

# Mauricio Córdova Udaeta

**PhD. Student**, Department of Systems Innovation, Graduate School of Engineering, The University of Tokyo

**Email** : mauricio-cordova-u@g.ecc.u-tokyo.ac.jp

**Website** : mauricio-cordova.github.io

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## EDUCATION

### The University of Tokyo

Tokyo, Japan

*Ph.D., Systems Innovation, March 2021 (Scheduled)*

*M. Eng., Systems Innovation, September 2016*

### University of San Simón (UMSS)

Cochabamba, Bolivia

*B. Sc., Chemical Engineering, May 2011*

## WORK EXPERIENCE

### LCO: “LA VERTIENTE”

Cochabamba, Bolivia

*Project Manager, Oct 2013 - Jan 2014*

Designed and installed the water treatment plant for the Local Community Organization (LCO).

### Simón I. Patiño University (USIP)

Cochabamba, Bolivia

*Laboratory Manager/Teacher, Mar 2012 - Dec 2013*

Managed the chemistry laboratory and performed teaching duties in the subjects: General chemistry, Introduction to inorganic chemistry and Introduction to environmental chemistry.

### Bolivian Institute of Normalization

Potosí, Bolivia

*Independent Consultant, Dec 2012*

Monitored the air quality for the automotive fleet at the “San Cristóbal” mine.

### National Electricity Company (ENDE)

Potosí, Bolivia

*Independent Consultant, May 2012*

Monitored the water quality for the natural streams at the geothermal energy project: “Sol de Mañana”.

### Water and Sanitation Center (CASA-UMSS)

Cochabamba, Bolivia

*Research Assistant, Feb 2011 - Feb 2012*

*Laboratory Assistant, Aug 2008 - Jun 2009*

Performed water/wastewater sampling and laboratory analyses using diverse chemical techniques and instrumentation. Conducted the assessment of several water treatment plants and researched the potential of low-cost materials for adsorption systems.

### Unilever

Cochabamba, Bolivia

*Undergraduate project, Feb 2009 - Dec 2009*

*Internship, Aug 2008 - Nov 2008*

Designed a water treatment system for manganese ( $Mn^{2+}$ ) removal by adsorption, including equipment design and costs analysis. The final project was presented to the Engineering Department.

### University of San Simón (UMSS)

Cochabamba, Bolivia

*Teaching Assistant, Aug 2005 - Jun 2008*

Managed the physical chemistry laboratory and performed teaching duties at the undergraduate level.

## PUBLICATIONS

Dodbiba, G., Zhang, X., Kim, Y., **Córdova Udaeta, M.**, Ponou, J., Fujita, T., 2020. Enhanced elution of chloride ions from incinerator bottom ash. *Chem. Eng. Commun.* 1–9. [https://doi:10.1080/00986445.2020.1811698](https://doi.org/10.1080/00986445.2020.1811698)

**Córdova Udaeta, M.**; Ponou, J.; Dodbiba, G.; Fujita, T. Enrichment of Silicocarnotite from Silicocarnotite and Gehlenite Mixtures Using a Kerosene-Based Liquid-Liquid Separation Process. *J. Environ. Chem. Eng.* 2019, 7 (6), 103387. <https://doi.org/10.1016/j.jece.2019.103387>.

**Córdova Udaeta, M.**; Dodbiba, G.; PONOU, J.; Sone, K.; Fujita, T. Recovery of Phosphorus from Sewage Sludge Ash by Heat Treatment Followed by Liquid-Liquid Separation. *Int. J. Soc. Mater. Eng. Resour.* 2018, 23 (1), 93–97. <https://doi.org/10.5188/ijsmr.23.93>.

**Córdova Udaeta, M.**; Dodbiba, G.; Ponou, J.; Sone, K.; Fujita, T. Recovery of Phosphorus from Sewage Sludge Ash (SSA) by Heat Treatment Followed by High Gradient Magnetic Separation and Flotation. *Adv. Powder Technol.* 2017, 28 (3), 755–762. <https://doi.org/10.1016/j.apt.2016.11.023>.

<b>SKILLS</b>	<b>Chemistry:</b> Physical chemistry, Instrumental analysis, Chemical laboratory work.
	<b>Engineering:</b> Design of Chemical processes and equipment, Chemical project implementation.
	<b>Teaching:</b> General chemistry, public and motivational speaking, e-learning content creation.
	<b>Programming:</b> Python.
<b>LANGUAGES</b>	<b>Spanish:</b> Native, <b>English:</b> Proficient, <b>Japanese:</b> Intermediate (JLPT level N3 certified in Dec 2017)
<b>SCHOLARSHIPS AND GRANTS</b>	<b>SEUT-RA (Type-B) fellowship</b> <i>Sep 2016 - Aug 2019</i> Doctoral fellowship offered by the Graduate School of Engineering at The University of Tokyo.
	<b>Monbukagakusho: MEXT Scholarship</b> <i>Apr 2014 - Aug 2016</i> Graduate Scholarship for International Students offered by the Japanese Government.
<b>AWARDS</b>	<b>Graduate Institute for Policy Studies</b> <i>Tokyo, Japan</i> <i>Award for Best Policy Proposal</i> <i>SciREX (GRIPS) Summer Camp, Aug 2018</i> “A forecast of Japanese universities in 2030: Future roles and demands”
	<b>The University of Tokyo</b> <i>Tokyo, Japan</i> <i>Award for Best Innovation</i> <i>GMSI/GSDM/WINGS Summer Camp, Jul 2018</i> “Novel device for automatic, painless and long-term drug delivery”.
	<b>Kansai University/KIGAM/KIRR</b> <i>Osaka, Japan</i> <i>Award for Oral Presentation</i> <i>Apr 2017</i> Presentation of the Master’s thesis at the 15 <sup>th</sup> Japan/Korea International Symposium on Resources Recycling and Materials Science.
<b>VOLUNTEER WORK</b>	<b>Waste Management (Elsevier B.V.)</b> <i>Manuscript reviewer, Apr 2020</i> Invited referee for the academic journal “Waste Management”, available at: <a href="https://www.journals.elsevier.com/waste-management">https://www.journals.elsevier.com/waste-management</a> .
	<b>The Christophers</b> <i>Cochabamba, Bolivia</i> <i>Team member, Aug 2010 - Dec 2013</i> Member of the team imparting “The Christophers Leadership Course”, a 10-session course on personal development and public speaking.
<b>OTHER WORK</b>	<b>The University of Tokyo</b> <i>Tokyo, Japan</i> <i>Teaching Assistant (part-time), Sept 2016 - ongoing</i> Member of the team in charge of the Massive Online Open Course (MOOC): Studying at Japanese Universities, available at <a href="https://www.coursera.org/learn/study-in-japan">https://www.coursera.org/learn/study-in-japan</a> .
	<b>Shubiki Corporation</b> <i>Tokyo, Japan</i> <i>Translator (part-time), Jun 2015 - Dec 2017</i> Translation and content creation for the e-learning platform: “BisCue” in the spanish language.
	<b>tutor.com (via Latinhire)</b> <i>Cochabamba, Bolivia</i> <i>Online tutor (part-time), Apr 2013 - Jan 2014</i> Tutor for the subjects: General chemistry and Inorganic chemistry.