

Alicia Manjón Sanz, Ph. D.Email: manjonsanzam@ornl.govORCID: <https://orcid.org/0000-0002-7091-3484>**EDUCATION**

- 2015 **Ph.D.** in Chemistry with specialization in Synthesis, Structure and Properties of Bismuth Based Electroceramic Perovskites, **The University of Liverpool**, United Kingdom.
Supervisor: Matthew Rosseinsky.
- 2008 **Licenciatura** in Chemistry, **Universidad Autónoma de Madrid**, Spain.

PROFESSIONAL APPOINTMENTS / EMPLOYMENT

- 2020 – **Instrument Scientist**, Neutron Scattering Division, **Oak Ridge National Laboratory**, United States.
- 2018 – 2020 **Postdoctoral Research Associate**, Experiments Division, **CELLS**, ALBA Synchrotron Light Facility, Spain.
- 2015 – 2018 **Postdoctoral Scholar**, Department of Chemistry, **Oregon State University**, United States.
Advisor: Michelle Dolgos.
- 2012 – 2014 **Research Fellow**, Structural Materials Science Laboratory, **RIKEN**, SPring-8, Japan.
Supervisor: Masaki Takata.
- 2009 – 2010 **Industrial Researcher**, Institute of Catalysis and Petrochemistry, **Consejo Superior de Investigaciones Científicas (CSIC)**, Spain.
Supervisors: Manuel Sánchez-Sánchez and Enrique Sastre de Andrés.

AWARDS / FELLOWSHIPS

- 2024 Neutron Sciences Division Award, category: “Best experiment”.
- 2024 – 2026 Oak Ridge National Laboratory Early Career Development Program (\$300K).
- 2023 Neutron Sciences Division Award, category: “Doing it Better 2023”.
- 2016 Gordon Research Conference Travel Award (\$500).
- 2012 – 2014 International Program Associate fellowship, RIKEN Project.
- 2011 – 2012 Marie Curie Early Stage Researcher fellowship, SOPRANO Project.
- 2009 – 2010 Funding from Destilerías Muñoz Gálvez S.A. (company).

FUNDING

“Materials for Energy and Sustainability: Structure, properties, and materials in action”, **Alicia Manjón Sanz (P.I)**, Oak Ridge National Laboratory, (\$300K) 2024-2026.

“Structural characterization of piezoelectric materials using high pressure diffraction and total scattering techniques”, **Alicia Manjón Sanz** (P.I.), Catalin Popescu, François Fauth, ALBA, (15K€) 2019-2021.

PUBLICATIONS

* Denotes corresponding author

(42) Nagamalleswari Katragadda, Soham Kumar, P. Tulasirao, Weiguo Zhang, P. Shiv Halasyamani, Jyotika Nanda, Gopal K. Pradhan, **Alicia María Manjón-Sanz**, Pranab Mandal “The structural and electrical properties of BiFeO₃ – Bi_{0.5}K_{0.5}TiO₃ – BaTiO₃ based solid solutions at the morphotropic phase boundary” *Materials Today Communications*, 47 (2025) 113030.

(41) P. Neenu Lekshmi; E. Lora da Silva; P. Rocha-Rodrigues; John S. O. Evans; Joao Horta Belo; Pedro Silva de Sousa; **Alicia María Manjón-Sanz**; António M. dos Santos; Armandina M. L. Lopes; Joao Pedro Araújo “Structural Distortions and Uniaxial Negative Thermal Expansion in the Polar Dion–Jacobson Oxide RbNdTa₂O₇” *Chemistry of Materials*, XXX (2025) XXX.

(40) Jihun Roh; Joowon Kim; Hyungjin Lee; Namgyu Do; Jeyne Lyoo; **Alicia María Manjón-Sanz**; Ginga Kitahara; Shuki Torii; Seung-Tae Hong “Moisture-Stable Argyrodites with High Ionic Conductivity via Crystal Structure Engineering: Li_{6+x}M_xAs_{1-x}S₅I (M = Ge, Sn)” *Chemistry of Materials*, 37 (2025) 10, 3720-3732.

(39) B. N. Richtig, **A. Manjón-Sanz*** and M. Dolgos “Shifting and tilting towards enhanced piezoelectricity in high-temperature ceramics: an average structure study of (1 – x)BiFe_{2/8}Ti_{3/8}Mg_{3/8}O₃–xPbTiO₃ through X-ray and neutron diffraction” *Acta Crystallographica Section B*, 81 (2025) 337-349.

(38) Bryce G Mullens, Frederick P Marlton, Matilde Saura-Múzquiz, Michelle Everett, Cheng Li, **Alicia M Manjón-Sanz**, Matthew G Tucker, Frederic Poineau, James Louis-Jean, Supratik Mukherjee, Subrata Mondal, Ganapathy Vaitheeswaran, Brendan J Kennedy “The Local-Scale Origin of Ferroic Properties in BiVO₄” *Journal of the American Chemical Society*, 147 (9) (2025) 7840-7848.

(37) Jihun Roh, Saleh Gholam, Namgyu Do, **Alicia Manjon-Sanz**, Joke Hadermann, Seung-Tae Hong “Li₂₁Ge₈P₃S₃₄: New Lithium Superionic Conductor with Unprecedented Structural Type” *Angewandte Chemie-International Edition*, 64 (2025) e202500732.

(36) Francisco Rubio-Sepúlveda; **Alicia Manjón-Sanz**; Laura Cañadillas-Delgado; José Alberto Rodríguez-Velamazán; Lukas Keller; Denis Sheptyakov; Diego Venegas-Yazigi; Verónica Paredes-García; Javier Campo “Magneto-Structural Correlations in Coordination Polymers Based on Formate Ligand and Transition Metal Cations” *Inorganic Chemistry*, 64 (2025) 9758-9771 (**Journal Cover**).

(35) Zhang, L.; Cheng, Z.; Lu, g.; Wang, Y.; **Manjón-Sanz, A.**; Cong, R.; Yang, T.; Jiang, P., “Stuffed Tridymites A'A''Ga₄O₈ (A' = Ba, Sr, Ca; A'' = Pb): Integrating Stereochemically Active Lone Pairs with A-Site Ordering to Design a Polar Structure Featuring Distinctive Ring Topology” *Chemistry of Materials*, 37 (2025) 3, 1273-1283.

(34) Mandujano, H. C.; Zavalij, P. Y.; **Manjón-Sanz, A.**; Cao, H.; Rodriguez, E. E., “Coexistence of commensurate and incommensurate antiferromagnetic ground states in Co_xNbSe₂ single crystal” *Physical Review Materials*, 9 (2025) 014403.

- (33) Pramanik, T.; Htet, C. S.; **Manjón-Sanz, A.***; Liu, J.; Ullah, S.; Kong, J.; Babori, C.; Brezard-Oudot A.; Daniel, L.; Mixture, S.; Pramanick, A.*, “An atomistic structural description of the ferroelectric polar phase involving non-coplanar cation displacements” *Scripta Materialia*, 256 (2025) 116426.
- (32) Mullens, B. G.; Marlton, F. P.; Saura-Múzquiz, M.; Everett, M.; Li, C.; **Manjón-Sanz, A.**; Tucker, M. G.; Poineau, F.; Louis-Jean, J.; Mukherjee, S.; Mondal, S.; Vaitheeswaran, G.; Kennedy, B. J., “Toxic, radioactive, and disordered: a total scattering study of TiTeO_4 ” 26 (2024) *Physical Chemistry Chemical Physics*, 47, 29270-29282.
- (30) Roh, J.; Kim, H.; Lee, H.; Bu, H.; **Manjón-Sanz, A.**; Kim, H.; Hong, S. T., “Unraveling Polymorphic Crystal Structures of Li_4SiS_4 for All-Solid-State Batteries: Enhanced Ionic Conductivity via Aliovalent Sb Substitution” *Chemistry of Materials*, 36 (2024) 14, 6973-6984
- (29) Chieh Chiu, N.; Gładysiak, A.; Yadav, A. K.; Abreu-Jaureguí, C.; **Manjón-Sanz, A.**; Li, C.; Huang, H.; Silvestre-Albero, J.; Stylianou, K. C. “Gas Adsorption Snapshots in Metal–Organic Frameworks Unveil the Impact of Pore Geometry on Hydrogen Storage” *ACS Materials Letters*, 6 (2024) 9, 4098-4105. (**Journal Cover**)
- (28) Mandujano, C. H.; Saucedo Salas, G.; Li, T.; Zavalij, P. Y.; **Manjón-Sanz, A.**; Butch, N. P.; Rodriguez, E. E., “Itinerant -type antiferromagnetic order in $\text{Co}_{1/4}\text{TaSe}_2$ ” *Physical Review B*, 110 (2024) 14, 144420.
- (27) Moy, A. C.; **Manjón-Sanz, A.**; Caracciolo, T.; Maxim V. Lobanov, M. V.; Veith, G. V.; Sakamoto, J.; “Effects of Al Concentration on the Structure and Conductivity of $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ ” *Journal of Materials Chemistry A*, 12 (2024) 41, 28193-28210.
- (26) Surta, T. W.; Keeney, L.; **Manjón-Sanz, A.**; Crawford, C.; Morscher, A.; Daniels, L. M.; Claridge, J. B.; Bell, A. J.; Alaria, J.; Rosseinsky, M. J., “Separation of K^+ and Bi^{3+} displacements in a Pb-free, monoclinic piezoelectric at the morphotropic phase boundary” *Acta Materialia*, 265 (2024) 15, 119594-1 – 119594-13.
- (25) Htet, C. S.; **Manjón-Sanz, A.**; Liu, J.; Babori, C.; Barati, M.; Marlton, F.; Daniel, L.; Jørgensen, M. R. V.; Pramanick, A., “Local structural mechanism for enhanced energy storage properties in heterovalent doped NaNbO_3 ceramics” *J. Eur. Ceram. Soc.*, 44, (2023) 3, 1597-1609.
- (24) Roh, J.; Do, N.; **Manjón-Sanz, A.**; Hong, S. T. “ Li_2GeS_3 : Lithium Ionic Conductor with Unprecedented Structural Type”, *Inorganic Chemistry*, 62 (2023) 39, 15856-15863.
- (23) Katragadda, N.; Mandal, P.; Yanda, P.; Sundaresan, A.; Kaushik, S. D.; Zhang, W.; Halasyamani, P. S., “Room temperature Polar and Weak-ferromagnetic Oxide with Low Dielectric Loss”, *Mater. Sci. Eng. B.*, 298, (2023) 116869-1 – 116869-7.
- (22) Brown, A. J.; Avdeev, M.; **Manjón-Sanz, A.**; Brand, H. E. A.; Ling, C. D., “Competing Magnetic Interactions and the Role of Unpaired 4f Electrons in Oxygen-Deficient Perovskites $\text{Ba}_3\text{RFe}_2\text{O}_{7.5}$ ($\text{R} = \text{Y}, \text{Dy}$)”, *Inorganic Chemistry*, 62, (2023) 17, 6786-6793.
- (21) Kong, J.; **Manjón-Sanz, A.**; Liu, J.; Marlton, F.; Lo Wing, T.; Lei, D.; Jørgensen, M. R. V.; Pramanick, A., “Scaling behavior of order parameters for the Hybrid Improper Ferroelectric $(\text{Ca}, \text{Sr})_3\text{Ti}_2\text{O}_7$ ” *Physical Review B*, 107 (2023) 224103-1 – 224103-8.
- (20) Htet, C. S.; **Manjón-Sanz, A.**; Liu, J.; Kong, J.; Marlton, F.; Nayak, S.; Jørgensen, M. R. V.; Pramanick, A., “Effect of local structural distortions on antiferroelectric-ferroelectric phase transition in dilute solid-solutions of $\text{K}_x\text{Na}_{1-x}\text{NbO}_3$ ”, *Inorganic Chemistry*, 61, (2022) 50, 20277-20287.

- (19) Gurieva, G.; Rotaru, V.; Ernits, K.; Siminel, N.; **Manjón-Sanz, A.**; Kirkham, M.; Perez-Rodrigues, A; Guc, M.; Meissner, D.; Schorr, S., "...to grind or not to grind? Cu/Zn disorder in $\text{Cu}_2\text{ZnSn}(\text{S}_x\text{Se}_{1-x})_4$ monograins", *Solar Energy Materials and Solar Cell*, 248, (2022) 1-10.
- (18) Pastoor, K. J.; Miskowiec, A. J.; Niedziela, J. L.; Christian, J. H.; Foley, B. J.; Isbill, S. B.; Shields, A. E.; **Manjón-Sanz, A.**; Nykwest, E. C.; Spano, T. L.; Wellons, M. S.; Shafer, J. C.; Jensen, M. P., "Structural Characterization of Uranium Tetrafluoride Hydrate ($\text{UF}_4 \cdot 2.5\text{H}_2\text{O}$)", *The Journal of Physical Chemistry C*, 126, (2022) 31, 13256-13267.
- (17) Saura-Múzquiz, M.; Marlton, F.; Mullens, B.; **Manjón-Sanz, A.**; Neuefeind, J. C.; Everett, M.; Brand, H. E. A.; Mondal, S.; Vaitheeswaran, G.; Kennedy, B. J., "Understanding the re-entrant phase transition in a non-magnetic scheelite", *Journal of the American Chemical Society*, 144 (2022) 34, 15612-15621.
- (16) Htet, C. S.; Nayak, S.; **Manjón-Sanz, A.**; Liu, J.; Kong, J.; Sørensen, D. R.; Marlton, F.; Jørgensen, M. R. V.; Pramanick, A., "Atomic structural mechanism for ferroelectric-antiferroelectric transformation in perovskite NaNbO_3 ", *Physical Review B*, 105 (2022) 17, 174113-1 – 174113-13.
- (15) **Manjón-Sanz, A.**; Surta, T. W.; Mandal, P.; Corkett, A. J.; Niu, H.; Nishibori, E.; Takata, M.; S; Claridge, J. B.; Rosseinsky, M. J., "Complex Structural Disorder in a Polar Orthorhombic Perovskite Observed through the Maximum Entropy Method/Rietveld Technique ", *Chemistry of Materials*, 34 (2022) 1, 29-42.
- (14) Molina Esquinas, A.; **Manjón-Sanz, A.***; Sánchez-Sánchez, M., "On the contribution of Pair Distribution Function (PDF) to the characterization of nanocrystalline MOFs: The case of M-MOF-74", *Microporous and Mesoporous Materials*, (2021) 319, 110973.
- (13) Culberston, C; **Manjón-Sanz, A.**; Dolgos, M. R., "Order-disorder behavior in lead-free piezoelectric $\text{BaZr}_{0.2}\text{Ti}_{0.8}\text{O}_3$ - $x\text{Ba}_{0.7}\text{Ca}_{0.3}\text{TiO}_3$ determined by neutron total scattering", *Materials Research Bulletin*, (2021) 135, 111124 (1-7).
- (12) Sánchez-Ahijón, E.; Rainer Schmidt, R.; Marín-Gamero, R.; Molero-Sánchez, B.; Ávila-Brandé, D.; **Manjón-Sanz, A.**; Fernández-Díaz, M. T.; Morán, E.; Prado-Gonjal, J. "BaFe_{0.125}Co_{0.125}Zr_{0.75}O_{3-δ}: a highly promising mixed ionic-electronic conductor for intermediate temperature solid oxide fuel cells", *Journal of Materials Chemistry A*, 8 (2020), 3413-3420.
- (11) **Manjón-Sanz, A.**; Culberston, C; Hou D.; Jones, J. L.; Dolgos M. R., "Total scattering and diffraction studies of lead-free piezoelectric $\text{BaZr}_{0.2}\text{Ti}_{0.8}\text{O}_3$ - $x\text{Ba}_{0.7}\text{Ca}_{0.3}\text{TiO}_3$ deconvolute intrinsic and extrinsic contributions to electromechanical strain", *Acta Materialia*, 171 (2019), 79-91.
- (10) **Manjón-Sanz, A.**; Dolgos, M. R., "Applications of Piezoelectrics: old and new", *Invited review article, Chemistry of Materials*, 30, (2018), 8718-8726.
- (9) McQuade, R.; Rowe, T.; **Manjón-Sanz, A.**; de la Puente, L.; Dolgos, M. R., "An investigation into group 13 (Al, Ga, In) substituted ($\text{Na}_{0.5}\text{Bi}_{0.5}$) TiO_3 - BaTiO_3 (NBT-BT) lead-free piezoelectrics", *Journal of Alloys and Compounds*, 762, (2018), 378-388.
- (8) Surta, T. W.; **Manjón-Sanz, A.**; Qian, E. K.; Dolgos, M. R., "Low Temperature Synthesis Route and Structural Characterization of ($\text{Bi}_{0.5}\text{A}_{0.5}$)($\text{Sc}_{0.5}\text{Nb}_{0.5}$) O_3 ($\text{A} = \text{K}^+$ and Na^+) Perovskites", *Inorganic Chemistry Frontiers*, 5, (2018), 1033-104.

- (7) Surta, T. W.; **Manjón-Sanz, A.**; Qian, E. K.; Mansergh, R. H.; Tran, T. T.; Fullmer, L. B.; Dolgos, M. R., “Dielectric and Ferroelectric Properties in Highly Substituted Aurivillius Phases- $\text{Bi}_2\text{Sr}(\text{A})\text{TiNb}_2\text{O}_{12}$ ($\text{A} = \text{Ca}^{2+}, \text{Sr}^{2+}, \text{Ba}^{2+}$)”, *Chemistry of Materials*, 29, (2017), 7774-7784.
- (6) **Manjón-Sanz, A.**; Berger, C.; Dolgos, M. R., “Understanding the Structure-property Relationships of the Ferroelectric to Relaxor Transition of the $x\text{BiInO}_3-(1-x)\text{BaTiO}_3$ Lead-free Piezoelectric System”, *Journal of Materials Science*, 52, (2017), 5309-5323.
- (5) Mandal, P.; **Manjón-Sanz, A.**; Corkett, A. J.; Comyn, T. P.; Dawson, K.; Stevenson, T. P.; Bennett, L. F.; Henrichs, A.; Bell, A. J.; Nishibori, E.; Takata, M.; Marco Z.; Dolgos, M. R.; Adem, U.; Wan, X.; Pitcher, M. J.; Romani, S.; Tran, T. T.; Halasyamani, P. S.; Claridge, J. B.; Rosseinsky, M. J., “Morphotropic Phase Boundary in the Pb-free $(1-x)\text{BiTi}_{3/8}\text{Fe}_{2/8}\text{Mg}_{3/8}\text{O}_3-x\text{CaTiO}_3$ System: Tetragonal Polarization and Enhanced Electromechanical Properties”, *Advanced Materials*, 27, (2015), 2883-2889.
- (4) Sánchez-Sánchez, M.; **Manjón-Sanz, A.**; Díaz, I.; Mayoral, A.; Sastre, E., “Micron-Sized Single-Crystal-like CoAPO-5/Carbon Composites Leading to Hierarchical CoAPO-5 with Both Inter-and Intracrystalline Mesoporosity”, *Crystal Growth and Design*, 13, (2013), 2476-2485.
- (3) Dolgos, M. R.; Adem, U.; **Manjón-Sanz, A.**; Wan, X. M.; Comyn, T. P.; Stevenson, T.; Bennett, J.; Bell, A. J.; Tran, T. T.; Halasyamani, P. S.; Claridge, J. B.; Rosseinsky, M. J., “Perovskite B-site Compositional Control of [110]p Polar Displacement Coupling in an Ambient Pressure-Stable Bismuth-based Ferroelectric”, *Angewandte Chemie-International Edition*, 41, (2012), 10770-10775.
- (2) **Manjón-Sanz, A.**; Sánchez-Sánchez, M.; Sastre, E., “Towards the Control of Intercrystalline Mesoporosity in Inorganic Microporous Materials: The Case of CoAPO-5”, *Catalysis Today*, 179, (2012), 102-114.
- (1) **Manjón-Sanz, A.**; Sánchez-Sánchez, M.; Muñoz-Gómez, P.; García, R.; Sastre, E., “Non-template Intercrystalline Mesoporosity in Heteroatom-doped AlPO₄-5 using N-methyldicyclohexylamine as Structure-Directing Agent”, *Microporous and Mesoporous Materials*, 131, (2010), 331-341.

CONFERENCE PAPERS

- (3) **Manjón-Sanz, A.**; Culberston, C.; Dolgos, M. R., “Understanding the structure of $(1-x)\text{BaZr}_{0.2}\text{Ti}_{0.8}\text{O}_3-(x)\text{Ba}_{0.7}\text{Ca}_{0.3}\text{TiO}_3$ based lead-free piezoelectric materials”, *International Union of Crystallography*, 77, (2021) A120.
- (2) **Manjón-Sanz, A.**; Berger, C.; Culberston, C.; Dolgos, M. R., “Understanding the structure-property relationships of lead-free piezoelectric systems”, *Acta Crystallographica Section A*, 77, (2021), C1156.
- (1) **Manjón-Sanz, A.**; Surta, T. W.; McQuade, R.; Dolgos, M. R., “Piezoelectrics: Putting the squeeze on new materials”, *Abstracts of Papers of the American Chemical Society*, 251, (2016), 1319.

PRESENTATIONS

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|-----------|---|
| Dec. 2025 | “Designing Sustainable Materials for Energy Applications” (Poster) Oak Ridge National Laboratory, Oak Ridge, United States. |
| June 2024 | “Examining the structure-property relationships of sustainable advanced functional materials” (Poster) American Conference on Neutron Scattering, Knoxville, United States. |

May 2024	“POWGEN instrument at the Spallation Neutron Source and research on Structure-property Relationships of Sustainable Functional Materials” (Invited Seminar) MLF, J-PARC, Tokai, Japan.
Apr. 2024	“Examining the structure-property relationships of sustainable functional using powder diffraction” (Invited Talk) The 9th International Conference on Superconductivity and Magnetism 2024, Fethiye, Turkey.
Jan. 2024	“Materials for Energy and Sustainability: Structure, properties, and materials in action” (Invited Talk) Neutron Advisory Board, Oak Ridge National Laboratory, Oak Ridge, United States.
Dec. 2023	“Examining the structure-property relationships of environmentally friendly functional ceramics using powder diffraction” (Invited Talk) Materials Research by Advanced analysis: Synchrotron radiation and Neutron methods, Grand Meeting MRM&ICA2023, Kyoto, Japan.
Aug. 2023	“Investigating the structure-property relationships of lead-free functional ceramics” (Invited Talk) North American Solid State Chemistry Conference, Calgary, Canada.
July 2023	“Investigating the structure-property relationships of lead-free functional ceramics” (Young Scholar Invited Talk) IEEE International Symposium on Applications of Ferroelectrics, Cleveland, Ohio, United States.
Jan. 2023	“Investigating the structure-property relationships of lead-free functional ceramics” (Talk) <i>Electronic Materials and Applications</i> , Florida, Orlando, United States.
July 2022	“Room Temperature Polar and weak Ferromagnetic with low Dielectric loss BiFeO ₃ -Bi _{2/3} TiO ₃ -CaTiO ₃ solid solutions”, (Poster), <i>American Crystallographic Association Meeting</i> , Portland, Oregon, United States.
June 2022	“Room Temperature Polar and weak Ferromagnetic with low Dielectric loss BiFeO ₃ -Bi _{2/3} TiO ₃ -CaTiO ₃ solid solutions”, (Poster), <i>American Conference on Neutron Scattering</i> , Boulder, Colorado, United States.
Jan. 2022	“Structure-property relationships of lead-free piezoelectric systems”, (Poster), <i>Electronic Materials and Applications</i> , Virtual conference, United States.
Jan. 2021	“Understanding the structure of (1-x)Ba(Zr _{0.2} Ti _{0.8})O ₃ -x(Ba _{0.7} Ca _{0.3})TiO ₃ based lead-free piezoelectric materials”, (Poster), <i>Electronic Materials and Applications</i> , Virtual conference, United States.
July 2020	“Understanding the Structure-property Relationships of the Ferroelectric to Relaxor Transition of the (1-x)BaTiO ₃ -(x)BiInO ₃ Lead-free Piezoelectric System”, (Talk) <i>2020 American Conference on Neutron Scattering</i> , Virtual Conference, United States.
May 2020	“Structure-property Relationships of Advanced Functional Materials and the POWGEN instrument”, (Invited Virtual Seminar) Jacob Jones Research group from the North Carolina State University, Raleigh, United States.

Nov. 2019	“Structure-property Relationships of Advanced Functional Materials”, (Invited Seminar) Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan.
Oct. 2019	“Understanding nanoscaled Metal Organic Framework (M-MOF-74) materials via Pair Distribution Function analysis”, (Poster), <i>IX AUSE</i> (the Spanish Synchrotron User Association) Conference and 4 th ALBA User’s meeting, CELLS, ALBA Synchrotron Light Facility, Cerdanyola Del Valles,
May 2019	“La técnica de Pair Distribution Function y sus aplicaciones”, (Invited Seminar) <i>ECS Student Chapter</i> , Chemistry Department, Universidad Complutense de Madrid, Madrid, Spain.
Apr. 2019	“La fuente de luz sincrotrón ALBA y sus aplicaciones”, (Invited Talk) <i>III Workshop Química Sostenible</i> , Instituto de Tecnología Química, Universitat Politècnica de Valencia, Valencia, Spain.
March 2019	“Deconvolved intrinsic and extrinsic contributions to electrostrain in high performance (1-x)Ba(Zr _{0.2} Ti _{0.8})O ₃ -x(Ba _{0.7} Ca _{0.3})TiO ₃ piezoceramics“, (Poster) <i>School and Conference on Analysis of Diffraction Data in Real Space</i> , Institut Laue-Langevin and The European Synchrotron, Grenoble, France.
Apr. 2018	“Understanding the Structure-property Relationships in Advanced Functional Materials”, (Invited Seminar) <i>Institute of Catalysis and Petrochemistry</i> , Consejo Superior de Investigaciones Científicas (CSIC), Madrid, Spain.
Feb. 2018	“Synthesis and Structure-property Relationships in Lead-free Piezoelectric Ceramics“, (Invited Seminar) <i>Materials Science Department</i> , Oregon State University, Corvallis, Oregon, United States.
Jan. 2018	“Study of Domain Wall Motion and Local Structure Under Application of Electric Fields of BaZr _{0.2} Ti _{0.8} O ₃ -xBa _{0.7} Ca _{0.3} TiO ₃ “, (Talk) <i>Electronic Materials and Applications</i> , Florida, Orlando, United States.
Nov. 2017	“Importance of Piezoelectric Materials“, (Talk) <i>Oregon State University / University of Oregon PostDoc Research Symposium</i> , University of Oregon, Eugene, Oregon, United States.
Aug. 2017	“Structure-property Relationships in Novel Ferroelectric and Piezoelectric Perovskites“, (Poster) <i>North American Solid State Chemistry Conference</i> , University of California Santa Barbara, Santa Barbara, California, United States.
June 2017	“Study of the Structure-property Relationship of the Piezoelectric System xBiInO ₃ -(1-x)BaTiO ₃ “, (Talk) <i>72nd Northwest Regional Meeting</i> , Oregon State University, Corvallis, Oregon, United States.
May 2017	“Temperature Dependence of Local Structure of Lead-free Piezoelectric: BaZr _{0.2} Ti _{0.8} O ₃ -xBa _{0.7} Ca _{0.3} TiO ₃ [BZT-xBCT]“, (Poster) <i>US School on Total Scattering Analysis</i> , Oak Ridge National Labs, Tennessee, United States.
Jan. 2017	“Understanding the Structure-property Relationship of the Piezoelectric System xBiInO ₃ -(1-x)BaTiO ₃ “, (Poster) <i>Electronic Materials and Applications</i> , Florida, Orlando, United States.

July 2016	“Structure-property Relationship of a Lead-free Piezoelectric Material Synthesized at Ambient Pressure“, (Poster) <i>Gordon Research Conference on Solid State Chemistry</i> , New London, United States.
July 2016	“Settling a Scientific Debate by Investigating the Structure-Property Relationships of Disordered Aurivillius Phases“, (Poster) <i>American Conference on Neutron Scattering</i> , Long Beach, California, United States.
Oct. 2015	“New Lead-free A-site Based Piezoelectric Materials Synthesized at Ambient Pressure with Potential as Actuators“, (Poster) <i>Oregon State Postdoctoral Association Annual Research Poster Session</i> , Oregon State University, Corvallis, Oregon, United States.
Apr. 2012	“A lead-free A-site Based Perovskite Synthesized at Ambient Pressure“, (Poster) <i>SOPRANO-Marie Curie FP7 meeting</i> , Max Planck Institute for Solid State Research, Stuttgart, Germany.
Oct. 2011	“Structural Studies on Functional Lone Pair oxides“, (Talk) <i>SOPRANO-Marie Curie FP7 meeting</i> , The University of Liverpool, Liverpool, United Kingdom.
Apr. 2011	“Structural Studies on Functional Lone Pair oxides“, (Talk) <i>SOPRANO-Marie Curie FP7 meeting</i> , Timisoara, Romania.
July 2010	“Commercial Carbon Templating Mesoporosity in CoAPO-5“, (Poster) <i>16th International Zeolite Conference</i> , Sorrento, Italy.

CAREER AND SKILLS DEVELOPMENT

Jan – Dec 2024	Early Career Development Program, Oak Ridge National Laboratory, Oak Ridge, United States.
March 2024	<i>Women’s leadership workshop</i> , Oak Ridge National Laboratory, Oak Ridge, United States.
March 2021	<i>Women’s leadership workshop</i> , Oak Ridge National Laboratory, Oak Ridge, United States.
March 2021	<i>How to build an instrument</i> , Oak Ridge National Laboratory, Oak Ridge, United States.
March 2019	<i>School and Conference on Analysis of Diffraction Data in Real Space</i> , Institut Laue-Langevin and The European Synchrotron, Grenoble, France.
June 2018	<i>Python Introduction Course</i> , CELLS, ALBA Synchrotron Light Facility, Cerdanyola Del Valles, Spain.
Jan. 2018	<i>Tuesday Teaching Talks</i> , The 90 Minute Certificated Series, Oregon State University, Corvallis, Oregon, United States.
June 2017	<i>Grant Writing Workshop</i> , Oregon State University, Corvallis, Oregon, United States.
Aug. 2016	<i>Postdoc Research Writing Workshop</i> , Oregon State University, Corvallis, Oregon, United States.
July 2016	<i>Pacific Northwest Women in Science Retreat</i> , Oregon, United States.
Apr. 2012	<i>XII School about the Rietveld method</i> , Universidad Jaume I, Castellón, Spain.
March 2012	<i>Single Crystal X-Ray Structure Analysis</i> , University of Liverpool, Liverpool, United Kingdom.
June 2010	<i>Introduction to the Characterization of Adsorbents and Catalysts</i> , CSIC, Cáceres, Spain.

Nov. 2009 *Techniques for the Study of Solid Materials* (second edition), CSIC, Madrid, Spain.

June 2009 *Techniques for the Study of Solid Materials* (first edition), CSIC, Madrid, Spain.

PEER REVIEWING AND PROFESSIONAL ACTIVITIES

- 2015 – 2016 **Mentor** of two International Exchange Undergraduate Students, *International Student Peer Mentoring Program, Oregon State University, Corvallis, Oregon, United States*.
- 2017 **Co-Instructor**: “Workshop on The Analysis of Total Scattering Data Using the Pair Distribution Function”, 72nd Northwest Regional Meeting, Oregon State University, Corvallis, Oregon, United States.
- 2019 **Volunteer** at the ALBA OPEN DAY, ALBA, Cerdanyola Del Valles, Spain.
- 2021 **Co-chair** of Women in Neutron Sciences, Oak Ridge National Laboratory, United States.
- 2021 – **Co-instructor**: “The Rietveld analysis on TOF neutron data using GSAS-II on the attendees for “National School on Neutron and X-ray Scattering”, Oak Ridge National Laboratory, United States.
- 2021 **Co-organizer** of the “Workshop 5: Materials Synthesis Science and Opportunities Aided by in-situ Scattering Tools”, Joint Nanoscience and Neutron Scattering User Meeting, Oak Ridge National Laboratory, United States.
- 2021, 2022 **Judge** for the “CrystEngCommPoster Prize” at the American Crystallographic Association.
- 2022 Neutron Special Interest Group **Chair** 2022 for the American Crystallographic Association.
- 2022 **Chair** of Women in Neutron Sciences, Oak Ridge National Laboratory, United States.
- 2022 **Co-chair** of the session “Materials For Our Future: Structural Insights Into Energy Materials And Sustainable Materials” at the *American Crystallographic Association Meeting*, Portland, Oregon, United States.
- 2023 **Chair** of the session “Characterization of Structure Property Relationships in Functional Ceramics” at the *Electronic and Advanced Materials*, Florida, Orlando, United States.
- 2023 Strategic Events **Project Lead** of Women in Neutron Sciences, Oak Ridge National Laboratory, United States.
- 2023 **Dissertation committee** of the thesis submitted by Ms. María Asunción Molina Esquinas on “Inmovilización de enzimas en MOFs: diseño y aplicaciones”.
- 2023 **Chair** of the session “Structure-property relationships of energy materials/Energy density, sustainability” at the *American Crystallographic Association Meeting*, Baltimore, Maryland, United States.
- 2023 **Co-instructor** of the “Introduction to Diffraction” workshop, Calgary, Canada.
- 2023 **Co-instructor** of the “POWGEN workshop”, Oak Ridge National Laboratory, United States.
- 2024 **Co-chair** of the session “AI in Modern Crystallography” at the *American Crystallographic Association Meeting*, Denver, Colorado, United States.
- 2024 **Co-instructor** of the “TOPAS workshop”, Oak Ridge National Laboratory, United States.

2024, 2025	Member-at-large of Women in Neutron Sciences, Oak Ridge National Laboratory, United States.
2025	Co-organizer of the 1 st National Neutron School, Oak Ridge National Laboratory, United States.

Reviewer of *Chemistry of Materials*, *Physical Review B*, *Journal of Materials Science*, *International Journal of Molecular Sciences*, *Inorganic Chemistry*, *Physical Review Materials*, *Materials*, *Applied Sciences*, and *Symmetry*.

Memberships: *The International Centre for Diffraction Data*, *The American Ceramic Society*, *Neutron Scattering Society of America*, *American Crystallographic Association* and *Materials Research Society*.