Stanford

Matthieu Chollet

Staff Scientist, LCLS - Linac Coherent Light Source

Bio

BIO

I am currently the Instrument Lead for the X-ray Correlation Spectroscopy Instrument (XCS), where I coordinate a team of scientists, as well as mechanical, controls, and data engineers. Our group is responsible for the scientific output of the XCS instrument, which supports a range of experiments, from X-ray photon correlation spectroscopy (XPCS) to ultrafast time-resolved studies in condensed matter and solution-phase chemistry.

My background is in time-resolved photoinduced phase transitions, with expertise in femtosecond time-resolved spectroscopy using ultrafast lasers. During my PhD at the Institute of Science, Tokyo, I conducted research in this field, followed by time-resolved X-ray diffraction studies at the KEK High Energy Accelerator Research Organization and the Advanced Photon Source at Argonne National Laboratory.

I joined SLAC in 2011 as a Laser Scientist for the X-ray Pump Probe (XPP) instrument and later transitioned to a Staff Scientist role at XPP before taking charge of the XCS instrument.

CURRENT ROLE AT STANFORD

X-ray Correlation Spectroscopy (XCS) instrument lead

LCLS Material Science Department

EDUCATION AND CERTIFICATIONS

- PhD, Tokyo Institute of Technology / University of Rennes 1 , Chemistry and Material Science (2006)
- B.S., University of Rennes 1 , Material Science (2003)

PATENTS

- Adams, Bernhard W,Chollet Matthieu C. "United States Patent 8611502 Continuously variable focal length lens", U.S. Department of Energy, Dec 17, 2013

LINKS

- Google Scholar profile: https://scholar.google.com/citations?user=VlNo2JkAAAAJ&hl=en

Publications

PUBLICATIONS

- **Ultrafast Population and Structural Dynamics of a Ni-Bipyridine Photoredox Catalyst Reveal a Significant Deactivation Pathway.** *The journal of physical chemistry letters*

Raj, S. L., Curtolo, F., Nelson, K. J., Cagan, D. A., Hooper, R. X., Bím, D., Follmer, A. H., Ribson, R. D., Kazmierczak, N. P., McNicholas, B. J., Powers-Riggs, N., Sachs, M., Biasin, et al

2026

- **Picosecond Expansion in LaAlO_{3} Resonantly Driven by Infrared-Active Phonons.** *Physical review letters*

  Gollwitzer, J., Kaaret, J. Z., Suyolcu, Y. E., Khalsa, G., Fernandes, R. C., Gorobtsov, O., Buchenau, S., You, C., Higgins, J., Russell, R. S., Shao, Z., Birkhölzer, Y. A., Sato, et al

  2025; 135 (11): 116906

- **High-resolution in situ characterization of laser powder bed fusion via transmission X-ray microscopy at X-ray free-electron lasers.** *Journal of synchrotron radiation*

  Taylor, Z., Reddy, T., Fang, L., Oppermann, P., Kramer, P. L., Decker, F. J., Seaberg, M., Chollet, M., van Driel, T., Halavanau, A., Hart, P., Dayton, M., Seiboth, et al

  2025

- **Structure and ultrafast dynamics of tri-nuclear Ag-/Tl-Pt₂POP₄ complexes in solution** *STRUCTURAL DYNAMICS-US*

  Lenzen, P., Haldrup, K., Dohn, A. O., Beyer, F., Biasin, E., Christensen, M., Hansen, B. L., Harlang, T., Kjaer, K., Laursen, M., Vester, P., van Driel, T. B., Chollet, et al

  2025; 12 (4)

- **Excited State Covalency, Dynamics, and Photochemistry of Square Planar Ni-Thiolate Complexes Revealed by Ultrafast X-ray Absorption.** *Journal of the American Chemical Society*

  Lim, H., Yang, X., Larsen, C. B., Ledbetter, K., Zoric, M. R., Raj, S. L., Kumar, G., Powers-Riggs, N., Hoffmann, M. C., Chollet, M., Gee, L. B., van Driel, T. B., Alonso-Mori, et al

  2025

- **Hidden domain boundary dynamics toward crystalline perfection.** *Proceedings of the National Academy of Sciences of the United States of America*

  Mangu, A., Stoica, V. A., Zheng, H., Yang, T., Zhang, M., Wang, H. H., Zu, R., Nguyen, Q. L., Song, S., Das, S., Meisenheimer, P., Donoway, E., Chollet, et al

  2025; 122 (2): e2407772122

- **The importance of shear on the collective charge transport in CDWs revealed by an XFEL source** *SCIENCE ADVANCES*

  Le Bolloc'h, D., Bellec, E., Ghoneim, D., Gallo-Frantz, A., Wzietek, P., Ortega, L., Madsen, A., Monceau, P., Chollet, M., Gonzales-Vallejo, I., Jacques, V. L. R., Sinchenko, A.

  2025; 11 (1): eadr6034

- **Direct observation of ultrafast cluster dynamics in supercritical carbon dioxide using X-ray Photon Correlation Spectroscopy.** *Nature communications*

  Majumdar, A., Li, H., Muhunthan, P., Späh, A., Song, S., Sun, Y., Chollet, M., Sokaras, D., Zhu, D., Ihme, M.

  2024; 15 (1): 10540

- **Strain-affected ferroelastic domain walls in RbMnFe charge-transfer materials undergoing collective Jahn-Teller distortion.** *RSC advances*

  Herve, M., Akagi, S., Guerin, L., Gee, L. B., Ribson, R. D., Chollet, M., Cammarata, M., Nagashima, S., Ohkoshi, S., Tokoro, H., Collet, E.

  2024; 14 (47): 35081-35089

- **Ultrafast magnetostructural dynamics of MnAs** *PHYSICAL REVIEW B*

  Vidal, F., Zheng, Y., Ferrari, E., Allaria, E., Spezzani, C., Laulhe, C., Popescu, H., Atkinson, P., Casaretto, N., Eddrief, M., Wang, H., Zhao, J., Seaberg, et al

  2024; 110 (14)

- **Nanometer-Scale Acoustic Wave Packets Generated by Stochastic Core-Level Photoionization Events** *PHYSICAL REVIEW X*

  Huang, Y., Sun, P., Teitelbaum, S. W., Li, H., Sun, Y., Wang, N., Song, S., Sato, T., Chollet, M., Osaka, T., Inoue, I., Duncan, R. A., Shin, et al

  2024; 14 (4)

- **Dynamical decoding of the competition between charge density waves in a kagome superconductor.** *Nature communications*

  Ning, H., Oh, K. H., Su, Y., von Hoegen, A., Porter, Z., Capa Salinas, A., Nguyen, Q. L., Chollet, M., Sato, T., Esposito, V., Hoffmann, M. C., White, A., Melendrez, et al

  2024; 15 (1): 7286

- **Time-Resolved X-ray Emission Spectroscopy and Synthetic High-Spin Model Complexes Resolve Ambiguities in Excited-State Assignments of Transition-Metal Chromophores: A Case Study of Fe-Amido Complexes.** *Journal of the American Chemical Society*
  Reinhard, M. E., Sidhu, B. K., Lozada, I. B., Powers-Riggs, N., Ortiz, R. J., Lim, H., Nickel, R., Lierop, J. v., Alonso-Mori, R., Chollet, M., Gee, L. B., Kramer, P. L., Kroll, et al
  2024

- **Critical slowing of the spin and charge density wave order in thin film Cr following photoexcitation** *APL MATERIALS*
  Patel, S. K. K., Gorobtsov, O., Cela, D., Hrkac, S. B., Hua, N., Medapalli, R., Shabalin, A. G., Wingert, J., Glownia, J. M., Zhu, D., Chollet, M., Shpyrko, O. G., Singer, et al
  2024; 12 (6)

- **Characterization of Deformational Isomerization Potential and Interconversion Dynamics with Ultrafast X-ray Solution Scattering.** *Journal of the American Chemical Society*
  Powers-Riggs, N. E., Birgisson, B. O., Raj, S. L., Biasin, E., Lenzen, P., Zederkof, D. B., Haubro, M., Tveiten, D. K., Hartsock, R. W., van Driel, T. B., Kunnus, K., Chollet, M., Robinson, et al
  2024

- **Deciphering Charge Transfer Processes in Transition Metal Complexes from the Perspective of Ultrafast Electronic and Nuclear Motions.** *The journal of physical chemistry letters*
  Mara, M. W., Weingartz, N. P., Leshchev, D., Hsu, D., Valentine, A., Mills, A., Roy, S., Chakraborty, A., Kim, P., Biasin, E., Haldrup, K., Kirschner, M. S., Rimmerman, et al
  2024: 5250-5258

- **Ultrafast X-ray Absorption Spectroscopy Reveals Excited-State Dynamics of B12Coenzymes Controlled by the Axial Base.** *The journal of physical chemistry. B*
  Chung, T., McClain, T. P., Alonso-Mori, R., Chollet, M., Deb, A., Garcia-Esparza, A. T., Huang Ze En, J., Lamb, R. M., Michocki, L. B., Reinhard, M., van Driel, T. B., Penner-Hahn, J. E., Sension, et al
  2024

- **Ultrafast Measurements of Mode-Specific Deformation Potentials of Bi₂Te₃ and Bi₂Se₃** *PHYSICAL REVIEW X*
  Huang, Y., Querales-Flores, J. D., Teitelbaum, S. W., Cao, J., Henighan, T., Liu, H., Jiang, M., De la Pena, G., Krapivin, V., Haber, J., Sato, T., Chollet, M., Zhu, et al
  2023; 13 (4)

- **Simultaneous bright- and dark-field X-ray microscopy at X-ray free electron lasers.** *Scientific reports*
  Dresselhaus-Marais, L. E., Kozioziemski, B., Holstad, T. S., Ræder, T. M., Seaberg, M., Nam, D., Kim, S., Breckling, S., Choi, S., Chollet, M., Cook, P. K., Folsom, E., Galtier, et al
  2023; 13 (1): 17573

- **Nonthermal Bonding Origin of a Novel Photoexcited Lattice Instability in SnSe.** *Physical review letters*
  Huang, Y., Teitelbaum, S., Yang, S., De la Peña, G., Sato, T., Chollet, M., Zhu, D., Niedziela, J. L., Bansal, D., May, A. F., Lindenberg, A. M., Delaire, O., Trigo, et al
  2023; 131 (15): 156902

- **Hard x-ray - optical four-wave mixing using a split-and-delay line** *OPTICS EXPRESS*
  Peters, W. K., Feltman, J., Jones, T., Song, S., Chollet, M., Robinson, J., Padmanabhan, P., Foglia, L., Bencivenga, F., Coffee, R., Bowlan, P.
  2023; 31 (19): 31410-31418

- **Ultrafast X-Ray Scattering Reveals Composite Amplitude Collective Mode in the Weyl Charge Density Wave Material (TaSe_{4})_{2}I.** *Physical review letters*
  Nguyen, Q. L., Duncan, R. A., Orenstein, G., Huang, Y., Krapivin, V., de la Peña, G., Ornelas-Skarin, C., Reis, D. A., Abbamonte, P., Bettler, S., Chollet, M., Hoffmann, M. C., Hurley, et al
  2023; 131 (7): 076901

- **Revealing Excited-State Trajectories on Potential Energy Surfaces with Atomic Resolution in Real Time.** *Angewandte Chemie (International ed. in English)*
  Leshchev, D., J S Valentine, A., Kim, P., Mills, A. W., Roy, S., Chakraborty, A., Biasin, E., Haldrup, K., Hsu, D. J., Kirschner, M. S., Rimmerman, D., Chollet, M., Glownia, et al
  2023: e202304615

- **Influence of local symmetry on lattice dynamics coupled to topological surface states** *PHYSICAL REVIEW B*
  Sobota, J. A., Teitelbaum, S. W., Huang, Y., Querales-Flores, J. D., Power, R., Allen, M., Rotundu, C. R., Bailey, T. P., Uher, C., Henighan, T., Jiang, M., Zhu, D., Chollet, et al
  2023; 107 (1)

- **Observation of a Novel Lattice Instability in Ultrafast Photoexcited SnSe** *PHYSICAL REVIEW X*
  Huang, Y., Yang, S., Teitelbaum, S., De la Pena, G., Sato, T., Chollet, M., Zhu, D., Niedziela, J. L., Bansal, D., May, A. F., Lindenberg, A. M., Delaire, O., Reis, et al
  2022; 12 (1)

- **Femtosecond X-ray Spectroscopy Directly Quantifies Transient Excited-State Mixed Valency.** *The journal of physical chemistry letters*
  Liekhus-Schmaltz, C., Fox, Z. W., Andersen, A., Kjaer, K. S., Alonso-Mori, R., Biasin, E., Carlstad, J., Chollet, M., Gaynor, J. D., Glownia, J. M., Hong, K., Kroll, T., Lee, et al
  1800: 378-386

- **Testing the data framework for an AI algorithm in preparation for high data rate X-ray facilities**
  Chen, H., Chitturi, S. R., Plumley, R., Shen, L., Drucker, N. C., Burdet, N., Peng, C., Mardanya, S., Ratner, D., Mishra, A., Yoon, C., Song, S., Chollet, et al
  IEEE.2022: 1-9

- **Measurements of nonequilibrium interatomic forces using time-domain x-ray scattering** *PHYSICAL REVIEW B*
  Teitelbaum, S. W., Henighan, T. C., Liu, H., Jiang, M. P., Zhu, D., Chollet, M., Sato, T., Murray, E. D., Fahy, S., O'Mahony, S., Bailey, T. P., Uher, C., Trigo, et al
  2021; 103 (18)

- **Subterahertz collective dynamics of polar vortices.** *Nature*
  Li, Q., Stoica, V. A., Pasciak, M., Zhu, Y., Yuan, Y., Yang, T., McCarter, M. R., Das, S., Yadav, A. K., Park, S., Dai, C., Lee, H. J., Ahn, et al
  2021; 592 (7854): 376–80

- **Author Correction: Direct observation of coherent femtosecond solvent reorganization coupled to intramolecular electron transfer.** *Nature chemistry*
  Biasin, E., Fox, Z. W., Andersen, A., Ledbetter, K., Kjar, K. S., Alonso-Mori, R., Carlstad, J. M., Chollet, M., Gaynor, J. D., Glownia, J. M., Hong, K., Kroll, T., Lee, et al
  2021

- **Direct observation of coherent femtosecond solvent reorganization coupled to intramolecular electron transfer.** *Nature chemistry*
  Biasin, E., Fox, Z. W., Andersen, A., Ledbetter, K., Kjar, K. S., Alonso-Mori, R., Carlstad, J. M., Chollet, M., Gaynor, J. D., Glownia, J. M., Hong, K., Kroll, T., Lee, et al
  2021

- **Short-lived metal-centered excited state initiates iron-methionine photodissociation in ferrous cytochrome c.** *Nature communications*
  Reinhard, M. E., Mara, M. W., Kroll, T., Lim, H., Hadt, R. G., Alonso-Mori, R., Chollet, M., Glownia, J. M., Nelson, S., Sokaras, D., Kunnus, K., Driel, T. B., Hartsock, et al
  2021; 12 (1): 1086

- **Wavefront preserving and high efficiency diamond grating beam splitter for x-ray free electron laser** *OPTICS EXPRESS*
  Li, K., Liu, Y., Seaberg, M., Chollet, M., Weiss, T. M., Sakdinawat, A.
  2020; 28 (8): 10939-10950

- **Speckle correlation as a monitor of X-ray free-electron laser induced crystal lattice deformation.** *Journal of synchrotron radiation*
  Plumley, R. n., Sun, Y. n., Teitelbaum, S. n., Song, S. n., Sato, T. n., Chollet, M. n., Nelson, S. n., Wang, N. n., Sun, P. n., Robert, A. n., Fuoss, P. n., Sutton, M. n., Zhu, et al
  2020; 27 (Pt 6): 1470–76

- **Compact hard x-ray split-delay system based on variable-gap channel-cut crystals** *OPTICS LETTERS*
  Sun, Y., Wang, N., Song, S., Sun, P., Chollet, M., Sato, T., van Driel, T. B., Nelson, S., Plumley, R., Montana-Lopez, J., Teitelbaum, S. W., Haber, J., Hastings, et al
  2019; 44 (10): 2582–85

- **Pump-probe experimental methodology at the Linac Coherent Light Source** *JOURNAL OF SYNCHROTRON RADIATION*
  Glownia, J. M., Gumerlock, K., Lemke, H. T., Sato, T., Zhu, D., Chollet, M.

2019; 26: 685–91

- **The Macromolecular Femtosecond Crystallography Instrument at the Linac Coherent Light Source** *JOURNAL OF SYNCHROTRON RADIATION*
  Sierra, R. G., Batyuk, A., Sun, Z., Aquila, A., Hunter, M. S., Lane, T. J., Liang, M., Yoon, C., Alonso-Mori, R., Armenta, R., Castagna, J., Hollenbeck, M., Osier, et al
  2019; 26: 346–57

- **The Macromolecular Femtosecond Crystallography Instrument at the Linac Coherent Light Source.** *Journal of synchrotron radiation*
  Sierra, R. G., Batyuk, A. n., Sun, Z. n., Aquila, A. n., Hunter, M. S., Lane, T. J., Liang, M. n., Yoon, C. H., Alonso-Mori, R. n., Armenta, R. n., Castagna, J. C., Hollenbeck, M. n., Osier, et al
  2019; 26 (Pt 2): 346–57

- **Higher-order modes at FELs: a machine interpretation**
  Sun, P., Sun, Y., Zhu, D., Song, S., Li, H., Chollet, M., Seaberg, M., Hastings, J. B., Robert, A., Sutton, M., Feng, Y.
  edited by Tschentscher, T., Patthey, L., Tiedtke, K., Zangrando, M.
  SPIE-INT SOC OPTICAL ENGINEERING.2019

- **Femtosecond x-ray diffraction reveals a liquid-liquid phase transition in phase-change materials.** *Science (New York, N.Y.)*
  Zalden, P. n., Quirin, F. n., Schumacher, M. n., Siegel, J. n., Wei, S. n., Koc, A. n., Nicoul, M. n., Trigo, M. n., Andreasson, P. n., Enquist, H. n., Shu, M. J., Pardini, T. n., Chollet, et al
  2019; 364 (6445): 1062–67

- **Ultrafast disordering of vanadium dimers in photoexcited VO2** *SCIENCE*
  Wall, S., Yang, S., Vidas, L., Chollet, M., Glownia, J. M., Kozina, M., Katayama, T., Henighan, T., Jiang, M., Miller, T. A., Reis, D. A., Boatner, L. A., Delaire, et al
  2018; 362 (6414): 572-+

- **Frequency-selective excitation of high-wavevector phonons** *APPLIED PHYSICS LETTERS*
  Teitelbaum, S. W., Henighan, T., Liu, H., Jiang, M. P., Kozina, M., Zhu, D., Chollet, M., Sato, T., Glownia, J. M., Trigo, M., Reis, D. A.
  2018; 113 (17)

- **Direct Measurement of Anharmonic Decay Channels of a Coherent Phonon.** *Physical review letters*
  Teitelbaum, S. W., Henighan, T., Huang, Y., Liu, H., Jiang, M. P., Zhu, D., Chollet, M., Sato, T., Murray, É. D., Fahy, S., O'Mahony, S., Bailey, T. P., Uher, et al
  2018; 121 (12): 125901

- **Direct Measurement of Anharmonic Decay Channels of a Coherent Phonon** *PHYSICAL REVIEW LETTERS*
  Teitelbaum, S. W., Henighan, T., Huang, Y., Liu, H., Jiang, M. P., Zhu, D., Chollet, M., Sato, T., Murray, E. D., Fahy, S., O'Mahony, S., Bailey, T. P., Uher, et al
  2018; 121 (12)

- **Ultrafast disordering of vanadium dimers in photoexcited VO2.** *Science (New York, N.Y.)*
  Wall, S., Yang, S., Vidas, L., Chollet, M., Glownia, J. M., Kozina, M., Katayama, T., Henighan, T., Jiang, M., Miller, T. A., Reis, D. A., Boatner, L. A., Delaire, et al
  2018; 362 (6414): 572–76

- **Ligand manipulation of charge transfer excited state relaxation and spin crossover in [Fe(2,2 '- bipyridine)(2)(CN)(2)]** *STRUCTURAL DYNAMICS*
  Kjaer, K. S., Zhang, W., Alonso-Mori, R., Bergmann, U., Chollet, M., Hadt, R. G., Hartsock, R. W., Harlang, T., Kroll, T., Kubicek, K., Lemke, H. T., Liang, H. W., Liu, et al
  2017; 4 (4): 044030

- **Metalloprotein entatic control of ligand-metal bonds quantified by ultrafast x-ray spectroscopy** *SCIENCE*
  Mara, M. W., Hadt, R. G., Reinhard, M., Kroll, T., Lim, H., Hartsock, R. W., Alonso-Mori, R., Chollet, M., Glownia, J. M., Nelson, S., Sokaras, D., Kunnus, K., Hodgson, et al
  2017; 356 (6344): 1276-+

- **Coherent structural trapping through wave packet dispersion during photoinduced spin state switching** *NATURE COMMUNICATIONS*
  Lemke, H. T., Kjaer, K. S., Hartsock, R., van Driel, T. B., Chollet, M., Glownia, J. M., Song, S., Zhu, D., Pace, E., Matar, S. F., Nielsen, M. M., Benfatto, M., Gaffney, et al

2017; 8

- **Drop-on-demand sample delivery for studying biocatalysts in action at X-ray free-electron lasers.** *Nature methods*

  Fuller, F. D., Gul, S., Chatterjee, R., Burgie, E. S., Young, I. D., Lebrette, H., Srinivas, V., Brewster, A. S., Michels-Clark, T., Clinger, J. A., Andi, B., Ibrahim, M., Pastor, et al

  2017

- **Manipulating charge transfer excited state relaxation and spin crossover in iron coordination complexes with ligand substitution** *CHEMICAL SCIENCE*

  Zhang, W., Kjaer, K. S., Alonso-Mori, R., Bergmann, U., Chollet, M., Fredin, L. A., Hadt, R. G., Hartsock, R. W., Harlang, T., Kroll, T., Kubicek, K., Lemke, H. T., Liang, et al

  2017; 8 (1): 515-523

- **Manipulating charge transfer excited state relaxation and spin crossover in iron coordination complexes with ligand substitution.** *Chemical science*

  Zhang, W., Kjær, K. S., Alonso-Mori, R., Bergmann, U., Chollet, M., Fredin, L. A., Hadt, R. G., Hartsock, R. W., Harlang, T., Kroll, T., Kubiček, K., Lemke, H. T., Liang, et al

  2017; 8 (1): 515-523

- **Atomistic characterization of the active-site solvation dynamics of a model photocatalyst** *NATURE COMMUNICATIONS*

  van Driel, T. B., Kjaer, K. S., Hartsock, R. W., Dohn, A. O., Harlang, T., Chollet, M., Christensen, M., Gawelda, W., Henriksen, N. E., Kim, J. G., Haldrup, K., Kim, K. H., Ihee, et al

  2016; 7

- **Ultrafast Excited State Relaxation of a Metalloporphyrin Revealed by Femtosecond X-ray Absorption Spectroscopy** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*

  Shelby, M. L., Lestrange, P. J., Jackson, N. E., Haldrup, K., Mara, M. W., Stickrath, A. B., Zhu, D., Lemke, H. T., Chollet, M., Hoffman, B. M., Li, X., Chen, L. X.

  2016; 138 (28): 8752-8764

- **Architecture of the synaptotagmin-SNARE machinery for neuronal exocytosis** *NATURE*

  Zhou, Q., Lai, Y., Bacaj, T., Zhao, M., Lyubimov, A. Y., Uervirojnangkoorn, M., Zeldin, O. B., Brewster, A. S., Sauter, N. K., Cohen, A. E., Soltis, S. M., Alonso-Mori, R., Chollet, et al

  2015; 525 (7567): 62-?

- **Phonon spectroscopy with sub-meV resolution by femtosecond x-ray diffuse scattering** *PHYSICAL REVIEW B*

  Zhu, D., Robert, A., Henighan, T., Lemke, H. T., Chollet, M., Glownia, J. M., Reis, D. A., Trigo, M.

  2015; 92 (5)

- **Imaging transient melting of a nanocrystal using an X-ray laser** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*

  Clark, J. N., Beitra, L., Xiong, G., Fritz, D. M., Lemke, H. T., Zhu, D., Chollet, M., Williams, G. J., Messerschmidt, M. M., Abbey, B., Harder, R. J., Korsunsky, A. M., Wark, et al

  2015; 112 (24): 7444-7448

- **Focus characterization at an X-ray free-electron laser by coherent scattering and speckle analysis** *JOURNAL OF SYNCHROTRON RADIATION*

  Sikorski, M., Song, S., Schropp, A., Seiboth, F., Feng, Y., Alonso-Mori, R., Chollet, M., Lemke, H. T., Sokaras, D., Weng, T., Zhang, W., Robert, A., Zhu, et al

  2015; 22: 599-605

- **Visualization of nanocrystal breathing modes at extreme strains** *NATURE COMMUNICATIONS*

  Szilagyi, E., Wittenberg, J. S., Miller, T. A., Lutker, K., Quirin, F., Lemke, H., Zhu, D., Chollet, M., Robinson, J., Wen, H., Sokolowski-Tinten, K., Lindenberg, A. M.

  2015; 6

- **Goniometer-based femtosecond crystallography with X-ray free electron lasers** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*

  Cohen, A. E., Soltis, S. M., Gonzalez, A., Aguila, L., Alonso-Mori, R., Barnes, C. O., Baxter, E. L., Brehmer, W., Brewster, A. S., Brunger, A. T., Calero, G., Chang, J. F., Chollet, et al

  2014; 111 (48): 17122-17127

- **Tracking excited-state charge and spin dynamics in iron coordination complexes.** *Nature*
  Zhang, W., Alonso-Mori, R., Bergmann, U., Bressler, C., Chollet, M., Galler, A., Gawelda, W., Hadt, R. G., Hartsock, R. W., Kroll, T., Kjær, K. S., Kubicek, K., Lemke, et al
  2014; 509 (7500): 345-348

- **Tracking excited-state charge and spin dynamics in iron coordination complexes.** *Nature*
  Zhang, W., Alonso-Mori, R., Bergmann, U., Bressler, C., Chollet, M., Galler, A., Gawelda, W., Hadt, R. G., Hartsock, R. W., Kroll, T., Kjær, K. S., Kubicek, K., Lemke, et al
  2014; 509 (7500): 345-348

- **Real-time visualization of nanocrystal solid-solid transformation pathways.** *Nano letters*
  Wittenberg, J. S., Miller, T. A., Szilagyi, E., Lutker, K., Quirin, F., Lu, W., Lemke, H., Zhu, D., Chollet, M., Robinson, J., Wen, H., Sokolowski-Tinten, K., Alivisatos, et al
  2014; 14 (4): 1995-1999

- **Invited Article: A test-facility for large-area microchannel plate detector assemblies using a pulsed sub-picosecond laser** *REVIEW OF SCIENTIFIC INSTRUMENTS*
  Adams, B., Chollet, M., Elagin, A., Oberla, E., Vostrikov, A., Wetstein, M., Obaid, R., Webster, P.
  2013; 84 (6)

- **Spectral encoding based measurement of x-ray/optical relative delay to similar to 10 fs rms** *Conference on X-Ray Free-Electron Lasers - Beam Diagnostics, Beamline Instrumentation, and Applications*
  Bionta, M. R., French, D., Cryan, J. P., Glownia, J. M., Hartmann, N., Nicholson, D. J., Baker, K., Bostedt, C., Cammarrata, M., Chollet, M., Ding, Y., Fritz, D. M., Durbin, et al
  SPIE-INT SOC OPTICAL ENGINEERING.2012