
Curriculum Vitae

April 25, 2019

// employment & education

- Full Professor at Tomsk Polytechnic University, Tomsk, Russia (2017-present, permanent position).
- PostDoc at the Solid Surfaces Analysis group. Chemnitz University of Technology (TUC), Germany (2014-2017): Application of advanced atomic force microscopy (AFM) to strain characterization in silicon devices, theoretical treatment of electric field enhancement in tip-enhanced Raman spectroscopy (TERS).
- PhD at the Semiconductor Physics group. TUC, Germany (2011-2014): Development of TERS setup, and application of TERS technique to organic and inorganic materials. Micro-Raman characterization of nanomaterials and systems.
- Teaching duties: PhD, Master and Bachelor student supervision. Lectures on advanced optical materials.

// achievements

- Active participant of the European COST Action MP1302 “Nanospectroscopy”
- Co-editor of the Textbook “Optical Nanospectroscopy”.
- 40 peer-reviewed publication in peer-reviewed international journals, most of them in the top 25% of the indexed journals.

// 5 key publications

1. Prakash, V.; Rodriguez, R.D.; Al-Hamry, A.; Lipovka, A.; Dorozhko, E.; Selyshchev, O.; Ma, B.; Sharma, S.; Mehta, S.K.; Dzhagan, V.; Mukherjee, A.; Zahn, D.R.T.Z.; Kanoun, O. and Sheremet, E. Flexible plasmonic graphene oxide/ heterostructures for dual-channel detection. *Analyst* 2019.
2. Rodriguez, R. D.; Madeira, T. I.; Sheremet, E.; Bortchagovsky, E.; Mukherjee, A.; Hietschold, M.; Zahn, D. R. T., Optical Absorption Imaging by Photothermal Expansion with 4 nm Resolution. *ACS Photonics* 2018, 5 (8), 3338-3346.
3. Sheremet, E.; Rodriguez, R. D.; Agapov, A. L.; Sokolov, A. P.; Hietschold, M.; Zahn, D. R. T. Nanoscale Imaging and Identification of a Four-Component Carbon Sample. *Carbon N. Y.* 2016, 96, 588–593.
4. Rodriguez, R. D.; Sheremet, E.; Nesterov, M.; Moras, S.; Rahaman, M.; Weiss, T.; Hietschold, M.; Zahn, D. R. T. Aluminum and Copper Nanostructures for Surface-Enhanced Raman Spectroscopy: A One-to-One Comparison to Silver and Gold. *Sensors Actuators, B Chem.* 2018, 262, 922–927.
5. Zhang T, Rodriguez R, Amin I, Gasiorowski J, Rahaman M, Sheng W, Kalbacova J, Sheremet E, Zahn D, Jordan R. Bottom-up Fabrication of Graphene-based Conductive Polymer Carpets for Optoelectronics. *Journal of Materials Chemistry C.*