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Publications

- [1] O. Cannelli, N. Colonna, M. Puppini, T. C. Rossi, D. Kinschel, L. M. D. Leroy, J. Löffler, J. M. Budarz, A. M. March, G. Doumy, A. Al Haddad, M.-F. Tu, Y. Kumagai, D. Walko, G. Smolentsev, F. Krieg, S. C. Boehme, M. V. Kovalenko, M. Chergui, and G. F. Mancini. Quantifying Photoinduced Polaronic Distortions in Inorganic Lead Halide Perovskite Nanocrystals. *Journal of the American Chemical Society*, 143(24):9048–9059, 2021. 10.1021/jacs.1c02403.
- [2] T. C. Rossi, C. P. Dykstra, T. N. Haddock, R. Wallick, J. H. Burke, C. M. Gentle, G. Doumy, A. M. March, and R. M. van der Veen. Charge Carrier Screening in Photoexcited Epitaxial Semiconductor Nanorods Revealed by Transient X-ray Absorption Linear Dichroism. *Nano Letters*, 21(22):9534–9542, 2021. 10.1021/acs.nanolett.1c02865.
- [3] T. C. Rossi, D. Grolimund, O. Cannelli, G. F. Mancini, C. Bacellar, D. Kinschel, J. R. Rouxel, N. Ohannessian, D. Pergolesi, and M. Chergui. X-ray Absorption Linear Dichroism at the Ti K-edge of Rutile (001) TiO_2 Single Crystal. *Journal of Synchrotron Radiation*, 27(2), March 2020. 10.1107/S160057752000051X.
- [4] L. Wang, T. C. Rossi, M. Oppermann, B. Bauer, L. Mewes, D. Zare, T. H. Chow, J. Wang, and M. Chergui. Slow Charge Carrier Relaxation in Gold Nanoparticles. *The Journal of Physical Chemistry C*, 124(44):24322, 2020. 10.1021/acs.jpcc.0c07755.
- [5] T. C. Rossi, D. Grolimund, M. Nachtegaal, O. Cannelli, G. F. Mancini, C. Bacellar, D. Kinschel, J. R. Rouxel, N. Ohannessian, D. Pergolesi, T. Lippert, and M. Chergui. X-ray Absorption Linear Dichroism at the Ti K-edge of Anatase TiO_2 Single Crystals. *Physical Review B*, 100(24):245207, December 2019. 10.1103/PhysRevB.100.245207.
- [6] M. Oppermann, B. Bauer, T. C. Rossi, F. Zinna, J. Helbing, J. Lacour, and M. Chergui. Ultrafast Broadband Circular Dichroism in the Deep Ultraviolet. *Optica*, 6(1):56–60, January 2019. 10.1364/OPTICA.6.000056.
- [7] E. Baldini, T. Palmieri, T. C. Rossi, M. Oppermann, E. Pomarico, G. Auböck, and M. Chergui. Interfacial Electron Injection Probed by a Substrate-Specific Excitonic Signature. *Journal of the American Chemical Society*, 139(33):11584–11589, August 2017. 10.1021/jacs.7b06322.
- [8] J. Budarz, F. G. Santomauro, M. H. Rittmann-Frank, C. J. Milne, T. Huthwelker, D. Grolimund, J. Rittmann, D. Kinschel, T. C. Rossi, and M. Chergui. Time-resolved Element-selective Probing of Charge Carriers in Solar Materials. *CHIMIA International Journal for Chemistry*, 71(11):768–772, November 2017. 10.2533/chimia.2017.768.
- [9] M. Oppermann, N. Nagornova, A. Oriana, E. Baldini, L. Mewes, B. Bauer, T. Palmieri, T. C. Rossi, F. van Mourik, and M. Chergui. The LOUVRE Laboratory: State-of-the-Art Ultrafast Ultraviolet Spectroscopies for Molecular and Materials Science. *CHIMIA International Journal for Chemistry*, 71(5):288–294, May 2017. 10.2533/chimia.2017.288.
- [10] F. G. Santomauro, J. Grilj, L. Mewes, G. Nedelcu, S. Yakunin, T. C. Rossi, G. Capano, A. Al Haddad, J. Budarz, D. Kinschel, D. S. Ferreira, G. Rossi, M. G. Tovar, D. Grolimund, V. Samson,

M. Nachtegaal, G. Smolentsev, M. V. Kovalenko, and M. Chergui. Localized Holes and Delocalized Electrons in Photoexcited Inorganic Perovskites: Watching each Atomic Actor by Picosecond X-ray Absorption Spectroscopy. *Structural Dynamics*, 4(4):044002, 2016. 10.1063/1.4971999.

- [11] T. C. Rossi, T. J. Penfold, M. H. Rittmann-Frank, M. Reinhard, J. Rittmann, C. N. Borca, D. Grolimund, C. J. Milne, and M. Chergui. Characterizing the Structure and Defect Concentration of ZnO Nanoparticles in a Colloidal Solution. *The Journal of Physical Chemistry C*, 118(33):19422–19430, August 2014. 10.1021/jp505559u.
- [12] G. Chatel, C. Goux-Henry, A. Mirabaud, T. C. Rossi, N. Kardos, B. Andrioletti, and M. Draye. H₂O₂/NaHCO₃-Mediated Enantioselective Epoxidation of Olefins in NTf₂-based Ionic Liquids and under Ultrasound. *Journal of Catalysis*, 291:127–132, July 2012. 10.1016/j.jcat.2012.04.016.

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- [13] T. C. Rossi, L. Wang, M. Oppermann, P. Chen, Y.-H. Chiang, M.-C. Tsai, C.-H. Shih, T.-F. Guo, and M. Chergui. Cooling Dynamics of Electrons in MAPbBr₃ Probed in the Deep-UV. *EPJ Web of Conferences*, 205:05020, April 2019. 10.1051/epjconf/201920505020.

Talks given at International Conferences

- [14] T. C. Rossi, C. P. Dykstra, T. N. Haddock, R. Wallick, J. H. Burke, C. M. Gentle, G. Doumy, A. M. March, and R. M. van der Veen. Charge Carrier Screening in Photoexcited Epitaxial Semiconductor Nanorods Revealed by Transient X-ray Absorption Linear Dichroism. In *MML Workshop*. Hamburg, Germany, 2021.
- [15] T. C. Rossi, C. P. Dykstra, T. N. Haddock, R. Wallick, J. H. Burke, C. M. Gentle, G. Doumy, A. M. March, and R. M. van der Veen. Charge Carrier Screening in Photoexcited Epitaxial Semiconductor Nanorods Revealed by Transient X-ray Absorption Linear Dichroism. In *APS User Workshop: Ultrafast X-ray Techniques for Monitoring Dynamic Structural and Electronic Responses at Nanoscale*. Lemont IL, USA, 2021.
- [16] T. C. Rossi, D. Pergolesi, T. Lippert, M. Nachtegaal, D. Grolimund, and M. Chergui. Ti K-edge X-ray Linear Dichroism in Anatase TiO₂ Single Crystal. In *Annual Meeting of the Swiss Physical Society*. Lausanne, Switzerland, 2018.
- [17] T. C. Rossi, L. Wang, M. Oppermann, P. Chen, Y.-H. Chiang, M.-C. Tsai, T.-F. Guo, and M. Chergui. Charge-Carrier Dynamics in MAPbBr₃ Probed by Femtosecond Broadband Deep-UV Spectroscopy. In *Ultrafast Phenomena XXI*. Hamburg, Germany, 2018.
- [18] T. C. Rossi, M. Oppermann, B. Bauer, A. Magrez, M. Porer, E. Baldini, and M. Chergui. Deep-UV Dynamics of Nickel Oxide Single Crystals. In *School on UV and X-ray spectroscopies of correlated electron systems*. Les Houches, France, 2017.
- [19] T. C. Rossi, and C. Reber. Etude d'un phénomène d'interférence dans les spectres d'absorption de complexes octaédriques de chrome (III). In *Symposium Annuel de Chimie Inorganique du Québec*. Shawinigan, Canada, 2011.

Posters presented at International Conferences

- [20] T. C. Rossi, C. P. Dykstra, T. N. Haddock, R. Wallick, J. H. Burke, C. M. Gentle, G. Doumy, A. M. March, K. Gilmore, C. Draxl, and R. M. van der Veen. Electronic Effects at the Zn K-edge of Epitaxial ZnO Nanorods. In *APS User Meeting*. Lemont IL, USA, 2022.
- [21] T. C. Rossi, C. P. Dykstra, T. N. Haddock, R. Wallick, J. H. Burke, C. M. Gentle, G. Doumy, A. M. March, and R. M. van der Veen. Charge Carrier Screening in Photoexcited Epitaxial Semiconducto Nanorods Revealed by Transient X-ray Absorption Spectroscopy. In *DESY User Meeting*. Hamburg, Germany, 2022.
- [22] T. C. Rossi, C. P. Dykstra, T. N. Haddock, R. Wallick, J. H. Burke, C. M. Gentle, G. Doumy, A. M. March, and R. M. van der Veen. Electronic effects in Photoexcited Epitaxial Zinc Oxide Nanorods Investigated by Transient X-ray Absorption Linear Dichroism. In *German Conference for Research with Synchrotron Radiation, Neutrons and Ion Beams at Large Facilities*. Berlin, Germany, 2022.
- [23] T. C. Rossi, C. P. Dykstra, T. N. Haddock, R. Wallick, J. H. Burke, C. M. Gentle, G. Doumy, A. M. March, and R. M. van der Veen. Electronic Effects at the Zn K-edge of Epitaxial ZnO Nanorods. In *APS User Meeting*. Lemont IL, USA, 2021.
- [24] T. C. Rossi, C. P. Dykstra, T. N. Haddock, R. Wallick, J. H. Burke, C. M. Gentle, A. M. March, G. Doumy, and R. M. van der Veen. Electronic Effects at the Zn K-edge of Epitaxial ZnO Nanorods by Picosecond XAS. In *EXFEL DESY Workshop*. Hamburg, Germany, 2021.
- [25] K. Jablonka, T. C. Rossi, M. Oppermann, and M. Chergui. Charge-carrier cooling in ZnO nanoparticle colloidal solution by femtosecond broadband UV spectroscopy. In *Annual Meeting of the Swiss Physical Society*. Lausanne, Switzerland, 2018.

Attended International Conferences

- [26] SLS 2 Workshop. Villigen, Switzerland, 2022.
- [27] CONEXS Conference. Newcastle, UK, 2021.
- [28] FXE EXFEL Workshop. Hamburg, Germany, 2021.
- [29] APS User Workshop: Multi-Modal X-ray Techniques for Emergent Quantum Materials. Lemont IL, USA, 2020.
- [30] Molecular Ultrafast Science and Technology Annual Meeting. Grindelwald, Switzerland, 2019.
- [31] International Symposium of Ultrafast Spectroscopy. Lausanne, Switzerland, 2018.
- [32] Molecular Ultrafast Science and Technology Annual Meeting. Grindelwald, Switzerland, 2018.
- [33] International Conference on Ultrafast Structural Dynamics. Trieste, Italy, 2017.
- [34] Molecular Ultrafast Science and Technology Annual Meeting. Grindelwald, Switzerland, 2017.
- [35] Ultrafast X-ray Summer School. Stanford, USA, 2016.
- [36] Workshop on Ultrafast Dynamics in Strongly Correlated Systems. Villigen, Switzerland, 2016.
- [37] Molecular Ultrafast Science and Technology Annual Meeting. Engelberg, Switzerland, 2015.

In Preparation

- [38] T. C. Rossi, D. Kinschel, J. Budarz, G. Rossi, F. Santomauro, and M. Chergui. Charge Localization in NiO Microparticles Probed by Time-Resolved X-ray Absorption Spectroscopy. *in preparation*.
- [39] T. C. Rossi, L. Wang, M. Oppermann, P. Chen, Y.-H. Chiang, M.-C. Tsai, T.-F. Guo, and M. Chergui. Charge Dynamics in MAPbBr₃ Investigated by Broadband Visible/UV Transient Absorption Spectroscopy. *in preparation*.