

Regina Sinelnikov

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Education

PhD. CHEMISTRY | 2013 - 2018 | UNIVERSITY OF ALBERTA, CANADA

- Thesis: "Why So Colourful? On the Optical Properties of Silicon Nanocrystals", supervised by Dr. Jonathan G. C. Veinot

Bachelor of Science | 2009 - 2013 | UNIVERSITY OF WESTERN ONTARIO, CANADA

- Honors Specialization: Chemistry, Major: Computer Science
- Thesis: "Characterizing Metal-Organic Framework by XAFS and H Solid-State NMR", supervised by Dr. T.K. Sham and Dr. Yining Huang

Key Skills & Abilities

- Laboratory skills:
 - Compound and materials synthesis: under ambient and inert-atmosphere conditions (Schlenk-line and glovebox)
 - Materials characterization: FTIR, TEM, XPS, XRD, UV-Vis, TGA, Steady-state and time-resolved PL spectroscopy
 - Synchrotron: XANES, EXAFS, and XEOL experiments at the Canadian Light Source and Argonne National Laboratory
- Computer skills:
 - High degree of experience with Microsoft Office suite, Origin, MatLab, Mathematica, and ImageJ
 - Proficient in Python, C/C++, Java programming, and web development
 - Database management: basic knowledge of DB2, SQL, and XML
- Languages: Hebrew, English, and Russian

Experience

RESEARCH ASSISTANT | UNIVERSITY OF ALBERTA | 2013 - 2018

Designed and carried out experiments to gain fundamental understanding of the origin of silicon nanocrystals optical response, which involved:

- Synthesis, functionalization, and characterization of silicon nanocrystals with various surface group
- Investigation of the effect of surface chemistry on the optical and electrical response of silicon nanocrystals
- Development and instruction of standard operating procedures (SOPs) for equipment and hazardous materials used
- Collaboration with multidisciplinary research groups and presentation of findings at national and international conferences

SITE COORDINATOR | LET'S TALK SCIENCE | 2016 - 2018

Responsible for overseeing the day to day operations of the Let's Talk Science Outreach program at the University of Alberta, which includes, but not limited to:

- Recruiting, training and managing over 200 volunteers
- Supporting volunteers by helping to plan activities, providing activity supplies, and making travel arrangements
- Maintaining regular contact with the Manager of Let's Talk Science Outreach, Regional Coordinator and local stakeholders
- Tracking finances and maintaining an up-to-date budget on the Let's Talk Science portal, including seeking additional funding sources

PRESIDENT | U OF A NANOTECHNOLOGY GROUP | 2014 - 2016

- Managed all operations of the University of Alberta Nanotechnology group
- Communicated with the group's VPs to ensure timely and successful completion of group events
- Served as the 2017 Alberta Nano Research Symposium co-chair, as well as an organizing committee member for the 2017 Technology Commercialization Workshop, Nano NEXUS and Let's Talk Nanoscience events
- Submitted annual reports and grant proposal to Alberta Innovates Technology Futures, which resulted in an increased group budget

Selected Publications (amongst 18) and Presentations (amongst 9)

- **Sinelnikov, R.**; Dasog, M.; Beamish, J.; Meldrum, A.; Veinot, J. G. C. Revisiting an Ongoing Debate: What Role Do Surface Groups Play in Silicon Nanocrystal Photoluminescence? *ACS Photonics* **2017**, *4* (8), 1920–1929.
- **Sinelnikov, R.**; Meldrum, A.; Veinot, J. G. C. "The Role of Oxygen in Silicon Nanocrystal Photoluminescence" (Poster presentation), 100th CSC, May 29, 2017, Toronto, ON.
- Angi, A.; **Sinelnikov, R.**; Meldrum, A.; Veinot, J. G. C.; Balberg, I.; Azulay, D.; Millo, O.; Rieger, B. Photoluminescence through In-gap States in Phenylacetylene Functionalized Silicon Nanocrystals. *Nanoscale* **2016**, *8*, 7849-7853.
- Xu, J.; **Sinelnikov, R.**; Huang, Y.; Capturing Guest Dynamics in Metal–Organic Framework CPO-27-M (M = Mg, Zn) by ²H Solid-State NMR Spectroscopy. *Langmuir* **2016**, *32* (22), 5468–5479.
- **Sinelnikov, R.**; Dasog, M.; Meldrum, A.; Veinot, J. G. C. "Revisiting an Old Debate: What is the Origin of Photoluminescence in Silicon Nanocrystals" (Oral presentation), Pacifichem 2015, December 18, 2015, Honolulu, Hawaii, USA.

Honors and Awards

- Devendra Jindal Graduate Scholarship – Jan 2018
- Alberta Innovates Graduate Student Scholarship (Doctoral) - May 2014 - May 2017
- Queen Elizabeth II Graduate Scholarship (Master's) - Sep 2013 - May 2014
- 2012, 2013 Dean's Honors List - University of Western Ontario

Professional Affiliations

- American Chemical Society (ACS)
- Chemical Institute of Canada (CIC)
- University of Alberta Nanotechnology Group
- Let's Talk Science

Extracurricular Activities

- *VP Communication*, The University of Alberta Nanotechnology Group (2015 – 2016)
- *Media Relations Officer*, Women in Chemistry Group (2017 – 2018)
- *Lab Activity Leader*, SET and CHOICES conferences, WISEST (2014 – 2016)
- *Volunteer*, National Chemistry Week, CIC (2013 – 2015)
- *Tutor*, Learning Disabilities Association of Ontario (2010 – 2011)

References

Available on request.