

## PERSONAL INFORMATION Rosanna Rizzi

## WORK EXPERIENCE

February 2001 – Present

**Staff scientist (full time/permanent position)**

Institute of Crystallography (IC) - National Research Council (CNR)  
Via G. Amendola 122/o, 70126 Bari, Italy

- Development and implementation in crystallographic software of new and efficient methodologies for qualitative phase analysis and structure solution process using X ray diffraction data from powder compounds.
- X-ray powder diffraction data collection with laboratory diffractometers or at Synchrotron light source .
- Powder data analysis for qualitative phase characterization and crystal structure solution.
- Co-author of the crystallographic software: 1) EXPO; 2) QualX; 3) OChemDb (Open Chemistry Database)

**Business or sector** Research

January 2011 – Present

**Head of X-ray powder diffraction laboratory****Business or sector** Research

## EDUCATION AND TRAINING

November 2023

**CNR short-term mobility project**

Project: Development of Machine Learning models for the prediction of lattice constants from X-ray diffraction patterns from crystalline powders

University of Zurich, Department of Physics, Laboratory for research on quantum matter

**Business or sector** Research

September 2005

**CNR short-term mobility project**

Project: The development of strategies on Direct-space technique to solve crystal structures from powder diffraction data

University of Geneva, Laboratory of Crystallography

**Business or sector** Research

March - May 2004

**CNR short-term mobility project**

Project: Determining low-resolution crystal structures from powder diffraction data

ISIS Facility Rutherford Appleton Laboratory (Oxford). United Kingdom

**Business or sector** Research

May 2003

**CNR short-term mobility project**

Project: Natural and synthetic Zeolites

University of Ferrara, Italy

**Business or sector** Research

1999-2002

**PhD in Earth Science**

Title of thesis: Development of crystallographic methodologies for powder structure analysis with particular emphasis for zeolite compounds

University of Bari, Italy

1995-1998

**Fellowship in Crystallography**

Fellowship in Crystallography at 'Istituto di Ricerca per lo Sviluppo di Metodologie Cristallografiche', IRMEC-CNR, Bari, Italy. Tutor: Professor C. Giacobazzi, University of Bari, Italy

## 1988-1994 Bachelor in Physics

Title of the Thesis: Processi di assorbimento a due fotoni nei semiconduttori a filo quantico di GaAs-Al<sub>x</sub>Ga<sub>1-x</sub>As.

University of Bari

## RESEARCH ACTIVITIES

- Main scientist developer for the web package CrystalMELA [Corriero et al., J. Appl. Cryst. (2023), 56, 409-419]
- Main scientist developer for package EXPO [Altomare et al., Crystal Research and Technology (2015), 737-742]
- Main scientist developer for package QUALX [Altomare et al., J. Appl. Cryst. (2015), 48, 598-603]
- Main scientist developer for package OChemDB [Altomare et al., J. Appl. Cryst. (2018), 51, 1229-1236]
- Development of new and innovative algorithms to indexing a powder diffraction pattern
- Development of new and innovative algorithms for the Space Group determination
- Development of new and innovative algorithms to decompose the experimental powder X ray diffraction pattern into single integrated intensities
- Development of the phasing techniques above all Direct Methods to solve small and medium polycrystalline compounds
- Development of new and innovative algorithms for structure model optimization
- Development of new and innovative algorithms to solve polycrystalline materials in the direct space: Simulated Annealing and Big Bang-Big Crunch method
- Development of Machine Learning approaches to unit cell parameters determination

## TEACHING AND LECTURES

### 2024

- Chair of the 18th European Powder Diffraction Conference (EPDIC18). 30 August 2 September, 2024. Padova, Italy.
- Keynote speaker at ECM34 congress. 26-30 August 2024. Padova, Italy

### 2023

- Oral communication at the International IUCr2023 congress. 22-29 August 2023. Melbourne, Australia
- Chair of the MSA024 'New software in powder diffraction', at International IUCr2023 congress. 22-29 August 2023. Melbourne, Australia
- Invited lecture at 2023 International Centre for Diffraction Data Spring Meetings, 20-23 March, Philadelphia, USA

### 2022

- Member of the Steering Committee of the fourth Joint Conference of the Italian Crystallographic Association (AIC) and the Italian Society of Synchrotron Light (SILS). (12-15 September, Trieste, Italy).
- Teaching at workshop: Hands-on Software. (28-29 June, Modena, Italy).

### 2021

- Oral communication at 1st Conference on Crystallography, structural chemistry and biosystem. Title of oral presentation: Solving polycrystalline structures: from data collection to the development of innovative crystallographic methods. (4-6 October, Catania, Italy).

-Teaching at 'International school of crystallography: Molecular crystal engineering'. Title of lessons: 1) Qualitative analysis by using X-ray diffraction: theory, database and software; 2) Polycrystalline materials: crystal structure solution in reciprocal and/or direct space?. (31 Maggio – 4 Giugno, Erice, Italy).

- Member of the scientific committee of the International Crystallography school. (31 August – 4 September, Parma, Italy).

## 2020

- Conference Committee member of the 2nd International Online Conference on Crystals. 10-20 November.

- Keynote at 2nd International Online Conference on Crystals. Titolo presentazione: 'Physico-chemical characterization of new rare earths doped calcium phosphates'. 10-20 November 2020.

- Member of the 'Commissione Strumentazione e Calcolo' of Associazione Italiana di Cristallografia (AIC) (2018-2020)

## 2019

- Guest Editor of the Special issue "Crystal Structure Characterization by Powder Diffraction". Crystals. ISSN 2073-4352

- Member of the Editorial Board of the Crystals International Journal, 'Crystalline Materials' section.

- Organization of EXPO&more International Workshop. Politecnico of Bari, Italy (29 September-3 October).

- Organization of 'Microscopi Giganti: introduzione alle applicazioni delle grandi sorgenti' national workshop. University of Milan, Italy (13 May).

- Oral communication at department of chemical sciences and materials technologies (CNR) conference. Title: Innovative Methodologies and challenging applications of Software for the Characterization of Polycrystalline Compounds. Brixen, Italy, (28-30 September ).

- Oral communication at EXPO&more International Workshop. Title of oral presentations: 1) Full pattern decomposition; 2) Reciprocal space methods solution. Politecnico of Bari, Bari-Italy (30 September-03 October).

- Tutor of the computer session at International Workshop: EXPO&more. 3 Politecnico of Bari, Bari-Italy (30 September-03 October).

## 2018

- Organization of AIC International School: Powder diffraction: theory, software and applications. Bari, Italy (29 August -2 September).

- Organization of 3rd joint AIC-SILS Conference. Rome, Italy ( 25-28 June).

- Organization of Analisi quantitativa di fasi cristalline: metodi tradizionali e chemiometria a confronto national workshop. University of Bologna, Italy (6 February).

- Oral Communication at International Congress EPDIC16. Title of oral presentation: New algorithms for structure solution of polycrystalline materials in EXPO software. Edinburgh, Scotland, (1-4 July).

- Chair of the MS4 'Methods: Methodological and experimental developments in crystallography and synchrotron techniques' at the 3rd joint AIC-SILS Conference. Rome, Italy, (25-28 June).

## 2017

- Organization of 'L'esperimento flessibile: studi di diffrazione in condizioni non ambientali' national Workshop. University of Bari, Italy (22 February).

## 2016

- Organization of 'Analisi di fase qualitativa e quantitativa per applicazioni industriali e ambientali' national Workshop. University of Milano, Italy (16 February).

- Organization of 15th European Powder Diffraction Conference. Bari, Italy (12-15 June).
- Invited lecture at 3rd European Crystallography School (ECS3). Bol, Croatia, (25 September - 02 October).

## 2015

- Chair of MS39 'Recent advances in diffraction instruments, detectors and data processing' to the 29th European Crystallographic Meeting (ECM29). Rovigno, Croatia ( 23-28 August).

## 2014 and older: selected

- Organization of the International EXPO/SIR workshop. Bari, Italy (10-13 June).
- Oral Communication at International EXPO/SIR workshop. Title of presentation: 1) Crystal structure solution by powder diffraction data; 2) Phasing via Direct Methods. University of Bari, Italy (10-13 June).

## 2013

- Invited lecture at International Workshop on 'Powder and Electron Crystallography'. Patras, Grece (8-12 July).
- Oral Communication at Twenty-second Croatian-Slovenian Crystallographic Meeting (CSCM22). Title of presentation: The Hybrid BigBang-Big Crunch in the EXPO2013 program. Biograd, Croatia (12–16 June).

## 2012

- Organization of 'Synthesis and characterization of novel Nano-Sized inorganic materials' International school. University of Bari, Italy (17-22 June).
- Invited lecture at 'Structure, microstructure, nanostructure' AIC International School. Trento, Italy (15-20 September).

## 2011

- Invited lecture at 2011 ICDD (International Centre for Diffraction Data) spring Meetings. Title of presentation: 'From X-ray powder diffraction pattern to structure solution through new algorithms, strategies and tips: the EXPO program'. ICDD Headquarters, Philadelphia, USA (14-18 March).
- Chair at MS95 'Automated Data Processing and Structural Solution for Powder Crystallography'. XXII IUCr congress Madrid, Spain (22-30 August).

## 2010

- Invited lecture at MISCAII-2nd Meeting of the Italian and Spanish Crystallographic Associations. Title of presentation: 'EXPO2010: algorithms and tips for a successful powder structure solution'. Oviedo, Spain (30 June-3 July).
- Chair at MS6 'Structure Solution'. 26th European Powder Diffraction Conference (EPDIC12), Darmstadt, Germany (27-30 August).

## 2009

- Invited lecture at 25th European Crystallographic Meeting (ECM25). Title of presentation: 'New strategies in EXPO2009: applications to pharmaceutical compounds. Istanbul, Turkey (16-21 August).

## 2008

- Teaching at International summer school on structure determination from powder diffraction data on 'Structure solution by powder diffraction with the EXPO program'. Paul Sherrer Institut, Villigen, Switzerland (18-22 June).

2007

-Editor of the Newsletter N. 35 of the Commission on Powder Diffraction (CPD), International Union of Crystallography (IUCr). ISSN 1591-9552.

2006

- Teaching at 'Diffrazione da materiali policristallini' national school. Martina Franca, Italy (26-30 June).

2004

- Teaching activity for the research project entitled: "TECSIS: Diagnostic Technologies and intelligent systems for the development of archeological parks in the south of Italy". 10h. Bari, Italy (17 May- 17 June).

2001

- Oral Communication at 20th European Crystallographic Meeting (ECM20). Title of presentation: 'EXPO: new performances'. Warsaw, Poland (25-31 August).

2000

- Oral Communication at XXX National Congress of Associazione Italiana di Cristallografia (AIC). Title of presentation: 'EXPO2000: new performances for ab initio solution of powder structures'. Martina Franca, Italy (19-22 September).

- Organization of XXX National AIC Congress AIC. Martina Franca, Italy (19-22 September).

1998

- Teaching 'Diffattometria da materiali policristallini: recenti sviluppi delle tecniche di risoluzione e di raaffinamento strutturale' national AIC school. Perugia, Italy (08-12 September).

1996

- Organization of V SIR workshop: SIRWARE96 Single Crystal and Powder Data X-rays, Neutrons and Electrons. Bari, Italy (17-20 December).

1994-2007

- Teaching assistance for the Crystallography Course (75h) within the III-years Diploma Joint Course in Chemistry and Material Science.

## AWARDS

2003 'Alessandro Vaciago' Award

Prize winner 'Alessandro Vaciago', of the Accademia Nazionale dei Lincei

## PROJECTS LEADER

2023 - 2025 **PRIN2022 - Next Generation EU, Progetti di ricerca di Rilevante Interesse Nazionale, 2022**

Title of project: Pharmacological Chaperon Therapy for Type I Mucopolysaccharidosis

2012 - 2013 **Fondazione cassa di Risparmio di Puglia (FCRP)**

Title of project: Studio cristallografico di radiotraccianti PET in valutazione clinica per la diagnosi precoce dell'Alzheimer.

## PROJECTS PARTICIPATION (LAST 5 YEARS)

2019 - 2022 **'IDF SHARID' – Program PON**

Title: Innovative devices for shaping the risk of diabetes

#### 2108-2020 Bilateral agreement CNR/MOES (Albania)

Title: "New nanomaterials for applications in conservation and consolidation of stony materials part of Culture Heritage in Albania"

#### 2012-2016 FIRB

Title: Integrated network for Nano Medicine (RINAME)

#### 2015-2018 'Software and know how license' contract

between CNR 'Department of chemical sciences and materials technologies' and RIGAKU Corporation for the payment of royalty from RIGAKU to CNR for each non-exclusive license per each sale by RIGAKU, of the software EXPO2015

#### 2005-present Commercial license agreement

between the Institute of Crystallography (IC)-CNR and the companies interested in the EXPO package

### PERSONAL SKILLS

Mother tongue English, French

### WHOLE PUBLICATIONS

## Publications

- [1] ADA ANTONELLA RASULO<sup>1</sup> and ROSANNA RIZZI. Manuela rossil, 2, 3,\*, roberto de gennaro<sup>1</sup>, miriam alberico<sup>4</sup>. *Il patrimonio naturalistico del Parco Regionale Area Vulcanica di Roccamonfina e Foce Garigliano. Atti del convegno, Teano (Caserta), 30 settembre 2023*, page 13, 2024.
- [2] Enrica Fontananova, Elvira Pantuso, Laura Donato, Elisa Esposito, Rosanna Rizzi, Rocco Caliandro, and Gianluca Di Profio. Turning mine-tailing streams into sources of water and mineral salts in a membrane-sustained circular scenario. *npj Clean Water*, 7(1):112, 2024.
- [3] Alessandra Barbanente, Joanna Kopecka, Daniele Vitone, Mauro Niso, Rosanna Rizzi, Corrado Cuocci, Francesca Serena Abatematteo, Francesco Mastropasqua, Nicola Antonio Colabufio, Nicola Margiotta, et al. First-in-class thiosemicarbazone metal complexes targeting the sigma-2 receptor (s2r) as an innovative strategy against pancreatic cancer. *Journal of Medicinal Chemistry*, 67(22):20118-20134, 2024.
- [4] Federico Olivieri, Roberto Avolio, Gennaro Gentile, Annamaria Mazzone, Rosanna Rizzi, Michele Nacucchi, Rachele Castaldo, Maria Emanuela Errico, Cinzia Giannini, Luigi Ambrosio, and Mario Lavorgna. High filler content acrylonitrile-butadiene-styrene composites containing tungsten and bismuth oxides foreffective lead-free x-ray radiation shielding. *Polymer Composites*, 45:2101-2113, 2024.
- [5] Stefania Cometa, Francesco Busto, Andrea Castellaneta, Andrea Cochis, Ziba Najmi, Rosanna Rizzi, Ilario Losito, and Elvira De Giglio. Development, analytical characterization, and bioactivity evaluation of boswellia serrata extract-layered double hydroxide hybrid composites. *Molecules*, 28:6449, 2023.
- [6] Giuseppe Francesco Racaniello, Monica Pistone, Chiara Meazzini, Angela Lopodota, Ilaria Arduino, Rosanna Rizzi, Antonio Lopalco, Umberto M Musazzi, Francesco Cilurzo, and Nunzio Denora. 3d printed mucoadhesive orodispersible films manufactured by direct powder extrusion for personalized clobetasol propionate based paediatric therapies. *International Journal of Pharmaceutics*, 643:123214, 2023.
- [7] Stefania Cometa, Francesco Busto, Andrea Castellaneta, Andrea Cochis, Ziba Najmi, Rosanna Rizzi, Ilario Losito, and Elvira De Giglio. Development, analytical characterization, and bioactivity evaluation of boswellia serrata extract-layered double hydroxide hybrid composites. *Molecules*, 28(18):6449, 2023.

- [8] Vita D'Amico, Ilaria Arduino, Mirco Vacca, Rosa Maria Iacobazzi, Davide Altamura, Antonio Lopalco, Rosanna Rizzi, Annalisa Cutrignelli, Valentino Laquintana, Franco Massimo, et al. Colonic budesonide delivery by multi-stimuli alginate/eudragit® fs 30d/inulin-based microspheres as a paediatric formulation. *Carbohydrate Polymers*, 302:120422, 2023.
- [9] Monica Pistone, Giuseppe Francesco Racaniello, Rosanna Rizzi, Rosa Maria Iacobazzi, Ilaria Arduino, Antonio Lopalco, Angela Assunta Lopedota, and Nunzio Denora. Direct cyclodextrin based powder extrusion 3d printing of budesonide loaded mini-tablets for the treatment of eosinophilic colitis in paediatric patients. *International Journal of Pharmaceutics*, page 122592, 2023.
- [10] Nicola Corriero, Rosanna Rizzi, Gaetano Settembre, Nicoletta Del Buono, and Domenico Diacono. Crystalmela: a new crystallographic machine learning platform for crystal system determination. *Journal of Applied Crystallography*, 56(2), 2023.
- [11] Gaetano Settembre, Nicola Corriero, Nicoletta Del Buono, Flavia Esposito, and Rosanna Rizzi. Machine learning approaches for predicting crystal systems: A brief review and a case study. In *Machine Learning, Optimization, and Data Science: 8th International Workshop, LOD 2022, Certosa di Pontignano, Italy, September 19–22, 2022, Revised Selected Papers, Part I*, pages 93–107. Springer Nature Switzerland Cham, 2023.
- [12] Manuela Rossi, Roberta Biondi, Rosanna Rizzi, Nicola Corriero, Francesco Sequino, and Alessandro Vergara. Mechanism of be-thermodiffusion in rutile inclusions of fancy sapphires. *Crystal Growth & Design*, 22(11):6493–6503, 2022.
- [13] Monica Pistone, Giuseppe Francesco Racaniello, Ilaria Arduino, Valentino Laquintana, Antonio Lopalco, Annalisa Cutrignelli, Rosanna Rizzi, Massimo Franco, Angela Lopedota, and Nunzio Denora. Direct cyclodextrin-based powder extrusion 3d printing for one-step production of the bcs class ii model drug niclosamide. *Drug Delivery and Translational Research*, 12(8):1895–1910, 2022.
- [14] Corrado Cuocci, Nicola Corriero, Francesco Baldassarre, Marzia Dell'Aera, Aurelia Falcicchio, Rosanna Rizzi, and Angela Altomare. Advanced perspectives in the expo software for solving crystal structures from powder diffraction data. *Journal of Applied Crystallography*, 55(2), 2022.
- [15] Corrado Cuocci, Nicola Corriero, Marzia Dell'Aera, Aurelia Falcicchio, Rosanna Rizzi, and Angela Altomare. Direct space approach in action: Challenging structure solution of microcrystalline materials using the expo software. *Computational Materials Science*, 210:111465, 2022.
- [16] Rosanna Rizzi, Francesco Capitelli, Bogdan I Lazoryak, Vladimir A Morozov, Fabio Piccinelli, and Angela Altomare. A comprehensive study of ca9tb (po4) 7 and ca9ho (po4) 7 doped  $\beta$ -tricalcium phosphates: Ab initio crystal structure solution, rietveld analysis, and dielectric properties. *Crystal Growth & Design*, 21(4):2263–2276, 2021.
- [17] Davide Gnocchi, Maria M Cavalluzzi, Giuseppe F Mangiatordi, Rosanna Rizzi, Cosimo Tortorella, Mauro Spennacchio, Giovanni Lentini, Angela Altomare, Carlo Sabbà, and Antonio Mazzocca. Xanthenylacetic acid derivatives effectively target lysophosphatidic acid receptor 6 to inhibit hepatocellular carcinoma cell growth. *ChemMedChem*, 16(13):2121–2129, 2021.
- [18] Benny Danilo Belviso, Francesco Marin, Sara Fuertes, Violeta Sicilia, Rosanna Rizzi, Fulvio Ciriaco, Chiara Cappuccino, Eric Dooryhee, Aurelia Falcicchio, Lucia Maini, et al. Structural insights into the vapochromic behavior of pt-and pd-based compounds. *Inorganic Chemistry*, 60(9):6349–6366, 2021.
- [19] Martina Vrankic, Ankica Saric, Sanja Bosnar, Dario Barisic, Damir Pajic, Dirk Lutzenkirchen-Hecht, Ivana Jelovica Badovinac, Mladen Petravic, Angela Altomare, Rosanna Rizzi, et al. Structural behavior and spin-state features of baal2o4 scaled through tuned co3+ doping. *Inorganic Chemistry*, 60(12):8475–8488, 2021.
- [20] Monica Pistone, Giuseppe Francesco Racaniello, Ilaria Arduino, Valentino Laquintana, Antonio Lopalco, Annalisa Cutrignelli, Rosanna Rizzi, Massimo Franco, Angela Lopedota, and Nunzio Denora. Direct cyclodextrin based powder extrusion 3d printing for one-step production of the bcs class ii model drug niclosamide. 2021.
- [21] Joseba Orive, Roberto Fernández de Luis, Edurne S Larrea, Ana Martínez-Amesti, Angela Altomare, Rosanna Rizzi, Luis Lezama, María I Arriortua, Juan Luis Gómez-Cámer, María Jauregui, et al. Exploring new hydrated delta type vanadium oxides for lithium intercalation. *Dalton Transactions*, 49(12):3856–3868, 2020.

- [22] Angela Altomare, Nicola Corriero, Corrado Cuocci, Aurelia Falcicchio, and Rosanna Rizzi. Solving a structure in the reciprocal space, real space and both by using the expo software. *Crystals*, 10(1):16, 2020.
- [23] Veronica Paterlini, Marco Bettinelli, Rosanna Rizzi, Asmaa El Khouri, Manuela Rossi, Giancarlo Della Ventura, and Francesco Capitelli. Characterization and luminescence of eu<sup>3+</sup>-and gd<sup>3+</sup>-doped hydroxyapatite ca<sub>10</sub> (po<sub>4</sub>)<sub>6</sub> (oh)<sub>2</sub>. *Crystals*, 10(9):806, 2020.
- [24] Rosanna Rizzi, Francesco Capitelli, Giancarlo Della Ventura, Wafa Hami, Nicola Corriero, Manuela Rossi, and Angela Altomare. Preparation, structural and spectroscopical properties of silver terbium diphosphate agtbp<sub>2</sub>o<sub>7</sub>. *Zeitschrift für Kristallographie-Crystalline Materials*, 234(6):363–369, 2019.
- [25] Nour El Houda Belkafouf, Fayssal Triki Baara, Angela Altomare, Rosanna Rizzi, Abdelkader Chouaih, Ayada Djafri, and Fodil Hamzaoui. Synthesis, pxrd structural determination, hirshfeld surface analysis and dft/td-dft investigation of 3n-ethyl-2n'-(2-ethylphenylimino) thiazolidin-4-one. *Journal of Molecular Structure*, 1189:8–20, 2019.
- [26] Angela Altomare, Rosanna Rizzi, Manuela Rossi, Asmaa El Khouri, Mohammed Elaatmani, Veronica Paterlini, Giancarlo Della Ventura, and Francesco Capitelli. New ca<sub>2</sub>. 90 (me<sub>2</sub><sup>+</sup>) 0.10 (po<sub>4</sub>)<sub>2</sub> β-tricalcium phosphates with me<sub>2</sub><sup>+</sup>= mn, ni, cu: Synthesis, crystal-chemistry, and luminescence properties. *Crystals*, 9(6):288, 2019.
- [27] Filippo M Perna, Aurelia Falcicchio, Antonio Salomone, Anne Milet, Rosanna Rizzi, Ghanem Hamdoun, Gabriella Barozzino-Consiglio, Dietmar Stalke, Hassan Oulyadi, and Vito Capriati. First direct evidence of an ortho-lithiated aryloxetane: Solid and solution structure, and dynamics. *European Journal of Organic Chemistry*, 2019(31-32):5549–5556, 2019.
- [28] A Altomare, C Cuocci, A Moliterni, and R Rizzi. International tables for crystallography (2019). vol. h, ch. 4.2, p. 395.
- [29] Angela Altomare, Nicola Corriero, Corrado Cuocci, Aurelia Falcicchio, Anna Moliterni, and Rosanna Rizzi. Direct-space solution in the expo package: the combination of the hbb–bc algorithm with grasp. *Journal of Applied Crystallography*, 51(2):505–513, 2018.
- [30] Angela Altomare, Francesco Capitelli, Nicola Corriero, Corrado Cuocci, Aurelia Falcicchio, Anna Moliterni, and Rosanna Rizzi. The rietveld refinement in the expo software: A powerful tool at the end of the elaborate crystal structure solution pathway. *Crystals*, 8(5):203, 2018.
- [31] Wafa Hami, Abdelouahed Zegzouti, Mohamed Daoud, Daniel Zambon, Manuela Rossi, Alessandro Vergara, Francesco Capitelli, Angela Altomare, and Rosanna Rizzi. Synthesis, structural characterization and luminescent properties of tb<sup>3+</sup>-doped aglap<sub>2</sub>o<sub>7</sub> phosphors. *Ceramics International*, 44(16):19184–19190, 2018.
- [32] Angela Altomare, Nicola Corriero, Corrado Cuocci, Aurelia Falcicchio, Anna Moliterni, and Rosanna Rizzi. Ochemdb: the free online open chemistry database portal for searching and analysing crystal structure information. *Journal of Applied Crystallography*, 51(4):1229–1236, 2018.
- [33] Asmaa El Khouri, Mohammed Elaatmani, Giancarlo Della Ventura, Armida Sodo, Rosanna Rizzi, Manuela Rossi, and Francesco Capitelli. Synthesis, structure refinement and vibrational spectroscopy of new rare-earth tricalcium phosphates ca<sub>9</sub>re (po<sub>4</sub>)<sub>7</sub> (re= la, pr, nd, eu, gd, dy, tm, yb). *Ceramics International*, 43(17):15645–15653, 2017.
- [34] Manuela Rossi, Rosanna Rizzi, Alessandro Vergara, Francesco Capitelli, Angela Altomare, Fabio Bellatreccia, Michele Saviano, and Rosaria M Ghiara. Compositional variation of turquoise-group minerals from the historical collection of the real museo mineralogico of the university of naples. *Mineralogical Magazine*, 81(6):1405–1429, 2017.
- [35] Angela Altomare, Nicola Corriero, Corrado Cuocci, Aurelia Falcicchio, Anna Moliterni, and Rosanna Rizzi. Main features of qualx2. 0 software for qualitative phase analysis. *Powder Diffraction*, 32(S1):S129–S134, 2017.
- [36] Rachida Rahmani, Ahmed Djafri, Abdelkader Chouaih, Ayada Djafri, Fodil Hamzaoui, Rosanna Rizzi, and Angela Altomare. Synthesis, molecular and solid state structure of 5-(5-nitro furan-2-ylmethylen), 3-n-(2-methoxy phenyl), 2-n-(2-methoxyphenyl) imino thiazolidin-4-one: X-ray powder diffraction and dft studies. *Journal of Molecular Structure*, 1143:259–264, 2017.
- [37] Svetoslava Vankova, Daniele Versaci, Julia Amici, Anna Ferrari, Rosanna Rizzi, Angela Altomare, Salvatore Guastella, Carlotta Francia, Silvia Bodoardo, and Nerino Penazzi. A high-capacity cathode based on silicates material for advanced lithium batteries. *Journal of Solid State Electrochemistry*, 21(12):3381–3388, 2017.

- [38] Nicola Corriero, Corrado Cuocci, Aurelia Falcicchio, Anna Moliterni, Rosanna Rizzi, and Angela Altomare. Computational methodologies for the characterization of polycrystalline materials in software developed by the institute of crystallography. In *CONFERENZA DI DIPARTIMENTO 2017*, page 147, 2017.
- [39] Angela Altomare, Corrado Cuocci, Anna Moliterni, Rosanna Rizzi, Nicola Corriero, and Aurelia Falcicchio. The shift\_and\_fix procedure in expo: advances for solving ab initio crystal structures by powder diffraction data. *Journal of Applied Crystallography*, 50(6):1812–1820, 2017.
- [40] Giuseppina Balassone, Fabio Bellatreccia, Luisa Ottolini, Angela Mormone, Carmela Petti, Maria Rosaria Ghiara, Angela Altomare, Michele Saviano, Rosanna Rizzi, and Loredana D’orazio. Sodalite-group minerals from the somma-vesuvius volcano (naples, italy): A combined epma, sims, and ftir crystal-chemical study. *The Canadian Mineralogist*, 54(3):583–604, 2016.
- [41] Lucia Veltri, Giuseppe Grasso, Rosanna Rizzi, Raffaella Mancuso, and Bartolo Gabriele. Palladium-catalyzed carbonylative multicomponent synthesis of functionalized benzimidazothiazoles. *Asian Journal of Organic Chemistry*, 5(4):560–567, 2016.
- [42] Lucia Veltri, Giuseppe Grasso, Rosanna Rizzi, Raffaella Mancuso, and Bartolo Gabriele. Cover picture: Palladium-catalyzed carbonylative multicomponent synthesis of functionalized benzimidazothiazoles (asian j. org. chem. 4/2016). *Asian Journal of Organic Chemistry*, 5(4):434–434, 2016.
- [43] Angela Altomare, Nicola Corriero, Corrado Cuocci, Aurelia Falcicchio, Anna Moliterni, and Rosanna Rizzi. Qualx2.0: a qualitative phase analysis software using the freely available database pow\_cod. *Journal of Applied Crystallography*, 48(2):598–603, 2015.
- [44] A Altomare, N Corriero, C Cuocci, A Falcicchio, A Moliterni, and R Rizzi. Caratterizzazione di materiali cristallini di interesse per i beni culturali mediante diffrazione di raggi x da polveri. *Preservation and enhancement of Cultural Heritage*, page 127, 2015.
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