

Curriculum vitae et studiorum

PERSONAL INFO

Surname, Name: Rizzi Rosanna
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EDUCATIONAL AND PROFESSIONAL EXPERIENCE ABROAD

Plenary speaker at the 2011 ICDD (International Centre for Diffraction Data) spring Meetings, with a talk titled: from X-ray powder diffraction pattern to structure solution through new algorithms, strategies and tips: the EXPO program. 14-18 March 2011, ICDD Headquarters, Philadelphia, USA.

Keynote to XXXVIII National Congress of Associazione Italiana di Cristallografia (AIC). Title of oral presentation: The ab-initio structure solution from polycrystalline compounds in EXPO2009: new strategies. 20-23 September 2009, Salerno, Italy.

Invited lecture to the 3rd European Crystallography School (ECS3). 25 September - 02 October, 2016. Bol, Croatia. Title of the oral communications: 1) Phasing via Direct Methods (1h); 2) Direct space approach (1h). (<http://ecs3.ecanews.org/ECS3/HOME.html>).

Invited lecture at International workshop on Powder and Electron Crystallography. 8-12 July, 2013. Patras, Greece.

Invited lecture at AIC International School 2012. 10th Paolo Giordano Orsini School on: Structure, microstructure, nanostructure. 15-20 September, 2012, Trento, Italy.

Invited lecture at MISCAII 2nd Meeting of the Italian and Spanish Crystallographic Associations. Title of oral presentation: EXPO2010: algorithms and tips for a successful powder structure solution. 30 June-3 July 2010 Oviedo, Spain. (<http://www.misca2010.com/speaker.php>)

Invited lecture at 25th European Crystallographic Meeting (ECM25). Title of oral presentation: New strategies in EXPO2009: applications to pharmaceutical compounds. 16-21 August 2009, Istanbul, Turkey. (<http://www.ecm25.org>)

Oral Communication: International Congress EPDIC16. Title of oral presentation: New algorithms for structure solution of polycrystalline materials in EXPO software. Edimburgh, 1-4 July, 2018.

Oral Communication: International Workshop: EXPO/SIR Workshop, Module1: Cristal structure solution by powder diffraction data. Title of oral presentations: 1) Phasing via Direct Methods; 2) Direct space approach. Dip. of Scienze della Terra e Geoambientali, University of Bari, Bari, Italia. 11-12 June 2014.

Oral Communication: Twenty-second Croatian-Slovenian Crystallographic Meeting (CSCM22). Title of oral presentation: The Hybrid BigBang-Big Crunch in the EXPO2013 program. Biograd, Croatia, 12–16 June, 2013.

Oral Communication: 20th European Crystallographic Meeting (ECM20). Title of oral presentation: EXPO: new performances. 25-31 August 2001, Warsaw, Poland.

Oral Communication: XXX National Congress of Associazione Italiana di Cristallografia (AIC). Title of oral presentation: EXPO2000: new performances for ab initio solution of powder structures. 19-22 September 2000, Martina Franca, Italy.

Oral Communication: Workshop PHARE2009, Module1: Crystal structure solution and refinement from powder data. Title of oral presentations: 1) The full pattern decomposition; 2) Simulated Annealing and Direct Methods. Martina Franca (TA). 15-24 April 2009. (<http://www.cristallografia.org/contenuto/phare-workshop/194>).

Oral Communication: V SIR workshop: SIRWARE96 Single Crystal and Powder Data X-rays, Neutrons and Electrons. Title of oral presentation: About the use of the prior information. 17-20 December 1996. Bari-Italy.

Chair of the MS4 ‘Methods: Methodological and experimental developments in crystallography and synchrotron techniques’ at the 3rd joint AIC-SILS Conference. 25-28 June, 2018, Rome, Italy.

Chair of MS39 ‘Recent advances in diffraction instruments, detectors and data processing’ to the 29th European Crystallographic Meeting (ECM29). 23-28 August 2015. Rovigno, Croatia. (<http://ecm29.ecanews.org/programme>).

Chair of Microsymposium MS95 ‘Automated Data Processing and Structural Solution for Powder Crystallography’ at XXII Congress and Assembly of International Union of Crystallography IUCr. 22-30 August 2011. Madrid Spain. <http://www.iucr2011madrid.es/index.php/program/scientific-program>.

Chair of Microsymposium MS6 ‘Structure Solution’ at 26th European Powder Diffraction Conference (EPDIC12), Darmstadt, Germany. 27-30 August 2010. <http://conventus.de/2963/>.

2011 elected member of the International Centre for Diffraction Data (ICDD), 12 Campus Boulevard, Newtown Square, Philadelphia, USA.

2011 X-Ray Diffraction Laboratory manager of RINT2500 rotating anode diffractometer (18kW) of the Rigaku Corporation.

2005: Visiting professor at University of Geneva, laboratory of Crystallography, for 2 weeks working on the project: "*The development of strategies on Direct-space technique to solve crystal structures from powder diffraction data*" in collaboration with Doctor R. Cerny.

2004: Visiting professor at *ISIS Facility Rutherford Appleton Laboratory (Oxford)* for 3 months working on the project: "*Determining low-resolution crystal structures from powder diffraction data*" in collaboration with Prof. W.I.F. David.

2003: Visiting professor at University of Ferrara, Italy, working on the project: "*Natural and synthetic Zeolites*", in collaboration with Prof. Alberti.

2003: Prize winner '*Alessandro Vaciano*', of the Accademia Nazionale dei Lincei

2001: Dr. Rizzi, as winner of the competition, was hired by CNR as a researcher (permanent position) at Istituto di Ricerca per lo Sviluppo di Metodologie Cristallografiche (IRMEC-CNR).

1999-2002: PhD in Earth Science (XIV Cycle), University of Bari, Italy. Tutor Professor C. Giacobozzo, University of Bari.

1995-1998: Fellowship in Crystallography at the 'Istituto di Ricerca per lo Sviluppo di Metodologie Cristallografiche', IRMEC-CNR, Bari, Italy. Tutor Professor C. Giacobozzo, University of Bari, Italy.

1988-1994: Degree in Physics at University of Bari, Italy.

1983-1988: Secondary school focusing on sciences.

TEACHING ACTIVITY:

Teaching activity at AIC International School: Powder diffraction: theory, software and applications. Title of lesson: Structure solution in reciprocal space. 29 August - 2 September 2018. University of Bari, Bari-Italy.

Teaching activity at I^o workshop of Commissione Strumentazione e Calcolo of the Associazione Italiana di Cristallografia (AIC). Workshop title: Analisi di fase qualitativa e quantitativa per applicazioni industriali e ambientali. University of Milan. 16 February, 2016. Milan-Italy. (<https://workshopaic.wordpress.com/il-programma-della-giornata/>)

Teaching activity at: 'incontro di orientamento in uscita, la prospettiva Scientifica'. Liceo Statale Classico Linguistico Scienze Umane 'F. De Sanctis', 23.05.2014, Trani, Italy.

Teaching activity at: Determinazione strutturale dei principi attivi (proteine) isolate da lopiceti. Accordo di programma quadro in materia di ‘Ricerca Scientifica’ nella Regione Puglia, organized by Consorzio Interuniversitario Reattività Chimica e Catalisi (CIRCC), University of Bari. Titolo of lessons: 1) tecniche diffrattometriche da cristallo singolo II, 2) tecniche diffrattometriche da polveri cristalline II, 3) utilizzo del software EXPO2009. 23-25/11/2009

Teaching activity at ‘Structure determination from powder diffraction data’ school. Title of lesson: Structure solution by powder diffraction with the EXPO program. Paul Sherrer Institute, Villigen, Switzerland. 18-22 June 2008. (<http://www.cristallografia.org/contenuto/report-sulla-scuola-congiunta-aic-psi-sscr-sgk/178>)

Teaching activity for the Project of the Puglia Region: ACTIBIOMAR. Title of lessons: 1) dal profilo di diffrazione X da polveri cristalline alla soluzione strutturale. Introduzione, 2) dal profilo di diffrazione X da polveri cristalline alla soluzione strutturale, 3) il programma EXPO per la soluzione strutturale. I, 4) il programma EXPO per la soluzione strutturale II. 26-29/02/2008.

Teaching activity at ‘Diffrazione da materiali policristallini’ school. Title of lesson: Analisi di materiali policristallini mediante tecniche di diffrazione. 26-30 June 2006, Martina Franca, Italy.

Teaching activity for the research project entitled: “TECSIS: Diagnostic Technologies and intelligent systems for the development of archeological parks in the south of Italy”. June, 2004, Bari-Italy.

Teaching activity at "Diffraction by polycrystal materials: Recent Developments of the Resolution Techniques and Structure Refinement” school. Title of lesson: Il package EXPO. 8-12 September, 1998, Perugia, Italy.

At the end of the degree courses held by Prof. C. Giacobbo, Ordinary Professor of Mineralogy at the University of Bari, Dr. Rizzi carried out experimental sessions by using the instrumentation at the Institute of Crystallography every year since 1995.

CONGRESS/WORKSHOP/SCHOOL ORGANIZATION:

Member of the Scientific and organizing committee of the international workshop: EXPO&more International Workshop. 29 September-3 October, 2019. Politecnico of Bari, Bari, Italy. (<http://www.ba.ic.cnr.it/expo-more-workshop2019/>)

Member of the Scientific and organizing committee of the national workshop: Microscopi Giganti: introduzione alle applicazioni delle grandi sorgenti. 13 May, 2019. University of Milan, Italy. (<https://microscopigiganti.wordpress.com/>)

Member of the Scientific committee of the AIC International School: Powder diffraction: theory, software and applications. 29 August, 2 September 2018. Bari, Italy.

Member of the Scientific committee of the 3rd joint AIC-SILS Conference. 25-28 June, 2018. Rome, Italy. (<http://www.cristallografia.org/congresso2018/eng/detail.asp?idn=3090>)

Member of the Scientific and organizing committee of the national workshop: Analisi quantitativa di fasi cristalline: metodi tradizionali e chemiometria a confronto. 6 February, 2018. University of Bologna, Italy. (<https://chemiometria2017.wordpress.com/>)

Member of the Scientific and organizing committee of the national workshop: L'esperimento flessibile: studi di diffrazione in condizioni non ambientali. 22 February, 2017. University of Bari, Italy. (<https://workshopaic2.wordpress.com/>)

Member of the Local Organizing committee of the 15th European Powder Diffraction Conference (EPDIC15). 12-15 Giugno, 2016. Bari, Italy.

Member of the Scientific and organizing committee of the national workshop: Analisi di fase qualitativa e quantitativa per applicazioni industriali e ambientali. University of Milan, 16 February, 2016, Milan, Italy. (<https://workshopaic.wordpress.com/>)

Member of the Scientific and organizing committee of International EXPO/SIR Workshop. Dep. of Scienze della Terra e Geoambientali, University of Bari, 10-11 June 2014.

Organizer of the workshop: Studio cristallografico di radiotraccianti PET in valutazione clinica per la diagnosi precoce dell'Alzheimer, Fondazione cassa di risparmio di Puglia, 5 June 2013, Bari, Italy.

Member of the Local Organizing committee of the International school: Synthesis and characterization of novel Nano-Sized inorganic materials. Dep. Of chemistry, University of Bari, Italy. 17-22 June, 2012.

Member of the Local Organizing committee of International Workshop PHARE2009: a modular workshop on global Phase Retrieval. 15-24 April 2009. Martina Franca (TA) Italy. (<http://phare.ic.cnr.it>).

Member of the Local Organizing committee of the XXX National Congress AIC (Italian Association of Crystallography) held in September 2000 at Martina Franca (Taranto), Italy.

Member of the Local Organizing committee V SIR Workshop named: "SIRWARE96: Single Crystal and Powder Data X-Rays, neutrons and electrons" at the Geomineralogical Department in Bari, 17-20 December, 1996

Dr. Rizzi is thanked by Prof. C. Giacovazzo in his publication for the International Review *Acta Crystallographica* (1996), A52, 331-339, entitled "Topical Review: Direct Methods and Powder Data: State of the Art and Perspectives", which sums up his work and his collaborators work, until 1996, on the treatment of powder diffraction data aiming at solving and refining crystal.

Dr. Rizzi is thanked by Prof. C. Giacovazzo in his book *Direct Phasing in Crystallography Fundamentals and Applications* (1998). Oxford University Press.

BOOKS:

Author in chapter:

1) Title: Analisi Strutturale II: Tecniche di Global Optimization. In: Analisi di Materiali policristallini mediante tecniche di diffrazione, Editor: N. Masciocchi, A. Gagliardi. Insubria University Press. June 2007, pp. 109-119. ISBN 978-88-95362-04-5.

Co-author in chapters:

- 1) Title: Solving crystal structures using reciprocal-space methods, in: International Tables for Crystallography, Volume H, Powder Diffraction. (2019). Editors: C.J Gilmore, J.A. Kaduk , H. Schenk. ISBN: 978-1-118-41628-0
- 2) Title: Indexing a powder diffraction pattern, in: International Tables for Crystallography, Volume H, Powder Diffraction. (2019). Editors: C.J Gilmore, J.A. Kaduk , H. Schenk. Pp. 270-281. ISBN: 978-1-118-41628-0
- 3) Title: Methods of Crystallography: powder X-ray diffraction, in: Mineralogical Crystallography. Serie: EMU notes in Mineralogy. 2017. Vol. 17, 79-138.
- 4) Title: Single crystal and powder XRD techniques: an overview, in: Inorganic Micro- and Nanomaterials Synthesis and Characterization. Edited by Dibenedetto, Angela/Aresta, Michele. DE GRUYTER, 2013. Pages: 57–92. ISBN (Online): 9783110306873. DOI (Chapter): [10.1515/9783110306873.57](https://doi.org/10.1515/9783110306873.57). DOI (Book): [10.1515/9783110306873](https://doi.org/10.1515/9783110306873)
- 5) Title: Crystal Structure Determination, in: Powder Diffraction: Theory and Practice. RSC Publishing. 2008, pp. 227-265. ISBN 978-0-85404-231-9.
- 6) Title: Direct Methods in powder diffraction applications, in Structure Determination from powder diffraction data. 2002. Oxford University Press, ISBN 0-19-850091-2, pp. 190-201.

Editor of the Newsletter N. 35 of the Commission on Powder Diffraction (CPD) of the International Union of Crystallography (IUCr). June 2007. ISSN 1591-9552. (<http://www.iucr-cpd.org/Newsletters.htm>).

REFEREE OF INTERNATIONAL REVIEWS:

Zeitschrift für Kristallographie, Journal of Applied Crystallography, Powder Diffraction, Journal of Molecular Structure.

ACADEMY MEMBERSHIPS:

2017 member of the ‘Commissione Strumentazione e Calcolo’ of the Associazione Italiana di Cristallografia (AIC). (2018-2020).

2015 Chair of the ‘Commissione Strumentazione e Calcolo’ of the Associazione Italiana di Cristallografia (AIC). 2015-2017. (<http://www.cristallografia.org/contenuto/commissioni-aic/1816>).

2011 elected member of the International Centre for Diffraction Data (ICDD), 12 Campus Boulevard, Newtown Square, Philadelphia, USA. 2011.

2011 elected Member of the *Commission on Powder Diffraction* (CPD) of the International Union of Crystallography (IUCr); she will be in office until August 2014.

2008 elected Member of the *Commission on Powder Diffraction* (CPD) of the International Union of Crystallography (IUCr); she will be in office until August 2011.

2005 elected Member of the *Commission on Powder Diffraction* (CPD) of the International Union of Crystallography (IUCr); she will be in office until August 2008.

PROJECTS PARTECIPATION:

2018 - 2019, Dr. Rizzi takes part in the Project: bilateral agreements CNR/MOES (Albania). Title: “New nanomaterials for applications in conservation and consolidation of stony materials part of Culture Heritage in Albania”

2012 - 2013, Dr. Rizzi was scientific manager of the Project: Fondazione cassa di Risparmio di Puglia (FCRP). Title: Studio cristallografico di radiotraccianti PET in valutazione clinica per la diagnosi precoce dell’Alzheimer. (1 October 2012-30 September 2013).

2007 - 2013, Dr. Rizzi takes part in the Project: BANDO PON – Programma Operativo Nazionale Ricerca e Competitività 2007-2013 Title: “IT@CHA- Tecnologie Italiane per applicazioni avanzate nei Beni Culturali”. Codice Progetto: PON01_00625. 2011 - 2014.

2010 - 2012, Dr. Rizzi takes part in the Project: FIRB- program 'Futuro in Ricerca'. Microtecnologie e moderne tecniche spettroscopiche e diffrattometriche per lo sviluppo e la razionalizzazione di processi di sintesi stereoselettivi ecosostenibili.

2008 - 2010, Dr. Rizzi takes part in the Project: CNR: RSTL, DG.RSTL.027.001 titled: Metodologie innovative per la soluzione strutturale di materiali policristallini.

2008 - 2010, Dr. Rizzi takes part in the Project: PRIN-MUR (National Project of Research) titled: Applicazioni delle tecniche MAD e sviluppo di nuovi algoritmi di calcolo per migliorare il processo di risoluzione delle strutture cristalline attraverso i dati di diffrazione da polveri.

2004 - 2007, Dr. Rizzi took part in the Project: MIUR, titled: Global Phasing: dalle polveri alle Macromolecole (D.M. n. 1105 del 10/2002, Rif. Progetto n.97).

2003 - 2007, Dr. Rizzi took part in the Project: BIO-DISERBA, titled dal titolo: Ricerca industriale per la realizzazione di bio/sensori per il monitoraggio dell'inquinamento da diserbanti in aree agricole, industriali ed urbane, e per l'individuazione della metodologia di diserbo a minor impatto ambientale (D.M. 593/2000 art. 5/6; rif. Prog. N. 6932).

2002 - 2006, Dr. Rizzi took part in the Project: MIUR N. 12905 titled: *TECSIS: Tecnologie Diagnostiche e sistemi intelligenti per lo sviluppo di parchi archeologici del Sud d'Italia* (D.M. 593/2000; rif.prog.N. 12905).

1996 - 2000, Dr. Rizzi took part in the Project Finalizzato Beni Culturali (title of the research: "Quantitative Analysis by Diffraction Data: Development of Methods and Realization of a Computing Program").

SCIENTIFIC PUBLICATIONS LIST:

- 1) F.M. Perna, A. Falcicchio, A. Salomone, R. Rizzi, G. Hamdoun, G. Barozzino-Consiglio, D. Salke, H. Oulyadi, V. Capriati (2019). *First Direct Evidence of an ortho-Lithiated Aryloxetane: Solid and Solution Structure, and Dynamics*. Chemical Science (Submitted)
- 2) A. Altomare, R. Rizzi, M. Rossi, A. El Khouri, M. Elaatmani, G. Della Ventura, F. Capitelli (2019). *New $Ca_{2.90}(Me^{2+})_{0.10}(PO_4)_2$ β -tricalcium phosphates with $Me^{2+}=Mn, Ni, Cu$: synthesis and crystalchemistry*. Crystals (In Press)
- 3) N. Belkafouf, F. Baara, A. Altomare, R. Rizzi, A. Chouaih, A. Djafri, F. Hamzaoui (2019). *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

- 4) R. Rizzi, F. Capitelli, G. Della Ventura, W. Hami, N. Corriero, M. Rossi, A. Altomare (2019). *Structural and spectroscopical properties of the novel AgTbP₂O₇ phosphor material*. *Z. für Kristallographie- Crystalline Materials*. <https://doi.org/10.1515/zkri-2018-2138>
- 5) A. Altomare, N. Corriero, C. Cuocci, A. Falcicchio, A. Moliterni, R. Rizzi (2018). *OChemDB: the free on-line Open Chemistry Database portal for searching and analysing crystal structure information*. *J. Appl. Cryst.* 51, 1229-1236. DOI:<https://doi.org/10.1107/S1600576718008166>
- 6) W. Hami, A. Zegzouti, M. Daoud, D. Zambon, M. Rossi, A. Vergara, F. Capitelli, A. Altomare, R. Rizzi (2018). *Synthesis, structural characterization and luminescent properties of Tb³⁺-doped AgLaP₂O₇ phosphors*. *Ceramic International*, 44, 19184-19190.
- 7) A. Altomare, F. Capitelli, N. Corriero, C. Cuocci, A. Falcicchio, A. Moliterni, R. Rizzi (2018). *The Rietveld refinement in the EXPO software: a powerful tool at the end of the elaborate crystal structure solution pathway*. *Crystals*, Vol. 8, Issue 5, 1-8.
- 8) A. Altomare, N. Corriero, C. Cuocci, A. Falcicchio, A. Moliterni, R. Rizzi (2018). *Direct space solution in the EXPO package: the combination of the HBB-BC algorithm with GRASP*. *J. Appl. Cryst.*, **51**, Part 2, 505-513.
- 9) A. Altomare, C. Cuocci, A. Moliterni, R. Rizzi, N. Corriero and A. Falcicchio (2017). *The Shift_and_Fix procedure in EXPO: Advances for solving ab-initio crystal structure by powder diffraction data*. *J. Appl. Cryst.*, 50, 1812-1820. <https://doi.org/10.1107/S1600576717015400>
- 10) A. El Khouri, M. Elaattmani, G. Della Ventura, A. Sodo, R. Rizzi, M. Rossi, F. Capitelli (2017). *Synthesis, structure refinement and vibrational spectroscopy of new rare-earth tricalcium phosphates Ca₉RE(PO₄)₇ (RE = La, Pr, Nd, Eu, Gd, Dy, Tm, Yb)*. *Ceramics International*, Vol. 43, Issue 17, 15645-15653. <https://doi.org/10.1016/j.ceramint.2017.08.121>
- 11) A. Altomare, N. Corriero, C. Cuocci, A. Falcicchio, A. Moliterni, R. Rizzi, M. Saviano (2017). *La sfida della soluzione strutturale da polveri in Cristallografia*. *La Chimica & l'Industria*. Anno I, Numero 2, Marzo/Aprile 2017, 28-33. DOI:<http://dx.medra.org/10.17374/CI.2017.99.2.28>
- 12) M. Rossi, R. Rizzi, A. Vergara, F. Capitelli, A. Altomare, F. Bellatreccia, M. Saviano, M.R. Ghiara (2017). *Compositional variation of turquoise group minerals from the historical collection of the Real Museo Mineralogico of the University of Naples*. *Mineralogical Magazine*. Vol 81(6), 1405-1429. DOI:<https://doi.org/10.1180/minmag.2017.081.055>
- 13) A. Altomare, N. Corriero, C. Cuocci, A. Falcicchio, A. Moliterni, R. Rizzi (2017). *Main features of QUALX2.0 software for qualitative phase analysis*. *Powder Diffraction*. Vol. 32, Issue S1, S129-S134. DOI: <https://doi.org/10.1017/S0885715617000240>
- 14) R. Rahmani, Ah. Djafri, A. Djafri, A. Chouaih, Ay. Djafri, F. Hamzaoui, R. Rizzi, A. Altomare (2017). *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, Vol. 1143, 259-264. <http://dx.doi.org/10.1016/j.molstruc.2017.04.091>
- 15) S. Vankova; D. Versaci; J. Amici; A. Ferrari; R. Rizzi; A. Altomare; S. Guastella; C. Francia; S. Bodoardo, N. Penazzi (2017). *A high-capacity cathode based on silicates material for advanced lithium batteries.* Journal of Solid State Electrochemistry. DOI 10.1007/s10008-017-3663-7
 - 16) B. Gabriele, L. Veltri, G. Grasso, R. Rizzi and R. Mancuso (2016). *Palladium-Catalyzed Carbonylative Multicomponent Synthesis of Functionalized Benzimidazothiazoles.* Asian Journal of Organic Chemistry. Accettato come VIP. doi: 10.1002/ajoc.201600042.
 - 17) G. Balassone, F. Bellatreccia, L. Ottolini, A. Mormone, C. Petti, M. Ghiara, A. Altomare, M. Saviano, R. Rizzi and L. D'Orazio (2016). *Sodalite-group minerals from Somma-Vesuvius volcano (Naples, Italy): a combined EPMA, SIMS and FTIR crystal chemical study.* Canadian Mineralogist, 53(6).
 - 18) A. Altomare, N. Corriero, C. Cuocci, A. Falcicchio, A. Moliterni, R. Rizzi. (2015). *EXPO software for solving crystal structures by powder diffraction data: methods and application.* Crystal Research & Technology. 737-742. doi: 10.1002/crat.201500024.
 - 19) A. Altomare, N. Corriero, C. Cuocci, A. Falcicchio, A. Moliterni, R. Rizzi. (2015). *QUALX2.0: a qualitative phase analysis software using the freely available database POW_COD.* J. Appl. Cryst. 48, 598-603. doi: 10.1107/S1600576715002319.
 - 20) A. Altomare, N. Corriero, C. Cuocci, A. Falcicchio, A. Moliterni, R. Rizzi (2015). *Caratterizzazione di materiali cristallini di interesse per i Beni Culturali mediante diffrazione di raggi x da polveri.* Proceedings of the International Conference, Gioia del Colle, Ottobre 21-22, 2014. a cura di Andrea Celestino Montanaro. ISBN 978-88-8080-186-3
 - 21) A. Altomare, E. Capparelli, A. Carrieri, N.A. Colabufo, A. Moliterni, R. Rizzi, D. Siliqi. (2014). *Crystallographic study of PET radiotracers in clinical evaluation for early diagnosis of Alzheimer.* Acta E, 70. o1149-o1150. doi: 10.1107/S1600536814021400.
 - 22) M. Zenzola, L. Degennaro, P. Trinchera, L. Carroccia, A. Giovine, G. Romanazzi, P. Mastroilli, R. Rizzi, L. Pisano, R. Luisi. (2014). *Harnessing the ortho-Directing Ability of the Azetidine Ring for the Regioselective and Exhaustive Functionalization of Arenes.* Chem. Eur. J., **20**, 12190–12200. doi: 10.1002/chem.201403141.
 - 23) G. Balassone, V. Kahlenberg, A. Altomare, A. Mormone, R. Rizzi, M. Saviano, N. Mondillo (2014). *Nephelines from the Somma-Vesuvius volcanic complex (Southern Italy): crystal*

- chemical, structural and genetic investigations*. Mineralogy and petrology, 108, 71-90. DOI: 10.1007/s00710-013-0290-6. doi: 10.1007/s00710-013-0290-6.
- 24) A. Altomare, C. Cuocci, C. Giacovazzo, A. Moliterni, R. Rizzi, N. Corriero, A. Falcicchio (2013). *EXPO2013: a kit of tools for phasing crystal structures from powder data*. J. Appl. Cryst., **46**, 1231-1235. doi: 10.1107/S0021889813013113.
- 25) A. Altomare, N. Corriero, C. Cuocci, A. Moliterni, R. Rizzi (2013). *The Hybrid Big Bang-Bing Crunch method for solving crystal structure from powder diffraction data*. J. Appl. Cryst., **46**, Part 3, 779-787. doi: 10.1107/S0021889813010571.
- 26) A. Altomare, C. Cuocci, A. Moliterni, R. Rizzi (2013). *RAMM: a new Random Model based Method for solving ab initio crystal structure by EXPO package*. J. Appl. Cryst., **46**, 476-482. doi: 10.1107/S0021889813002227.
- 27) A. Altomare, C. Cuocci, C. Giacovazzo, A. Moliterni, R. Rizzi (2012). *COVMAP: a new algorithm for structure model optimization in the EXPO package*. J. Appl. Cryst., **45**, 789-797. doi: 10.1107/S002188981201953X.
- 28) Maria Grazia Perrone, Paola Vitale, Paola Malerba, Angela Altomare, Rosanna Rizzi, Antonio Lavecchia, Carmen Di Giovanni, Ettore Novellino, and Antonio Scilimati (2012). *Diarylheterocycles core ring feature effect in selective COX-1 inhibition*. Chem. Med. Chem., **7**, 629-641. doi: 10.1002/cmdc.201100530.
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