

50. Novel Solid-State Route to nanostructured Tin, Zinc and Cerium Oxides as Potencial Materials for Sensors. *Journal of Nanoscience and Nanotechnology*. 14, 2014, 1-6. C. Díaz, S. Platoni, A. Molina, María Luisa Valenzuela, H. Geaney and C. O'Dwyer

49. Bimetallic Au/Ag metal superstructures from macromolecular metal complexes in solid-state. *J. Chilean Chemical Society*. 58, 2013, 1194-1997. Diaz, M. L. Valenzuela and D. Bobadilla.

48. Solid State Pathways to Complex Shape Evolution and Tunable Porosity During Metallic Crystal Growth. *Scientific Reports*. 2642, 2013, 1-8. Carlos Díaz, María Luisa Valenzuela, Gabino Carriedo, Luis Zuñiga and C. O'Dwyer.

47. Solvent and stabilizer free growth of Ag and Pd nanoparticles using Metallic salts/cyclotriphosphazenes mixtures. *Material Chem. Phys.* 143, 2013, 124-132. C. Díaz Valenzuela, M. L. Valenzuela, S. Caceres, R. Diaz and C. O'Dwyer. ISI: **2.072**

46. Solution and surfactant-free growth of supported high index facet SERS active nanoparticles of rhenium by phase demixing. *Journal of Materials Chemistry A*. 2013, 1, 1566-1572. C. Diaz Valenzuela, M. L. Valenzuela, S. Caceres and C. O'Dwyer. ISI: **5.97**

45. The Inclusion of Organometallic Derivatives of Cyclotriphosphazenes Inside SiO₂ Matrix and Their Conversion to Nanostructured Metal-Oxides and Phosphates. *J. Inorg. Organomet. Polym.* 2012, 22: 1101-1112. Carlos Díaz, **María Luisa Valenzuela**, Daniel Carrillo, Jose' Riquelme, Renato Díaz. ISI: **1.452**

44. Sol-Gel Incorporation of Organometallic compounds into Silica: Useful Precursors to Metallic Nanostructured Materials. *J. Chilean Chemical Society*. 2012, 57, 1155-1162. Carlos Díaz, **María Luisa Valenzuela**, Danisse Garrido. ISI: **0.5**

43. Layered Graphitic Carbon Host Formation during Liquid-free Solid State Growth of Metal Pyrophosphates. *Inorganic Chem.* 2012, 51, 6228-6236. Carlos Díaz, **María Luisa Valenzuela**, Vladimir Lavayen,§ and Colm O'Dwyer. ISI: **4.326**

42. Polymer/Trimer/Metal Complex Mixtures as Precursors of Gold Nanoparticles: Tuning the Morphology in the Solid-State. *J Inorg Organomet Polym*: 2, 447-454, 2012. Carlos Díaz Valenzuela, Gabino A. Carriedo, **M. Luisa Valenzuela**, Luis Zuñiga, Colm O'Dwyer. ISI: **1.452**

41. Immobilized redox enzymatic catalysts: Baeyer–Villiger monooxygenases supported on polyphosphazenes. *Journal of Molecular Catalysis B: Enzymatic*. 74, 178– 183, 2012. Aníbal Cuetos, Ana Rioz-Martínez, **María L. Valenzuela**, Iván Lavandera, Gonzalo de Gonzalo, Gabino A. Carriedo, Vicente Gotor. ISI: **2.735**

40. Nanostructured $\text{VO}_x/\text{VO}(\text{PO}_4)_n$ Using Solid-State Vanadium Containing Phosphazene Precursors: A Useful Potential Bi-Catalyst System. *J. Clust. Sci.*, 22, 693-704, 2011. C. Díaz, **M.L. Valenzuela**, N. Yutronic, V. Villalobos, G. Barrera. ISI: **0.916**

39. Nanostructured copper oxides and phosphates from a new solid-state route. *Inorg. Chim. Acta*, 377, 5-13, 2011. C. Díaz, **M.L. Valenzuela**, V. Lavayen, K. Mendoza, D.O. Pena, C. O'Dwyer. ISI: **1.846**

38. Solid-State Synthesis of Embedded Single-Crystal Oxide and Phosphate. Nanoparticles and In-Situ Crystallization. *Journal of Colloid and Interface Science*. 362, 21-31, 2011. C. Diaz, **M.L.Valenzuela**, D. Bravo, C. Dickinson and C. O. Dwyer. ISI: **3.070**

37. Poly-dioxybiphenyl phosphazene random copolymers with pendant 3-hydroxy-propyl groups and polycaprolactone branches. *Polymers*. 52, 2157-2162, 2011. Gabino A. Carriedo, **M.L. Valenzuela** ISI: **3.438**

36. Polyphosphazenes combining dioxybiphenyl and butyl-amino substituents, a series with unusually high TGA residues and glass transition temperatures with negative deviation from additivity. *European Polymer Journal*. 47, 338-342, 2011. Gabino A. Carriedo, **M.L. Valenzuela**. ISI: **2.739**

35. Chain homogeneity and thermo-mechanical behaviour of polyphosphazenes. Synthesis of the random copolymers $\{[NP(O_2C_{12}H_8)_{1-x}[NP(OCH_2CF_3)_2]_x]_n\}$. *Reactive and Functional Polymers*. 71, 433-439, 2011. Gabino A. Carriedo, Beatriz Ramajo, **M.L. Valenzuela**. ISI: **2.479**

34. Gelation of $N_3P_3[NH(CH_2)_3Si(OEt)_3]_{6-n}[X]_n$ X = $NH(CH_2)_3Si(OEt)_3$, $NCH_3(CH_2)_3CN$ and $OC_6H_4(CH_2)CN$, n = 0 or 3 at the liquid/air/ interface. *Journal Chilean Chem. Soc.* 55, 415-418, 2010. C. Diaz, **María L. Valenzuela**, Nicolas Yutronic y Pedro Aguirre. ISI: **0.7**

33. Metallophosphazene Precursor Routes to Solid-State Deposition of Metallic and Dielectric Micro- and Nanostructures on Si and SiO₂. *Langmuir* 26, 10223-10233, 2010. Carlos Díaz, **María Luisa Valenzuela**, Antonio Laguna, Vladimir Lavayen, Josefina Jiménez, Lynn A. Power and Colm O'Dwyer. ISI: **4.269**

32. Polyphosphazenes as tunable supports to immobilize alcohol dehydrogenases and lipases: synthesis, catalytic activity and recycling. *Biomacromolecules* 11, 1291-1297, 2010. Aníbal Cuetos, **María L. Valenzuela**, Iván Lavandera, Vicente Gotor and Gabino A. Carriedo, ISI: **5.327**

31. Copper (II) Ions into Polyphosphazenes: solid-like solution. *Journal Inorganic and Organometallic Polymer and Materials* 20, 306-312, 2010. **María Luisa Valenzuela Valdes**, Carlos Díaz ISI: **1.473**

30. [Chlorination, Iodination, and Silylation of Poly\(2,2'-dioxy-1,1'-biphenylphosphazene\)](#). [New Halogenated Polyphosphazenes with Sterically Hindered Reactivity](#). *Macromolecules* 43, 126-130, 2010. Gabino Carriedo and **M.L. Valenzuela**. ISI: **4.838**

29. Metallophosphazene and Polyphosphazenes containing Gold or Silver. Thermolytic transformation into Nanostructured materials. *Chemistry –A European Journal*. 15, 13509-13520, 2009. Antonio Laguna, Josefina Jiménez, Mohamed Benouazzane, Jose Antonio Sanz, Carlos Díaz, **María Luisa Valenzuela** and Peter Jones .ISI: **5.382**

28. Organometallic derivatives of cyclotriphosphazene as precursors of Nanostructured metallic materials: A new solid state Method. *Journal Inorganic and Organometallic Polymer and Materials* 19, 507- 520, 2009. Carlos Díaz, **María Luisa Valenzuela**, Luis Zúñiga and Colm O'Dwyer .ISI: **1.691**

27. Polymer and Oligomer Phosphazene Cymantrene Derivatives as Solids State Precursor of Nanostructured Manganese Pyrophosphate. *Polymer Bulletin* 63, 829-835, 2009. Carlos Díaz, Gabino Carriedo and **M.L. Valenzuela**. ISI: **1.014**

26. Nanostructured Silicon Containing Materials Derived From Solid State Pyrolysis of Sililated Polyphosphazene. *Journal of Nanoscience and Nanotechnology* 9, 1825-1831, 2009. C.Díaz, **M.L. Valenzuela**, S. Ushak, Vladimir Lavayen and Colm O'Duyser. . ISI: **1.435**

25. Designed Synthesis of Metal-Organic Frameworks Containing Gold (I) Cations Supported in Phosphazene-Phosphine Polymeric Matrices. *J. Organomet. Chem.* 694, 249-252, 2009. Gabino Carriedo, Alejandro Presa, **M.L. Valenzuela**, Marc Ventalon ISI: **2.347**

24. Synthesis and Characterization of Cyclophosphazenes containing Silicon as Single Solid-State Precursors for the Formation of Silicon/Phosphorus Nanostructurec materials. *Inorg. Chem.* 47, 11561-11569, 2008. C.Díaz, **M.L. Valenzuela**, D. Bravo, Vladimir Lavayen and Colm O'Duyser. ISI: **4.147**

23. The Controlled and Regioselective Macrolmolecular Nitration of Poly(2,2'-dioxy-1,1'-biphenylphosphazene) in Concentrated Sulfuric Acid. *Macromolecules* 41, 6972-6976, 2008. Gabino Carriedo, Alejandro Presa, **M.L. Valenzuela**. ISI: **4.407**

22. Synthesis and characterization of $N_3P_3(O_2C_{12}H_8)_2(OC_6H_4Si(CH_3)_3)(OC_6H_4Br)$ and its conversion to nanostructured Si material. *Journal of Cluster Science* 19, 471-479, 2008. Carlos Díaz Valenzuela, **M. Luisa Valenzuela** and S.Ushak. ISI: **0.946**

21. Role of the linking of metallic centers to macromolecular and oligomeric systems in the pyrolytic products. *Journal of the Chilean Chemical Society* 53, 1384-1387, 2008. Carlos Díaz Valenzuela, **M. Luisa Valenzuela** and Luis Zúñiga. ISI: **0.562**

20. The Polymerisation of $P(O_2C_{12}H_8)N_3$ and the Formation of Soluble and Insoluble Poly-2,2'-dioxy-1,1'-biphenoxyphosphazene. *European Polymer Journal* 44, 2008, 1577-1582. Gabino Carriedo, Alejandro Presa, **M.L. Valenzuela**. ISI: **2.143**

19. Experimental and Theoretical Study of the Hydrolytical Stability of Isolable Poly-2,2'-dioxy-1,1'-biphenoxyphosphazene with $[NPCI_2]$ units. *Macromolecules* 41, 1881-1885, 2008. Gabino Carriedo, Alejandro Presa, **M.L. Valenzuela**, Enrique Saiz, M.Pilar Tarazona. ISI: **4.407**

18. Synthesis and Pyrolysis of Silicon and Tin containing Poly-2,2'-dioxy-1,1'-biphenoxyphosphazene. *European Polymer Journal* 44, 686-693, 2008. Gabino Carriedo, **M.L. Valenzuela**, C.Diaz and S. Ushak. ISI: **2.143**

17. Polyphosphzenes as Solid Templates for the Formation of Monometallic and Bimetallic Nanostructures. *Journal Inorganic and Organometallic Polymer and Materials* 17, 577-582, 2007. Carlos Díaz, **María Luisa Valenzuela** and Nicolás Yutronic. ISI: **1.44**

16. A Cyclic and Polymeric Phosphazene as Solid State Template for the Formation of RuO_2 Nanoparticles. *Journal of Clusters Science* 18, 831-844, 2007 . Carlos Díaz, **María Luisa Valenzuela**, Evgenia Spodine, Yanko Moreno, Octavio Peña. ISI: **0.886**

15. Organometallic Derivatives of Polyphosphazenes as Precursors for Metallic Nanostructured Materials. *Journal Inorganic and Organometallic Polymer and Materials* 16, 419-435, 2006. Carlos Díaz, **María Luisa Valenzuela**. ISI: **1.419**

14. Neutral AuCl Complexes Supported in linear high molecular weight, poly-spirophosphazene-phosphine copolymers and its conversion to nanostructured gold materials. *Polymer Bulletin* 57, 913-920, 2006. C.Diaz, **M.L.Valenzuela**, G.Carriedo, F.García Alonso and Alejandro Presa. ISI: **0.969**

13. Microsize and nanosize BPO_4 from Pyrolysis of a Carborane-Substituted Polyphosphazene. *Journal Inorganic and Organometallic Polymer and Materials*. 16, 211-218, 2006. Carlos Díaz, Antonio Laguna, Josefina Jiménez, **María Luisa Valenzuela**. ISI: **1.419**

- 12.** Photoluminiscent Manganese Nanoparticles from Solid State Polyphosphazenes Organometallic Derivates. Journal Inorganic and Organometallic Polymer and Materials. 16, 123-128, 2006. Carlos Díaz, **María Luisa Valenzuela**. ISI: **1.419**
- 11.** Small-Molecule and High-Polymeric Phosphazenes containing oxypyridine side groups and their organometallic derivatives; Useful precursors for metal nanostructured materials. Macromolecules 39, 103-111, 2006. Carlos Díaz y **María Luisa Valenzuela**. ISI: **4.277**
- 10.** Thermolytic Transformation Of Organometallic Polymers Containing The Cr(CO)₅ Precursor Into Nanostructured Chromium Oxide. Journal of Clusters Science 16, 515-522, 2005. Carlos Díaz, Paola Castillo y **María Luisa Valenzuela**. ISI: **1.315**
- 9.** Synthesis and thermal decarbonylation of W(CO)₅ complexes supported by nitrile, pyridine and phosphine ligands to polyspirophosphazene random copolymers carrying OC₆H₄CO₂Pr groups. Polyhedron 25, 105 -112, (2005). G.Carriedo, J.García Alonso, C.Diaz, and **M.L.Valenzuela**. ISI: **1.957**
- 8.** Dioxybiphenyl and chiral dioxybinaphthyl Polyphosphazene random copolymers carrying carboxylic acids and their reactions with ε- caprolactam to form nylon-6-branched phosphazene materials. Macromolecules 38, 3255-3262, (2005). G.Carriedo, J.García Alonso, C.Diaz, and **M.L.Valenzuela**. ISI: **4.024**
- 7.** Synthesis of nanostructured materials by a new solid state Pirólisis organometallic polymer method. J. Chil. Chem. Soc. N°1, 50, 417-419, (2005). C.Diaz, **M.L.Valenzuela**. ISI: **0.388**
- 6.** Properties of dioxybiphenyl- and chiral dioxybinaphthyl phosphazene copolymers with propyl-carboxylate-phenoxy units and the randomization of the substitution reactions of poly(dichlorophosphazene). Macromolecules 37, 9431-9437, (2004). G.Carriedo, J.I.Fidalgo, F.J.García Alonso, A.Presa Soto, C.Diaz, and **M.L.Valenzuela**. ISI: **3.898**
- 5.** A Facile Organometallic-Induced Cross-Linking of Copolymers of Phosphazene, Materials Research Bulletin, 39, 9-19, (2004). C.Diaz, M. Barbosa and **M.L.Valenzuela**. ISI: **1.310**

4. Transition metal containing dendrimers based on cyclophosphazene units, Polyhedron, 21, 909-915, (2002). C.Díaz and **M.L.Valenzuela**. ISI: **1.414**

3. Iron-Iron Interaction through an Ethanedithiolate Ligand: A Magnetic and Theoretical Study, Inorganica Chimica Acta, 329,129-134 (2002). Karine Costuas, **M.Luisa Valenzuela**, Andres Vega, Yanko Moreno, Octavio Peña, Evgenia Spodine, Jean-Yves Saillard, Carlos Díaz. ISI: **1.566**

2. Dendrimers Based on Ciclophosphacene Unit and Containing Iron (III); Boletin Sociedad Chilena de Quimica, 45, 527-533 (2000). C.Díaz, **M.L.Valenzuela**. ISI: **0.408**.

1. Metal-Metal Interaction Through CH₂CN Bridge: Synthesis and Characteritacion of [CpM(L₂)NCCH₂Fc]PF₆ complexes; Inorganica Chemistry Communication, 3, 525-529, (2000). C.Díaz, I.Izquierdo, **M.L.Valenzuela**, N.Yutronic. ISI: **1.090**