS2023*, Salerno (Italy), September 2023

B3. [N,C] **M. Bonomo**, S. Galliano, L. Fagiolari, A.Y. Segura Zarate, N. Barbero, C. Gerbaldi, F. Bella, C. Barolo "Innovative and Sustainable Materials for Aqueous Dye-Sensitized Solar Cells: a Focus on Photoanode/Electrolyte Interface" presented at *GEI2022*, Orvieto (Italy), September 2022

B4. [N, C] **M. Bonomo**, B. Taheri, D. Gallo, N. Mariotti, L. Bonandini, F. Matteocci, F. De Rossi, M. Zanetti, T.M. Brown, S. Castro-Hermosa, A.Y. Segura Zarate, L.A. Castriotta, A. Menozzi, A. Di Carlo, F. Brunetti, C. Barolo "Thermosetting polyurethanes resins: application as cheap, sustainable and scalable encapsulants for (flexible) Perovskite Solar Cells" presented at *SCI2021*, Congresso on-line, September 2021

B5. [I, C] **M. Bonomo**, B. Taheri, N. Mariotti, L. Bonandini, F. Matteocci, F. De Rossi, M. Zanetti, T.M. Brown, S. Castro-Hermosa, A.Y. Segura Zarate, A. Menozzi, A. Di Carlo, F. Brunetti, C. Barolo "Polyurethanes as low cost and efficient moisture and oxygen barriers for Perovskite Solar Cells" presented at *HOPV21*, Congresso on-line, May 2021

B6. [I, C] **M. Bonomo**, L. Gontrania, N. V. Plechkova, D. Dini "In-Depth Physico-Chemical and Structural Investigation of Dicarboxylic Acid/Choline Chloride Natural Deep Eutectic Solvent (NADES): a Spotlight on the Importance of a Rigorous Preparation Procedure" presented at *XLVII Congresso Nazionale di Chimica Fisica*, Roma (Italia), July 2019.

B7. [I, C] **M. Bonomo**, E. Ekoi, C. Barolo, D.P. Dowling, D. Dini "Synthesis and photoelectrochemical characterization of nanostructured mixed oxides as photocathodes of p and tandem Dye-Sensitized Solar Cells" presented at *UK-IT Joint Meeting on Photochemistry*, Lipari (Italia), June 2019.

B8. [I, C] **M. Bonomo**, E. Ekoi, C. Barolo, D.P. Dowling, D. Dini, A. Di Carlo "*Effect of the Sintering Procedure on the Photoelectrochemical Performances of Nanostructured Mixed Oxides as Photocathodes of p and Tandem Dye-Sensitized Solar Cells with Superior Conversion Properties*" presented at *HOPV 2019*, Roma (Italia), May 2019.

B9. [I, C] **M. Bonomo**, L. Gontrani, N.V. Plechkova, D. Dini, R. Caminiti "*X-Ray structure and ionic conductivity study of choline-chloride/carboxylic acid DESs*" presented at *MEYCS 2018*, Rimini (Italia), November 2018.

B10. [I, C] **M. Bonomo**, V. Novelli, A.G. Marrani, M. Awais, D.P. Dowling, H. Vos, D. Dini "*Study of the electrochemical activity of nanostructured NiO prepared via RDS*" presented at *21st International Conference on Solid State Ionics*, Padua (Italia), July 2017.

B11. [I, C] **M. Bonomo**, A. Di Carlo, D. Dini "*Effect of sensitization on the electrochemical properties of nanostructured NiO*" presented at *XII ECHEMS Meeting*, Milano Marittima (Italia), June 2017.

B12. [I, C] **M. Bonomo**, A. Carella, R. Centore, A. Di Carlo, D. Dini "*New pyran-based dyes for efficient p-DSSCs*" presented at *HOPV 2017*, Losanna (Svizzera), May 2017.

B13. [I, C] **M. Bonomo**, C. Barolo, A. Di Carlo, D. Dini "*Is there any future for p-type dye sensitized solar cells? How to improve the performance by lowering costs*" presented at *MEYCS 2016*, Rimini (Italia), November 2016.

B14. [I, C] **M. Bonomo**, D. Saccone, N. Barbero, C. Barolo, A. Di Carlo, D. Dini "*Effect of non conjugated pending groups on the sensitizing action of alkylated squaraines in NiO based p-DSCs*" presented at 21st *ElectroChem Conference*, Leicester (Regno Unito), August2016.

C1. [N, P] **M. Bonomo**, D. Motta, G.A. Elia, A. Damin, G. Lingua, S. Nejrotti, S. Galliano, C. Barolo, C. Gerbaldi, "Multitechnique investigation of polyol-based Deep Eutectic Solvents as innovative and sustainable electrolytes in electrochemical energy storage devices" presented at *Giornate dell'elettrochimica Italiane 2023*, Cefalù (Italy) September 2023

C2. [N, P] **M. Bonomo**, B. Taheri, D. Gallo, A.Y. Segura Zarate, F. Matteocci, F. De Rossi, G. Viada, N. Mariotti, S. Galliano, N. Barbero, F. Tammaro, L. Bonandini, T.M. Brown, A. Menozzi, F. Sauvage, A. Di Carlo, F. Brunetti, C. Barolo "Thermosetting Polyurethane resins as sustainable encapsulants and interlayers for emerging photovoltaics" presented at *Rete Nazionale PV*, Milano (Italy) June 2023.

C3. [N, P] **M. Bonomo**, L. Fagiolari, F. Bella, G. Viscardi, C. Gerbaldi, C. Barolo, "Electrochemical Impedance Spectroscopy: a powerful tool to unveil the charge transport/recombination processes in aqueous dye-sensitized solar cells" presented at *Giornate dell'elettrochimica Italiane 2019*, Padova (Italia) September 2019

C4. [I, P] **M. Bonomo**, M. Giordano, N. Mariotti, B. Taheri, S.A. Castro-Hermosa, G. Lucarelli, T.M. Brown, F. Brunetti, C. Barolo, "*Polyurethanes as Low Cost and Efficient Encapsulant Materials for Flexible Perovskite Solar Cells*" a *HOPV 2019*, Roma (Italia), May 2019.

C5. [I, P] **M. Bonomo**, D. Dini, A. Di Carlo "*Nanostructured Mixed Oxides as Photocathodes of p-Type Dye-Sensitized Solar Cells with Superior Conversion Properties*" a *69th Annual Meating ISE*, Bologna (Italia), September 2018.

C6. [I, P] **M. Bonomo**, F. Scorretti, A. Di Carlo, D. Dini, "*Study of the Influence of the Electrolyte on the Photoconversion Properties of p-type Dye-Sensitized Solar Cells*" a *69th Annual Meating ISE*, Bologna (Italia), September 2018.

C7. [I, P] A.G. Marrani, **M. Bonomo**, D. Dini "*Investigating the surface features of iodinated adsorbates onto nanoporous NiO thin films for p-type dye-sensitized solar cells*" presented at *XII ECHEMS Meeting*, Milano Marittima (Italia), June 2017.

C8. [I, P] **M. Bonomo**, G. Naponiello, I. Venditti, A. Di Carlo, D. Dini *"Comparison of the electrochemical and photoelectrochemical properties of screen-printed nickel oxide thin films obtained from pastes with different composition"* presented at ECIS 2016, Roma (Italia), September 2016

C9. [I, P] **M. Bonomo**, M. Awais, D.P. Dowling, D. Dini, A.G. Marrani, *"Ex-situ analysis of the electrochemical interface NiO_x/organic electrolyte with XPS under different conditions of electrode polarization"* presented at ECIS 2016, Roma (Italia), September 2016

C10. [N,P] C. Barolo, N. Barbero, **M. Bonomo**, A. Di Carlo, D. Dini, F. Matteocci "*Effetto del gruppo elettron-attrattore di coloranti squarainici sulla sensibilizzazione di fotocatodi di NiO per celle DSSC*" presented at Convegno Giovani Chimici, Roma (Italia), June 2016.

Please Note that in Bold is reported the Presenting Author

D1. [I, C] A. Carlotto, O. Sayginer, A. Chiasera, M. Ferrari, M. Bonomo, S. Galliano, C. Barolo, A. Farina, **S.M. Pietralunga** "Multi-cavity dielectric mirrors for spectral-splitting photovoltaic applications" to be presented at PhotonicsNorth, Montreal (Canada), June 2023.

D2. [I, P] **E. Miravalle**, G. Viada, M. Bonomo, C. Barolo, P. Bracco, A. Menozzi, M. Zanetti "Reprocessing of novel biobased thermoset polyurethanes" presented at EUPOC2023, Bertinoro (Italy), May 2023

D3. [N, C] **Maruccia E.**, Piovano A., Bonomo M., Chierotti M, Barolo C, Meligrana G., Fina A, Elia G. A, Gerbaldi C. "Efficient recycling of polyvinyl butyral from laminated glass construction wastes in energy storage applications in a circular economy approach" presented at IWES2023, Bressanone (Italy), January 2023

D4. [N, P] **C. Barolo**, M. Bonomo, G. Lingua, S. Galliano, A. Damin, S. Nejrotti, G.A. Elia, C. Gerbaldi "Preliminary investigation of deep eutectic solvents toward green and sustainable electrolytes in energy storage devices" presented at IWES2023, Bressanone (Italy), January 2023

D5. [N, C] G. Viada, N. Mariotti, **S. Galliano**, A. Menozzi, F. Tammaro, W. Gianelli, M. Bonomo, C. Barolo "Improved sustainability of thermosetting polyurethanes with Design of Experiment", presented at XXII congresso Nazionale delle Divisione di Chimica Industriale, Catania (Italy), November 2022

D6. [I, C] **F. De Rossi**, M. Bonomo, B. Taheri, G. Renno, N. Yaghoobi Nia, V. Ilieva, A. Fin, A. Di Carlo, C. Barolo, F. Brunetti "*Modified P3HT materials as hole transport layers for flexible perovskite solar cells*" presented at ICAE2021, Jeju (Korea) 9-12 November 2021

D7. [N, C] **A. Antenucci**, M. Bonomo, G. Ghigo, L. Gontrani, C. Barolo, S. Dughera "*How do arenediazonium salts behave in Deep Eutectic Solvents? A combined experimental and computational approach*" presented at SCI2021, online 14-23 September 2021

D8. [N, C] **L. Fagiolari,** M. Bonomo, S. Galliano, G. Viscardi, C. Barolo, F. Bella "*Hybrid solar cells operating in aqueous environment*" presented at SCI2021, online 14-23 September 2021

D9. [N, C] **N. Mariotti**, M. Bonomo, S. Galliano, G. Viada, F. Tunno, L. Bonandini, A. Menozzi, P. Quagliotto, C. Barolo "*Bio-based and waste-derived polyurethanes for energy systems*" presented at SCI2021, online 14-23 September 2021

D10. [N, C] **A. Damin**, B. Centrella, G. Deplano, M. Bonomo, M. Signorile, C. Barolo, S. Bordiga "*Cu^{+} bi-pyridine based homoleptic complexes as catalysts for partial oxidation reactions: a Raman study*" presented at SCI2021, online 14-23 September 2021

D11. [I, C] **F. Bella**, L. Fagiolari, M. Bonomo, S. Galliano, G. Viscardi, C. Barolo "*Water-based solar cells: electrochemical behavior of state-of-art electrodes and electrolytes*" ISE2021, Jeju (Korea), 29 Agosto- 3 September 2021

D12. [I, C] L. Fagiolari, M. Bonomo, S. Galliano, G. Viscardi, C. Barolo, **F. Bella** "*Electrodes, electrolytes and coatings for aqueous photovoltaics to be integrated in sustainable ammonia production plants*" IUPAC World Chemistry Congress 2021 Virtual, Montreal (Canada) 13-20 August 2021

D13. [I; O] **B. Centrella**, G. Deplano, M. Bonomo, M. Signorile, A. Damin, C. Barolo, E. Aunan, U. Olsbye, K. P. Lillerud, and S. Bordiga, "*From Cu-complexes to Cu-functionalized ligands to design redox catalysis in MOFs*" – presented at MOFschool2021, Como (Italia), 21-25 June 2021.

D14. [I, C] **F. Cardano**, N. Barbero, M. Giordano, M. Bonomo, Y. Ren, F. Grifoni, W. Naim, R. Borrelli, G. Viscardi, F. Sauvage, S.M. Zakeeruddin, M. Graetzel, C. Barolo "*Low-cost*

Near Infrared absorbing dyes for building integrated photovoltaic" presented at CECP2020, Vienna (Austria), Febraury 2020

D15. [I, C] **L. Fagiolari**, M. Bonomo, C. Gerbaldi, C. Barolo, F. Bella "Aqueous solar cells: strategies for electrodes and electrolytes design" presented at ENERCHEM 2, Padova (Italia), Febraury 2020.

D16. [I,C] **F. Bella**, L. Fagiolari, M. Bonomo, S. Galliano, G. Viscardi, C. Gerbaldi, C. Barolo "*Strategies to design electrodes and electrolytes for aqueous solar cells: performances, sustainability and scenarios*" presented at 2nd Dyenamo DSSC Conference, Uppsala (Svezia), October 2019.

D17. [I, C] **F. Brunetti**, M. Bonomo, B. Taheri, M. Zanetti, A. Bettozzi2, T.M. Brown, S. Castro-Hermosa, G.Lucarelli, F. De Rossi, C. Barolo "*Polyurethanes as low cost and efficient moisture and oxygen barriers for Perovskite Solar Cells*" presented at ISOS12, Karlsruhe (Germania), October 2019.

D18. [I, C] M. Bonomo, N. Barbero, V. Novelli, M. Giordano, F. Grifoni, G. Giobbio, W. Naim, R. Borrelli, G. Viscardi, F. Sauvage, **C. Barolo** "Synthesis and characterization of low cost Near-InfraRed polymethine dyes for Dye Sensitized Solar Cells" presented at EUPVSEC 2019, Marsiglia (Francia), September 2019.

D19. [N, C] **D. Dini**, M. Bonomo, M.L. De Marco, J.G. Vos, A. Di Carlo, M. Awais, D.P. Dowling "*P-type dye-sensitized solar cells with RDS NiO cathodes: improvement of the photoconversion performance following substrate treatment*" presented at *Giornate dell'elettrochimica Italiane 2019*, Padova (Italia), September 2019.

D20. [N, C] **L. Fagiolari**, M. Bonomo, A. Cognetti, C. Gerbaldi, C. Barolo, F. Bella "*Photoanodes for aqueous dye-sensitized solar cells: effect of different TiO2 pastes"* presented at *Giornate dell'elettrochimica Italiane 2019*, Padova (Italia), September 2019.

D21. [N, C] **F. Bella**, L. Fagiolari, A. Scalia, M. Bonomo, S. Galliano, A. Lamberti, C. Barolo, C. Gerbaldi "*Aqueous Photovoltaics and Integrated Portable Devices: Novel Trends in the Solar Cells Scenario*" presented at CIS2019, Salerno (Italia), August 2019

D22. [N, C] **A. Carella**, R. Centore, M. Bonomo, D. Dini, A. Di Carlo "*Pyran based dyes as photosensitizers for p-type dye-sensitized solar cells*" presented at Congresso Nazionale SCI, Paestum (Italia), September 2017

D23. [N, C] **D. Dini**, M. Bonomo, F. Scorretti, A. Di Carlo "*Study of the influence of the electrolyte on the photoconversion properties of p-type dye-sensitized solar cells*" presented at Congresso Nazionale SCI, Paestum (Italia), September 2017

D24. [N, C] **D. Dini**, M. Bonomo, F. Decker, A. Di Carlo "*Characterization of screen-printed NiO cathodes for p-type dye-sensitized solar cells*" presented at *Giornate dell'elettrochimica Italiane 2016*, Gargnano (Italia), September 2016.

D25. [I, C] **D. Dini**, M. Bonomo, C. Barolo, F. Decker "*Optimized organic dyes for the sensitization of NiO cathodes for p-type DSCs*" presented at Journees Electrochimie 2015, Roma (Italia), July 2015

Part XI – Other Activities

XIA – Referee Activity (2016 – ongoing) – Selection of Journals (I.F. > 5)

Adv. Ener. Mat. (IF: 29.7), Adv. Funct. Mat. (19.9), Renewable and Sustainable Energy Reviews (16.8), Small (15.2), ACS Catalysis (13.7), Green Energy & Environment (12.7), ACS Applied Materials & Interfaces (10.1), Power Sources (9.8), RRL Solar (9.1), Nanoscale (8.3), J. Mat. Chem. C (8.0), Mat. Today Chm (7.6), Electrochim. Acta (7.3), Appl. Surf. Scie. (7.3), Sol. Energy Mat. & Sol. Cells (7.3), Sol. Energy (7.1), ACS Appl. Energy Mater. (6.9), Sust. En. & Fuels (6.8), J. Alloyds & Comp. (6.4), Chem. Comm (6.0), Nanomaterials (5.7), Coll. Surf. A (5.5), Dyes & Pigm. (5.1), Global Challenges (5.1), J. PhotoChem. & PhotoBio. (5.1), Chem Eur J (5.0).

Total Reviewed Papers > 250 (Source Publons, 01/04/2023)

XIB – Evaluator Activity (2020 – ongoing)

Evaluator project **IMPUTZ** (Slovak Academy of Sciences) Year 2023.

Evaluator "**Bando Vinci"** (Borse triennali di dottorato in cotutela / Contrats doctoraux pour thèses en cotutelle (Chapter III)) year 2022.

Evaluator project **IMPUTZ** (Slovak Academy of Sciences) Year 2022.

Evaluator for **Call ERC-2021-COG** (European Commission).

Evaluator "**Bando Vinci"** (Borse triennali di dottorato in cotutela / Contrats doctoraux pour thèses en cotutelle (Chapter III)) year 2021.

Evaluator project **IMPUTZ** (Slovak Academy of Sciences) Year 2021 2022.

Evaluator "**Bando Vinci"** (Borse triennali di dottorato in cotutela / Contrats doctoraux pour thèses en cotutelle (Chapter III)) year 2020.

XIC – Editorial Activity (2020 – ongoing)

- **Topic Editor for *Polymers* (MDPI)** – Since 2021

- **Guest Editor for *Frontiers in Chemistry* (Frontiers) –** Since 2022
  Special Issue: *"Polymer Materials for Energy Storage and Harvesting"*

- **Guest Editor** per ***Crystal*** **(MDPI)** – 2021-2022
  Special Issue: *"Disclosing Deep Eutectic Solvents"*

- **Guest Editor** per ***Energies*** **(MDPI)** – 2021-2022
  Special Issue: *"Advances in Energy Storage and Conversion Devices Utilizing Ionic Liquid Electrolytes"*

- **Guest Editor** per ***Polymers*** **(MDPI) –** 2020-2021
  Special Issue: *"Application of Polymers in (Photo)electrochemical Devices: From Solar Cells to Batteries"*

Torino, 01 Dicembre 2023