

Nombre del académico	OLGA MARGARITA RUBILAR ARANEDA Email: olga.rubilar@ufrontera.cl				
Carácter del vínculo (claustro, colaborador o visitante)	Claustro				
Título profesional, institución, país	Ingeniero Ambiental, Universidad de La Frontera, Chile, 2007.				
Grado académico máximo (especificar área disciplinar), institución, año de graduación y país¹	Doctor en Ciencias de Recursos Naturales, Universidad de La Frontera, Chile, 2007.				
Línea(s) de investigación	Nanobiotecnología ambiental, biorremediación. Bioprocesos ambientales (<u>Nanotecnología y Biotecnología Ambiental</u>).				
Tesis de <u>magíster</u> dirigidas en los últimos 10 años (finalizadas)	Como guía de tesis				
	Año	Autor	Título de la Tesis	Nombre del programa	Institución
	2018	Nicolás Hoffman	Development of a catalyst from biogenic magnetite nanoparticles to increase methanogenic activity in anaerobic digestion.	Magíster en Ciencias de la Ingeniería mención Biotecnología	Universidad de La Frontera.
	2015	Marcela Urrutia	Adsorptive removal of sodium from wastewater using columns packed with ion exchange resins	Magíster en Ciencias de la Ingeniería mención Biotecnología	Universidad de La Frontera.
	2015	Nixson Manosalva	Effective control of Pseudomonas syringae by silver nanoparticle synthesized with Galega officinalis extract optimized by response surface methodology.	Magíster en Ciencias de la Ingeniería mención Biotecnología	Universidad de La Frontera.
	Como co-guía de tesis				
	Año	Autor	Título de la Tesis	Nombre del programa	Institución
	-	-	-	-	-
Tesis de <u>doctorado</u> dirigidas en los últimos 10 años (finalizadas)²	Como guía de tesis				
	Año	Autor	Título de la Tesis	Nombre del programa	Institución
	2021	Karla Araya	Biosynthesis of copper nanoparticles by microalgae	Doctorado en Ciencias de Recursos Naturales	Universidad de La Frontera.
2019	Wence Herrera	Degradation of imidacloprid and chlorpyrifos catalyzed by metal-doped superparamagnetic iron oxide	Doctorado en Ciencias de Recursos Naturales	Universidad de La Frontera.	

¹ Si se estima necesario, indicar todos los grados académicos obtenidos o equivalentes.

² Marcar con negrilla las tesis dirigidas en el mismo programa

		nanoparticles (SPIONS) (Tesis en curso)		
2017	Raphael Cuevas	Synthesis of metal nanoparticles (Ag, Au and Cu) with antimicrobial activity by micelyum-free extract of Chilean native fungus	Doctorado en Ciencias de Recursos Naturales	Universidad de La Frontera
Como co-guía de tesis				
Año	Autor	Título de la Tesis	Nombre del programa	Institución
2019	Javiera Parada	Combined pollution of copper nanoparticles and pesticides in soil: study of its impact on ammonia oxidizing bacteria, as an environmental risk assessment	Doctorado en Ciencias de Recursos Naturales	Universidad de La Frontera
2014	Luciano Bosso	Fungi in Pentachlorophenol Adsorption and Degradation: Novel Bioremediation and Biotechnological Tools	Joint international Ph.D. Italy - Chile in Environmental Resources Sciences	University of Naples Federico II

PRODUCTIVIDAD CIENTÍFICA EN LOS ÚLTIMOS 10 AÑOS

Listado de publicaciones. En caso de publicaciones con más de un autor, indicar en negrita el autor principal.	Publicaciones indexadas (identificar y agrupar por tipo de indexación: WoS/ISI, SCIELO, LATINDEX, u otras –indicando cuales-):							
	N°	Autor(es)	Año	Título del artículo	Nombre revista	Estado	ISSN	Factor de impacto
	ISI							
	1	W. Herrera, J. Vera, E. Hermosilla, M. Diaz, G. Tortella, R. Albino, A. Seabra, M. Diez, O. Rubilar	2024	The catalytic role of superparamagnetic iron oxide nanoparticles as a support material for tio2 and zno on chlorpyrifos photodegradation in an aqueous solution	Nanomaterials	Publicado	2079-4991	5.3
	2	P. Fincheira, N. Hoffmann, G. Tortella, A. Ruiz, P. Cornejo, M. Diez, A. Seabra, A. Benavides, O. Rubilar	2023	Eco-efficient systems based on nanocarriers to controlled release of fertilizers and pesticides: toward a smart agriculture	Nanomaterials	Publicado	2079-4991	5.3
	3	H. Schalchli, C. Lamilla, O. Rubilar, G. Briceño, F. Gallardo, N. Duran, A. Huenchupan, M. Diez	2023	Production and characterization of a biosurfactant produced by bacillus amyloliquefaciens c11 for enhancing the solubility of pesticides	Journal of environmental chemical engineering	Publicado	2213-2929	7.7
4	M.Araneda,F.Pinto-Ibieta, X..Xiaofan Rubilar, O.Rubilar, FG.Fermoso, G.Ciudad.	2023	Aquaculture Sludge as Co-Substrate for Sustainable Olive Mill Solid Waste Pre-Treatment by Anthracophyllum discolor	Agronomy-basel	Publicado	2073-4395	3.949	

5	W.Herrera, J.Vera, H.Aponte, E.Hermosilla, P.Fincheira, J.Parada, G.Tortella, A.Seabra, M.Diez, O.Rubilar	2023	Meta-analysis of metal nanoparticles degrading pesticides: what parameters are relevant?	Environmental science and pollution research	Publicado	0944-1344	5.19
6	A.Astudillo, O.Rubilar, G.Briceño, M.Diez, H.Schalchli	2023	Advances in agroindustrial waste as a substrate for obtaining sustainable microbial products	Sustainability	Publicado	2071-1050	3.889
7	G.Tortella, O.Rubilar, J.Pieretti, P.Fincheira, B.de Melo Santana, M.Fernandez, A.Benavide-Mendoza, A.Seabra	2023	Nanoparticles as a promising strategy to mitigate biotic stress in agriculture	Antibiotics	Publicado	2079-6382	5.222
8	E.Hermosilla, M.Diaz, J.Vera, M.Contreras,	2023	Synthesis of antimicrobial chitosan-	International journal of	Publicado	1422-0067	6.208

	K.Leal, R.Salazar, L.Barrientos, G.Tortella, O.Rubilar		silver nanoparticles mediated by reusable chitosan-fungal beads	molecular sciences			
9	N.Hoffmann, G.Tortella, E.Hermosilla, P.Fincheira, M.Diez, I.Lourenco, A.Barozzi, O.Rubilar	2022	Comparative toxicity assesment of eco friendly synthesized superparamagnetic iron oxide nanoparticles (spions) on plants and aquatic model organisms.	Minerals	Publicado	2017-163X	2.818
10	V.Benavides, F.Pinto, A.Serrano, O.Rubilar, G.Ciudad	2022	Use of anthracophyllum discolor and stereum hirsutum as a suitable strategy for delignification and phenolic removal of olive mill solid waste	Foods	Publicado	2304-8158	5.561
11	J.Parada, M.Diaz, E.Hermosilla, J.Vera, G.Tortella, A.Seabra, A.Quiroz, E.Hormazabal, O.Rubilar	2022	Synthesis and antibacterial activity of manganese-ferrite/silver nanocomposite combined with two essential oils.	Nanomaterials	Publicado	2079-4991	5.719
12	N.Hoffmann, P.Fincheira, G.Tortella, O.Rubilar	2022	The role of iron nanoparticles on anaerobic digestion: mechanisms, limitations, and perspectives	Environmental science and pollution research	Publicado	0994-1344	5.19
13	E.Hermosilla, M.Diaz, J.Vera, A.Seabra, G.Tortella, J.Parada, O.Rubilar	2022	Molecular weight identification of compounds involved in the fungal synthesis of agnps: effect on antimicrobial and photocatalytic activity	Antibiotics-Basel	Publicado	2079-6382	5.222
14	P.Fincheira, O.Rubilar, G.Tortella, C.Medina, A. Seabra, M.Nascimento, M.Cristina, A.Quiroz	2021	Formulation of a controlled-release carrier for 2-ketones based on solid lipid nanoparticles to increase seedling growth in lactuca sativa and solanum lycopersicum	Journal of soil science and plant nutrition	Publicado	3002-3015	3.6
15	Kohatsu MA, Lange CN, Pelegriño MT, Pieretti JC, Tortella G, Rubilar O, Bruno Lemos	2021	Foliar spraying of biogenic CuO nanoparticles	Journal of Cleaner Production.	Publicado		9.297

	BB, Seabra AB, Araujo TJ.		protects the defence system and photosynthetic pigments of lettuce (<i>Lactuca sativa</i>).				
16	P.Fincheira, Gonzalo Tortella, Amedea B. Seabra, Andrés Quiroz, María Cristina Diez, Olga Rubilar	2021	Nanotechnology Advances For Sustainable Agriculture: Current Knowledge And Prospects In Plant Growth Modulation And Nutrition	Planta	Publicada	0032-0935	4.316
17	Ortega, Francisco; Regiart, Matías; Rodríguez-Martínez, Alba; Pérez, Diego De Miguel; Serrano, María; Lorente, José; Tortella, Gonzalo; Rubilar, Olga ; Sapag, Karim; Bertotti, Mauro; Fernández-Baldo, Martín.	2021	Sandwich-Type Electrochemical Paper-Based Immunosensor for Claudin 7 and CD81 Dual determination on Extracellular Vesicles from Breast Cancer Patients	Analytical Chemistry	Publicada	1143-1153	6.662
18	Pieretti, J. C., Rubilar, O. , Weller, R. B., Tortella, G. R. , Seabra, A. B.	2021	Nitric oxide (NO) and nanoparticles - Potential small tools for the war against COVID-19 and other human coronavirus infections.	Virus Research	Publicada	0168-1702	2.934
19	Tortella, G.R., Pieretti, J.C., Rubilar, O. , Fernandez-Baldo, M., Benavides- Mendoza, A., Diez, M.C., Seabra, A.B.	2021	Silver, copper and copper oxide nanoparticles in the fight against human viruses: progress and perspectives.	Critical Reviews in Biotechnology.	Accepted	0738-8551	8.981
20	A.Juárez-Maldonado, G.Tortella, O.Rubilar , P.Fincheira, A.Benavides-Mendoza	2021	Biostimulation and toxicity: the magnitude of the impact of nanomaterials in microorganisms and plants	Journal of Advanced Research	Publicada	2090-1232	10.479
21	P.Fincheira, I.Jofré, G.Tortella, C.Medina, A.Quiroz, Amedea B. Seabra, mônica h. M. Nascimento, M.Diez, O.Rubilar	2021	The prospection of plant response to 2-ketones released from nanostructured lipid carriers	Journal of Soil Science and Plant Nutrition	Publicada	0718-9516	3.771
22	G.Tortella, O.Rubilar , P.Fincheira, J.Pieretti, P.Duran, I.Lourenço, A.Seabra	2021	Bactericidal and virucidal activities of biogenic metal-based nanoparticles: advances and perspectives	Antibiotics	Publicada	2079-6382	0.960

23	M.Pelegriño, J.Pieretti, c.neves Lange, Y.Marcio, B.Moreira, B.Lemos Batista, P.Fincheira, G.Tortella, O.Rubilar , A.Seabra	2021	Foliar spray application of copper nanoparticles (nps) and s-nitrosoglutathione enhances productivity, physiological and biochemical parameters of lettuce plants	Journal of Chemical Technology and Biotechnology	Publicada	0268-2575	3.060
24	H.Schalchli, Emilio Hormazábal, Álvaro Astudillo, Gabriela Briceño, Olga Rubilar , María Cristina Diez	2021	Bioconversion of potato solid waste into antifungals and biopigments using streptomyces spp.	Plos One	Publicada	1932-6203	-
25	E.Hermosilla, Amedea b. Seabra, Isabella M.Lourenço, Fabio F. Ferreira, Gonzalo Tortella, Olga Rubilar	2021	Highly sensitive oxidation of mbth/dmab by mnfe2o4 nanoparticles as a promising method for nanozyme-based sensor development	Colloids and Surfaces a: Physicochemical and Engineering Aspects	Publicada	0927-7757	4.539
26	Marcela Levio-Raiman, Heidi Schalchli, Gabriela Briceño, Cristian Bornhardt, Gonzalo Tortella, Olga Rubilar , M.Diez	2021	Performance of an optimized fixed-bed column packed with an organic biomixture to remove atrazine from aqueous solution	Environmental Technology & Innovation	Publicada	2352-1864	5.273
27	P.Fincheira, A.Quiroz, G.Tortella, María Cristina Diez, Olga Rubilar	2021	Current advances in plant-microbe communication via volatile organic compounds as an innovative strategy to improve plant growth	Microbiological Research	Publicada	0944-5013	5.415
28	Araya-Castro K., Tzu- Chiao C., Durán-Vinet B., Cisternas C., Ciudad G., Rubilar O.	2021	Green Synthesis of Copper Oxide Nanoparticles Using Protein Fractions from an Aqueous Extract of Brown Algae <i>Macrocystis pyrifera</i>	Processes	Publicada	227-9717	2.753
29	Cisternas C., Tortella G., Seabra AB., Pieretti J., Araya-Castro K., Hermosilla E., Diez C., Rubilar O.	2021	Development of a new biomimetic method for the synthesis of silver nanoparticles based on fungal metabolites: optimization and antibacterial activity	Journal of Chemical Technology & Biotechnology	Aceptada	0268-2575	2.750

30	Kohatsu, MY., Pelegrino, MT., Monteiro, LR., Freire, BM., Pereira, RM., Fincheira, P., Rubilar, O., Tortella, G., Batista, BL., de Jesus, TA., Seabra, AB. , Lange, CN.	2021	Comparison of foliar spray and soil irrigation of biogenic CuO nanoparticles (NPs) on elemental uptake and accumulation in lettuce	Environmental Science And Pollution Research	Publicada	0944- 1344	3.056
31	J. Pieretti, O. Rubilar, R. Weller, G. Tortella, A. Seabra	2020	Nitric oxide (no) and nanoparticles? potential small tools for the war against covid- 19 and other human coronavirus infections	Virus Research	Publicado	0168- 1702	2.934
32	Tortella, GR. , Rubilar, O., Diez, MC., Padrao, J., Zille, A., Pieretti, JC., Seabra, AB.	2020	Advanced Material Against Human (Including Covid-19) and Plant Viruses: Nanoparticles As a Feasible Strategy	Global Challenges	Publicado	2056- 6646	4.306
33	Paola Fincheira , Andrés Quiroz, Cristianmedina, Gonzalotortella, E.Hermosilla, María Cristina Diez, Olga Rubilar	2020	Plant growth induction by volatile organic compound released from solid lipid nanoparticles and nanostructured lipid carriers	Colloids And Surfaces A: Physicochemic al And Engineering Aspects	Publicado	0927- 7757	3.990
34	Pieretti, JC., Pelegrino, MT., Nascimento, MHM., Tortella, GR., Rubilar, O., Seabra, AB.	2020	Small molecules for great solutions: Can nitric oxide-releasing nanomaterials overcome drug resistance in chemotherapy?	Biochemical Pharmacology	Publicado	0006- 2952	4.960
35	S. Meier, F. Moore, A. Morales, M. Gonzalez, A. Seguel, C. Meriño, O. Rubilar, J. Cumming, H. Aponte , D. Alarcon, J. Mejias	2020	Synthesis of calcium borate nanoparticles and its use as a potential foliar fertilizer in lettuce (lactuca sativa) and zucchini (cucurbita pepo)	Plant Physiology And Biochemistry	Publicado	0981- 9428	4.960
36	G.Tortella , O.Rubilar, N.Duran, M.Diez, M.Martinez, J.Parada, A.Seabra	2020	Silver nanoparticles: toxicity in model organisms as an overview of its hazard for human health and the environment	Journal of Hazardous Materials	Publicado	0304- 3894	9.038
37	G.Tortella , S.Cuozzo, M.Diez, C.Rodriguez, P.Duran, M.Masis, J.Parada, O.Rubilar	2020	Pesticide dissipation capacity of an organic biomixture used in the agriculture exposed to copper oxychloride	Ecotoxicology And Environmental Safety	Publicado	0045- 6535	4.872

38	F.Ortega , M.Reguart, A.Rodríguez, D.De Miguel-Pérez, M.Serrano, J.Lorente, G.Tortella, O.Rubilar, K.Sapag, M.Bertotti, M.Fernandez-baldo	2020	Sandwich-type electrochemical paper-based immunosensor for claudin 7 and cd81 dual determination on extracellular vesicles from breast cancer patients	Analytical Chemistry	Publicado	0003-2700	6.785
39	G.Tortella , M.Navas, M.Parada, N.Duran, A.Barozzi, N.Hoffmann, O.Rubilar	2019	Synthesis of silver nanoparticles using extract of weeds and optimized by response surface methodology to the control of soil pathogenic bacteria <i>Ralstonia solanacearum</i>	Journal Of Soil Science And Plant Nutrition	Publicado	0718-9508	2.156
40	G.Tortella, O.Rubilar, M.Diez, M.Cea, A.Santana, C.Rodríguez, J.Parada	2019	Combined pollution of copper nanoparticles and atrazine in soil: effects on dissipation of the pesticide and on microbiological community profiles	Journal Of Hazardous Materials	Publicado	0304-3894	9.038
41	G.Tortella , J.Parada, O.Rubilar, D.Sousa, M.Fernandez, M.Martinez	2019	Short term changes in the abundance of nitrifying microorganisms in a soil plant system simultaneously exposed to copper nanoparticles and atrazine	Science Of The Total Environment	Publicado	0048-9697	6.551
42	G.Tortella , O.Rubilar, M.Cea, C.Rodríguez-rodriíguez, A.Seguel, J.Parada	2019	Sorption parameters of carbendazim and iprodione in the presence of copper nanoparticles in two different soils	Journal Of Soil Science And Plant Nutrition	Publicado	0718-9516	2.156
43	J.Pieretti , M.Pelegriño, M.Nascimento, G.Tortella, O.Rubilar, A.Seabra	2019	Small molecules for great solutions: can nitric oxide-releasing nanomaterials overcome drug resistance in chemotherapy?	Biochemical Pharmacology	Publicado	0006-2952	4.960
44	N.Manosalva, G.Tortella, M.Diez, H.Schalchli, A.Seabra, N.Durán, O.Rubilar	2019	Green synthesis of silver nanoparticles: effect of synthesis reaction parameters on antimicrobial activity	World Journal Of Microbiology And Biotechnology	Publicado	0959-3993	2.477

45	P. Fincheira, Olga Rubilar, Javier Espinoza, Washington Aniñir, Loreto Méndez, Amedea B. Seabra, A.Quiroz	2019	Formulation of a controlled-release delivery carrier for volatile organic compounds using multilayer o/w emulsions to plant growth	Colloids And Surfaces A: Physicochemical And Engineering Aspects	Publicado	0927-7757	3.990
46	Gallardo-Benavente, C., Carrion, O., Todd, J.D., Pieretti, J. C., Seabra, A. B., Duran, N., Rubilar, O., Perez-Donoso, J.M., Quiroz A.	2019	Biosynthesis of CdS Quantum Dots Mediated by Volatile Sulfur Compounds Released by Antarctic Pseudomonas fragi.	Frontiers in Microbiology	Publicado	doi: 10.3389/fmicb.2019.01866.	4.236
47	P.Salgado, O.Rubilar, K.Márquez, D.Contreras, G.Vidal	2019	The effect of phenolic compounds on the green synthesis of iron nanoparticles (fexoy-nps) with photocatalytic activity	Applied Nanoscience	Publicado	2190-5509	2.880
48	P.Fincheira, G.Tortella, N.Duran, A.Seabra, O.Rubilar,	2019	Current applications of nanotechnology to develop plant growth inducer agents as an innovation strategy	Critical Reviews In Biotechnology	Publicado	0738-8551	8.108
49	O.Rubilar, F.Ortega, S.Piguillem, G.Messina, G.Tortella, M.Jiménez, J.Lorente, M.Serrano, J.Raba, M.Fernández	2018	EGFR detection in extracellular vesicles of breast cancer patients through immunosensor based on silica-chitosan nanoplatform	Talanta	Publicado	0039-9140	4.244
50	G.Tortella, O.Rubilar, M.Diez, M.Cea, A.Santana, C.Rodriguez, J.Parada	2018	Combined pollution of copper nanoparticles and atrazine in soil: effects on dissipation of the pesticide and on microbiological community profiles	Journal of hazardous materials	Publicado	0304-3894	6.434
51	G.Tortella, J.Parada, O.Rubilar, M.Fernandez, F.Bertolino, N.Duran, A.Seabra	2018	The nanotechnology among us: are metal and metal oxides nanoparticles a nano or mega risk for soil microbial communities?	Critical reviews in biotechnology	Publicado	0738-8551	5.239
52	Hermosilla, E; Rubilar, O ; Schalchli, H; da Silva, AS; Ferreira-Leitao, V; Diez, MC	2018	Sequential white-rot and brown-rot fungal pretreatment of wheat straw as a promising alternative for complementary mild treatments	Waste management	Publicado	0956-053X	4.723

53	Levo, M ; Gallardo, F ; Rubilar, O ; Diez, MC	2018	Treatment of wastewater contaminated with atrazine using a packed bed reactor packing with an organic biomixture	New biotechnology	Publicado	1871-6784	3.733
54	J.Parada O.Rubilar G.Tortella M.Martinez	2018	Effect of copper nanoparticles on nitrification in a soil-plant system	New biotechnology	Publicado	1871-6784	3.733
55	Diez, M.C. , S. Elgueta, O. Rubilar, G.R. Tortella, H. Schalchli, C. Bornhardt & F. Gallardo	2017	Pesticide dissipation and microbial community changes in a biopurification system: influence of rhizosphere.	Biodegradation	Publicada	0923-9820	2.410
56	Schalchli H. , Hormazabal E., Rubilar O., Briceno G., Mutis A., Zocolo G.J., Diez M.C	2017	Production of ligninolytic enzymes and some diffusible antifungal compounds by white-rot fungi using potato solid wastes as the sole nutrient source	Journal of Applied Microbiology	Publicada	1364-5072	2.16
57	Parra, L. , A. Mutis, M. Chacón, M. Lizama, C. Rojas, A. Catrileo, O. Rubilar, G. Tortella, M.A. Birkett & A. Quiroz.	2016	Horn fly larval survival in cattle dung is reduced by endophyte infection of tall fescue pasture	Pest Management Science	Publicada	1526-498X	3.249
58	Schalchli, H., G.R. Tortella , O. Rubilar, L. Parra, E. Hormazabal & A. Quiroz	2015	Fungal volatiles: an environmentally friendly tool to control pathogenic microorganisms in plants.	Critical Reviews in Biotechnology	Publicada	0738-8551	5.239
59	Diez, M.C., H., Schalchli, S., Elgueta, E., Salgado, N., Millahueque, O., Rubilar, G.R. Tortella, & G. Briceño	2015	Rhizosphere effect on pesticides degradation in biobeds under different hydraulic loads.	Journal of Soil Science and Plant Nutrition	Publicada	0718-9516	2.116
60	Schalchli, H. , E., Hormazabal, J., Becerra, G., Briceño, V., Hernández, O. Rubilar, & M.C. Diez	2015	Volatiles from white-rot fungi for controlling plant pathogenic fungi	Chemistry and Ecology	Publicada	0275-7540	1.091
61	Cuevas, R., N. Durán, M.C. Diez, G.R. Tortella & O. Rubilar	2015	Extracellular biosynthesis of copper and copper oxide nanoparticles by <i>Stereum hirsutum</i> , a	Journal of Nanomaterials	Publicada	1687-4110	2.207

			native white rot fungus from Chilean forests.				
62	Tortella, G. , N. Durán, O. Rubilar, M. Parada & M.C. Diez	2015	Are white-rot fungi a real biotechnological option for the improvement of environmental health?.	Critical Reviews in Biotechnology	Publicada	0738-8551	5.239
61	Briceño, G. , M.S. Fuentes, O. Rubilar, M. Jorquera, G. Tortella, G. Palma, M.J. Amoroso & M.C. Diez.	2015	Removal of insecticide diazinon from liquid media by free and immobilized <i>Streptomyces</i> sp. isolated from agricultural soil.	Journal of Basic Microbiology	Publicada	0233-111X	1.58
62	Bosso, L., F. Lacatena, G. Cristinzio, M. Cea, M.C. Diez & O. Rubilar	2015	Biosorption of pentachlorophenol by <i>Anthracyllum discolor</i> in the form of live fungal pellets.	New Biotechnology	Publicada	1871-6784	3.733
63	Tortella, G.R. , E. Salgado, S.A. Cuozzo, R. Mella-Herrera, L. Parra, M.C. Diez & O. Rubilar	2014	Combined microbiological test to asses changes in an organic matrix used to avoid agricultural soil contamination, exposed to an insecticide.	Journal of soil Science and Plant Nutrition	Publicada	0718-9516	2.116
64	Rubilar, O. , M.C. Diez, G.R. Tortella, G. Briceño, P.D. Marcato & N. Durán	2014	New strategies and challenges for nanobiotechnology in agriculture.	Journal of Biobased Materials and Bioenergy	Publicada	1556-6560	2.993
65	Kanhed, P., S. Birla, S. Gaikwad, A. Gade, A. Seabra, O. Rubilar, N. Duran & M. Rai.	2014	In vitro antifungal efficacy of copper nanoparticles against selected crop pathogenic fungi.	Materials Letters	Publicada	0167-577X	2.687
66	Ciudad G. , O. Rubilar, L. Azócar, C. Toro, M. Cea, A. Torres, A. Ribera & R. Navia.	2014	Performance of an enzymatic extract in microalgae cell wall disruption.	Journal of Bioscience and Bioengineering	Publicada	1389-1723	2.015
67	Duran, Nelson; Cuevas, Raphael; Cordi, Livia; Rubilar, Olga; Diez, Maria Cristina.	2014	Biogenic silver nanoparticles associated with silver chloride nanoparticles (Ag@AgCl) produced by laccase from <i>Trametes versicolor</i> .	SpringerPlus	Publicada	2193-1801	0.982
68	Diez, M.C. , M. Levio, G. Briceño, O. Rubilar, G. Tortella & F. Gallardo.	2013	Biochar as a partial replacement of peat in pesticide-degrading biomixtures formulated	Journal of Biobased Materials and Bioenergy	Publicada	1556-6560	2.993

			with different soil types.				
69	Diez M.C. , G.R. Tortella, G. Briceño, M.d.P. Castillo, J. Díaz, G. Palma, C. Altamirano, C. Calderón & O. Rubilar.	2013	Influence of novel lignocellulosic residues in a biobed biopurification system on the degradation of pesticides applied in repeatedly high doses.	Electronic Journal of Biotechnology	Publicada	0717-3458	1.881
70	Tortella, G.R. , O. Rubilar, M. Cea, G. Briceño, A. Quiroz, M.C. Diez & L. Parra.	2013	Natural wastes rich in terpenes and their relevance in the matrix of an on-farm biopurification system for the biodegradation of atrazine.	International Biodeterioration and Biodegradation	Publicada	0964-8305	3.562
71	Tortella, G.R. , R.A. Mella-Herrera, D.Z. Sousa, O. Rubilar, G. Briceño, L. Parra & M.C. Diez	2013	Carbendazim dissipation in the biomixture of on-farm biopurification systems and its effect on microbial communities.	Chemosphere	Publicada	0045-6535	4.427
72	Tortella, G.R. , R. Mella-Herrera, D.Z. Sousa, O. Rubilar, J.J. Acuña, G. Briceño & M.C. Diez.	2013	Atrazine dissipation and its impact on the microbial communities and community level physiological profiles in a microcosm simulating the biomixture of on-farm biopurification system.	Journal of Hazardous Materials	Publicada	0304-3894	6.434
73	Tortella, G.R. , O. Rubilar, J. Stenström, M. Cea, G. Briceño, A. Quiroz, M.C. Diez & L. Parra.	2013	Using volatile organic compounds to enhance atrazine biodegradation in a biobed system.	Biodegradation	Publicada	0923-9820	2.410
74	Rubilar, O. , M. Raj, G.R. Tortella, M.C. Diez, A. B. Seabra & N. Durán.	2013	Biogenic nanoparticles: copper, copper oxides, copper sulphides, complex copper nanostructures and their applications.	Biotechnology Letters	Publicada	0141-5492	1.846
75	Urrutia, C., O. Rubilar, G.R. Tortella & M.C. Diez.	2013	Degradation of pesticide mixture on modified matrix of a biopurification system with alternatives lignocellulosic wastes.	Chemosphere	Publicada	0045-6535	4.427

76	Urrutia, C., O. Rubilar, C. Paredes, E. Benítez, R. Azcón & M.C. Diez.	2013	Removal of pentachlorophenol in the rhizosphere of ryegrass (<i>Lolium multiflorum</i>).	Journal of Soil Science and Plant Nutrition	Publicada	0718-9516	2.116
77	Elgueta, S., O. Rubilar, N. Lima & M.C. Diez	2012	Selection of white-rot fungi to formulate complex and coated pellets for Reactive Orange 165 decolourization.	Electronic Journal of Biotechnology	Publicada	0717-3458	1.881
78	Tortella, G.R. , O. Rubilar, M.d.P. Castillo, M. Cea, R. Mella-Herrera & M.C. Diez.	2012	Chlorpyrifos degradation in a biomixture of biobed at different maturity stage	Chemosphere	Publicada	0045-6535	4.427
79	Rubilar, O. , G.R. Tortella, R. Cuevas, M. Cea, S. Rodríguez-Couto & M.C. Diez.	2012	Adsorptive removal of pentachlorophenol (PCP) by <i>Anthracophyllum discolor</i> in a fixed-bed column reactor.	Water, Air and Soil Pollution	Publicada	0049-6976	1.769
80	Diez, M.C. , F. Gallardo, G. Tortella, O. Rubilar, R. Navia & C. Bornhardt.	2012	Chlorophenol degradation in soil columns inoculated with <i>Anthracophyllum discolor</i> immobilized on wheat grains.	Journal of Environmental Management	Publicada	0301-4797	4.005
81	Fernández-Alberti, S., O. Rubilar, G.R. Tortella & M.C. Diez.	2012	Chlorpyrifos degradation in a biomix: effect of pre-incubation and water holding capacity.	Journal of Soil Science and Plant Nutrition	Publicada	0718-9516	2.116
82	Acevedo, F. , L. Pizzul, M.d.P. Castillo, O. Rubilar, M.L. Lienqueo, G. Tortella & M.C. Diez.	2011	A practical culture technique for an enhanced production of manganese peroxidase by the Chilean white-rot fungus <i>Anthracophyllum discolor</i> Sp4.	Brazilian Archives of Biology and Technology	Publicada	1516-8913	0.676
83	Rubilar, O. , G. Tortella, M. Cea, F. Acevedo, M. Bustamante, L. Gianfreda & M.C. Diez.	2011	Bioremediation of a Chilean Andisol contaminated with pentachlorophenol (PCP) by solid substrate cultures of white-rot fungi.	Biodegradation	Publicada	0923-9820	2.410

84	Cea, M., M. Jorquera, O. Rubilar, H. Langer, G. Tortella, M.L. Mora & M.C. Diez.	2010	Biorremediation of soil contaminated with pentachlorophenol by Anthracophyllum discolor and its effect on microbial community.	Journal of Hazardous Materials	Publicada	0304-3894	6.434
85	Tortella, G.R., O. Rubilar, M. Cea, C. Wulff, O. Martínez & M.C. Diez.	2010	Biostimulation of agricultural biobeds with NPK fertilizer on chlorpyrifos degradation to avoid soil and water contamination.	Journal of Soil Science and Plant Nutrition	Publicada	0718-9516	2.116
86	Rubilar, O., S. Elgueta, G. Tortella & M.C. Diez.	2009	Pelletization of Anthracophyllum discolor pellets for water and soil treatment contaminated with organic pollutants.	Journal of Soil Science and Plant Nutrition	Publicada	0718-9516	2.116
Metadex							
1	Bustamante, M., O. Rubilar & M.C. Diez	2014	Effect of soya lecithin on solubilization and biodegradation of pentachlorophenol by Anthracophyllum discolor.	American Journal of Analytical Chemistry	Publicada	2156-8251	RG: 0.64
Libros y capítulos de libro (agrupar por tipo de publicación):							
N°	Autor(es)	Año	Título del capítulo y/o libro	Lugar ³	Editorial	Estado	
1	Seabra A.B., Manosalva N., de Araujo B., Pelegrino M.T., Brocchi M., Rubilar O., Duran N	2017	Antibacterial activity of nitric oxide releasing silver nanoparticles.	Grenoble, France	Journal of Physics: Series 012031	Publicada	Conf. 838
2	Rai M., A. Ingle, I. Gupta, S. Gaikwad, A. Gade, O. Rubilar & Duran N	2014	Cytotoxicity and genotoxicity of copper nanoparticles. In Nanotoxicology: Materials, methodologies, and assessments.	New York, USA	Springer	Publicada	
3	Briceño G., G. Tortella, O. Rubilar, G. Palma & M.C. Diez	2014	Advances in Chile for the Treatment of Pesticide Residues: Biobeds Technology. In Bioremediation in Latin America.	Cham	Springer	Publicada	

³ Lugar físico o virtual

4	Diez, M.C., G. Palma, C. Altamirano, G. Briceño, C. Calderón, J. Díaz, O. Rubilar, G. Tortella	2013	Manual de construcción y operación de lechos biológicos	Temuco, Chile	Universidad de La Frontera	Publicada
Otras publicaciones (por ejemplo, revistas con referato, obras u otras –indicando cuales-, agrupar por tipo de publicación):						
N°	Autor(es)	Año	Título de la publicación	Lugar	Editorial	Otro aspecto pertinente
-	-	-	-	-	-	-
Patentes:						
N°	Inventor(es)	Nombre patente	Fecha de solicitud	Fecha de publicación	N° de registro	Estado
1	Amedea Barozzi Seabra, Nelson Durán Caballero, Olga Rubilar Araneda , María Cristina Diez Jerez, Gonzalo Tortella Fuentes, Nixon Manosalva Elgueta, Raphael Cuevas y Marconi Da Cruz Santos	Proceso de funcionalização de nanopartículas de prata com grupamentos S-nitrosotiois, veículo carreador de óxido nítrico (NO) e uso do veículo. Brasil	25 Jun 2015	27 Feb 2018	Código FQ001	Publicada
Listado de proyectos de investigación⁴ en los últimos 10 años	Título	Fuente de financiamiento	Año de adjudicación	Período de ejecución	Rol en el proyecto (investigador responsable/director, co-investigador, etc.)	
	White-rot fungi membrane bioreactor and anaerobic digestion as a treatment concept for antibiotic and nutrient removal from aquaculture sludge.	FONDECYT	2023	2023-2027	Co-Investigador	
	Combined impact of stressors on soil microbial communities, as a consequence of	FONDECYT	2023	2023-2027	Co-Investigador	

⁴ Se consideran proyectos adjudicados y/o en ejecución en el período solicitado.

	global climate change (drought, salinity and heavy metal accumulation) and the presence of metal nanoparticles and pesticides.				
	Centro Recursos Hídricos Para La Agricultura y Minería (CRHIAM)	ANID/FONDAP/1513 0015	2019	2019-2024	Investigador Asociado
	Funcionalización de nanopartículas biogénicas de plata con agentes fotosensibilizantes y su potencial aplicación en la terapia fotodinámica antimicrobiana en endodoncia.	DIUFRO	2021	2021-2024	Co-investigador
	Nanotecnología aplicada al desarrollo y análisis de proteínas anticongelantes para incrementar la tolerancia a la congelación de cultivos agrícolas.	FONDECYT	2021	2021-2024	Patrocinador
	Formulation of a nanocomposite that allows the sustained release of copper nanoparticles and iprodione to be used against the phytopathogenic fungus <i>Botrytis cinerea</i>	FONDECYT	2020	2020-2023	Patrocinador
	Network For Pesticide Risk Reduction: New Strategies And Opportunitie	Proyectos De Cooperación Internacional	2019		Participante
	Enzymatic white rot fungi whole cell bioreactor pretreatment as a fundamental stage of a biorefinery of two phase olive mill solid	FONDECYT	2019	2019-2023	Co-investigador

	waste to produce biogas and a potential biofertilizer.				
	Pretreatment of lignocellulosic biomass by fenton-like reaction (catalyzed by superparamagnetic Fe-NPs) combined with fungal mnp enzyme.	FONDECYT	2019	2019-2022	Patrocinador
	Production of biogenic silver nanoparticles with antimicrobial activity in a fluidized bed reactor (FBR) coupled to a stirred tank reactor (STR) operated with immobilized fungal biomass.	FONDECYT	2019	2019-2023	Investigador Responsable
	Óleo essencial contendo nanopartículas metálicas funcionalizadas com oxido nítrico como estratégia para o controle de patógenos vegetais na agricultura	PROYECTOS EXTERNOS TIPO FONDECYT FAPESP	2019	2019-2022	Investigador Responsable
	NanoMeg: solución coloidal, a base de nanopartículas de magnetita para aumentar la producción de biogás	FONDEF	2018	2018-2018	Asesor Científico Técnico
	Formulación de nanopartículas lipídicas para la encapsulación y liberación de compuestos orgánicos volátiles con potencial actividad inductora del crecimiento en	FONDECYT	2018	2018-2021	Patrocinante

	lactuca sativa y solanum lycopersicum				
	Combined pollution of copper nanoparticles and pesticides in soil: study of its impact on ammonia-oxidizing bacteria, as an environmental risk assessment	FONDECYT	2016	2016-2019	Co-Investigador
	Biopurification system for pesticide-containing wastewater treatment.	FONDECYT	2016	2016-2019	Co-Investigador
	New technologies for environmental protection.	CONICYT REDES	2015	2015-2016	Investigador Responsable
	PCCI140056: Degradación de una mezcla de plaguicidas en lechos biológicos inoculados con un consorcio de actinobacterias.	Cooperación Científica Internacional CONICYT/MINCYT	2014	2014-2016	Co-investigador
	Asociación entre pre-tratamientos biológicos, químicos y térmicos de biomasa lignocelulósica para la producción de etanol de segunda generación.	FAPERJ	2014	2014-2015	Co-investigador
	Biosynthesis of silver and copper nanoparticles with antimicrobial activity mediated by proteins of Chilean native white-rot fungi.	FONDECYT	2013	2013-2016	Investigador responsable
	Fortalecimiento a la Implementación de la Biotecnología”, “Lechos Biológicos como Sistema de Purificación de Residuos de Plaguicidas en el Sector Frutícola de la	FIA	2012	2012-2014	Co-investigador

	Región de La Araucanía				
	Manejo adecuado de residuos de plaguicidas en la producción frutícola de la región de La Araucanía a través de la implementación y difusión de lechos biológicos.	FONDEF	2010	2010-2011	Co-Investigador
	Proyecto de Cooperación Internacional. DI10-4003.	DIUFRO	2010	2010-2011	Investigador responsable
	PIA DI10-7001 Bases tecnológicas para la biorefinería de biomasa residual microalgal, a través de la implementación de un proceso de disrupción celular biotecnológico	PIA	2010	2010-2012	Co-investigador
	PIA DI10-7004 Bioestimulación y bioaumentación de camas biológicas para la disipación de atrazina	PIA	2010	2010-2012	Co-investigador
	Centro de Investigación y Desarrollo para la Gestión de Residuos Orgánicos (CIDGRO)	INNOVA-CORFO	2010	2010-2014	Co-Investigador
	Anthracophyllum discolor pelletization in an airlift reactor for degradation of organic pollutant compounds.	FONDECYT	2009	2009-2012	Investigador responsable
	Study of manganese peroxidase (MnP) production from Anthracophyllum discolor in an airlift reactor for lignin degradation.	FONDECYT	2008	2008-2009	Investigador responsable