Carl P. Romao

Curriculum Vitae

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Professional Experience

- Czech Technical University in Prague, Prague, Czechia
  - Assistant Professor 01.02.2026–present
  - Postdoctoral Researcher 01.01.2025–31.01.2026
- ETH Zürich, Zürich, Switzerland
  - Marie Skłodowska–Curie Postdoctoral Fellow 01.07.2021–31.07.2024
- University of Tübingen, Tübingen, Germany
  - Postdoctoral Researcher 01.10.2018–30.06.2021
  - Teach@Tübingen Postdoctoral Fellow 01.10.2018–30.09.2019
- University of Oxford, Oxford, United Kingdom
  - NSERC Postdoctoral Fellow 01.09.2016–31.08.2018
- Dalhousie University, Halifax, Canada
  - Postdoctoral Research Assistant 30.09.2015–13.07.2016
  - Teaching Assistant 07.09.2010–04.04.2014

Education

- Dalhousie University, Halifax, Canada 07.09.2010–29.09.2015
  - Ph.D. in Chemistry — thesis entitled “Thermoelastic Properties of Materials with Negative Coefficients of Thermal Expansion”
- McGill University, Montreal, Canada 06.09.2005–25.05.2009
  - B.Sc. in Chemistry with Honours

Language Skills

- English: Native language
- Czech: A1–B1 course 18.02.2025–present
- German: A2.1 certificate 18.09.2023
- Portuguese: A2 certificate 13.06.2023

Research Experience

- Department of Materials, CTU Prague 01.01.2025–present
  - Principal investigator, Quantum Materials & Quasiparticles (QMQ) group; Assistant Professor since 01.02.2026.
  - Developing first-principles and machine-learning methods for calculating phonon angular momenta and magnetic moments; applying them to predict chiral phonons and dynamical multiferroicity in metal–organic frameworks (MOFs) and to design a chiral phonon-based quantum sensor for the direct detection of dark matter. Providing theory for X-ray scattering studies of chiral phonons, including their electric-field switching in ferroelectric $BaTiO_3$, and calculating the electronic structures of strongly correlated niobium cluster compounds.

- Department of Materials, ETH Zürich 01.07.2021–31.07.2024
  - Independent postdoctoral research in the laboratory of Prof. Nicola Spaldin.
  - Developed methods for the analysis of phonon angular momentum and magnetic moments in chiral materials at arbitrary points in reciprocal space. Proposed a novel single-phonon detection mechanism based on phonon magnetism for detection of dark matter and performed computational screening to identify candidate materials. Proposed a method for ultrafast switching of structural chirality using nonlinear phonon rectification.
- Institute for Inorganic Chemistry, University of Tübingen 01.10.2018–30.06.2021
  - Postdoctoral research in the laboratory of Prof. Hans-Jürgen Meyer.
  - Responsible for the determination of electronic and phononic properties of novel materials synthesized in the Meyer group using *ab initio* computational techniques. Predicted the modification of Weyl semimetallicity and charge density wave formation in WTe_2 by intercalation of iodine to form WTe_2I. Established a connection between phonon chirality and negative thermal expansion.
- Department of Chemistry, University of Oxford 01.09.2016–31.08.2018
  - Independent postdoctoral research in the laboratory of Prof. Andrew Goodwin.
  - Developed a theoretical model linking anisotropic elasticity to anisotropic thermal expansion, allowing prediction of anomalous axial thermal expansion based on symmetry constraints. Used this model to predict the thermal expansion of novel compounds and to identify connections between crystallographic symmetry and thermal expansion.
- Department of Chemistry, Dalhousie University 07.09.2010–13.07.2016
  - Doctoral and postdoctoral research under the supervision of Prof. Mary Anne White.
  - Synthesized novel negative thermal expansion ceramics and composites. Characterized the thermoelastic, structural, and vibrational properties of such materials experimentally and computationally to establish structure–property relationships, investigate correlations between thermal and elastic properties, and examine the effect of elastic properties on bulk thermal expansion.
- Department of Chemistry, McGill University 02.09.2008–10.04.2009
  - Honours thesis research under the supervision of Prof. Ian Butler and Prof. Denis Gilson.
  - Synthesized NTE cadmium cyanide, its clathrates, and related materials, and investigated their vibrational spectra under pressure.

Teaching Experience

- Department of Materials, CTU Prague 12.03.2025–present
  - Lecturer for graduate students on density functional theory.
- Institute for Inorganic Chemistry, University of Tübingen 01.10.2018–30.09.2019
  - Lecturer for graduate students on topics in materials chemistry and density functional theory.
- Department of Materials Engineering, PUC-Rio 25.01.2016–05.02.2016
  - Taught a hands-on training course on finite element analysis and its application to modeling of thermoelasticity at the microscale.
- Department of Chemistry, Dalhousie University 07.09.2010–04.04.2014
  - Teaching Assistant for undergraduate laboratory courses.

Supervision and Mentoring

- Department of Materials, CTU Prague 01.01.2025–present
  - Supervising one Master's student and three Bachelor's students in the QMQ group.
- Department of Materials, ETH Zürich 01.07.2021–31.07.2024
  - Cosupervised five graduate and undergraduate students working on projects and theses in computational chemistry and machine learning.
- Institute for Inorganic Chemistry, University of Tübingen 01.10.2018–30.06.2021
  - Cosupervised an undergraduate student working on projects in computational chemistry.
- Department of Chemistry, Dalhousie University 07.09.2010–13.07.2016
  - Cosupervised two undergraduate students working on freeze-casting of ceramics.

Funding

- Marie Skłodowska–Curie Postdoctoral Fellowship 01.07.2021–30.06.2023
  - Amount: €191'149
- Baden-Württemberg High Performance Computing allocation 09.10.2018–09.10.2022
  07.11.2024–09.10.2025
  - Amount: 1'200'000 core hours (approximate market value €120'000)
- Teach@Tübingen Fellowship 01.10.2018–30.09.2019
  - Amount: €22'236
- ARCHER High Performance Computing allocation 01.10.2017–31.03.2018
  - Amount: 480'000 core hours (approximate market value €48'000)
- NSERC Postdoctoral Fellowship 01.09.2016–31.08.2018
  - Amount: €61'539
- Walter C. Sumner Memorial Fellowship 01.09.2013–31.08.2015
  - Amount: €8'201

Invited Presentations

- **C.P. Romao** (19.07.2023) Chiral phonons for dark matter detection. Chiral Phonons in Quantum Materials Workshop, Lugano, Switzerland.
- **C.P. Romao** (09.06.2023) Chiral phonons as dark matter detectors. Dynamical and Hidden Orders Workshop, Stockholm, Sweden.
- **C.P. Romao** (02.09.2019) Chiral phonons and anomalous thermal expansion in BiB_3O_6. International Conference on Auxetics and Other Materials and Models with "Negative" Characteristics, Będlewo, Poland.
- **C.P. Romao** (11.09.2017) Structure–property relationships in materials with anomalous thermoelastic behaviour. International Conference on Auxetics and Other Materials and Models with "Negative" Characteristics, Heraklion, Greece.
- **C.P. Romao**, J.W. Zwanziger, and M.A. White (14.09.2015) Elastic Properties and Their Relationships to the Thermal Expansion of Thermomiotic Materials. International Conference on Auxetics and Other Materials and Models with "Negative" Characteristics, Buggiba, Malta.

Prizes and Awards

- Kenneth T. Leffek Prize 11.09.2015
    - Awarded to the best Ph.D. thesis defended in the Department of Chemistry.
- 1st place, poster competition, High Performance Computing Symposium 27.06.2014
- Douglas E. Ryan Prize 09.09.2011, 06.09.2013
    - Awarded for excellence in research productivity as a graduate student.

Publications

Research Articles

1. Electric-field switching of g-wave phonon chirality in ferroelectric $BaTiO_3$. M. Grimes, H. Ueda, C.J. Allington, **C.P. Romao**, K. Kummer, P. Kaur, L.-S. Wang, Y.-W. Chang, J.-C. Yang, S.-W. Huang, U. Staub (07.09.2026) *Nat. Mater.* doi:10.1038/s41563-026-02737-w.
2. Zero Indirect Band Gap and Flat Bands in a Niobium Oxyiodide Cluster Material. J. Beitlberger, M. Martin, M. Scheele, M. Matas, **C.P. Romao**, M. Ströbele, H.-J. Meyer (16.07.2026) *J. Am. Chem. Soc.* 148, 30861–30872. doi:10.1021/jacs.6c03891.
3. Hubbard dimer physics and the magnetostructural transition in the correlated cluster material Nb_3Cl_8. A. Carta, P. Mlkvik, F. Grahlow, M. Ströbele, H.-J. Meyer, **C.P. Romao**, N.A. Spaldin, C. Ederer (20.05.2026) *npj 2D Mater. Appl.* 10, 74. doi:10.1038/s41699-026-00706-0.
4. Structural evolution during reversible halogen intercalation into WTe_2: commensurate–incommensurate WTe_2I and multistage WTe_2Br_x (x = 0.5, 1.0 and 1.25). P. Schmidt, **C.P. Romao**, H.-J. Meyer (01.05.2026) *Dalton Trans.* 55, 8228–8242. doi:10.1039/D6DT00529B.
5. Lattice Excitations with Finite Polarization and Magnetization. M. Pols, **C.P. Romao**, D.M. Juraschek (22.04.2026) *Phys. Rev. Lett.* 136, 166801. doi:10.1103/2sj3-33ky.
6. Anomalous phonon magnetic moments. S. Chaudhary, **C.P. Romao**, D.M. Juraschek (16.04.2026) *Phys. Rev. Res.* 8, 023053. doi:10.1103/xzgb-33w5.
7. Intercalation of alkali metal into WTe_2, the crystal structure of $A_{0.5}WTe_2$ and observation of a metal-to-semiconductor transition. P. Schmidt, F. Strauß, M. Scheele, **C.P. Romao**, H.-J. Meyer (05.02.2026) *Dalton Trans.* 55, 3296–3309. doi:10.1039/D5DT02775F.
8. Chiral phonons in polar $LiNbO_3$. H. Ueda, A. Nag, **C.P. Romao**, M. García-Fernández, K.-J. Zhou, U. Staub (05.12.2025) *Nat. Commun.* 17, 212. doi:10.1038/s41467-025-66911-5.
9. Synthesis and SHG properties of the melamine-based material $(C_3N_6H_7)ZnX_3(C_3N_6H_6)$ (X = Cl, Br). M. Groß, C.D. Brand, P. Schmidt, T. Parker, D. Zhang, **C.P. Romao**, H.-J. Meyer (05.11.2025) *Dalton Trans.* 54, 17941–17949. doi:10.1039/D5DT02245B.
10. Structural modifications of $M_5O_4I_{11}$ (M = Nb, Ta) cluster networks from heterogeneous solid-state reactions. F. Grahlow, J. Beitlberger, M. Martin, E. Juriatti, H. Peisert, M. Scheele, M. Ströbele, **C.P. Romao**, H.-J. Meyer (28.10.2025) *Dalton Trans.* 54, 16593–16604. doi:10.1039/D5DT02097B.
11. Tuning chirality amplitude at ultrafast timescales in chiral $CsCuCl_3$. H. Ueda, T. Sato, Q.L. Nguyen, E. Skoropata, L. Leroy, T. Suter, E. Abreu, M. Savoini, V. Esposito, M. Hoffmann, **C.P. Romao**, J. Zaccaro, D. Zhu, S.L. Johnson, U. Staub (14.10.2025) *Phys. Rev. Res.* 7, 043045. doi:10.1103/36tg-vr5k.
12. Niobium oxyiodide cluster compounds $Li_3Nb_7O_5I_{15}$ and $Nb_8O_5I_{17}(NbI_5)$ with expanding cluster architectures and multicentre Nb–Nb bonding. J. Beitlberger, M. Ströbele, P. Schmidt, **C.P. Romao**, H.-J. Meyer (10.09.2025) *Dalton Trans.* 54, 14376–14383. doi:10.1039/D5DT01819F.
13. Hydrothermal Synthesis and Characterization of the Melamine-Based Second-Harmonic Generation Material $HgCl_2(C_3N_6H_6)$. M. Groß, P. Schmidt, **C.P. Romao**, D. Enseling, T. Jüstel, M. Brytskyi, S. Kroeker, H.-J. Meyer (02.07.2025) *Eur. J. Inorg. Chem.* 28, e202500256. doi:10.1002/ejic.202500256.
14. Phonon-Induced Geometric Chirality. **C.P. Romao,** D.M. Juraschek (18.10.2024) *ACS Nano* 18, 29550–29557. doi:10.1021/acsnano.4c05978.

15. Ta_4SBr_{11}: A Cluster Mott Insulator with a Corrugated, Van der Waals Layered Structure. F. Grahlow, F. Strauß, P. Schmidt, J. Valenta, M. Ströbele, M. Scheele, **C.P. Romao**, H.-J. Meyer (07.10.2024) *Inorg. Chem.* 63, 19717–19727. doi:10.1021/acs.inorgchem.4c02896.
16. The Rectangular Niobium Oxyiodide Cluster Nb_4OI_{10} – A Narrow Band-Gap Semiconductor. J. Beitlberger, M. Ströbele, F. Strauß, M. Scheele, **C.P. Romao**, H.-J. Meyer (18.09.2024) *Eur. J. Inorg. Chem.* 27, e202400329. doi:10.1002/ejic.202400329.
17. Electronic Structure and Transport in the Potential Luttinger Liquids $CsNb_3Br_7S$ and $RbNb_3Br_7S$. F. Grahlow, F. Strauß, M. Scheele, M. Ströbele, A. Carta, S.F. Weber, S. Kroeker, **C.P. Romao**, H.-J. Meyer (03.04.2024) *Phys. Chem. Chem. Phys.* 26, 11789–11797. doi:10.1039/D4CP00293H.
18. The luminescent semiconductor $Pb_7I_6(CN_2)_4$. A.T. Schwarz, M. Ströbele, **C.P. Romao**, D. Enseling, T. Jüstel, H.-J. Meyer (20.03.2024) *Dalton Trans.* 53, 6416–6422. doi:10.1039/d4dt00369a.
19. Chiral phonons as dark matter detectors. **C.P. Romao**, R. Catena, N.A. Spaldin, M. Matas (19.12.2023) *Phys. Rev. Res*. 5, 043262. doi:10.1103/PhysRevResearch.5.043262.
20. Chiral phonons in quartz probed by X-rays. H. Ueda, M. García-Fernández, S. Agrestini, **C.P. Romao**, J. van den Brink, N.A. Spaldin, K.-J. Zhou, U. Staub (08.06.2023) *Nature* 618, 946–950. doi:10.1038/s41586-023-06016-5.
21. The Remarkably Robust, Photoactive Tungsten Iodide Cluster $[W_6I_{12}(NCC_6H_5)_2]$. F. Pachel, M. Ströbele, **C.P. Romao**, D. Enseling, T. Jüstel, H.-J. Meyer (18.04.2023) *Eur. J. Inorg. Chem.* 26, e202300096. doi:10.1002/ejic.202300096.
22. Preparation, photoluminescence and excited state properties of the homoleptic cluster cation $[(W_6I_8)(CH_3CN)_6]^{4+}$. F. Pachel, P. Frech, M. Ströbele, D. Enseling, **C.P. Romao**, T. Jüstel, M. Scheele, H.-J. Meyer (02.03.2023) *Dalton Trans.* 52, 3777–3785. doi:10.1039/D2DT04063H.
23. Thermal properties of single crystals of the low-positive thermal expansion material $Al_2W_3O_{12}$. **C.P. Romao**, A. Dabkowski, B.A. Marinkovic, M.A. White (15.09.2022) *Solid State Commun.* 353, 114873. doi:10.1016/j.ssc.2022.114873.
24. The Lithium Iodostannate $LiSn_3I_7$: Synthesis, Properties and its Relationship to SnI_2. M. Löber, M. Ströbele, K. Eichele, **C.P. Romao**, H.-J. Meyer (21.12.2021) *Eur. J. Inorg. Chem.* 2021, 4929–4934. doi:10.1002/ejic.202100771.
25. Synthesis, Structure, and Thermoelastic Properties of $LiSn_2Br_3(CN_2)$ and $Sn_4Br_2(CN_2)_3$. M. Löber, M. Ströbele, **C.P. Romao**, H.-J. Meyer (25.11.2021) *Eur. J. Inorg. Chem.* 2021, 4572–4578. doi:10.1002/ejic.202100660.
26. Formation of a Polar Structure in the Metallic Niobium Sulfide Nb_4S_3. F. Grahlow, E. Dorsch, M. Ströbele, **C.P. Romao**, H.-J. Meyer (17.11.2021) *Inorg. Chem.* 60, 17669–17676. doi:10.1021/acs.inorgchem.1c02263.
27. Tricopper melaminate, a metal–organic framework containing dehydrogenated melamine and Cu–Cu bonding. P. Kallenbach, E. Bayat, M. Ströbele, **C.P. Romao**, H.-J. Meyer (19.10.2021) *Inorg. Chem.* 60, 16303–16307. doi:10.1021/acs.inorgchem.1c02145.
28. $W_2O_3I_4$ and WO_2I_2: metallic phases in the chemical transport reaction of tungsten. M. Löber, M. Ströbele, **C.P. Romao**, H.-J. Meyer (06.05.2021) *Dalton Trans.* 50, 6789–6792. doi:10.1039/D1DT01212F.
29. Synthesis, structure and electronic properties of three tin oxide halides. M. Löber, C.S. Geißenhöner, M. Ströbele, **C.P. Romao**, H.-J. Meyer (22.01.2021) *Eur. J. Inorg. Chem.* 2021, 283–288. doi:10.1002/ejic.202000874.

30. Reversible Iodine Intercalation into Tungsten Ditelluride. P. Schmidt, P. Schneiderhan, M. Ströbele, **C.P. Romao**, H.-J. Meyer (15.01.2021) *Inorg. Chem.* 60, 1411–1418. doi:10.1021/acs.inorgchem.0c02676.
31. Structural Origin of the Optical Properties of Ag-Doped Fluorophosphate and Sulfophosphate Glasses. R. Zhou, C. Calahoo, Y. Ding, X. Yang, **C.P. Romao**, L. Wondraczek (11.01.2021) *J. Phys. Chem. B* 125, 637–656. doi:10.1021/acs.jpcb.0c09375.
32. A New Modification of TeI_4 Possessing the Crystal Structure Proposed for WI_4. P. Schneiderhan, P. Schmidt, M. Ströbele, **C.P. Romao**, H.-J. Meyer (27.04.2020) *Cryst. Growth Des.* 20, 3780–3784. doi:10.1021/acs.cgd.0c00053.
33. Magneto-structural coupling in $SrTc_xRu_{1-x}O_3$ (x = 0.25, 0.5) perovskites. E.M. Reynolds, **C.P. Romao**, H.E.A. Brand, G.J. Thorogood, F. Poineau, K.R. Czerwinski, B.J. Kennedy (07.04.2020) *J. Solid State Chem.* 287, 121378. doi:10.1016/j.jssc.2020.121378.
34. Synthesis, Structure, and Electronic Properties of $Sn_9O_5Cl_4(CN_2)_2$. M. Löber, C.S. Geißenhöner, M. Ströbele, S. Indris, **C.P. Romao**, H.-J. Meyer (24.10.2019) *Inorg. Chem.* 58, 14560–14567. doi:10.1021/acs.inorgchem.9b02229.
35. Synthesis, structure and properties of a calcium oxonitridosilicate phosphor showing green or red luminescence upon doping with Eu^{2+} or Ce^{3+}. R. Schmidt, M. Ströbele, **C.P. Romao**, D. Enseling, T. Jüstel, H.-J. Meyer (06.09.2019) *Dalton Trans*. 48, 14069–14076. doi:10.1039/c9dt02564b.
36. Anomalous thermal expansion and chiral phonons in BiB_3O_6. **C.P. Romao** (21.08.2019) *Phys. Rev. B* 100, 060302(R). doi:10.1103/PhysRevB.100.060302.
37. Synthesis, Structure, and Electronic Properties of $Sn(CN_2)$ and $Sn_4Cl_2(CN_2)_3$. M. Löber, K. Dolabdjian, M. Ströbele, **C.P. Romao**, H.-J. Meyer (05.06.2019) *Inorg. Chem.* 58, 7845–7851. doi:10.1021/acs.inorgchem.9b00527.
38. Near-Zero Thermal Expansion in Freeze-Cast Composite Materials. S.N. Ellis, **C.P. Romao**, M.A. White (13.02.2019) *Ceramics* 2, 112–125. doi:10.3390/ceramics2010011.
39. High-pressure behaviour of Prussian blue analogues: interplay of hydration, Jahn–Teller distortions and vacancies. H.L.B. Boström, I.E. Collings, A.B. Cairns, **C.P. Romao**, A.L. Goodwin (04.12.2018) *Dalton Trans.* 48, 1647–1655. doi:10.1039/C8DT04463E.
40. Synthesis and Thermoelastic Properties of $Zr(CN_2)_2$ and $Hf(CN_2)_2$. K. Dolabdjian, A. Kobald, **C.P. Romao**, H.-J. Meyer (06.07.2018) *Dalton Trans.* 47, 10249–10255. doi:10.1039/C8DT02001A.
41. Relationship between sintering methods and physical properties of the low positive thermal expansion material $Al_2W_3O_{12}$. L.P. Prisco, M. Marzano, P.I. Pontón, A.M.L.M. Costa, C.A. da Costa Neto, G. Sweet, **C.P. Romao**, M.A. White, B.A. Marinkovic (27.06.2018) *Int. J. Appl. Ceram. Technol.* 16, 346–356. doi:10.1111/ijac.13054.
42. Applications of ice-templated ceramics. M.A. White, J. Conrad, R. Chen, **C. Romao**, A. Pereira, I. Hill (23.03.2018) *Int. J. Appl. Ceram. Technol.* 15, 1075–1083. doi:10.1111/ijac.12896.
43. Anisotropic thermal expansion in flexible materials. **C.P. Romao** (18.10.2017) *Phys. Rev. B* 96, 134113. doi:10.1103/PhysRevB.96.134113.
44. Relationships between elastic anisotropy and thermal expansion in $A_2Mo_3O_{12}$ materials. **C.P. Romao**, S.P. Donegan, J.W. Zwanziger, M.A. White (24.10.2016) *Phys. Chem. Chem. Phys.* 18, 30652–30661. doi:10.1039/C6CP06356J.
45. Near-zero thermal expansion and phase transition in $In_{0.5}(ZrMg)_{0.75}Mo_3O_{12}$. L.P. Prisco, P.I. Pontón, W. Paraguassu, **C.P. Romao**, M.A. White, B.A. Marinkovic (27.09.2016) *J. Mater. Res.* 31, 3240–3248. doi:10.1557/jmr.2016.329.
46. Negative stiffness in ZrW_2O_8 inclusions as a result of thermal stress. **C.P. Romao** and M.A. White (19.07.2016) *Appl. Phys. Lett.* 109, 031902. doi:10.1063/1.4959094.

47. Assessment of the Thermal Shock Resistance Figures of Merit of $Al_2W_3O_{12}$, a Low Thermal Expansion Ceramic. L.P. Prisco, P.I. Pontón, M.V. Guamán, R.R. Avillez, **C.P. Romao**, M.B. Johnson, M.A. White, B.A. Marinkovic (02.03.2016) *J. Am. Ceram. Soc.* 99, 1742–1748. doi:10.1111/jace.14160.
48. Thermal Expansion Reduction in Alumina-toughened Zirconia by Incorporation of Zirconium Tungstate and Aluminum Tungstate. **C.P. Romao**, B.A. Marinkovic, U. Werner-Zwanziger, M.A. White (20.06.2015) *J. Am. Ceram. Soc.* 98, 2858–2865. doi:10.1111/jace.13675.
49. Zero Thermal Expansion in $ZrMgMo_3O_{12}$: NMR Crystallography Reveals Origins of Thermoelastic Properties. **C.P. Romao**, F.A. Perras, U. Werner-Zwanziger, J.A. Lussier, K.J. Miller, C.M. Calahoo, J.W. Zwanziger, M. Bieringer, B.A. Marinkovic, D.L. Bryce, M.A. White (23.03.2015) *Chem. Mater.* 27, 2633–2646. doi:10.1021/acs.chemmater.5b00429.
50. The Heat Capacities of Thermomiotic ScF_3 and ScF_3–YF_3 Solid Solutions. **C.P. Romao**, C.R. Morelock, M.B. Johnson, J.W. Zwanziger, A.P. Wilkinson, M.A. White (18.02.2015) *J. Mater. Sci.* 50, 3409–3415. doi:10.1007/s10853-015-8899-y.
51. $Al_2Mo_3O_{12}$/polyethylene composites with reduced coefficient of thermal expansion. A.R. Soares, P.I. Pontón, L. Mancic, J.R.M. d'Almeida, **C.P. Romao**, M.A. White, B.A. Marinkovic (02.08.2014) *J. Mater. Sci.* 49, 7870–7882. doi:10.1007/s10853-014-8498-3.
52. Thermal, vibrational, and thermoelastic properties of $Y_2Mo_3O_{12}$ and their relations to negative thermal expansion. **C.P. Romao**, K.J. Miller, M.B. Johnson, J.W. Zwanziger, B.A. Marinkovic, M.A. White (21.07.2014) *Phys. Rev. B* 90, 024305. doi:10.1103/physrevb.90.024305.
53. Crystal nucleation and near-epitaxial growth in nacre. I.C. Olson, A.Z. Blonsky, N. Tamura, M. Kunz, B. Pokroy, **C.P. Romao**, M.A. White, P.U.P.A. Gilbert (10.10.2013) *J. Struct. Biol.* 184, 454–463. doi:10.1016/j.jsb.2013.10.002.
54. The effect of microstructure on thermal expansion coefficients in powder-processed $Al_2Mo_3O_{12}$. L.P. Prisco, **C.P. Romao**, F. Rizzo, M.A. White, B.A. Marinkovic (19.12.2012) *J. Mater. Sci.* 48, 2986–2996. doi:10.1007/s10853-012-7076-9.
55. Near-Zero Thermal Expansion in $In(HfMg)_{0.5}Mo_3O_{12}$. K.J. Miller, **C.P. Romao**, M. Bieringer, B.A. Marinkovic, L. Prisco, M.A. White (21.11.2012) *J. Am. Ceram. Soc.* 96, 561–566. doi:10.1111/jace.12085.
56. A high-pressure micro-Raman spectroscopic study of copper cyanide, CuCN. **C. Romao**, M.M. Barsan, I.S. Butler, D.F.R. Gilson (27.01.2010) *J. Mater. Sci.* 45, 2518–2520. doi:10.1007/s10853-010-4232-y.

Review Articles

57. Chiral Phonons. D.M. Juraschek, R.M. Geilhufe, H. Zhu, M. Basini, P. Baum, A. Baydin, S. Chaudhary, M. Fechner, B. Flebus, G. Grissonnanche, A.I. Kirilyuk, M. Lemeshko, S.F. Maehrlein, M. Mignolet, S. Murakami, Q. Niu, U. Nowak, **C.P. Romao**, H. Rostami, T. Satoh, N.A. Spaldin, H. Ueda, L. Zhang (22.09.2025) *Nat. Phys.* 21, 1532–1540. doi:10.1038/s41567-025-03001-9.
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