

# T. Wesley Surta

Address: 153 Gilbert Hall, Corvallis, OR

Email: [SurtaT@oregonstate.edu](mailto:SurtaT@oregonstate.edu)

Phone: (630) 740 – 2021

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## Education

**Ph.D. in Chemistry**, Oregon State University, Corvallis, Oregon 2018 (Expected)

**B.Sc. in Chemistry**, Fort Lewis College, Durango, Colorado 2012

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## Publications

(4) “The Impact of Cation Disorder on the Dielectric and Ferroelectric Properties in Highly Substituted  $\text{Bi}_2\text{Sr}(A)\text{TiNb}_2\text{O}_{12}$  ( $A = \text{Ca}^{2+}$ ,  $\text{Sr}^{2+}$ ,  $\text{Ba}^{2+}$ ) Aurivillius Phases” Surta, T. W.; Manjon-Sanz, A.; Qian, E. K.; Mansergh, R. H.; Tran, T. T.; Fullmer L. B.; Dolgos M. R. *Submitted to Chemistry of Materials*.

(3) “Mechanism of Na-Ion Storage in Hard Carbon Anodes Revealed by Heteroatom Doping” Li, Z.; Bommier, C.; Chong Z. S.; Jian, Z.; Surta, T. W.; Wang, X.; Xing, Z.; Stickle, W. F.; Neuefeind, J. C.; Dolgos, M. R. Greaney, P. A.; Ji, X. *Advanced Energy Materials*, 2017, 1602894.

(2) “High Capacity of Hard Carbon Anode in Na-Ion Batteries Unlocked by  $\text{PO}_x$  Doping” Li, Z.; Ma, L.; Surta, T. W.; Bommier, C.; Jian, Z.; Xing, Z.; Stickle, W. F.; Dolgos, M. R.; Amine, K.; Lu, J.; Wu, T.; Ji, X. *ACS Energy Letters*, 2016, 1 (2), 396-401.

(1) “New Mechanistic Insights on Na-Ion Storage in Non-Graphitizable Carbon” Bommier, C.; Surta, T. W.; Dolgos, M. R.; Ji, X. *Nano Letters*, 2015, 15 (9), 5888-5892.

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## Presentations

(5) “Settling a Scientific Debate by Investigating the Structure-Property Relationships of Disordered Aurivillius Phases” Surta, T. W.; Qian, E. K.; Manjon-Sanz, A.; Tran, T. T.; Mandal, P.; Halasyamani, P. S.; Dolgos, M. R. *Poster Presentation*, American Conference on Neutron Scattering, Long Beach, California, 2016.

(3) “Efficiency and Long-Term Cycling Study of Carbon Anode Materials in Sodium-Ion Batteries” Li, Z.; Ma, L.; Surta, T. W.; Bommier, C.; Jian, Z.; Xing, Z.; Stickle, W. F.; Dolgos, M. R.; Lu, J.; Wu, T.; Ji, X. *Poster Presentation*, 18<sup>th</sup> International Meeting on Lithium Batteries, Chicago, Illinois, 2016.

(2) “Structure Property Relationships in Disordered Aurivillius Phases” Surta, T. W.; Qian, E. K.; Manjon-Sanz, A.; Dolgos, M. R. *Oral Presentation*, OSU Materials Research Society Student Chapter, Corvallis, Oregon, 2015.

(1) “Electrical Properties of  $\text{Bi}_2\text{Sr}(A)\text{TiNb}_2\text{O}_{12}$  ( $A = \text{Ca}$ ,  $\text{Sr}$ ,  $\text{Ba}$ ) Aurivillius Phases” Surta, T. W.; Fusick, S. M.; Dolgos, M. R. *Poster Presentation*, North American Solid State Chemistry Conference, Tallahassee, Florida, 2015.

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## Awards

Milton Harris Graduate Fellowship <i>Awarded to six graduate teaching assistants for achievements in research and teaching</i>	2016
Oregon State University Chemistry Department Travel Award <i>Awarded \$400 for travel to Long Beach, CA to present at the American Conference on Neutron Scattering</i>	2016
Oregon State University Chemistry Department Laboratory Teaching Assistant Award <i>Awarded to graduate teaching assistants who show excellence in safety and instruction in the laboratory</i>	2015
Oregon State University Chemistry Department Travel Award <i>Awarded \$400 for travel to Tallahassee, FL to present at the North American Solid State Chemistry Conference</i>	2015
Fort Lewis College Student Travel Grant <i>Awarded \$600 for travel to New Orleans, LA to present at the American Chemical Society National Meeting</i>	2013
Fort Lewis College Student Summer Research Fellowship in Chemistry <i>Awards four students who show an aptitude for research with funding to work in an organic synthesis lab</i>	2012

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## Teaching Experience

<i>Instructor</i> , Oregon State University, Chemistry 231 Enhanced Section Increased student success for high achieving students by modifying the current curriculum of the general chemistry for science majors. Historical data indicates that incoming students that have illustrated math proficiency do not perform as well as expected. By reducing time spent on rote exercises and replacing it with the application of concepts we increase student attendance, participation, engagement, and performance. <ul style="list-style-type: none"><li>• Developed Curriculum</li><li>• Organized Guest Lecturers</li><li>• Designed New Homework</li></ul>	2016
<i>Graduate Teaching Assistant</i> , Oregon State University Courses: 121, 122, 123 General Chemistry 231, 232, 233 General Chemistry for Science Majors 201 Chemistry for Engineering Majors 390 Environmental Chemistry 462, 464 Experimental Chemistry	2013-2016
<i>Instructor</i> , Fort Lewis College Courses: 251 Organic Chemistry Lab 365 Analytical Chemistry Lab	2013
<i>Undergraduate Teaching Assistant</i> , Fort Lewis College Courses: 251 Organic Chemistry Lab	2012

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## Service and Community Involvement

Workshop on The Analysis of Total Scattering Data Using the Pair Distribution Function This workshop is to be held at the Northwest Regional American Chemical Society Conference at Oregon State University. The content will cover data collection, processing, and analysis using a variety of methods. Efforts will be concentrated on data collected using a laboratory X-ray instrument but will not exclude synchrotron or neutron data collected at national laboratories.	2017
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## Service and Community Involvement (continued)

Chemistry Undergraduate Mentoring and Empowerment Initiative 2014-Present  
Founding and executive member helping and bring together undergraduate students and graduate students. Formal vents include with skill-development workshops, undergraduate poster sessions, scientific presentations, and meet and greet socials.

Oregon State University Discovery Days 2016  
Presented chemistry demonstrations to elementary and middle school students to bolster interest in STEM Fields.

4H Summer Conference at Oregon State University 2016  
Presented chemistry demonstrations to middle and high school students to highlight the science learning at OSU.

Louis Stokes Alliance for Minority Participation Bridge Program 2015  
Presented chemistry demonstrations to incoming Oregon State University undergraduates from underrepresented groups to encourage participation in STEM fields.

Oregon State University Chemistry Departmental Safety Advisory Group 2014-Present  
Graduate student representative on the group whose goals is to help give guidance to the chemistry department on how to properly implement safety procedures in research labs.

Fort Lewis College STEM Student Support TRiO program 2013  
Held both private and group tutoring sessions for organic and analytical chemistry for members of the program which supports students from low-income backgrounds, those with disabilities, and first generation.

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## Workshops

Teaching Mentoring Seminar, Chemistry Seminar 607 2013-Present  
Oregon State University Corvallis, OR

Individual Development Planning Workshop 2015  
Center for Sustainable Materials Chemistry, University of Oregon Eugene, OR

Modern Methods of in Rietveld Refinement and Structural Analysis 2015  
Florida State University Tallahassee, FL

Magnetic Structure Determination from Neutron Diffraction Data Workshop. 2014  
Oak Ridge National Lab Knoxville, TN

Lens of the Market, Stage 1: Research 2 Innovation. 2014  
Center for Sustainable Materials Chemistry, University of Oregon Eugene, FL  
*“The Lens of the Market Workshop was developed to provide teams of STEM professionals with a rapid introduction to the vocabulary, skills, tools, and road map needed for scientists and engineers to engage in successfully translating their research into innovations.”*

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## Memberships

- Neutron Scattering Society of America
- American Chemical Society