

VI. RESEARCHERS CURRICULA

VI.1. BIOGRAPHICAL INFORMATION

0	8	1	8	6	9	2	3	-	5
TAXPAYER ID # (Do not include decimal point)									

Ugarte	Velásquez	Ricardo Antonio
FATHER'S SURNAME	MOTHER'S MAIDEN SURNAME	NAMES

19	07	1960	M	<input checked="" type="checkbox"/>	F	<input type="checkbox"/>	Chilena	63-221293	63-221597
Day	Month	Year	SEX			NATIONALITY	TELEPHONE	FAX	

MAILING ADDRESS			
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XIV	Valdivia	567	rugarte@uach.cl
REGION	CITY	P.O. BOX	E-MAIL ADDRESS

Universidad Austral de Chile
INSTITUTION

VI.2. ACADEMIC BACKGROUND

Professional Title(s)	UNIVERSITY	COUNTRY	YEAR
Bioquímico	Universidad Católica de Valparaíso	Chile	1988
Academic Degrees			
Licenciado en Bioquímica	Universidad Católica de Valparaíso	Chile	1987
Doctor en Ciencias con mención en Química	Universidad Católica de Valparaíso	Chile	1994
Other			
Post-Doctorado	Ecole Nationale Supérieure de Chimie de Paris (ENSCP)	Francia	1996

Main Lines of Research/Specialty Areas

1.- Electrochemistry
2.- Molecular Modeling

CURRENT ACADEMIC APPOINTMENT(S)	INSTITUTION	HOURS PER WEEK
Profesor Auxiliar	Universidad Austral de Chile	44

VI.3. PARTICIPATION IN FONDECYT-APPROVED PROJECTS (LAST 10 YEARS).

YEAR		PROJECT NUMBER & TITLE	ROLE (PI, CoInvestigator)
Begin	End		
2000	2002	N° 1000437. Síntesis, caracterización, estructura cristalina y molecular de complejos de vanadio conteniendo ligantes organodinitrogenados como potenciales modelos de vanadio-nitrogenasa.	Coinvestigador

VI.4. PARTICIPATION IN OTHER PROJECTS OR RESEARCH PROGRAMS FUNDED BY NATIONAL OR FOREIGN SOURCES (LAST 5 YEARS). SPECIFY THEIR GOALS AND EXPLAIN THEIR DIFFERENCES WITH THE CURRENT PROPOSAL.

YEAR		FUNDING SOURCE	PROJECT TITLE	ROLE (PI, Coinvestigator)
Begin	End			
1999	2000	CIMM/ICA. N° 99UC/213/012	Corrosión inducida microbiológicamente en cobre: Caracterización y método de protección mediante patinado.	Convestigador
2003	2004	DID/UACH	Síntesis de ligantes orgánicos mediante reacción de una sal de diazonio con acetilacetona: Estudios estructurales, conformacionales y de reactividad frente a metales de transición.	Investigador
2004	2005	DID/UACH	“Reactividad de especies lacunares derivadas de una estructura de Lindqvist del tipo [Mo5O13(NNR) (OMe) 4 { Na,S }] 2 - (R = C6F 5 -, O2N-2 -C6H4 -, O2N-4 -C6H4 -, (O2N) 2 -2 ,4 -C6H3 -, y CF 3 -4 -C6H4 -; S=MeOH, H2O) frente a cationes de grupos representativos, metales de transición y fragmentos organometálicos. Síntesis, caracterización espectroscópica y estudio de rayos X de los productos sintetizados”.	Coinvestigador
2005	2006	DID/UACH	“Aislamiento, caracterización y determinación estructural de los alcaloides del San Pedro”.	Investigador
2008	2009	DID/UACH	“Potential Energy Surface (PES) in Dopamine and Phenylalkylamines: Relationship between PES Patterns and Hallucinogenic Activity”.	Investigador
2012	2013	DID/UACH	“Interaction Between Glyphosate and Mitochondrial Succinate-Dehydrogenase: A Theoretical Study”.	Investigador

VI.5. PUBLICATIONS. Please provide full references (author(s), title, journal full name, volume, pages, year) for articles **accepted** or **published** over the last 5 years. If appropriate, specify the FONDECYT project number.

a. Publications since 2002. Use additional sheets, if necessary. Use an "X" to check the appropriate box*.

Author(s)	E. Zumelzu, C. Cabezas , R. Schoebitz, R. Ugarte, E. Rodriguez, y J. Rios									
Article title	Microbial Induced Corrosion (MIC) on DHP Copper by Desulfovibrio Desulfuricans and Bacillus Megaterium Strains in Media Simulating Headter Waters									
Journal full name	Canadian Metallurgical Quarterly								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	2003	42	1	125-132	published	X	In press		Accepted	

Author(s)	E. Zumelzu, R. Ugarte, C. Cabezas, R. Schoebitz, E. Rodríguez and J. Ríos									
Article title	Development of Protection Coating for DHP Copper Ageaging. The Action of Microorganisms in Headter Water Media									
Journal full name	Protection of Metals								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	2003	39	1	87-92	published	X	In press		Accepted	

Author(s)	E. Zumelzu , R. Schobitz , C. Cabezas, R. Ugarte, E. Rodriguez and J. Rios									
Article title	Adherence of Desulfovibrio Desulfuricans and Bacillus Megaterium on Copper Deoxidized in Phosphorus (DHP).									
Journal full name	Canadian Metallurgical Quarterly								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	2005	44	2	171-177	published	X	In press		Accepted	

Author(s)	G. Salgado, J. Navarrete, C. Bustos, C. Sanchez y R. Ugarte									
Article title	Quimioluminiscencia electrogenerada de Luminol usando electrodos de bajo costo									
Journal full name	Quimica Nova								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	2006	29		281-384	published	X	In press		Accepted	

Author(s)	R. Martínez, V. Kesternich, H. Carrasco, C. Alvarez, C. Montenegro, R. Ugarte, E. Gutiérrez, J. Moreno, C. García, E. Werner and J. Cárcamo									
Article title	Synthesis and conformational análisis of leptocarpin derivatives. Influence of modification of the oxirane ring on leptocarpin's cytotoxic activity									
Journal full name	Journal of The Chilean Chemical Society								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	2006	51	4	1010-1014	published	X	In press		Accepted	

Author(s)	Carlos Bustos, Christian Sánchez, Ricardo Ugarte, Eduardo Schott, Desmond Mac-Leod Carey, David Carrillo									
Article title	Reactivity of Organohydrazidomolibdenum (VI)Complexes Toward Tertiary Phosphines									
Journal full name	Journal of Coordination Chemistry								FONDECYT Proy. N°	
									1000437	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	2007	60		619-626	published	X	In press		Accepted	

Author(s)	Carlos Bustos, Christian Sánchez, Ricardo Ugarte, Eduardo Schott, Desmond Mac-Leod Carey, María Teresa Garland and Luis Espinoza									
Article title	Tautomeric, Spectroscopic, DFT Calculation And X-Ray Studies On O ₂ N-4-C ₆ H ₄ -NHN=C(COCH ₃) ₂									
Journal full name	Dyes and Pigments								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	2007	74		615-621	published	X	In press		Accepted	

Author(s)	Carlos Bustos, Cristián Sánchez, Guillermo Salgado, José Navarrete, Ricardo Ugarte									
Article title	El Concepto de Equivalente Químico y su Aplicación en Cálculos Estequiométricos									
Journal full name	Educación Química								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	2007	18	3	222-227	published	X	In press		Accepted	

Author(s)	Moreno-Villoslada, I.; González, F.; Arias, L.; Villatoro, J.M.; Ugarte, R.; Hess, S.; Nishide, H.									
Article title	Control of C.I. Basic Violet 10 aggregation in aqueous solution by the use of poly (sodium 4 styrenesulfonate)									
Journal full name	Dyes and Pigments								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	2009	82	3	401-408	published	X	In press		Accepted	

Author(s)	Ugarte, R.; Salgado, G.; Martinez, R.; Navarrete, J.									
Article title	Estudio Teórico de la isomerización del Acido Maleico en Acido Fumárico: Un Enfoque Basado en el Concepto de Energía Potencial									
Journal full name	Quimica Nova								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	2010	33	3	750-754	published	X	In press		Accepted	

Author(s)	Ugarte, R.; Bustos, C.; Moreno-Villoslada, I.									
Article title	Theoretical Study of the Isomerization of Maleic Acid into Fumaric Acid									
Journal full name	J. Chil. Chem. Soc.								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	2011	56	2	656-662	published	<input checked="" type="checkbox"/>	In press	<input type="checkbox"/>	Accepted	<input type="checkbox"/>

Author(s)	Ugarte, R.; Salgado, G.; Basaez, L.									
Article title	A Theoretical Study of the Nitration of Eugenol with the Nitronium Ion									
Journal full name	Collection of Czechoslovak Chemical Communications									
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	2011	76	12	1529-1548	published	<input checked="" type="checkbox"/>	In press	<input type="checkbox"/>	Accepted	<input type="checkbox"/>

b. Books and Book Chapters since 2002: Please provide full references and use additional sheets if necessary. Use an "X" to check the appropriate box*.

Author(s)										
Title of Book or Chapter										
Editor(s) Name(s)										
Editorial										
Publication Place & Date										
Publication type*					Pages					
Book	<input type="checkbox"/>	Book Chapter	<input type="checkbox"/>	Monograph	<input type="checkbox"/>					

c. Publications in Proceedings of Scientific Meetings since 2002. Include up to 6 publications relevant to this proposal topic.

Author(s)	C. Bustos, R. Ugarte, D. Macleod-Carey, P. Gouzerh, B. Hasenknopf y S. Favette									
Abstract Title	Síntesis y Caracterización de Monodiazenido Complejos de Molibdeno con Estructura de Lindqvist Lacunar Derivadas del Anión $[\text{Mo}_6\text{O}_{19}]^{2-}$. Estructura Cristalina y Molecular de $(n\text{-(C}_4\text{H}_9)_4\text{N})_2[\text{Mo}_5\text{O}_{13}(\text{NNC}_6\text{H}_4\text{-4-NO}_2)(\text{MeO})_4\{\text{Na}, \text{H}_2\text{O}\}]\cdot\text{H}_2\text{O}$									
Congress Title	IX Encuentro de Química Inorgánica realizado en la Pontificia Universidad Católica de Chile									
Place, Date & Pages	Country: Chile			City: Santiago		Date: 31-07/02-08 (2002)		Page(s):		

Author(s)	C. Bustos, R. Ugarte, D. Macleod-Carey, P. Gouzerh, B. Hasenknopf y S. Favette			
Abstract Title	Síntesis, Caracterización y Reactividad de $[Mo_6O_{18}(NNAr)]^{3-}$ y $[Mo_5O_{13}(NNAr)(MeO_4)]$			
Congress Title	XX Congreso Nacional de Estudiantes de Bioquímica			
Place, Date & Pages	Country: Chile	City: Santiago	Date: 16-10/18-10 (2003)	Page(s):

Author(s)	Carlos Bustos, Desmond Mac-Leod Carey, Christian Sánchez, Ricardo Ugarte, Bernold Hasenknopf, Anna Proust y Pierre Gouzerh.			
Abstract Title	Functionalization of Polyoxometallates with Keggin structure.			
Congress Title	X Encuentro de Química Inorgánica			
Place, Date & Pages	Country: Chile	City: Santiago	Date: 05-1/07-1 (2005)	Page(s): CD-Rom

d. Publications relevant to this proposal's topic prior to 2002. (No more than 5).

Author(s)	R.Ugarte, R.Schrebler, R.Córdova, E.A.Dalchiele, H.Gómez									
Article title	Electrodeposition of $CuInSe_2$ thin films in a Glycine acid Medium									
Journal full name	Thin Solid Films								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	1999	340		117-124.	published	X	In press		Accepted	

Author(s)	H. Gomez, R. Schrebler, R. Cordova, R. Ugarte and E. A. Dalchielle									
Article title	Nucleación and Growth of $CuInSe_2$ on a Glassy Carbon Electrode									
Journal full name	Electrochimica Acta								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	1995	40	2	267-269	published	X	In press		Accepted	

Author(s)	H.Gómez, L.Basález y R.Ugarte									
Article title	Propiedades fotoelectroquímicas de $p-CuInSe_2$ modificado superficialmente por depósitos metálicos									
Journal full name	Boletín de la Sociedad Chilena de Química								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	1992	37	4	267-272	published	X	In press		Accepted	

Author(s)	J. Reyes, M. Velarde, R. Ugarte and D. Benos									
Article title	Glycolitic Component of Rat Spermatid Energy And Acid-Base Metabolism									
Journal full name	American Journal of Physiology :Cell Physiology								FONDECYT Proy. N°	
Bibliographic Reference	Year	Vol.	N°	Pages	Publication status to date*					
	1990	259	4	C660-C667	published	X	In press		Accepted	

e. **Thesis Direction.** List Undergraduate, Doctoral and Master's theses directed over the last 5 years.

Students Names	Thesis Title	Degree, Institution & Year Awarded
Mac-Leod Carey Castro, Desmond Andrés.	Synthesis of Organic Ligands by Reactions Coupling of Aromatic-diazonium Salts with Acetylacetone. Structural Studies, and Reactivity of these Products Toward Transition Metals.	Licenciado en Bioquímica y Título Profesional de Bioquímico. Universidad Austral de Chile. (2005).
Vidal Jiménez, Marco Antonio.	"Determinación de los perfiles de energía libre de unión de los iones potasio en el canal hSic utilizando simulaciones de dinámica molecular dirigida"	Licenciado en Bioquímica y Título Profesional de Bioquímico. Universidad Austral de Chile. (2009). Copatrocinante.