Ilka Kriegel

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CURRICULUM VITAE

2013 – Present Postdoctoral Researcher, Dipartimento di Fisica, Politecnico di Milano
Ultrashort light pulse generation and applications to the study of ultrafast phenomena in the matter
Advisor: Dr. Francesco Scotognella, Prof. Giulio Cerullo, Prof. Guglielmo Lanzani
01/14 – 07/14 Research visit at the Milliron Research Group (Molecular Foundry, Lawrence Berkeley National Laboratory)
Synthesis and characterization of nanostructured material
Advisor: PI Dr. Delia Milliron
2009 – 2013 Ph.D. in Physics, Ludwig-Maximilians-University (LMU), Munich
Thesis: Near-infrared plasmonics with vacancy doped semiconductor nanocrystals - Photonics and Optoelectronics Group, Advisor: Prof. Dr. J. Feldmann
10/10-12/10 Research visit at the Talapin Group (Department of Chemistry)
Synthesis and characterization of semiconductor nanocrystals at the University of Chicago, Chicago, IL, USA
Advisor: Prof. Dr. D. Talapin
2007 – 2009 Excellence Program Advanced Materials Science (‘Excellent’), Technical University Munich, Ludwig-Maximilians-University Munich and University of Augsburg
Thesis: Morphology correlated observation of charge transfer excitons in polymer/fullerene solar cells - Photonics and Optoelectronics Group,
Chair of Prof. Dr. J. Feldmann
2004 – 2007 Bachelor’s Program Molecular Science (‘very good’), Friedrich-Alexander-University Erlangen-Nuremberg
Thesis: Stationary and time-resolved absorption and emission of functionalized single-wall carbon nanotubes - Physical Chemistry I, Chair of Prof. Dr. D. M. Guldi

SCHOLARSHIPS AND AWARDS

01/14 – 07/14 Postdoc Fellowship of the Lawrence Berkeley National Laboratory
2009 – 2013 Member of the International Doctorate Program NanoBioTechnology (IDK-NBT)
2009 – 2013 Member of the NIM Graduate Program
2012 CeNS Publication Award
Tuning the Excitonic and Plasmonic Properties of Copper Chalcogenide Nanocrystals I. Kriegel, C. Jiang, J. Rodríguez-Fernández, R. D. Schaller, D. V. Talapin, E. da Como, and J. Feldmann, J. Am. Chem. Soc.134, 1583–1590 (2012)
2012 Best Poster Presentation Award, 'NANAX 4 Nanoscience with Nanocrystals International Conference', Tutzing, Germany

Ultrafast exciton dynamics in Cadmium Telluride nanorods
I. Kriegel, Francesco Tassone, Jessica Rodríguez-Fernández, Jochen Feldmann and Francesco Scotognella, in preparation
Graphene oxide directed self-assembly of Cu2-xS nanoparticles into electronically coupled hybrid structures
S. Neyshtadt, I. Kriegel, S. Hug, B. Lotsch, J. Rodríguez-Fernández, E. Da Como, J. Feldmann, in preparation
Cation exchange synthesis and optoelectronic properties of type II CdTe-Cu2-xTe nano-heterostructures
I. Kriegel, Andreas Wisnet, Ajay Ram Srimath Kandada, Francesco Scotognella, Francesco Tassone, Christina Scheu, Hui Zhang, Alexander O. Govorov, Jessica Rodríguez-Fernández, and Jochen Feldmann, J. Mater. Chem. C, in press, (2013) DOI:10.1039/C3TC32049A
Shedding Light on Vacancy-Doped Copper Chalcogenides: Shape-Controlled Synthesis, Optical Properties, and Modeling of Copper Telluride Nanocrystals with Near-Infrared Plasmon Resonances
I. Kriegel, J. Rodríguez-Fernández, A. Wisnet, H. Zhang, C. Waurisch, A. Eychmüller, A. Dubavik, A. O. Govorov and J. Feldmann, ACS Nano, 7, 4367-4377 (2013)
Tuning the Excitonic and Plasmonic Properties of Copper Chalcogenide Nanocrystals
I. Kriegel, C. Jiang, J. Rodríguez-Fernández, R. D. Schaller, D. V. Talapin, E. da Como, and J. Feldmann, J. Am. Chem. Soc. 134, 1583–1590 (2012)
Tuning the light absorption of Cu1.97S nanocrystals in supercrystal structures
I. Kriegel, J. Rodríguez-Fernández, E. Da Como, A. Lutich, J. Szeifert, J. Feldmann, Chem. Mater. 23, 1830 (2011)
Charge transfer excitons in polymer/fullerene blends: the role of morphology and chain conformation
M. Hallermann, I. Kriegel, E. Da Como, J. M. Berger, E. von Hauff, J. Feldmann, Adv. Funct. Mater. 19, 3662-3668 (2009)