

CURRICULUM VITAE

PERSONAL BACKGROUND

- 🕒 Names : Guillermo Andrés.
- 🕒 Surnames : Ahumada Toro.
- 🕒 Birth date : January 6, 1988.
- 🕒 Age: 30.
- 🕒 Birth place : Iquique, Chile.
- 🕒 Nationality : Chilean.
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ACADEMIC BACKGROUND

Elementary and High School:

- Liceo Católico Atacama, Copiapó, Chile (1992 - 2005).

University:

- License in Chemistry and Title in Industrial Chemistry, Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile. (2006-2011).
- Doctorate in science, chemistry mention. Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile. (2012-2017).
- Docteur de L'Université de Rennes 1, mention Chimie. Université de Rennes 1, Rennes, France. (2015-2017).

POSITIONS

07-2017 – Present: Postdoctoral position at the **I**nstitute of **B**asic **S**cience - **C**enter for **M**ultidimensional **C**arbon **M**aterials (**IBS - CMCM**) in **U**lsan **N**ational **I**nstitute of **S**cience and **T**echnology (**UNIST**) (Mentor: Prof. Christopher Bielawski) Ulsan, South Korea.

EXPERIENCE

07-2017 – Present: Postdoctoral position with Prof. Christopher Bielawski. USA Office Naval Research (ONR) project, grant #N00014-14-1-0650, “DESIGN AND DEPLOYMENT OF MULTI-TASKING CATALYSTS: EXTERNALLY CONTROLLED CHEMISTRY” Ulsan National Institute of Science and Technology (UNIST), Ulsan, South Korea.

03-2014 – 03-2017: Research Assistant with Prof. Carolina Manzur, Inorganic Chemistry Laboratory, FONDECYT grant #1140903: “Electrodeposition of symmetrical and unsymmetrical Schiff base complexes containing thiophene or bi-thiophene groups. Studies of the chemical, electrochemical and optical (linear and non-linear) properties of the this new class of materials.” Pontificia Universidad Católica de Valparaíso, Chile.

02-2014 - 05-2014: Research internship with Prof. Christopher Bielawski, in the University of Texas at Austin. Dept. of Chemistry and Biochemistry, NHB 1.326, 100 E. 24th St., A1590, Austin, TX 78712-1590, United States.

08-2014 – 12-2014: Assistant Professor, Subject: Qui-222-General Chemistry, Pontificia Universidad Católica de Valparaíso, Chile.

03-2013 – 01-2014 : Research Assistant with Prof. David Carrillo, Inorganic Chemistry Laboratory, FONDECYT grant #1130105: “Enhancement of the second-order NLO responses of push-pull chromophores consisting of two tri- or tetradentate unsymmetrical Schiff base complex molecules linked by a conjugated bidentate μ_2 -spacer: effects of the donor and acceptor groups”. Pontificia Universidad Católica de Valparaíso, Chile.

06-2013 - 12-2013 Explora-Conicyt scientific adviser in school project named “Control de la varroa destructor en Apis Mellifera mediante el uso de aceites esenciales del citrus limonum”. Second Place obtained in the conquest “Química en Acción” realized by “Explora-Conicyt, Valparaíso, in the “Pontificia Universidad Católica de Valparaíso, Chile”.

06-2013 – 12-2013: Assistant Lecturer, Subject: Qui-229-Inorganic Chemistry, Pontificia Universidad Católica de Valparaíso, Chile.

03-2013 – 06-2013: Assistant Professor, Subject: Qui-222-General Chemistry, Pontificia Universidad Católica de Valparaíso, Chile.

02-2013 - 03-2013: Research internship with Prof. Jean-René Hamon, six weeks in the CNRS-Université de Rennes 1, Campus de Beaulieu, 35042 Rennes Cedex, France.

06-2012 – 12-2012: Assistant Professor, Subject: Qui-222-General Chemistry, Pontificia Universidad Católica de Valparaíso, Chile.

03-2009 – 01-2013: Research Assistant with Prof. Carolina Manzur, Inorganic Chemistry Laboratory, FONDECYT grant #1090310: “Synthesis and functionalization of bi- and trinuclear dipolar chromophores as potential unities for the preparation of side- and main-chain metallo-polymers with NLO responses”, Pontificia Universidad Católica de Valparaíso, Chile.

03-2010 – 12-2010: Assistant lecturer, Subject: Qui-222; General Chemistry, Pontificia Universidad Católica de Valparaíso, Chile.

03-2009 – 12-2009: Assistant lecturer, Subject: Qui-222; General Chemistry, Pontificia Universidad Católica de Valparaíso, Chile.

01-2008 – 03-2008: Shell-Alquinta; Supervisor in Mantoverde operation (Anglo American), Chañaral, Chile.

PUBLICATIONS

G. Ahumada, M. Fuentealba, T. Roisnel, S. Kahlal, D. Carrillo, R. Córdova, J.-Y. Saillard, J.-R. Hamon, C. Manzur, New Journal of Chemistry, Submitted.

G. Ahumada, M. Fuentealba, T. Roisnel, S. Kahlal, D. Carrillo, R. Córdova, J.-Y. Saillard, J.-R. Hamon, C. Manzur, Polyhedron, **151** (2018) 279-286.
<https://dx.doi.org/10.1016/j.poly.2018.05.048>

G. Ahumada, T. Roisnel, S. Kahlal, D. Carrillo, R. Córdova, J.-Y. Saillard, J.-R. Hamon, C. Manzur, Inorganica Chimica Acta, **470** (2018) 221–231.
<http://dx.doi.org/10.1016/j.ica.2017.04.050>

G. Ahumada, T. Roisnel, S. Kahlal, D. Carrillo, R. Córdova, J.-Y. Saillard, J.-R. Hamon, C. Manzur, Journal of Molecular Structure, **1150** (2017) 531-539.
<https://doi.org/10.1016/j.molstruc.2017.09.018>

D. Toledo, G. Ahumada, C. Manzur, T. Roisnel, O. Peña, J.-R. Hamon, J.-Y. Pivan, Y. Moreno, Journal of Molecular Structure, **1146** (2017) 213-221.
<http://dx.doi.org/10.1016/j.molstruc.2017.05.108>

J. Oyarce, L. Hernández, G. Ahumada, J. P. Soto, M. A. del Valle, V. Dorcet, D. Carrillo, J.-R. Hamon, C. Manzur, Polyhedron, **123** (2017) 277-284.
<http://dx.doi.org/10.1016/j.poly.2016.12.003>.

G. Ahumada, D. Carrillo, C. Manzur, M. Fuentealba, T. Roisnel, J.-R. Hamon, J. Mol. Struct., **1125** (2016) 781-787. <http://dx.doi.org/10.1016/j.molstruc.2016.07.047>

G. Ahumada, T. Roisnel, C. Manzur, D. Carrillo, J. P. Soto, J.-R. Hamon, J. Organomet. Chem., **770** (2014) 14-20. <http://dx.doi.org/10.1016/j.jorganchem.2014.07.019>

G. Ahumada, T. Roisnel, C. Manzur, D. Carrillo, J.-R. Hamon, J. Chil. Chem. Soc., **58** (2013) 1963-1966. <http://dx.doi.org/10.4067/S0717-97072013000400011>

G. Ahumada, T. Roisnel, C. Manzur, D. Carrillo, J.-R. Hamon, J. Organomet. Chem., **739** (2013) 40-44. <http://dx.doi.org/10.1016/j.jorganchem.2013.04.020>

G. Ahumada, T. Roisnel, S. Sinbandhit, C. Manzur, D. Carrillo, J.-R. Hamon, J. Organomet. Chem., **737** (2013) 1-6. <http://dx.doi.org/10.1016/j.jorganchem.2013.03.032>

G. Ahumada, P. Hamon, V. Dorcet, T. Roisnel, C. Manzur, D. Carrillo, J.P. Soto, J.-R. Hamon, J. Organomet. Chem., **732** (2013) 40-46.
<http://dx.doi.org/10.1016/j.jorganchem.2013.02.017>

PARTICIPATION IN EVENTS

06-2018 Using Bulk Electrolysis to Control the Activities Displayed by Redox-Switchable Olefin Metathesis Catalysts. 43rd International Conference of Coordination Chemistry, Sendai, Japan.

11-2016 Synthesis and characterization of metal complexes containing thiophene as electropolymerizable unit towards the electrosynthesis of metal containing polymers. XVI Encuentro de Química Inorgánica. La Serena, Chile.

08-2015 IUPAC Young Observer. World Chemistry Leadership Meeting: IUPAC's role in achieving United Nations Sustainable Development Goals, Busan, South Korea.

08-2015 IUPAC Young Observer in the Inorganic Division; 48th IUPAC General Assembly, Busan, South Korea.

08-2015 Design of metal complexes containing thiophene units toward metallopolymers. 45th IUPAC 2015 World Chemistry Congress, Busan, South Korea.

05-2015 Synthesis and characterization of metal complexes containing thiophene unit. Groupe d'étude de chimie organométallique & concertation en chimie de coordination – GECOM-CONCOORD, Lyon, France.

05-2015 Square-planar and octahedral metal complexes containing thiophene units toward metallopolymers : synthesis and characterization. Journées scientifiques SCF de la section Bretagne - Pays de la Loire, Nantes, France.

02-2015 Journées de formation en chimie théorique, Pôle Ouest - Réseau français de chimie théorique, Rennes, France.

01-2015 Journée des Doctorants à l'Université de Rennes 1, Rennes, France.

12-2015 Synthesis, characterization and electropolymerization of metal complexes containing thiophene moiety. XV Encuentro de Química Inorgánica, Catillo, Chile.

07-2014 Design of metal complexes containing thiophene units toward metallopolymers, IUPAC World Polymer Congress MACRO 2014, Chiang Mai, Thailand.

12-2013 Control de la varroa destructor en Apis Mellifera mediante el uso de aceites esenciales del citrus limonum. Concurso Química en Acción, Valparaíso, Chile.

02-2013 Reactivite de β -dicetones ferrocéniques chirales γ -substituées vis-a-vis de l'éthylendiamine et des hydrazines. Journée Chimie Coordination de SCF, Lyon, France.

12-2012 Two Substrates, Three Products: Reactions Between Ferrocene-carboxaldehyde and Dioxaphospholene, Characterization and Crystal Structures of Oxygenated C3- and C4-Chain Containing Ferrocenes. Primer Simposio de el Laboratorio Internacional Asociado de Materiales Funcionales LIA MIF #836, Valparaíso, Chile.

11-2012 Reactivity study of chiral ferrocenyl β -diketones derivatives γ -substituted with diamines. XIV Encuentro de Química Inorgánica. Olmué, Chile.

04-2012 Sub-Aqua: Project about innovating irrigating system for the use in grounds of desert or hydric resources scarcity like Atacama desert, Chile. Project presented in the "TIC" Talent and Innovation Challenge of the Americas, finalist in ECO-CHALLENGE 2012, Cartagena, Colombia.

10-2011 Synthesis and characterization of new β -diketones ligands using cerium (IV) ammonium nitrate (CAN) as catalyst. XXIX Jornadas Chilenas de Química, Linares, Chile.

06-2011 Reactivity of the ferrocenyl-aldehyde with 2,2,2-trialcoxy-4,5-dimethyl-1,3,2-dioxaphospholane. Simposio Latinoamericano de Química de Coordinación y Organometálica SILQCOM, La Serena, Chile.

01-2010 Synthesis and characterization of new tridentate organometallic ligands of the type ONN. XIII encuentro de Química Inorgánica. Temuco, Chile.

INVITED LECTURES

10-2012 I Congreso Latinoamericano de Estudiantes de Química, ANEQ, Valparaíso, Chile.

LANGUAGES

Spanish (native), English (Level 2+ in TOEIC TEST; advanced), French (Intermediate).

AWARDS AND ACHIEVEMENT

2015-2016 Conicyt International jointly supervised Ph. D. fellowship. (Chile-France)

2014-2016 Conicyt expenses support for doctoral thesis.

2014 Conicyt scholarship for an internship in UT, Austin, Texas.

2014 PUCV scholarship for an internship in UT, Austin, Texas.

2013 Conicyt scholarship for congress assistant. (Chile).

2013-2016 Conicyt doctoral scholarship (Chile).

SKILLS

- Chemical Skills and Background: Inorganic, Organic and Organometallic Chemistry (Synthesis), Homogeneous Catalysis (Metathesis), Electrochemistry, Single Crystal X-ray Crystallography, Computational Chemistry.
- Computer Skills: Proficient in Windows XP, Vista, Linux Debian.
- Software / Applications: Windows Office, Olex2, ChemDraw, ACD Labs Suite, Platon, Mercury, MestreNova, Origin, Gaussian, ADF, Photoshop.

INTEREST, ACTIVITIES AND OTHERS:

- Interest: Music (Guitar), Sports (Football, Tennis and Table Tennis), Chess.
- Others: International Car and motorcycle driving license up to date.