

# SIO JOHN EDWARD

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**Current living address:** 17058 경기도 용인시 처인구 명지로 116 번길 31(남동)

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**E-mail:** edward.sio990@gmail.com

**Place and date of birth:** Manila, Philippines; October 20, 1990



## EDUCATIONAL BACKGROUND

School	Degree	Year	Awards
Myongji University Yongin, South Korea	Ph.D. in Environmental Engineering	2017-present	
University of Santo Tomas Manila, Philippines	M.Sc. in Chemistry	2011-2013	DOST-SEI scholarship
University of Santo Tomas Manila, Philippines	B.Sc. in Chemistry	2007-2011	<i>Cum laude</i>
Chiang Kai Shek College Manila, Philippines	Elementary, Middle, and High Schools	1997-2007	

## WORK EXPERIENCE

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### **1. University of Santo Tomas, Sampaloc, Manila, Philippines**

Description: Instructor 3 at the College of Science (Fixed Term, Substitute)

Duration: January 2015 – June 2017

Courses taught:

- Lecture

*General Inorganic Chemistry (non-Chemistry majors)*

- Laboratory

General Inorganic Chemistry (Chemistry and non-Chemistry majors)

Organic Chemistry (non-Chemistry majors)

Analytical Chemistry (non-Chemistry majors)

Biochemistry (Chemistry and non-Chemistry majors)

Physics (non-Physics majors)

*Instruments handled:*

- UV-Vis spectrophotometer
- FT-IR spectrometer
- pH meter
- Melting point apparatus
- UV visualizing chamber

### **2. Department of Science and Technology, Bicutan, Taguig City, Philippines**

Description: Science Research Specialist 1 at Standards and Testing Division, Industrial Technology Development Institute (Contractual)

Duration: February 2014 – December 2014

*Instruments/equipment handled:*

- Flame atomic absorption spectrophotometer (F-AAS)
- pH meter
- Automatic titrator
- Air and vacuum ovens
- Analytical and top-loading balances
- Millipore water dispenser
- Furnace

*Analyses conducted:*

- Heavy metals and minerals analysis in food and in water (F-AAS, sample preparation included)
- pH analysis of coffee, ointment, and water (pH meter)
- Complexometric titration for method validation for lead, zinc, calcium, and magnesium (automatic titrator)
- Total dietary fiber in watermelon seeds

- Caffeine extraction from coffee for HPLC analysis
- Water – insoluble solids in coffee
- Moisture analysis in food

*Other activities:*

- Document editing and sorting
- Writing of technical procedures for method validation
- Preparation of proficiency testing materials

**3. San Miguel Brewery, Inc., Polo, Valenzuela City:**

Description: Intern at Central Analytical Laboratory

Duration: April 2010 – May 2010

*Instruments/equipment handled:*

- High pressure liquid chromatography, HPLC (beginner)
- UV-Vis spectrophotometer
- UV-irradiating chamber
- pH meter
- Protein analyzer
- Mashing apparatus
- Flow-injection (beginner)
- Beer analyzer (beginner)

*Analyses conducted:*

- Sulfuric acid purity (acid-base titration)
- Bottle-washing efficiency (UV-Vis spectrophotometry)
- Arsenic detection (color test kit)
- Malt homogeneity (Fluorescence by UV-irradiation)
- Nitrogen analysis (Kjeldahl method with protein analyzer)
- Beer density (beer analyzer)
- Free amino nitrogen (UV-Vis spectrophotometry)

## SEMINARS ATTENDED

논문제목 (Presentation Title)	논문집(초록집)명 Conference Name	발표일자, 장소 Date and Location	비고 (Presenting Author or Co-author)
Synthesis of photo-active azo compounds and its application to Cs <sup>+</sup> extraction from aqueous solutions	2021 KSEE	November 3-5 Shinhwa World Landing Resort, Jeju City	Co-author
Epoxy Resins for the Selective Removal of Cs <sup>+</sup> in Acidic High-Level Liquid Waste	2021 KSEE	November 3-5 Shinhwa World Landing Resort, Jeju City	Co-author
Pyridine-carboxylic acid surface-functionalized magnetite for recovery of Co(II) in aqueous solution	2021 KICHe Spring Meeting	April 21-23 BEXCO, Busan	Author (Oral)
Size- and spatial-tuning of benzocrown ethers for extraction of Cs(I) in aqueous solution	2021 KICHe Spring Meeting	April 21-23 BEXCO, Busan	Author
Polymeric Crown Ether for the Removal of Cesium from Liquid Wastes	2021 KICHe Spring Meeting	April 21-23 BEXCO, Busan	Co-author
Efficient Removal of Cs <sup>+</sup> in Water by DB18C6 tethered on SBA-15	2021 KICHe Spring Meeting	April 21-23 BEXCO, Busan	Co-author
Reduced Schiff Base-Decorated Magnetite for Removal of Heavy Metal Ions from Aqueous Solution	2019 IEEC & BWR	December 10-13 BEXCO, Busan	Author
Co(II) recovery from electronic waste based on ion-imprinting of reduced Schiff base ligand on magnetite	2019 1 <sup>st</sup> -ISEE	May 19-22 ICC Jeju City	Author
Co(II) recovery from electronic waste based on ion-imprinting of reduced Schiff base ligand on magnetite	2019 KICHe Spring Meeting	April 24-26 ICC Jeju City	Author

논문제목 (Presentation Title)	논문집(초록집)명 Conference Name	발표일자, 장소 Date and Location	비고 (Presenting Author or Co- author)
Thia-crown Ether Functionalized Mesoporous Silica Composite Adsorbent for Selective Recovery of Gold (Au <sup>3+</sup> ) Ions from Electronic Wastes	2019 KICHe Spring Meeting	April 24-26 ICC Jeju City	Co-author
Design of Lithium Selective Fluoroionophore Based on Crown Ether Anthraquinone	2018 Korean BioChip Society Conference	November 7-9 KAL Hotel, Jeju City	Author
Monohydroxydibenzo-13-, Dihydroxy-15-, Dihydroxy-17- and Dihydroxy-19-thiacrown Ether Impregnated PPMs for Selective Recovery of Precious Metals	2018 KICHe Fall Meeting	October 24-26 EXCO Daegu	Author
Li <sub>1-x</sub> Ni <sub>0.33</sub> Co <sub>1/3</sub> Mn <sub>1/3</sub> O <sub>2</sub> /Ag for Electrochemical Lithium Recovery from Brine	2018 KICHe Fall Meeting	October 24-26 EXCO Daegu	Co-author
Crown Ether - Decorated Phosphazene – Modified Magnetic Graphene Oxide as a Composite Adsorbent Material for Selective Lithium Ion Recovery from Seawater	2018 KICHe Fall Meeting	October 24-26 EXCO Daegu	Co-author
Molecularly ion-imprinted polymer-based electrospun nanofibers as highly effective adsorbent for removal of mercury ions from aqueous solutions	2018 KICHe Fall Meeting	October 24-26 EXCO Daegu	Co-author
Preparation of Cucurbituril-Loaded PVC Nanofiber Membrane for Metal Ion Recovery	2018 KICHe Fall Meeting	October 24-26 EXCO Daegu	Co-author

## PUBLICATIONS

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Title	Journal Name	Publication Year	Authorship
Hyper-crosslinked tetraphenylborate as a regenerable sorbent for Cs <sup>+</sup> sequestration in aqueous media through cation- $\pi$ interactions	Chemosphere	2021	Co-first author
Removal of Cs <sup>+</sup> in water by dibenzo-18-crown-6 ether tethered on mesoporous SBA-15 as a reusable and efficient adsorbent	Journal of Water Process Engineering	2020	Co-first author