ELI Beamlines USER Publications

ISAC Meeting: November 2021
Version: 1

Summary of "user papers" according to the following definition:
-A "user paper " should be peer reviewed and published in an established scientific journal
-A "user paper" should have at least one researcher not employed by ELI Beamlines as an author and originate form an experiment done at ELI Beamlines where one objective was to generate scientific data of relevance for this user's research.

2021

Nanoparticle-assisted acceleration of laser-irradiated low-density He ions
Eva Klimešová, Olena Kulyk, Laura Dittrich, Jakob Andreasson, and Maria Krikunova
PRA (letter) accepted for publication

First experiments with a water-jet plasma X-ray source driven by the in-house developed L1 Allegra laser at ELI-Beamlines
A. Zymaková, M. Albrecht, R. Antipenkov, A. Špaček, S. Karatodorov, O. Hort, J. Andreasson and J. Uhlig
Journal of Synchrotron Radiation, Volume 28, Part 6, pages 1778-1785 (2021)

Transient birefringence and dichroism in ZnO studied with fs-time-resolved spectroscopic ellipsometry
O. Herrfurth, M. Grundmann, S. Richter, et al.
Phys. Rev. Research 3, 013246 – Published 16 March 2021
https://doi.org/10.1103/PhysRevResearch.3.013246

Broadband femtosecond spectroscopic ellipsometry
Steffen Richter, Mateusz Rebarz, Oliver Herrfurth, Shirly Espinoza, Rüdiger Schmidt-Grund, and Jakob Andreasson
Review of Scientific Instruments (Vol.92, Issue 3), 03-04-2021,
https://doi.org/10.1063/5.0027219
DOI: 10.1063/5.0027219

Optical and Infrared Spectroelectrochemical Studies of CN-Substituted Bipyridyl Complexes of Ruthenium(II)
James O. Taylor, Martin Pižl, Miroslav Kloz, Mateusz Rebarz, Catherine E. McCusker, James K. McCusker, Stanislav Záliš, František Hartl, and Antonín Vlček
Inorg. Chem. 2021, DOI: 10.1021/acs.inorgchem.0c03579 (2021)

2020

Ultrafast dynamics of hot charge carriers in an oxide semiconductor probed by femtosecond spectroscopic ellipsometry
Steffen Richter, Oliver Herrfurth, Shirly Espinoza, Mateusz Rebarz, Miroslav Kloz, Joshua A Leveillee, André Schleife, Stefan Zollner, Marius Grundmann, Jakob Andreasson, Rüdiger Schmidt-Grund
New Journal of Physics 22 (8), 083066 (2020)

Characterization of the high harmonics source for the VUV ellipsometer at ELI Beamlines
Shirly Espinoza , Fabio Samparisi, Fabio Frassetto , Steffen Richter, Mateusz Rebarz , Ondrej Finke, Martin Albrecht , Matej Jurkovic , Ondrej Hort , Nicola Fabris , Anna Zymaková , Dong Du Mai, Roman Antipenkov , Jaroslav Nejdl , Luca Poletto and Jakob Andreasson
J. Vac. Sci. Technol. B 38 (2020) 024005 (1) - 024005 (5)

Time-Resolved Femtosecond Stimulated Raman Spectra and DFT Anharmonic Vibrational Analysis of an Electronically Excited Rhenium Photosensitizer

M. Pizl, A. Picchiotti, M. Rebarz. N. Lenngren, YL. Liu, S. Zalis, M. Kloz, A. Vlcek
J. Phys. Chem. A 124 (2020) 1253 – 1265

Comparative ultrafast spectroscopy and structural analysis of OCP1 and OCP2 from Tolypothrix
Valentyna Kuznetsova, Maria Agustina Dominguez-Martin, Han Bao, Sayan Gupta, Markus Sutter, Miroslav Kloz, Mateusz Rebarz, Martin Přeček, Yan Chen, Christopher J. Petzold, Corie Y. Ralston, Cheryl A. Kerfeld, Tomáš Polívka
Biochim. Biophys. Acta-Biomembr. 1861 (2020) 148120 (1) - 148120 (41)

Femtosecond-to-nanosecond dynamics of flavin mononucleotide monitored by stimulated Raman spectroscopy and simulations
Prokopis C. Andrikopoulos, Yingliang Liu, Alessandra Picchiotti, Nils Lenngren, Miroslav Kloz, Aditya S. Chaudhari, Martin Precek, Mateusz Rebarz, Jakob Andreasson, Janos Hajdu, Bohdan Schneider and Gustavo Fuertes
Phys. Chem. Chem. Phys. 22, 6538 – 6552 (2020)

Spectroscopy and excited state dynamics of nearly infinite polyenes
Sebelik, V.; Kloz, M.; Rebarz, M.; Precek, M.; Kang, EH.; Choi, TL.; Christensen, RL.; Polivka, T.
Phys. Chem. Chem. Phys. 22, 17867 – 17879 (2020)

Implementation of a crossed-slit system for fast alignment of sealed polycapillary X-ray optics
Anna Zymakova, Krishna Khakurel Prasad, Alessandra Picchiotti, Wojciech Błachucki, Jakub Szlachetko, Mateusz Rebarz, Jens Uhlig and Jakob Andreasson
J. Synchrot. Radiat. 27, 1 – 4 (2020)

2019
Plasma channel formation in NIR laser-irradiated carrier gas from an aerosol nanoparticle injector
Eva Klimešová, Olena Kulyk, Yanjun Gu, Laura Dittrich, Georg Korn, Janos Hajdu, Maria Krikunova, Jakob Andreasson
Scientific Reports 9 8851 (2019)

Transient dielectric functions of Ge, Si, and InP from femtosecond pump-probe ellipsometry
Shirly Espinoza, Steffen Richter, Mateusz Rebarz, Oliver Herrfurth, Rüdiger Schmidt-Grund, Jakob Andreasson, Stefan Zollner
Applied Physics Letters 115 052105 (2019)