

JULIO ANTONIO SANCHEZ POBLETE

DOCTOR EN CIENCIAS MENCIÓN QUÍMICA, UNIVERSIDAD DE CONCEPCIÓN, CHILE OBTENIDO EN COTUTELA CON LA UNIVERSIDAD JOSEPH FOURIER, GRENOBLE, FRANCIA. ESPECIALIDAD POLÍMEROS, 2010

LÍNEA(S) DE INVESTIGACIÓN O ÁREAS DE TRABAJO

- ✓ POLÍMEROS FUNCIONALES CON APLICACIONES ANALÍTICAS Y AMBIENTALES

LISTADO DE PUBLICACIONES EN LOS ÚLTIMOS 10 AÑOS

Bernabé L. Rivas and Julio Sánchez, Chapter 14, pp 267-288, "Arsenic removal by functional polymers and membranes". In Ed. Andrea Masotti; "Arsenic: Sources, Environmental Impact, Toxicity and Human Health - A Medical Geology Perspective", Series Chemistry Research and ApplicationsPublic Health in the 21st Century,Nova Science Publishers, Inc. USA. 2013.

Efren de Jesús Muñoz Prieto, Bernabé L. Rivas, Julio Sánchez; "Natural polymer grafted with synthetic monomer by microwave for water treatment- a review". **Rev. Ciencia en Desarrollo, Vol. 4, No 1, ISSN 0121-7488, pp 219-240, Colombia, 2012.**

Bernabé L. Rivas and Julio Sánchez. Chapter 12, pp 157-171 "Potential application to remove arsenic by functional polymers in conjunction with membranes and electrooxidation processes". in ed. N. Kabay, J. Bundschuh, B. Hendry, M. Bryjak, K. Yoshizuka, P. Bhattacharya and S. Anac; "The global arsenic problem: challenges for safe water production" **CRC Press Taylor and Francis Group, 2010.**

Bernabé L. Rivas, Julio Sánchez. Capítulo 6, pp 91-105 "Materiales poliméricos para la remoción de arsénico" in Ed. M.I. Litter, A.M. Sancha, A.M. Ingallinella; "Tecnologías económicas para el abatimiento de arsénico en aguas". Editorial Programa Iberoamericano de Ciencia y Tecnología para el Desarrollo (CYTED). Buenos Aires, Argentina 2010.

Suna Yuksel, Bernabé L. Rivas, Julio Sánchez, Héctor D. Mansilla, Jorge Yañez, Pia Kochifas, Nalan Kabay, Marek Bryjak, "Water-Soluble Polymer and Photocatalysis for Arsenic Removal". **Journal of Applied Polymer Science 2014, DOI: 10.1002/APP.40871.**

Julio Sánchez, Leandro Toledo, Bernabé L. Rivas, Nancy Rivera, Efren Muñoz. "Water-soluble cationic cellulose coupled to a ultrafiltration membrane for the removal of arsenic and chromium". **Journal of the Chilean Chemical Society, 58, 4, 1842-1846, 2013.**

Ozgur Arar, Nalan Kabay, Julio Sánchez, Bernabé L. Rivas, Marek Bryjak, Carlos Peña. "Removal of arsenic from water by combination of electro-oxidation and polymer enhanced ultrafiltration". **Environmental Progress & Sustainable Energy, 2013 DOI: 10.1002/ep.11876.**

Julio Sánchez, Bernabé L. Rivas, Eliza Nazar, Marek Bryjak, Nalan Kabay. "Boron removal by liquid-phase polymer-based retention (LPR) technique using poly(glycidyl methacrylate N-methyl D-glucamine)". **Journal of Applied Polymer Science 129, 1541-1545, 2013.**

Julio Sánchez, Anna Bastrzyk, Bernabé L. Rivas, Marek Bryjak, Nalan Kabay, "Removal of As(V) using liquid-phase polymer-based retention (LPR) technique with regenerated cellulose membrane as a filter" **Polymer Bulletin, 70, 2633–2644, 2013.**

Leandro Toledo, Bernabé L. Rivas, Bruno F. Urbano, Julio Sánchez. "Novel N-methyl-D-glucamine-based water-soluble polymer and its potential application in the removal of arsenic". **Separation and Purification Technology**, **103**, 1-7, 2013.

Juan Francisco Rivera, Christophe Bucher, Eric Saint-Aman, Bernabé L. Rivas, María del Carmen Aguirre, Julio Sánchez, Isabelle Pignot-Paintrand, Jean-Claude Moutet. "Removal of arsenite by coupled electrocatalytic oxidation at polymer-ruthenium oxide nanocomposite and polymer-assisted liquid phase retention". **Applied Catalysis B. Environmental** **129**, 130-136, 2013.

Julio Sánchez, Bernabé L. Rivas. "Liquid-phase polymer-based retention of chromate and arsenate oxy-anions", **Macromolecular Symposia** **317-318**, 123-136, 2012.

M.M. Ottakam Thotiyil, Hajra Basit, Julio Sánchez, Cedric Goyer, Liliane Coche-Guerente, Pascal Dumy, S. Sampath, Pierre Labbé, Jean-Claude Moutet. "Multilayer assemblies of polyelectrolyte-gold nanoparticles for the electrocatalytic oxidation and detection of arsenic (III)". **Journal of Colloid and Interface Science**, **383**, 130-139, 2012.

Bernabé L. Rivas, Sara Hube, Julio Sánchez, Eduardo Pereira. "Chelating water-soluble polymers associated with ultrafiltration membranes for metal ion removal". **Polymer Bulletin**, **69**, 1007-1022, 2012.

Bernabé L. Rivas, Eduardo Pereira, Joel Paredes, Julio Sánchez. "Removal of arsenate from ionic mixture by anion exchanger water-soluble polymers and ultrafiltration membranes". **Polymer Bulletin**, **69**, 881-898, 2012.

Julio Sánchez, Bernabé L. Rivas. "Cationic hydrophilic polymers coupled to ultrafiltration membranes to remove chromium (VI) from aqueous solution". **Desalination** **279**, 338-343, 2011.

Bernabé L. Rivas, Eduardo D. Pereira, Manuel Palencia, Julio Sánchez. Review: "Water-soluble functional polymers in conjunction with membranes to remove pollutant ions from aqueous solutions". **Progress in Polymer Science**, **36**, 294-322, 2011.

Julio Sánchez, Bernabé L. Rivas. "Arsenate retention from aqueous solution by hydrophilic polymers through ultrafiltration membranes". **Desalination**, **270**, 57-63, 2011.

Julio A. Sánchez, Bernabé L. Rivas, S. Amalia Pooley, Luis Basaez, Eduardo Pereira, Isabelle Pignot-Paintrand, Christophe Bucher, Guy Royal, Eric Saint-Aman, Jean-Claude Moutet. "Electrocatalytic oxidation of As(III) to As(V) using noble metal-polymer nanocomposites". **Electrochimica Acta**, **55**, 4876-4882, 2010.

Julio Sánchez, Bernabé Rivas. "Arsenic extraction from aqueous solution: electrochemical oxidation combined to ultrafiltration membranes and water-soluble polymers". **Chemical Engineering Journal**, **165**, 625-632, 2010.

Oscar G. Marambio, Julio Sánchez, Manuel Jeria-Orell, Guadalupe del C. Pizarro, Bernabé L. Rivas; "Free radical copolymerization of functional water-soluble poly(N-maleoylglycine-co-crotonic acid): Polymer metal ion retention capacity, electrochemical, and thermal behavior". **Polymer Bulletin**. **65**, 701-717, 2010.

Bernabé L. Rivas, Julio Sánchez, S. Amalia Pooley, Luis Basaez, Eduardo Pereira, Christophe Bucher, Guy Royal, Eric Saint-Aman, Jean-Claude Moutet; "Water-soluble polyelectrolyte with ability to remove arsenic", **Macromolecular Symposia**, **296**, 416-418, 2010.

Guadalupe del C. Pizarro, Oscar G. Marambio, Manuel Jeria-Orell, Margarita R. Huerta, Julio A. Sánchez, Bernabé L. Rivas; "Preparation, characterization, and thermal properties of hydrophilic polymers: p-Chlorophenyl maleimides with hydroxyl ethylmethacrylate and β-methyl hydrogen itaconate". **Polymer International**, **56**, 1166-1172, 2007

LISTADO DE PROYECTOS DE INVESTIGACIÓN EN LOS ÚLTIMOS 10 AÑOS

- ✓ FONDECYT 2012-2014 (3120048).

“Remoción de boro desde ambientes acuosos a través de polímeros funcionales solubles en agua acoplados a membranas de ultrafiltración”. Departamento de Polímeros, Facultad de Ciencias Químicas, Universidad de Concepción, Chile.

Investigador principal proyecto postdoctoral

- ✓ Proyecto CNRS-CONICYT (2011-2012).

Co-investigador.

“*Polymers containing complexing groups in their main chain: synthesis, characterization and applications for anion extraction*”. Departamento de Química Molecular, Universidad Joseph Fourier, Grenoble, Francia; Facultad de Ciencias Químicas, Universidad de Concepción, Chile.

- ✓ Proyecto de la Dirección de Investigación de la Universidad de Concepción (DIUC), Co-investigador.

“*Análisis de As(III) por Voltametría de Redisolución Anódica*”, Laboratorio de Electroquímica, Departamento de Química Analítica e Inorgánica, Facultad de Ciencias Químicas, Universidad de Concepción, Chile.

- ✓ Proyecto Seventh Framework Programme of European Union, Marie Curie Actions “People” « CHILTURPOL 2 » (2011-2014)

.Co-investigador.

“*Innovative materials and methods for water treatment*”, Wroclaw University, Polonia; Ege University, Turquía; Universidad de Concepción, Chile.