

Allegato B

Giorgia Confalonieri Curriculum Vitae

Place Grenoble
Date 12/06/2023

Part I – General Information

Full Name	Giorgia Confalonieri
Date of Birth	
Place of Birth	
Citizenship	
Permanent Address	
Mobile Phone Number	
E-mail	
Spoken Languages	Italian, English

Part II – Education

Type	Year	Institution	Notes (Degree, Experience,...)
University graduation	2011	Università degli Studi di Milano, Milano, Italy	Bachelor's Degree in Geological Sciences (score: 102/110). Thesis title: "Determinazione quantitativa della componente amorfa in miscele cristalline"
University graduation	2013	Università degli Studi di Milano, Milano, Italy	Master's Degree in Earth Sciences (score: 110/110 cum laude). Thesis title: "Distorsioni locali nella struttura della gahnite nanocristallina"
PhD	2017	Università degli Studi di Milano, Milano, Italy	PhD in Earth Sciences. Thesis title: "Local and average structure of Ba(Ti,Ce)O ₃ based perovskite ferroelectric ceramics by means of powder diffraction total scattering. Effect of temperature, substituent and grain size"
24 university credits for teaching	2020	Università Telematica Pegaso	24 university credits related to anthropo-psycho-pedagogical disciplines and teaching methodologies and technologies
Licensure 01	2023	Italy	National Scientific Abilitation for Associated Professor (Abilitazione scientifica nazionale seconda Fascia 04/A1 -Geochimica, Mineralogia, Petrologia, Vulcanologia, Georisorse ed Applicazioni)
Licensure 02	2023	France	Qualification Maître de conférences en Chimie organique, minérale, industrielle (sector 32)
Licensure 03	2023	France	Qualification Maître de conférences en Chimie des matériaux (sector 33)

Part III – Appointments

III A – Academic Appointments

Start	End	Institution	Position
01/05/2014	30/04/2015	Department of Earth Sciences, Università degli Studi di Milano, Milano, Italy	Fellowship during the PhD period (Assegno di ricercar usufruito durante period di dottorato): project “Study of local structure of disordered perovskites”
19/01/2015	19/07/2015	European Synchrotron Radiation Facility, Grenoble, France	Visitor PhD Student: traineeship at ID22 and ID11 beamlines, supported by Erasmus+
13/01/2014	24/02/2017	Università degli Studi di Milano, Milano, Italy	PhD in Earth Sciences. Thesis title: “Local and average structure of Ba(Ti,Ce)O ₃ based perovskite ferroelectric ceramics by means of powder diffraction total scattering. Effect of temperature, substituent and grain size”
08/05/2017	08/07/2017	Department of Earth Sciences, Università degli Studi di Milano, Milano, Italy	External Consultant: project “Synchrotron data analysis by means of Pair Distribution Function and Empirical Potential Structure Analysis”
01/09/2017	31/08/2018	Department of Earth Sciences, Università degli Studi di Torino, Torino, Italy	Postdoc: project “XRPD structural analysis of organic molecules confined in zeolites by high pressure”
01/09/2018	31/01/2019	Department of Chemistry, Università degli Studi di Torino, Torino, Italy	Postdoc fellowship (borsa di ricerca): XRPD analysis and material characterization in the project “Nanomaterials for sustainable leather products-NanoSusLeather”
04/04/2019	05/06/2019	Équipe Matériaux à Porosités Contrôlées Institut de Science des Matériaux de Mulhouse, Mulhouse, France	Visitor Postdoc: project “Structural investigations on hydrophobic zeolites intruded at high pressure by different electrolyte aqueous solutions”, supported by Associazione Italiana di Cristallografia
01/02/2019	31/01/2020	Department of Chemical and Geological Sciences, Università degli Studi di Modena e Reggio Emilia, Modena, Italy	Postdoc: project “XRPD structural analysis of organic molecules confined in zeolites by high pressure”
16/02/2020	06/09/2020	Department of Chemical and Geological Sciences, Università degli Studi di Modena e Reggio Emilia, Modena, Italy	Postdoc: project “Advanced application of microporous materials: developing of gas sensors”
07/09/2020	currently	European Synchrotron Radiation Facility, Grenoble, France	Postdoc at ID22, the high resolution powder diffraction beamline.

Part IV – Teaching experience

Year	Institution	Lecture/Course
2023	Hercules2023 School, Université Grenoble Alpes-ESRF, France	Practical tutorials about the acquisition and treatment of powder diffraction data at ID22. (for PhD students, 8 hours)
2022	Hercules2022 School, Université Grenoble Alpes-ESRF, France	Practical tutorials about the acquisition and treatment of powder diffraction data at ID22. (for PhD students, 8 hours)
2021	Department of Chemical and Geological Sciences, Università degli Studi di Modena e Reggio Emilia, Italy	Seminar; “X-ray Powder Diffraction technique at Synchrotron Radiation Facility: the best way to investigate the structure of your material”. (for PhD students, 2 hours)
2021	Hercules2021 School, Université Grenoble Alpes-ESRF, France	Practical tutorials about the acquisition and treatment of powder diffraction data at ID22. (for PhD students, 8 hour)
2021	Department of Earth Sciences, Università degli Studi di Milano, Italy	Seminar: “Using crystallography for technological applications”. (for Master’s students, 2 hours)
2019	Department of Chemical and Geological Sciences, Università degli Studi di Modena e Reggio Emilia, Italy	Seminar: “The order behind disorder: what Pair Distribution Function is and how use it” (5 hours)
2018-2019	Department of Biosciences, Università degli Studi di Milano, Italy	Tutor for undergraduate students (didattica integrativa), Mineralogy Course, Degree in Natural Sciences. (24 hours)
2017-2018	Department of Biosciences, Università degli Studi di Milano, Italy	Tutor for undergraduate students (didattica integrativa), Mineralogy Course, Degree in Natural Sciences. (12 hours)
2015-2016	Department of Biosciences, Università degli Studi di Milano, Italy	Tutor for undergraduate students (didattica integrativa), Mineralogy Course, Degree in Natural Sciences. (24 hours)

Activity	Details
Cotutor of master’s and bachelor’s theses	“Riciclo di REE in un’ottica di sfruttamento sostenibile: scambio ionico ad opera di zeoliti” bachelor degree of Vittorio Gozzoli, Università degli Studi di Modena e Reggio Emilia.
	“Scambio Cationico della zeolite L finalizzato alla separazione delle terre rare” master degree of Filippo Quattrini, Università degli Studi di Modena e Reggio Emilia.
	“Disordine locale nella struttura della cerianite sintetica drogata con samario” master degree of di Alice Pozzoli, Università degli Studi di Milano.
	“Reattività ad alta temperatura di miscele ceramiche per sanitary-ware in presenza di mineralizzatori” master degree of Alberto Maffioli, Università degli Studi di Milano.
	“Influenza delle materie prime nella formazione di amorfo in ceramiche sanitarie” bachelor degree of Shahin Mohamed, Università degli Studi di Milano.
Cotutor of master’s and bachelor’s lab-traineeship	Cotutor of master’s and bachelor’s lab-traineeship to prepare and characterize ceramic materials (Mohamed S., Biraghi P., Rigo F., Università degli Studi di Milano) to perform zeolite cation exchange experiments and characterize the obtained materials (ICP, XRD, XRF, TG) (Gozzoli V., Università degli Studi di Modena e Reggio Emilia).

Part V - Society memberships, Awards and Honors

Year	Title
2013	Award: Best Italian crystallography master's degree dissertation, Italian Association of Crystallography (AIC)
2015	Award: Best Poster Award SILS2015
2016	Award: Price Prof. Schiavinato sponsored by the Dept. of Earth Sciences, University of Milan
2018	Award: Best PhD thesis, Mineralogy and Petrology Italian Society (SIMP)
2020	Award: Price Mazzi (ex Panichi), Mineralogy and Petrology Italian Society (SIMP)
2018-2021	Member of the committee of the Giovani Cristallografi Italiani (Italian Association of Crystallography)
2021-currently	Chair of the committee of the Giovani Cristallografi Italiani (Italian Association of Crystallography)
	Member of the Italian Association of Crystallography
	Member of the European Crystallographic Association
	Member of the Mineralogy and Petrology Italian Society (SIMP)

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Program	Title	Grant value
2022	Beamtime, European Synchrotron Radiation Facility	Principal Investigator. ES-1193 "Pair Distribution Function at high pressure sheds light on deep geological processes"	Financed for beamtime
2022	Beamtime, European Synchrotron Radiation Facility	Co-proposer. ES-1196 "Exploring the local structure of carbonate minerals to shed light on the carbon cycle"	Financed for beamtime
2021	Beamtime, European Synchrotron Radiation Facility	Principal Investigator. ES-1026 "Revealing the local atomic arrangement in three famous minerals showing modulated structures"	Financed for beamtime
2020	Beamtime, European Synchrotron Radiation Facility	Principal Investigator. MA-4489 "Amorphous Zeolite Precursors (Embryonic Zeolites): Correlation between the Local Structure and Catalytic Properties"	Financed for beamtime
2020	Beamtime, European Synchrotron Radiation Facility	Co-proposer. MA-4530 "X-Ray Diffraction to Unravel UV-filters sheltered inside zeolites"	Financed for beamtime
2020	Italian Association of Crystallography	Co-proposer. Dissemination project "GCI TALKS TO..."	3000 euro
2019	Beamtime, Elettra	Co-proposer. 20190074 "Protect the Protectors: UV filters inside zeolites"	Financed for beamtime
2019	Beamtime, Elettra	Principal Investigator. 20195152 "Energy storage through the high pressure penetration of electrolyte solutions in hydrophobic metal-organic framework ZIF-8"	Financed for beamtime
2019	Beamtime, Elettra	Co-proposer. 20190036 "Separating strongly hydrogen-bonded liquid mixtures by all silica"	Financed for beamtime

			zeolites under high pressure”	
2018	Italian Association of Crystallography		Principal Investigator. Grant to support a research period abroad. Project “Structural Investigations on Hydrophobic Zeolites Intruded at High Pressure by Different Electrolyte Aqueous Solutions”	3690 euro
2018	Beamtime, Elettra		Principal Investigator. 20185079 “Polimerization in zeolite nano-spaces: the role of high pressure”	Financed for beamtime
2018	Beamtime, European Synchrotron Radiation Facility		Principal Investigator. MA-4233 “Unravelling the hydrocarbons polymerization mechanism in Silica zeolites, a new route for embedded conductive polymers formation”	Financed for beamtime
2018	Beamtime, European Synchrotron Radiation Facility		Co-proposer. ES-782 “Acidic mine drainage: mechanism of incorporation”	Financed for beamtime
2018	Beamtime, Diamond Light Source		Co-proposer. CY23067 “Zeolites for the incorporation of UV Filters: unravelling the structure of the hybrid”	Financed for beamtime
2017	Beamtime, European Synchrotron Radiation Facility		Co-proposer. CH-5445 “Nano-Confinement in zeolites: high pressure induced polymerization for innovative gas sensing materials”	Financed for beamtime
2017	Beamtime, European Synchrotron Radiation Facility		Principal Investigator. MA-3957 “Induced microstrain on ferroelectric perovskite for properties modification”	Financed for beamtime
2017	Beamtime, European Synchrotron Radiation Facility		Co-proposer. ES-609 “Characterisation of structural disorder in goethite with various amount of heavy metals”	Financed for beamtime
2016	Beamtime, European Synchrotron Radiation Facility		Co-proposer. MA-3369 “Local structure of selected geopolymers”	Financed for beamtime
2016	Beamtime, European Synchrotron Radiation Facility		Co-proposer. MA-3151 “Cerium intra-diffusion and reaction kinetics during the synthesis of BaTi(Ce)O ₃ : the formation of Ce-rich nanoregions”	Financed for beamtime
2015	Erasmus+		Project “Collection and data treatment on beamline ID22 and ID11”, European Synchrotron Radiation Facility, 6 months	Grant for 6 months

Part VII – Collaborations with research groups

2020-currently	Collaboration with the group of Structure of Materials. ID22 Beamline, ESRF, Grenoble, France. Inhouse project, users support as local contact, developing of the beamline.
2020- currently	Collaboration with Università degli Studi di Modena e Reggio Emilia and Laboratoire Catalyse et Spectrochimie, CNRS of Caen for the structure characterization of zeolites used for technological application.
2020- currently	Collaboration with Università degli Studi di Modena e Reggio Emilia and Politecnico di Torino for the characterization of zeolites used in magnetic nanomaterial synthesis. The results are reported in Barrera et al. “Magnetic behaviour of Ni nanoparticles and Ni ²⁺ ions in weakly loaded zeolitic structures” e Barrera et al. "Magnetic clustering of

	weakly interacting Ni-ions in Ni-exchanged zeolites". A third article was recently submitted for publication.
2020- currently	Collaboration with Università degli Studi di Modena e Reggio Emilia and CNRS of Montpellier to use zeolites for Rare Earth Elements recovery. The results are reported in the papers Confalonieri et al. "Ion exchange capacity of synthetic zeolite L: a promising way for cerium recovery", Confalonieri et al. "Ce-exchange capacity of zeolite L in different cationic forms: a structural investigation".
2018-2019	Collaboration, as Postdoc, in the project "Nanomaterials for sustainable leather products-NanoSusLeather", Università degli Studi di Torino, Italy.
2017-2020	Part of the collaboration between Dipartimento di Scienze della Terra, Università degli studi di Torino e Trattamento Rifiuti Metropolitan – TRM SpA to characterize ash from the Incinerator plant of the city of Turin. The results are reported in the papers Caviglia et al. "Effects of particle size on properties and thermal inertization of bottom ashes (MSW of Turin's Incinerator)" and Destefanis et al. "Valorization of mswi bottom ash as a function of particle size distribution, using steam washing".
2017-2020	Collaboration, as Postdoc, in the project Zapping (Prin2015) "High-pressure nano-confinement in Zeolites: the Mineral Science know-how APPLIED to engineerING of innovative materials for technological and environmental applications", UO Università Modena e Reggio Emilia, Italy. Collaboration between Università degli Studi Torino, Università degli Studi di Modena e Reggio Emilia, Università Insubria and CNRS of Montpellier. The results are reported in the papers Confalonieri et al. "High-silica mordenite as scaffold for phenylacetylene polymerization: in situ High Pressure investigation", Fabbiani, et al. "Steering polymer growth by molding nanochannels: 1,5-hexadiene polymerization in high silica mordenite".
2017-currently	Collaboration with the Équipe Matériaux à Porosités Contrôlées Institut de Science des Matériaux de Mulhouse, where I spent 2 months financed by the Italian Association of Crystallography for the project "Structural Investigations on Hydrophobic Zeolites Intruded at High Pressure by Different Electrolyte Aqueous Solutions". The results are reported in papers Confalonieri et al. "Intrusion-Extrusion of Electrolyte Aqueous Solutions in Pure Silica Chabazite by in situ High Pressure Synchrotron X-ray Powder Diffraction", Confalonieri et al. "Differential penetration of ethanol and water in Si-chabazite: High pressure dehydration of azeotrope solution", Confalonieri et al. "Structural interpretation of the energetic performances of a pure silica LTA-type zeolite", Confalonieri et al. "Energetic performance of pure silica zeolites under high-pressure intrusion of LiCl aqueous solutions: An overview", Isaac et al. "Unusual high-pressure intrusion-extrusion behavior of electrolyte solutions in Mu-26, a pure silica zeolite of topology STF".
2016	Collaboration, as PhD student, in the project Prin2010 "Dalle materie prime del sistema Terra alle applicazioni tecnologiche: studi cristallografici e strutturali", UO Università degli Studi di Milano, Italy.
2015-2016	Part of the collaboration, as PhD student, between Dipartimento di Scienze della Terra, Università degli Studi di Milano and IdealStandard spa to recycle glass into ceramic production. The results are reported in the paper Marinoni et al. "Soda-Lime-Silica-glass/quartz particle size and firing time: their combined effect on sanitary-ware ceramic reactions and macroscopic properties".
2015-2016	Part of the collaboration, as PhD student, between Dipartimento di Scienze della Terra, Università degli Studi di Milano and PAnalytical (Almelo, Netherlands) to investigate the use of laboratory diffractometer for total scattering data collection. The results are reported in the paper Confalonieri et al. "Comparison of Total Scattering data from gahnite nanocrystals".
2014-2017	Part of the collaboration, as PhD student, between Dipartimento di Scienze della Terra, Università degli Studi di Milano and Istituto di Chimica della Materia Condensata e di Tecnologie per l'Energia, CNR of Genova to structure characterize ferroelectric

perovskites Ba(Ti,Ce)O₃. The results are reported in the PhD thesis " Local and average structure of Ba(Ti,Ce)O₃ based perovskite ferroelectric ceramics by means of powder diffraction total scattering. Effect of temperature, substituent and grain size ", and in the articles Canu et al. "Structure-property correlations and origin of relaxor behavior in BaCexTi1-xO3"; Confalonieri et al. "Local distortion and octahedral tilting in BaCexTi1-xO3 perovskite"; Confalonieri et al. "The local and average structure of Ba(Ti, Ce)O3 perovskite solid solution: effect of cerium concentration and particle size"

Part VIII – Organizations and presentations at national and international congresses as presenting author

Year	Type	Where	Title
2021	Invited Seminar	Università degli Studi di Modena e Reggio Emilia	"X-ray Powder Diffraction technique at Synchrotron Radiation Facility: the best way to investigate the structure of your material"
2021	Invited Seminar	Università degli Studi di Milano	"Using crystallography for technological applications"
2021	Invited presentation for Price Mazzi (ex Panichi)	Online event (SIMP)	"Zeolites: how to help the environment using minerals"
2019	Invited Seminar	Università degli Studi di Modena e Reggio Emilia	"The order behind disorder: what Pair Distribution Function is and how use it"

Year	Type	Where
2023	Design and Organization	Design and organization online event "Happy GCI Hour", a series of seminars given by young Italian crystallographers, Italian Association of Crystallography
2022	Chair	Chair Session "S17. Microporous and layered minerals: properties and applications for a sustainable future" SGI-SIMP congress 2022, Torino, Italy
2021	Scientific Committee	AIC congress, Parma, Italy
2020	Design and Organization	Design and organization online event "GCI@HomeEvent2020", Italian Association of Crystallography
2018	Local organization	AIZ Days, 2018, Modena, Italy

Year	Type	Congress	Title
2023	Oral presentation	Happy GCI Hour (AIC), online event	"High resolution powder diffraction at ID22"
2022	Oral presentation	EPDIC, Sibenik, Croazia	"Structural analysis of the LTL/OMC hybrid UV filter: the new frontier of sunscreen"
2021	Oral presentation	SILS, online event	"Comparison between two silica zeolites used for the hydrocarbon polymerization:

			the case of MOR and TON frameworks”
2021	Poster presentation	AFC, online event	“Hydrocarbon polymerization in pure silica zeolites: comparison between TON and MOR framework type”
2021	Poster presentation	FEZA, online event.	“Cerium recovery from very diluted solution using NH ₄ -exchanged LTL zeolite”
2020	Poster presentation	GCI@HomeEvent (AIC), online event	“High pressure intrusion of electrolyte aqueous solution into Si-LTA zeolite”
2019	Oral presentation	SGI-SIMP, Parma, Italy.	“Hydrocarbon polymerization in pure silica mordenite: the effect of structure, pressure, temperature and time”
2019	Oral presentation	SILS, Camerino, Italy	“Pressure and zeolite framework type cooperation effect in the differential absorption of ethanol and water from the azeotrope solution: the case of Si-chabazite”
2019	Oral presentation	MISCA V, Napoli, Italy	“The role of pressure and of CHA framework in the differential absorption of ethanol and water from the azeotrope solution”
2019	Oral presentation	AIZ-CIS-GIC Jointly Meeting, Amantea, Italy	“Dehydration of an azeotrope solution at high pressure through a differential penetration of ethanol and water in Si-chabazite”
2019	Oral presentation	4th EAZC (Euro Asia Zeolite Conference), Taormina, Italy.	“Water ethanol adsorption in Si-chabazite under high pressure: a route for ethanol dehydration”
2018	Oral presentation	AIC, Roma, Italy.	BaCe _x Ti _{1-x} O ₃ perovskite: how the local disorder influences the material properties”
2018	Oral presentation	AIZ Days, Modena, Italy	“Investigations on the HP intrusion/extrusion process of different electrolyte aqueous solutions in Si-chabazite”
2018	Oral presentation	GFZ Congress (Groupe Francais des Zeolithes), Cabourg, France	“High-pressure intrusion-extrusion of NaCl solutions in pure silica chabazite”
2017	Oral presentation	SILS Meeting, Trieste, Italy	“Nano perovskite and the “size effect”: the case of BaTiO ₃ doped by Ce ^{IV} ”
2016	Poster presentation	2nd European Mineralogical Conference, Rimini, Italy	“Structural local defects and modification of the polar behaviour in a synthetic perovskite”
2016	Poster presentation	EPDIC15, 2016, Bari, Italy	“Pair Distribution Function: a B cation disorder in cerium doped BaTiO ₃ ”

2016	Oral presentation	Conference on Analysis of Diffraction Data in Real Space (ADD16), Grenoble, France	“BaTi _{1-x} Ce _x O ₃ : local disorder modeled by PDF”
2015	Poster presentation	XLIV Annual Meeting of AIC, Vercelli, Italy	“Average and local structural comparison of BaTi _{1-x} Ce _x O ₃ by Pair Distribution Function”
2015	Poster presentation	XXIII SILS Meeting, Trento, Italy	“Pair Distribution Function structural investigation: BaTi _{1-x} Ce _x O ₃ as a locally disordered perovskite”
2014	Poster presentation	SGI-SIMP 2014 Milano, Italy	“Comparison of Total Scattering data from gahnite nanocrystals”
2014	Poster presentation	EPDIC14, Aarhus, Denmark	“A comparison of total scattering data from various sources: the case of a nanometric spinel”
2013	Poster presentation	MISSCA, 2013, Como, Italy	“Local distortions in the structure of nanocrystalline gahnite”

Part IX – Dissemination

2020-2022	Design and organization of “GCI TALKS TO...” project, granted by the Italian Association of Crystallography (bando Mazzi per l’assegnazione di un contributo per la realizzazione di un progetto di divulgazione della cristallografia).
2023	Design and organization “Happy GCI Hour” online event, a series of seminars given by young Italian crystallographers, Italian Association of Crystallography.

Part X – Research Activities

Keywords	Brief Description
Crystallography	My research activity is mainly based on the application of powder diffraction for the structural characterization of minerals and synthetic counterparts in order to explain their properties. The research topics mainly concerned: i) use and characterization of porous materials and hybrid organic-inorganic materials applied to environmental sciences; ii) characterization and reuse of materials resulting from industrial processes (i.e. ceramics, combustion ashes); iii) local and average structural characterization of technological materials (i.e. perovskites). I have a consolidated experience in XRPD data collection (traditional and total scattering) by laboratory instruments and synchrotron facilities at different conditions (temperature, pressure, gas pressure) and with different setups. My skills include the use of various software for XRPD qualitative analyses, quantitative and structural analyzes (Gsas, Topas) and local disorder (PDFgui, Topas), and basic knowledge of the Python language. As an expert in qualitative and quantitative XRPD analysis I have participated in various projects with industrial partners (Ideal
X-Ray Powder Diffraction	
Structure-property correlation	
Total Scattering	
Microporous materials	

Standard International, Metropolitan Waste Treatment - TRM SpA, Prosimet S.p.A., Malvern Panalytical) for the synthesis and characterization of sanitary ceramics and the characterization of ashes from waste burning. Among the materials characterization techniques, I have experience in TG, XRF, ICP analysis, porosimetry, and zeolite cation exchange.
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Part XI – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	27	Scopus	2015	currently

Total Impact factor	147.93
Total Citations	183
Average Citations per Product	6.8
Hirsch (H) index	8
Normalized H index*	1

*H index divided by the academic seniority. Calculated as 8/(2023-2015)

Part XII– Selected Publications: 12 in the last 5 years

- Confalonieri G., Fantini R., Allasia N., Vezzalini G., Fitch A. N., Mino L., Arletti* R. (2022). Structural evidence of sunscreen enhanced stability in UV filter-Zeolite hybrids. *MICROPOROUS AND MESOPOROUS MATERIALS*, vol. 344, 112212, ISSN: 1387-1811, doi: doi.org/10.1016/j.micromeso.2022.112212 [IF 5.46, citations 0]
- Confalonieri G., Vezzalini G., Maletti L., Di Renzo F., Gozzoli V., Arletti* R. (2022). Ion exchange capacity of synthetic zeolite L: a promising way for cerium recovery. *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH INTERNATIONAL*, ISSN: 0944-1344, doi: 10.1007/s11356-022-20429-1 [IF 4.22, citations 3]
- Confalonieri* G., Vezzalini G., Quattrini F., Quartieri S., Dejoie C., Arletti R. (2021). Ce-exchange capacity of zeolite L in different cationic forms: a structural investigation. *JOURNAL OF APPLIED CRYSTALLOGRAPHY*, vol. 54, p. 1766-1774, ISSN: 1600-5767 [IF 4.89, citations 4]
- Fabbiani M., Confalonieri G., Morandi S., Arletti* R., Quartieri S., Santoro M., Di Renzo F., Haines J., Fantini R., Tabacchi* G., Fois E., Vezzalini G., Ricchiardi G., Martra G. (2021). Steering polymer growth by molding nanochannels: 1,5-hexadiene polymerization in high silica mordenite. *MICROPOROUS AND MESOPOROUS MATERIALS*, vol. 311, 110728, ISSN: 1387-1811, doi:10.1016/j.micromeso.2020.110728 [IF 5.88, citations 6]

5. Confalonieri G., Fabbiani M., Arletti* R., Quartieri S., Di Renzo F., Haines J., Tabacchi G., Fois E., Vezzalini G., Martra G., Santoro M. (2020). High-silica mordenite as scaffold for phenylacetylene polymerization: In situ high pressure investigation. *MICROPOROUS AND MESOPOROUS MATERIALS*, vol. 300, p. 1-7, ISSN: 1387-1811, doi: 10.1016/j.micromeso.2020.110163 [IF 5.46, citations 4]
6. Confalonieri G., Ryzhikov* A., Arletti* R., Quartieri S., Vezzalini G., Isaac C., Paillaud J.L., Nouali H., Daou T.J., (2020). Structural interpretation of the energetic performances of a pure silica LTA-type zeolite. *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*, vol. 22, p. 5178-5187, ISSN: 1463-9076, doi: 10.1039/C9CP06760D [IF 3.68, citations 5]
7. Confalonieri G., Grand J., Arletti* R., Barrier N., Mintova* S. (2020). CO₂ adsorption in nanosized RHO zeolites with different chemical compositions and crystallite sizes. *MICROPOROUS AND MESOPOROUS MATERIALS*, vol. 306, p. 110394-110401, ISSN: 1387-1811, doi: 10.1016/j.micromeso.2020.110394 [IF 5.46, citations 8]
8. Confalonieri G., Rotiroti N., Bernasconi A., Dapiaggi* M. (2020). Structural Study of Nano-Sized Gahnite (ZnAl₂O₄): From the Average to the Local Scale. *NANOMATERIALS*, vol. 10, ISSN: 2079-4991, doi: 10.3390/nano10050824 [IF 5.08, citations 5]
9. Confalonieri* G., Buscaglia V., Canu G., Buscaglia M. T., Dapiaggi M. (2019). The local and average structure of Ba(Ti, Ce)O₃ perovskite solid solution: effect of cerium concentration and particle size. *JOURNAL OF SYNCHROTRON RADIATION*, vol. 26, p. 1280-1287, ISSN: 0909-0495, doi:10.1107/S1600577519004508 [IF 2.25, citations 4]
10. Caviglia* C., Confalonieri G., Corazzari I., Destefanis E., Mandrone G., Pastero L., Boero R., Pavese A. (2019). Effects of particle size on properties and thermal inertization of bottom ashes (MSW of Turin's incinerator). *WASTE MANAGEMENT*, vol. 84, p. 340-354, ISSN: 0956-053X, doi: 10.1016/j.wasman.2018.11.050 [IF 5.45, citations 17]
11. Confalonieri G., Quartieri S., Vezzalini G., Tabacchi G., Fois E., Daou T.J., Arletti* R. (2019). Differential penetration of ethanol and water in Si-chabazite: high pressure dehydration of azeotrope solution. *MICROPOROUS AND MESOPOROUS MATERIALS*, vol. 284, p.161-169, ISSN: 1387-1811, doi: 10.1016/j.micromeso.2019.04.032 [IF 4.55, citations 10]
12. Confalonieri G., Ryzhikov* A., Arletti* R., Nouali H., Quartieri S., Daou, T. J., Patarin J. (2018). Intrusion-Extrusion of Electrolyte Aqueous Solutions in Pure Silica Chabazite by in Situ High Pressure Synchrotron X-ray Powder Diffraction. *JOURNAL OF PHYSICAL CHEMISTRY. C*, vol. 122, p. 28001-28012, ISSN: 1932-7447, doi:10.1021/acs.jpcc.8b07338 [IF 4.31, citation 8]

Part XIII–Accepted Publications

Fitch A., Dejoie C., Covacci E., Confalonieri G., Grendal O., Claustre G., Guillou P., Kieffer J., de Nolf W., Petitdemange S., Ruat M., Watier Y. (2023-accepted for publication). ID22. *JOURNAL OF SYNCHROTRON RADIATION*. [IF 2.6]

Part XIV–Publications

1. Confalonieri G., Fantini R., Allasia N., Vezzalini G., Fitch A. N., Mino L., Arletti* R. (2022). Structural evidence of sunscreen enhanced stability in UV filter-Zeolite hybrids. *MICROPOROUS AND MESOPOROUS MATERIALS*, vol. 344, 112212, ISSN: 1387-1811, doi: doi.org/10.1016/j.micromeso.2022.112212 [IF 5.46]
2. Lang A., Polishchuk I., Confalonieri G., Dejoie C., Maniv A., Potashnikov D., Caspi E., Pokroy* B. (2022). Tuning the Magnetization of Manganese (II) Carbonate by Intracrystalline Amino Acids. *ADVANCED MATERIALS*, 2201652, ISSN: 1521-4095, doi: https://doi.org/10.1002/adma.202201652 [IF 30.89]
3. Poreba* T., Świątkowski M., Ernst M., Confalonieri G. (2022). Premelting Anomalies in Pyromellitic Dianhydride: Negative Thermal Expansion, Accelerated Radiation Damage, and Polymorphic Phase Transition. *JOURNAL OF PHYSICAL CHEMISTRY. C.*, vol. 126, p. 7648-7659, ISSN: 1932-7455 [IF 4.13]
4. Fabbiani M., Morsli A., Confalonieri G., Cacciaguerra T., Fajula F., Haines J., Bengueddach A., Arletti R., Di Renzo* F. (2022). On the chemical condensation of the layers of zeolite precursor MCM-22(P). *MICROPOROUS AND MESOPOROUS MATERIALS*, vol. 332, 111678, ISSN: 1387-1811 [IF 5.46]
5. Barrera* G., Allia P., Tiberto P., Tammara O., Pansini M., Marocco A., Manzoli M., Confalonieri G., Arletti R., Esposito S. (2022). Magnetic clustering of weakly interacting Ni-ions in Ni-exchanged zeolites. *MICROPOROUS AND MESOPOROUS MATERIALS*, vol. 335, p. 111786, ISSN: 1387-1811, doi: 10.1016/j.micromeso.2022.111786 [IF 5.46]
6. Confalonieri G., Vezzalini G., Maletti L., Di Renzo F., Gozzoli V., Arletti* R. (2022). Ion exchange capacity of synthetic zeolite L: a promising way for cerium recovery. *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH INTERNATIONAL*, ISSN: 0944-1344, doi: 10.1007/s11356-022-20429-1 [IF 4.22]
7. Confalonieri* G., Vezzalini G., Quattrini F., Quartieri S., Dejoie C., Arletti R. (2021). Ce-exchange capacity of zeolite L in different cationic forms: a structural investigation. *JOURNAL OF APPLIED CRYSTALLOGRAPHY*, vol. 54, p. 1766-1774, ISSN: 1600-5767 [IF 4.89]
8. Canu* G., Giannici F., Chiara A., Confalonieri G., Longo A., Buscagli M.T., Dapiaggi M., Buscaglia V., Martorana A. (2021). Characterisation of scheelite LaW_{0.16}Nb_{0.84}O_{4.08} ion conductor by combined synchrotron techniques: Structure, W oxidation state and interdiffusion. *JOURNAL OF ALLOYS AND COMPOUNDS*, vol. 857, 157532, ISSN: 0925-8388, doi: https://doi.org/10.1016/j.jallcom.2020.157532 [IF 6.37]
9. Dapiaggi* M., Alloni M., Carli R., Rotiroti N., Confalonieri G. (2021). Quantification of Classified Nickel Species in Spent FFC Catalysts. *WASTE AND BIOMASS VALORIZATION*, vol. 12, p. 6513-6521, ISSN: 1877-2641 10 2021 [IF 3.45]
10. Fabbiani M., Confalonieri G., Morandi S., Arletti* R., Quartieri S., Santoro M., Di Renzo F., Haines J., Fantini R., Tabacchi* G., Fois E., Vezzalini G., Ricchiardi G., Martra G. (2021). Steering polymer growth by molding nanochannels: 1,5-hexadiene polymerization in high silica

mordenite. MICROPOROUS AND MESOPOROUS MATERIALS, vol. 311, 110728, ISSN: 1387-1811, doi:10.1016/j.micromeso.2020.110728 [IF 5.88]

11. Confalonieri G., Fabbiani M., Arletti* R., Quartieri S., Di Renzo F., Haines J., Tabacchi G., Fois E., Vezzalini G., Martra G., Santoro M. (2020). High-silica mordenite as scaffold for phenylacetylene polymerization: In situ high pressure investigation. MICROPOROUS AND MESOPOROUS MATERIALS, vol. 300, p. 1-7, ISSN: 1387-1811, doi: 10.1016/j.micromeso.2020.110163 [IF 5.46]
12. Confalonieri G., Daou* T. J., Nouali H., Arletti R., Ryzhikov* A. (2020). Energetic performance of pure silica zeolites under high-pressure intrusion of LiCl aqueous solutions: An overview. MOLECULES, vol. 25, p. 2145-2163, ISSN: 1420-3049, doi: 10.3390/molecules2509214513 [IF 4.41]
13. Confalonieri G., Ryzhikov* A., Arletti* R., Quartieri S., Vezzalini G., Isaac C., Paillaud J.L., Nouali H., Daou T.J., (2020). Structural interpretation of the energetic performances of a pure silica LTA-type zeolite. PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol. 22, p. 5178-5187, ISSN: 1463-9076, doi: 10.1039/C9CP06760D [IF 3.68]
14. Confalonieri G., Grand J., Arletti* R., Barrier N., Mintova* S. (2020). CO₂ adsorption in nanosized RHO zeolites with different chemical compositions and crystallite sizes. MICROPOROUS AND MESOPOROUS MATERIALS, vol. 306, p. 110394-110401, ISSN: 1387-1811, doi: 10.1016/j.micromeso.2020.110394 [IF 5.46]
15. Destefanis E., Caviglia* C., Bernasconi D., Bicchi E., Boero R., Bonadiman C., Confalonieri G., Corazzari I., Mandrone G., Pastero L., Pavese A., Turci F., Wehrung Q. (2020). Valorization of MSWI Bottom Ash as a Function of Particle Size Distribution, Using Steam Washing. SUSTAINABILITY, vol. 12, p. 1-18, ISSN: 2071-1050, doi: 10.3390/su12229461 [IF 3.25]
16. Confalonieri G., Rotiroti N., Bernasconi A., Dapiaggi* M. (2020). Structural Study of Nano-Sized Gahnite (ZnAl₂O₄): From the Average to the Local Scale. NANOMATERIALS, vol. 10, ISSN: 2079-4991, doi: 10.3390/nano10050824 [IF 5.08]
17. Barrera*, G., Allia, P., Bonelli, B., Esposito, S., Freyria, F. S., Pansini, M., Marocco, A., Confalonieri, G., Arletti, R., Tiberto, P. (2020). Magnetic behaviour of Ni nanoparticles and Ni²⁺ ions in weakly loaded zeolitic structures. JOURNAL OF ALLOYS AND COMPOUNDS, vol. 817, p. 1-6, ISSN: 0925-8388, doi: 10.1016/j.jallcom.2019.152776 [IF 5.32]
18. Isaac C., Confalonieri G., Nouali H., Paillaud J.L., Arletti R., Daou* T.J., Ryzhikov* A. (2020). Unusual high pressure intrusion-extrusion behavior of electrolyte solutions in Mu-26, a pure silica zeolite of topology STF. MICROPOROUS AND MESOPOROUS MATERIALS, vol. 298, p. 1-6, ISSN: 1387-1811, doi:10.1016/j.micromeso.2020.110047 [IF 5.46]
19. Confalonieri* G., Buscaglia V., Canu G., Buscaglia M. T., Dapiaggi M. (2019). The local and average structure of Ba(Ti, Ce)O₃ perovskite solid solution: effect of cerium concentration and particle size. JOURNAL OF SYNCHROTRON RADIATION, vol. 26, p. 1280-1287, ISSN: 0909-0495, doi:10.1107/S1600577519004508 [IF 2.25]
20. Angiolini L., Crippa G., Azmy K., Capitani G., Confalonieri G., Della Porta G., Griesshaber E., Harper D.A.T., Leng M., Nolan L., Orlandi M., Posenato R., Schmahl W.W., Banks V.J.,

- Stephenson M.H. (2019). The giants of the phylum Brachiopoda: a matter of diet?. *PALAEONTOLOGY*, vol. 62, p. 889917, ISSN: 0031-0239, doi: 10.1111/pala.12433 [IF 3.06]
21. Caviglia* C., Confalonieri G., Corazzari I., Destefanis E., Mandrone G., Pastero L., Boero R., Pavese A. (2019). Effects of particle size on properties and thermal inertization of bottom ashes (MSW of Turin's incinerator). *WASTE MANAGEMENT*, vol. 84, p. 340-354, ISSN: 0956-053X, doi: 10.1016/j.wasman.2018.11.050 [IF 5.45]
 22. Confalonieri G., Quartieri S., Vezzalini G., Tabacchi G., Fois E., Daou T.J., Arletti* R. (2019). Differential penetration of ethanol and water in Si-chabazite: high pressure dehydration of azeotrope solution. *MICROPOROUS AND MESOPOROUS MATERIALS*, vol. 284, p.161-169, ISSN: 1387-1811, doi: 10.1016/j.micromeso.2019.04.032 [IF 4.55]
 23. Confalonieri G., Ryzhikov* A., Arletti* R., Nouali H., Quartieri S., Daou, T. J., Patarin J. (2018). Intrusion-Extrusion of Electrolyte Aqueous Solutions in Pure Silica Chabazite by in Situ High Pressure Synchrotron X-ray Powder Diffraction. *JOURNAL OF PHYSICAL CHEMISTRY. C*, vol. 122, p. 28001-28012, ISSN: 1932-7447, doi:10.1021/acs.jpcc.8b07338 [IF 4.31]
 24. Confalonieri* G., Buscaglia V., Capitani G.C., Canu G., Rotiroti N., Bernasconi A., Pavese A., Dapiaggi M. (2018). Local distortion and octahedral tilting in BaCexTi1-xO3 perovskite. *JOURNAL OF APPLIED CRYSTALLOGRAPHY*, vol. 51, p. 1283-1294, ISSN: 0021-8898, doi: 10.1107/S1600576718010786 [IF 2.87]
 25. Canu G., Confalonieri G., Deluca M., Curecheriu L., Buscaglia M.T., Asandulesa M., Horchidan N., Dapiaggi M., Mitoseriu L., Buscaglia* V. (2018). Structure-property correlations and origin of relaxor behaviour in BaCexTi1-xO3. *ACTA MATERIALIA*, vol. 152, p. 258-268, ISSN: 1359-6454, doi: 10.1016/j.actamat.2018.04.038 [IF 7.29]
 26. Marinoni N., Diella* V., Confalonieri G., Pavese A., Francescon F. (2017). Soda-lime-silica-glass/quartz particle size and firing time: Their combined effect on sanitary-ware ceramic reactions and macroscopic properties. *CERAMICS INTERNATIONAL*, vol. 43, p. 10895-10904, ISSN: 0272-8842, doi: 10.1016/j.ceramint.2017.05.126 [IF 3.075]
 27. Confalonieri G., Dapiaggi* M., Sommariva M., Gateshki M., Fitch A. N., Bernasconi A. (2015). Comparison of total scattering data from various sources: The case of a nanometric spinel. *POWDER DIFFRACTION*, vol. 30, p. S65-S69, ISSN: 0885-7156, doi: 10.1017/S0885715614001389 [IF 0.75]