

DR. LOVE-ESE CHILE

Email: lechile@greytoremsolutions.com | Website: www.loveesechile.com

EDUCATION AND QUALIFICATIONS

- Ph.D. – University of British Columbia September 2012 to August 2017
“Synthesis and rheology of poly(lactide)s and their lignin composites”
- B.Sc. (Hon.) – University of Auckland (NZ) March 2007 to November 2010
“New pyrrolyl ligands”

AWARDS

- Best Communicator – Science Slam, Vancouver, BC; **October, 2017**
- Green Chemistry and Sustainability Travel Scholarship – Green Chemistry Initiative and Green Centre Canada; **May, 2017**
- Oral Presentation Prize - Macromolecular Science and Engineering division
99th Canadian Chemistry Conference and Exhibition, Halifax, NS.; **June, 2016**

EMPLOYMENT HISTORY

Regenerative Waste Labs Inc.:

- Owner, Chief Operations Officer, Technical Director January 2020 to present
Duties involve: Managing technical teams, developing experimental methodologies, forming collaborations and partnerships to achieve company goals.

Grey to Green Sustainable Solutions:

- Founder, Principal Circular Products Consultant May 2018 to present
Duties involve: Conducting literature reviews of a complex nature utilizing multiple databases and resources, analysing and critiquing findings, compiling various reports for clients on status of market and technology development

STEM Aces Education:

- Sustainable Science Instructor June 2017 to May 2018
Duties involved: Developing class lesson plan to fulfil a given curriculum, developing high-school level chemistry experiments to fulfil a given curriculum, leading classroom sessions through lessons and activities, implementation of Inquiry Based Learning and Project Based Learning, teaching and imparting STEM expertise to students

Mad Science of Greater Vancouver & BC Interior:

- Instructor September 2017 to December 2017
Duties involved: Conducting hands-on elementary school science programs, delivering enjoyable educational value, ensuring full participation of all children, providing a fun and entertaining environment

University of British Columbia:

- Research Assistant September 2012 to August 2017
Duties involved: Training and mentoring undergraduate and junior graduate students, communicating research in both oral and written methods, upholding proper laboratory safety standards, maintenance and operation of laboratory instrumentation
- Senior Teaching Assistant August 2014 to August 2017
Duties involved: Mentoring Teaching Assistants to enhance their ability to enrich student learning and giving constructive feedback to improve teaching efficiency
- Teaching Assistant September 2012 to August 2017
Duties involved: Conducting small-group tutorial sessions, simplifying complex concepts, providing constructive feedback on the learning process, course development and guiding students

- through various undergraduate chemistry wet-lab courses
- Training Facilitator August 2013 to September 2016
Duties involved: Co-facilitating training workshops, preparation of workshop materials, engaging with participants

LEADERSHIP AND OUTREACH

Liu Institute Network for Africa (LINA)

- Steering Committee Member January 2019 to present
LINA is a network of researchers working create a platform to bring together stakeholders and resources within research and policy institutions to address policy issues in Africa.
Undertakings include: Led committees to develop non-profit by-laws and organize the inaugural network symposium. Working in collaboration with members to develop road map for organization.

Science Slam Canada

- Board Member November 2018 to present
Science Slam Canada is a non-profit organization with the mission to encourage and develop methods of non-conventional science communication within Canada.
Undertakings include: Led a committee to develop non-profit by-laws. Working on committees to organize national Science Slam events.

GreenChem UBC

- Founding Member June 2016 to December 2017
Undertakings included: Establishing a student group aimed with promoting sustainable chemistry practices within the Chemistry department, developing the organization's constitution, building consensus among invested parties, facilitating conversations with potential funding sources and target audiences, conserving a positive dynamic within the group
- Social Co-ordinator June 2016 to December 2017
Undertakings included: Launching various campaigns to reduce chemical waste production and laboratory energy consumption, overseeing the planning and execution of events to promote green chemistry to academic researchers, students and the general public

Chemistry Graduate Student Society

- President October 2014 to September 2015
Undertakings included: Instigating graduate student interest groups to work with department leadership on education reform, launching a series of career development seminars, resolving conflicts, developing and maintaining collaborative relationships
- International Student Representative October 2013 to September 2014
Undertakings included: Advocating for international graduate student issues

RESEARCH MENTORSHIP

Internship Mentor to Kayrel Edwards, Doctor of Philosophy in Chemistry – Mc Gill University. July to October 2021.

Research Mentor to Carlie Owens, Master of Engineering Leadership - University of British Columbia, "*Closing the Loop: An investigation into the end-of-life alternatives for bioplastics.*". Thesis submitted December 2020.

External Examiner to Robin Hethey, Master of Arts in Sustainable Leisure Management - Vancouver Island University, "*Shrinking my footprint: My 30-day plastic free challenge.*". Thesis submitted May 2020.

Research Mentor to Hilal Savas, Master of Engineering Leadership - University of British Columbia, "*Low molecular weight carboxylic acid contents of composted samples.*". Thesis submitted December 2018.

PEER REVIEWED PUBLICATIONS

Chile, L-E.; Kaser, S.; Hatzikirakos, S. G.; Mehrkhodavandi, P.; "Synthesis and thermorheological analysis of biobased lignin-graft-poly(lactide) copolymers and their blends." *ACS Sustainable Chem. Eng.* **2018**, *6*, 1650. (doi: 10.1021/acssuschemeng.7b02866)

Chile, L-E.; Mehrkhodavandi, P.; Hatzikirakos, S. G.; "Aromatic interactions in aryl-capped polylactides: A thermorheological investigation." *J. Rheol.* **2017**, *61*, 1137. (doi: 10.1122/1.5000804)

Chile, L-E.; Wong, A.; Ebrahimi, T.; Aluthge, D. C.; Hatzikirakos, S. G.; Mehrkhodavandi, P.; "Impact of Aryloxy Initiators on the Living and Immortal Polymerization of lactide." *Dalton Trans.* **2017**, *46*, 6723. (doi: 10.1039/C7DT00990A)

Chile, L-E.; Mehrkhodavandi, P.; Hatzikirakos, S. G.; "A Comparison of the Rheological and Mechanical Properties of Isotactic, Syndiotactic and Heterotactic Poly(lactide)." *Macromolecules*, **2016**, *49*, 909. (doi: 10.1021/acs.macromol.5b02568)

Lin, K.; **Chile, L-E.**; Zhen, S. C.; Boyd, P. D. W.; Ware, D. C.; Brothers, P. "Pyrrole pincers containing imidazole, pyrazole and 1,2,4-triazole groups." *Inorg. Chim. Acta.* **2014**, *42*, 95. (doi: 10.1016/j.ica.2014.07.022)

NON-PEER REVIEWED PUBLICATIONS

Chile, L-E.; "Growing with Bioplastics" published in 62nd Annual Horticulture Growers' Short Course 2020 Proceedings, **2020**, June (ISSN 2560-7561)

Chile, L-E.; "Composting Biodegradable Plastics: A Technical Review" self-published, **2019**, May (https://www.loveesechile.com/s/Composting-Biodegradable-plastics_F.pdf)

National Zero Waste Council, "How Do We Use and Recover More Compostable Packaging: Canadian Perspectives" published on National Zero Waste Council website, **2019**, May (http://www.nzwc.ca/focus/design/Documents/NZWC_HowDoWeUseRecoverMoreCompostablePackaging.pdf)

SELECTED PRESENTATIONS

Chile, L-E., "Starting at the end: Backwards design for circular products" Vancouver Economic Commission Tools for the Circular Economy, online workshop, **October**, 2020, oral presentation.

Chile, L-E.; "Advocacy, Education and Research to Build a Circular Bioeconomy for Plastics" 24th Annual Green Chemistry and Engineering Conference, online conference, **June**, 2020, oral presentation.

Chile, L-E.; "Building a Career Within the Green Economy" Green Bricks Green Collar Career Conference, Vancouver, BC, **February**, 2020, Keynote Speaker, oral presentation.

Chile, L-E.; "Growing with Bioplastics" Lower Mainland Horticulture Growers Association Short Course, Vancouver, BC, **February**, 2020, oral presentation.

Chile, L-E.; "Compostable plastics: Challenges & Opportunities" Recycling Council of British Columbia Workshop, Vancouver, BC, **November**, 2019, oral presentation.

Chile, L-E.; "Facts About Compostable Plastics and Packaging" Sustainable Production Forum, Vancouver, BC, **October**, 2019, oral presentation.

Chile, L-E.; "Releasing the Potential of the Circular Bioeconomy" Columbia Basin Food Summit, Rossland, BC, **October**, 2019, oral presentation.

Chile, L-E.; "Driving innovation in on-site waste processing of compostable food service items" 23rd Annual Green Chemistry and Engineering Conference and 9th International Conference on Green and Sustainable Chemistry, Reston, VA, **June**, oral presentation.

Chile, L-E; "Enhanced biodegradation of compostable food packaging" 23rd Annual Green Chemistry and Engineering Conference and 9th International Conference on Green and Sustainable Chemistry, Reston, VA, **June**, oral presentation.

Chile, L-E; "Stepping Stones: The Evolution and Impact of Disruptive Technology", Suzuki Elders Sustainability and Science Public Salon Series, Vancouver, BC, **March**, 2019, oral presentation.

Chile, L-E; "Shifting the plastic landscape: Bio-plastics, circular economy and sustainable material management" Cafe Scientifique, Vancouver, BC, **March**, 2019, oral presentation.

Chile, L-E; "Sustainable Plastics: Solution or Illusion? Plastics, Zero Waste and the Circular Economy?" Surfriders Vancouver Lecture Series, Vancouver, BC, **February**, 2019, oral presentation.

Chile, L-E; "Can sustainable plastics save us?" Vancouver Aquarium Ocean Matters Lecture Series, Vancouver, BC, **September**, 2018, oral presentation.

Chile, L-E; "Green Chemistry: A way forward." Suzuki Elders Sustainability and Science Public Salon Series, Vancouver, BC, **September**, 2017, oral presentation.

Chile, L-E; Hatzikirakos, S. G; Mehrkhodavandi, P.; "Lignin-*graft*-PLA Copolymers: Synthesis to Material Characterization." 100th Canadian Chemistry Conference and Exhibition, Toronto, ON.; **May**, 2017, oral presentation.
