

Publicaciones 1983-2016

- 1.- G. González, **C. Díaz** and S. Copaja.
"Reaktionen von Diaminosulfanen mit Kupfer (II) - Salzen"
Monatshefte fur Chemie, 114, 177- 183, (1983).
- 2.- **C. Díaz V.**
"Espectros Infrarrojos de la N,N'-tiobisdimetilamina y sus derivados".
Acta Sudamericana de Química, 3, 15-20, (1983).
- 3.- **C. Díaz**, E. Clavijo and G. González.
"Infrared and Raman study of thiobisamines"
Spectrochim. Acta, 39 A, 537-540, (1983).
- 4.- **C. Díaz**, S. Copaja and G. González.
"Donor-acceptor molecular complexes of the thiobisphthalimide with diphenylamine and potassium thiocyanate"
Acta Sudamericana de Química, 4, 47-52, (1984).
- 5.- **C. Díaz** and G. González.
"Sulphur (II) - metal coordination compounds. Group VI metal carbonyl complexes with N,N' - thiobisamine ligands".
Inorg. Chimica Acta, 85 (1), 61-64, (1984).
- 6.- **C. Díaz**, S. Copaja and G. González.
"Alkoxythioamines"
Phosphorus and Sulfur, 22, 317-321, (1985).
- 7.- **C. Díaz V.**
"A characteristic redox reaction for N,N' thiobisamines and some other S(II) compounds"
Polyhedron 4, (7), 1269-1270, (1985).
- 8.- **C. Díaz V.**
"Synthesis of disubstituted ammonium trichlorodicuprate (I) from the reaction of CuCl₂·2H₂O with N,N'thiobisamines".
Polyhedron 5, 655-657, (1986).
- 9.- **C. Díaz V.**
"Unexpected reaction of sulphur dichloride with Cr(CO)₅THF: A Cr(III)product without carbon monoxide as ligand".
Polyhedron 5, 2001-2003, (1986).

- 10.- I. Chadwick, **C. Díaz**, G. González, M.A. Santa Ana and N. Yutronic.
"Electrochemical oxidation of monosubstituted chromium carbonyl complexes.
Ligand and solvent effect".
J. Chem. Soc., Dalton Trans., 1867-1871, (1986).
- 11.- **C. Díaz** and N. Yutronic.
"The $^1A_1 \rightarrow ^1E$ transition as a measure of the π -acceptor ability in $M(CO)_5L$ complexes"
Polyhedron, 6, 503-506, (1987).
- 12.- **C. Díaz** and N. Yutronic.
"Coordination properties of some solvents in $Cr(CO)_5L$ complexes".
Polyhedron, 7, 673-677, (1988).
- 13.- G. González, **C. Díaz** and H. Binder.
"ESCA studies of N,N'-thiobisamines and of their chromium, carbonyl complexes".
Zeitschrift für Naturforschung 43B, 513-516, (1988).
- 14.- **C. Díaz** and A. Arancibia.
"Spectroscopic properties of N,N'-dithiobisamines and their cyclic analogues N,N'-dialkylcyclotetrasulfur-1,4-diimides".
Phosphorus and Sulphur 44, 1 - 8, (1989).
- 15.- **C. Díaz V.**
"Sulphur(II) compounds as ligands. Chromium pentacarbonyl complexes with alkoxythioamines as ligands".
Sulfur Letters 9, 1 - 8, (1989).
- 16.- **C. Díaz** and N. Yutronic.
"Identification of lowest excited state in the complex $Cr(CO)_5PBu_3$ "
Polyhedron 8, 1099-1102, (1989).
- 17.- M.L. Rodríguez, C. Ruiz-Pérez, J. Brito, **C. Díaz**, J. Cuevas, G. González and V. Manríquez.
"Coordination of (N,N'-Dibenzyl)-benzene sulfenamide, via sulfur atom. Crystal and Molecular Structure of $(C_6H_5CH_2)_2NS(C_6H_5)Cr(CO)_5$ ".
J. Organomet. Chem. 377, 235-240, (1989).
- 18.- **C. Díaz V.**
"The mass spectral fragmentation of N,N'-Dithiobisamines and their Cyclic Analogues 3,6-Dialkyl-1,2,4,5,3,6-Tetrathiadiazines".
Phosphorus and Sulfur 48, 141-148, (1990).

- 19.- C. Díaz V.**
"Sulphurating and coordinating properties of N,N'-Thiobismorpholine towards iron Carbonyls".
Polyhedron **9**, 1045-1049, (1990).
- 20.- C. Díaz, J. Cuevas, G. González.**
"IR and ^1H -NMR characterization of Sulfenamides".
Sulfur Letter, **11**, 145-155, (1990).
- 21.- Gabino A. Carriedo, M. Carmen Crespo, Carlos Díaz and Víctor Riera.**
"Synthesis of new carbonyl complexes of manganese (I) containing monodentate $\text{Ph}_2\text{PCH}_2\text{PPh}_2$ (dppm)".
J. Organomet. Chem., **397**, 309-312, (1990).
- 22.- M.L. Rodríguez, I. Brito, F.V. Rodríguez-Romero, V. Manríquez, G. González and C. Díaz.**
"Structure of Pentacarbonyl-(morpholin) Chromium (O)".
Acta Cryst., **C47**, 858-860, (1991).
- 23.- C. Díaz, R. Contreras, G. González and A. Aizman.**
"Reactivity of Sulfur(II) compounds. Chemical properties and frontier molecular orbital analysis".
Phosphorus and Sulfur, **55**, 219-288, (1991).
- 24.- C. Díaz, J. Cuevas and G. González.**
"Sulfenamides as ligands in transition metal chemistry. Pentacarbonyl (Sulfenamide) Chromium (0) complexes".
Z. Anorg. Allg. Chem., **592**, 7-16, (1991).
- 25.- C. Díaz V.**
"Redox and coordinated properties of N,N'-Dithiobisamines: Oxidative Desulphuration by Cu (II) ions and $\text{Cr}(\text{CO})_5 \text{S}_2(\text{NR}_2)_2$ complexes".
Polyhedron, **10**, 1319-1326, (1991)
- 26.- C. Díaz and N. Yutronic.**
"The S-S Bond in N,N'-Dithiobisamines. A Raman study".
Phosphorus, Sulfur and Silicon, **62**, 219-223, (1991).
- 27.- G. Barrado, G.A. Carriedo, C. Díaz and V. Riera.**
"Synthesis and oxidation of cationic heterobinuclear Cyanide-Bridged Complexes of Manganese and iron".
Inorganic Chemistry, **30**, 4416-4420, (1991).

- 28.- V. Manríquez, **C. Díaz**, S. Copaja and G. González.
"The crystal structure of the Hydrogen Bonded Molecular adduct Thiobisphthalimide Diphenylamine".
Phosphorus, Sulfur and Silicon, 63, 377-388, (1991).
- 29.- E. Benavente, **C. Díaz** and G. González.
"Solvent effect on the infrared and ^1H -NMR spectra of N,N'- thodianilines".
Phosphorus, Sulfur and Silicon 66, 251-256, (1992)
- 30.- M.L. Rodríguez, I. Brito, **C. Díaz**, G. González and V. Manríquez.
"Structure of (N,N'-dicyclohexyl) benzenesulfenamide and its pentacarbonyl chromium (O) complex via sulfur atom".
J. Organometallic Chemistry, 425, 49-58, (1992).
- 31.- **C. Díaz** and R. Latorre.
" C_5H_5 -diphenylphosphinoethane iron (II) derivatives from ($n\text{-C}_5\text{H}_5$) $\text{Fe}(\text{CO})_2\text{I}$.Synthesis and Mössbauer spectra".
Bol. Soc. Chil. Quím., 37, 211-217, (1992).
- 32.- **C. Díaz** and N. Yutronic.
"Cis-Trans Isomerism in the complex $\text{BrMn}(\text{CO})_2\text{dpmm P(OPh)}_3$. An Electronic spectroscopy study".
Spectroscopy Letters 25, 1411-1420, (1992).
- 33.- **C. Díaz**, O. Bustos and N. Yutronic.
"Interaction of thiourea with sulfur divalent compounds: Desulfurization of thiourea by N,N'-Thiobismorpholine".
Phosphorus, Sulfur and Silicon, 78, 207-214, (1993)
- 34.- **C. Díaz**, V. Manríquez, G. González, I. Brito and M. López Rodríguez.
"Crystal structure of Methylsulfenamide Pentacarbonyl Chromium (0). A complex with a short Cr-S Bond".
Bol. Soc. Chil. Quím., 38, 83-87, (1993).
- 35.- **C. Díaz**, N. Yutronic, B. Weiss.
"Ionization of the Fe-X bond in polar solvents: a spectroscopic study of CpFe(dppe)X complexes".
Polyhedron, 12 (11), 1403-1407, (1993).
- 36.- M.M. Campos V., **C. Díaz** V., K. Figueroa, L. Padilla and N.Lara H.
"Iron (II) and manganese (I) complexes containing diphosphine ligands. An infrared study of $\text{BrMn}(\text{CO})_2$ (dpmm) P(OPh)_3 and CpFe(dppe)R (R=I, CN)".
Vibrational Spectroscopy, 7, 61-72, (1994).

- 37.- C. Díaz** and A. Arancibia.
"Preparation of new cationic complexes $[(n^5\text{-C}_5\text{H}_5)\text{Fe(dppe)}\text{L}]\text{PF}_6$ with sulphur and other donor ligands".
Polyhedron, 13 (1), 117-123, (1994).
- 38.- C. Díaz**, E. Benavente and G. González.
"The first spectroscopic evidence for the existence of substituted thionitrosobenzene, $\text{X-C}_6\text{H}_4\text{N=S}$, as an intermediate in the thermal decomposition of N,N-thiodianilines".
Bol. Soc. Chil. Quím., 39, 335-337, (1994).
- 39.- C. Díaz**, E. Benavente and G. González.
"N,N'-Thiodianilines. Detection of thionitrosobenzene derivatives".
Phosphorus, Sulfur, and Silicon, 101, 37-46, (1995).
- 40.- C. Díaz** and B. Weiss.
"Generation of thionitroso compounds from N,N'-thiodiamines. A molecular orbital study".
Phosphorus, Sulfur, and Silicon, 102, 31-38, (1995).
- 41.- C. Diaz** and C. Leal.
"Cis-trans isomeric influence on the reactivity of $\text{BrMn}(\text{CO})_2\text{dppmP(OPh)}_3$ towards dialkylthioethers".
Polyhedron, 14 (3), 425-428, (1995).
- 42.- C. Díaz** and N. Yutronic.
"Coordinating properties of some solvents towards the fragment CpFe(dppe)^+ ".
Polyhedron, 15, (5-6), 997-1001, (1996).
- 43.-** Gabino A. Carriedo, Alejandra Arancibia, **Carlos Díaz-Valenzuela**, Nicolás Yutronic, Enrique Pérez Carreño, Santiago García-Granda.
"Comparison of the oxidation of dinuclear cyclopentadienyl iron diphosphine complexes with the bridging ligands-CN and-C=C $(\text{CH}_2)_2\text{CN}$ ".
Journal Organometallic Chemistry, 508, 23-30, (1996).
- 44.- C. Díaz**, C. Leal and N. Yutronic.
"S-S Cleavage in Disulphides by the Fragment CpFe(dppe)^+ ".
Bol. Soc. Chil. Quím., 41, 099-102, (1996).
- 45.- C. Díaz**, C. Leal and N. Yutronic.
"Oxidative addition of disulfides to the fragment CpFe(dppe)^+ : steric and dielectric medium control on the reaction".
Journal Organometallic Chemistry, 516, 59-64, (1996).

- 46.-** V. Manríquez, **C. Díaz**, G. González and I. Brito.
"Thermal behaviour of benzenesulfenamides and of their chromium carbonyl complexes".
Journal of Thermal Analysis, 46, 1875-1880, (1996).
- 47.-** **C. Díaz**. and C. Leal.
"New Complexes [CpFe(dppe)thiophenes]PF₆".
Polyhedron, 15 (17), 2825-2829, (1996).
- 48.-** **C. Díaz**, and A. Arancibia.
"Inclusion Compounds of Half-Sandwich Complexes of Iron With Cyclodextrins: Unprecedented Laminar Structures".
Bol. Soc. Chil. Quím., 41, 291-294, (1996).
- 49.-** **C. Díaz**.
"Sulfur-hydrogen bond activation of thiols by the fragment CpFe(dppe)⁺: cyclopentadienyl iron (III) thiolate complexes
Polyhedron 16, 7, 999-1002, (1997).
- 50.-** **Carlos Díaz** and Eyleen Araya.
"Monodentated, bridged and chelated behaviour of diphosphines towards the fragment CpFe(dppe)⁺".
Polyhedron 16, 11, 1775-1781, (1997).
- 51.-** **C.Díaz** and R. Montecinos.
"Solvent effect on the oxidative addition of HS-C₆H₄B_r to CpFe (dppe)⁺. A reaction involving an Fe-S intramolecular electron transfer".
Bol. Soc. Chil. Quím., 42, 513-518, (1997).
- 52.-** **C. Díaz**, A. Arancibia.
"The cyanide ligand as an efficient bridge in mixed-valence complexes
Inorganica Chimica Acta, 269, 246-252, (1998).
- 53.-** **Carlos Díaz** and Alejandra Arancibia.
"Molecular Encapsulation of Half-Sandwich Complexes of Iron with Cyclodextrins: New Laminar Materials".
Journal of Inclusion Phenomena and Molecular Recognition in Chemistry, 30, 127-141 (1998).
- 54.-** **C.Díaz**, E. Araya and M.A. Santa Ana.
"Redox Properties of 17- Electron thiolate Complexes of cyclopentadienyl iron (III)
Polyhedron, 17, 2225-2230, (1998).

- 55.- **Carlos Díaz** and Alejandra Arancibia.
“An evidence of mixed-valence electron transfer in the inverted Marcus region”.
Bol. Soc. Chil. Quím., 43, 097-102, (1998).
- 56.- **C.Díaz** and A. Arancibia.
“Monodentate and Bridging Behavior of Dinitriles Ligands Toward the Fragment Cp(dppe)Fe⁺”.
Bol. Soc. Chil. Quím., 43, 303-314, (1998).
- 57.- **C. Díaz**.
“A Reversible Oxidative Addition of HSCH₂CH₂SH to The Fragment CpFe(dppe); Medium Control of the Reaction”
Bol. Soc. Chil. Quím., 43, 477-484, (1998).
- 58.- **C. Díaz**.
“Identification of Lowest excited States in the Organometallic iron-Nitrile Complexes”.
Bol. Soc. Chil. Quím., 44, 109-115, (1999).
- 59.- **C. Díaz**, I. Izquierdo.
“Iron and Ruthenium Derivatives of Cyclophosphazenes Coordinated Through Nitrile Spacer Ligands”.
Polyhedron, 18, 1479-1484, (1999).
- 60.- **C. Díaz**, I. Izquierdo, F. Mendizábal, N. Yutronic.
“Iron and ruthenium organometallic derivatives of spiro-substituted cyclotriphosphazenes bearing nitrile spacer: synthesis and electronic structure”.
Inorganica Chimica Acta, 294, 20-27, (1999).
- 61.- **C. Díaz**.
“Observation of Stable 17 e Iron (III) Cyclopentadienyl Radical Complexes”.
Bol. Soc. Chil. Quím., 44, 315-320, (1999).
- 62.- Ivan Brito, **C. Díaz**, Guillermo González, Matías López Rodríguez and V. Manríquez.
“The Crystal Structure of a Novel Sulfenamide: (N,N-Dibenzyl) Benzenesulfenamide”
Bol. Soc. Chil. Quím. 44, 459-462 (1999).
- 63.- **C. Díaz** and A. Arancibia.
“TCNE and TCNQ ligands as efficient bridges in mixed-valence complexes containing iron-cyclopentadienyl and other organometallic systems”
Polyhedron, 19, 137-145, (2000).

- 64.- C. Díaz** and A. Pesce.
"S-H Bond Cleavage in Molecules of Biological Interest with Organometallic Iron (II) Complexes".
Applied Organometallic Chemistry, 14, 557-560, (2000).
- 65.- C. Díaz**, I. Izquierdo, M. L. Valenzuela and N. Yutronic.
"Metal-Metal Interaction through CH₂-CN bridge: Synthesis and Characterization of [CpM(L₂)NCCH₂Fc]PF₆ Complexes (Fc:ferrocenyl L:1/2 dppe, PPh₃ M:Fe , Ru)".
Inorganic Chemistry Communications 3, 525-529, (2000).
- 66.- C. Díaz** and M. L. Valenzuela
"Dendrimers Based on Cyclophosphazene Unit and Containing Iron (III)".
Bol. Soc. Chil. Quím. 45, 527-533, (2000).
- 67.- C. Díaz** and A. Arancibia.
"Intervalence electron trasfer through a thiolate bridge ligand: a Fe^{III}-S-R-Fs^{II} mixed valence complex".
Polyhedron 19, 2679-2687, (2000).
- 68.- C. Díaz**, E. Spodine, Y. Moreno, A. Arancibia.
"Fe (II) – Fe (III) electronic and magnetic interaction through a thiopyridine bridge".
Bol. Soc. Chil. Quím., 45, 317-322, (2000).
- 69.- C. Díaz** and A. Gómez
"New ruthenium (II) complexes containing organodisulphide ligands".
J. Coord. Chem., 54, 261-266, (2001).
- 70.- C. Díaz** and F. Mendizábal.
"Exponential Decay of a Charge Transfer Induced by Coordination in Organometallic Complexes".
Bol. Soc. Chil. Quím. 46, 293-299, (2001).
- 71.- K. Costuas, M.L.Valenzuela, A. Vega, Y. Moreno , O. Peña ,E. Spodine , J-Y Saillard and C. Diaz.**
"Iron-Iron interaction through an ethanethiolate ligand: a magnetic and theoretical study".
Inorganica Chimica Acta 329,129-134, (2002).
- 72.- C. Díaz**, Nancy Cabezas, F. Mendizábal.
"New Entry to Piano-Stool Electron Rich (Pentamethyl Cyclopentadienyl) Iron Complexes"
Bol. Soc. Chil. Quím. 47, 213-220, (2002).

- 73.- **C. Díaz** and M.L. Valenzuela.
"Transition Metal Containing Dendrimers Based on Cyclophosphazene Units.
Polyhedron, 21, 909-915, (2002).
- 74.- **C. Díaz** and P. Castillo.
"Incorporation of Chromium-Carbonyl Fragments to Bis-Spirocyclophosphazene and Spiro Polyphosphazene Containing Benzylcyanide Spacer"
J. Inorg. Organometallic Polymers. 11, 183-192 (2002).
- 75.- **C. Diaz**, P. Castillo, G.A.Carriedo, P.Gomez-Elipe, F.J.Garcia-Alonso.
"Cymantrene Derivatives of Oligomers and Polyphosphazene Containing Benzylcyanide spacer"
Macromolec. Phys. and Chem. 203, 1918-1925, (2002).
- 76.- G.A. Carriedo, F.J. Garcia-Alonso J. L. García Alvarez, **C. Diaz**, N. Yutronic.
"Synthesis and Spectroscopic Properties of a New High Molecular Weight Poly-Spirophosphazene-Oxypyridine Copolymer and its Complexes with W(CO)₅ Fragments".
Polyhedron 21, 2587-2592, (2002).
- 77.- G.A. Carriedo, F.J. Garcia-Alonso, P. A. González, **C. Diaz**, N. Yutronic.
"Synthesis and Spectroscopic Characterization of Cyclic and Polymeric Phosphazenes Bearing Phosphine Complexes"
Polyhedron 21, 2579-2586, (2002).
- 78.- G.A. Carriedo, F.J. Garcia-Alonso, P. Gomez -Elipe, **C. Diaz** and N. Yutronic.
"Synthesis and Spectroscopic and Electrochemical Study of Cationic Cyclopentadienyliron(diphosphine) Complexes Supported on a High Molecular Weight Phosphazenes Polymer through Nitrile Ligands".
Journal of the Chilean Chemical Society 48, 25-28, (2003).
- 79.- **C.Díaz** and P.Castillo.
"Synthesis and characterization of soluble polyphosphazenes having pendent Cp*Fe(dppe) groups."
Polymer bulletin 50, 123-129, (2003).
- 80.- G.A. Carriedo, F.J. Garcia-Alonso, S. López Vizcaíno , **C. Diaz**, N. Yutronic.
"The reaction of the Bis-spirocyclicphosphazene [N₃P₃(O₂C₁₂H₈)₂Cl₂] O₂C₁₂H₈=2,2'-dioxybiphenyl) with thiophenols, in the presence of alkali carbonates"
Phosphorus, Sulfur and Silicon 178, 1549-1588, (2003).

- 81.- **C. Díaz**, M.L. Valenzuela y M. Barbosa.
“A facile organometallic-induced cross-linking of copolymers of Phosphazene”
Material Research Bulletin 39, 9-19, (2004).
- 82.- **C. Díaz** y Z. Godoy.
“Monobranched and hyperbranched dendrimers based on cyclophosphazene containing nitrile and phosphine donors and their Fe and Ru organometallic derivatives”.
Polyhedron 23, 1027-1035, (2004).
- 83.- **C. Diaz**, E. Spodine, Y. Moreno E. Carrasco.
“A one step functionalization, coordination of $N_3P_3Cl_6$ using $[CpFe(dppe)SC_6H_4OH]^{+}$ ”.
Journal Chilean Chemistry Society 49, 205-207, (2004).
- 84.- G. A. Carriedo, José, I. Fidalgo, F.J.Garcia-Alonso, A. Presa, **C. Diaz** and M.L.Valenzuela.
“Properties of Dioxybiphenyl- and Chiral Dioxybinaphthylphosphazene Copolymer with Propyl-Carboxylate Units and the Randomization of the Substitution Reactions of Poly(dichlorophosphazene)”
Macromolecules 37, 9431-9437, (2004).
- 85.- Miguel Barbosa, **C. Diaz**, Maria Ines Toral, Jaime Retuert and Yadienka Martinez.
“Synthesis and Characterizatin of Organocyclophosphazene-Silica Composites New materials able to retain metals Complexes”
Journal of Materials Chemistry 15, 1360-1368, (2005).
- 86.- Gabino. A. Carriedo, Francisco J.Garcia-Alonso, **Carlos Díaz** and Maria Luisa Valenzuela.
“Dioxybiphenyl and Dioxybinaphthy Polyphosphazene Random Copolymer Carryng Carboxylic Acids and Their Reaction with ϵ -Caprolactam to Form Nylon-6-branched Phosphazene Materials”
Macromolecules 38, 3255-3262, (2005).
- 87.- **C. Díaz**, Paola Castillo and Maria Luisa Valenzuela.
Thermolytic Transformations of Organometallic Polymer Containing the $Cr(CO)_5$ Precursor into Nanostructured Chromium Oxide.
Journal of Cluster Science 16, 515-522 (2005).
- 88.- **C. Díaz** and Maria Luisa Valenzuela.
“Synthesis of Nanostructured Materials by a New Solid State Pyrolysis Organometallic Method”
Journal Chilean Chemistry Society 50, 417-419 (2005).

- 89.- **Carlos Díaz** y María Luisa Valenzuela.
"Small Molecules and High Polymeric Phosphazenes Containing Oxypyridine Side Groups and Their Organometallic Derivatives: Useful Precursors to Nanostructured Materials".
Macromolecules 39, 103-111, (2006).
- 90.- Gabino Carriedo, F.J.Garcia Alonso, **Carlos Díaz** and Maria Luisa Valenzuela.
"Synthesis and thermal decarbonylation of W(CO)₅ complexes supported by nitrile, pyridine or phosphine ligands to poly-spirophosphazene random copolymers carrying O-C₆H₅CO₂Pr groups".
Polyhedron 25, 105-112, (2006).
- 91.- **Carlos Díaz** and María Luisa Valenzuela.
"Photoluminescent Manganese nanoparticles from solid state Polyphosphazenes organometallic derivatives".
Journal of Inorganic and Organometallic Polymers 16, 123-128, (2006).
- 92.- **Carlos Diaz**, María Luisa Valenzuela Gabino Carriedo, F.J.Garcia Alonso and Alejandro Presa.
"Neutral AuCl complexes supported in linear high molecular weight, poly-spirophosphazene-phosphine copolymer and its conversion to nanostructured gold materials".
Polymer Bulletin 57, 913-920, (2006).
- 93.- **Carlos Diaz**, Domingo Abizanda, Josefina Jimenez, Antonio Laguna and Maria Luisa Valenzuela.
"Microsize and Nanosize BPO₄ from Pyrolysis of a Carborane Substituted Polyphosphazene".
Journal of Inorganic and Organometallic Polymers 16, 211-218, (2006).
- 94.- **Carlos Díaz**, María Luisa Valenzuela.
"Organometallic Derivatives of Polyphosphazenes as Precursors for Metallic Nonstructured Materials".
Journal of Inorganic and Organometallic Polymers 16, 419-435, (2006).
- 95.- **Carlos Díaz**, María Luisa Valenzuela, E. Spodine, Y. Moreno and O. Peña.
"A Cyclic and Polymeric Phosphazene as Solid State Template for the Formation of RuO₂ Nanoparticles".
Journal of Cluster Science 18, 831-844, (2007).
- 96.- **Carlos Díaz**, María Luisa Valenzuela and Nicolas Yutronic.
"Polyphosphazenes as Solid Templates for the Formation of Monometallic and Bimetallic Nanostructures".
Journal of Inorganic and Organometallic Polymers 17, 577-582, (2007).

- 97.- Carlos Díaz, M. Luisa Valenzuela and Luis Zúñiga.**
“Role of the linking of metallic centers to macromolecular and oligomeric systems in the pyrolytic products”.
Journal of the Chilean Chemical Society 53, 1373-1376, (2008).
- 98.- G. A. Carriedo, M. Luisa Valenzuela, Carlos Díaz and Svetlana Ushak.**
“Synthesis and pyrolysis of silicon and tin containing poly(2,2'-dioxy-1,1'biphenoxy- phosphazenes)”.
European Polymer Journal 44, 686-693, (2008).
- 99.- Carlos Díaz, M. Luisa Valenzuela and Svetlana Ushak.**
“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 materials”.
Journal of Cluster Science 19, 471-479, (2008).
- 100.- Carlos Díaz, Maria Luisa Valenzuela Daniel Bravo, Vladimir Lavayen and Colm O'Dwyer.**
“Synthesis and Characterization of Cyclotriphosphazenes Containing Silicon as Single Solid-State Precursors for the Formation of Silicon/Phosphorus Nanostructured Materials”.
Inorganic Chemistry 47, 11561-11569, (2008).
- 101.- C. Diaz, M.L. Valenzuela and L. Zuñiga.**
“Role of the Linking of Metallic Centers to Macromolecular and Oligomeric systems in Pyrolytic products”.
J. Chilean Chemical Society 53, 1384-1387 (2008)
- 102.- Carlos Díaz, María Luisa Valenzuela Svetlana Ushak , Vladimir Lavayen and Colm O'Dwyer.**
“Nanostructured Silicon containing materials derived from solid state pyrolysis of sililated polyphosphazene derivatives”.
Journal of Nanoscience and Nanotechnology 9, 1825-1831, (2009).
- 103.- Carlos Díaz, María Luisa Valenzuela, Luis Zuñiga , and Colm O'Dwyer.**
“Organometallic Derivatives of Cyclotriphosphazenes as precursors of Nanostructured Metallic Materials: A new solid state method”.
Journal of Inorganic and Organometallic Polymers 19, 507-520, (2009).
- 104.- Carlos Díaz Valenzuela , Gabino A. Carriedo and M. Luisa Valenzuela**
“Polymer and Oligomer Phosphazene Cymantrene derivatives as solid state precursors of nanostructured manganese pyrophosphate”.
Polymer Bulletin 63, 829-835, (2009).

- 105.-** Josefina Jiménez, Antonio Laguna, José Antonio Sanz, **Carlos Díaz**, María Luisa Valenzuela, Peter G. Jones.
“Metalloocene-and Polyphosphazenes Containing Gold Or Silver: Thermolytic Transformations into Nanostructured Materials”.
Chemistry European Journal 15, 13509-135209, (2009).
- 106.-** **C. Diaz**, M.L.Valenzuela, A. Laguna, V. Lavayen, J. Jimenez, L.Power and C. O'Dwyer.
“Metallophosphazene Precursors Routes to the Solid-State Deposition of Metallic and Dielectric Microstructures and Nanostructures on Si and SiO₂”.
Langmuir 26, 10223-10233, (2010).
- 107.-** M.L.Valenzuela and **C. Diaz**.
“Copper (II) ions into Polyphosphazenes: Solid-Like Solution
J. Inorg. Organomet. Polym. 20, 306-312 (2010).
- 108.-** **C. Díaz**, V. Lavayen and C. O'Dwyer.
“Single-Crystal Micro/Nanostructures and Thin Films of Lamellar Molybdenum Oxide by Solid-State Pyrolysis of Organometallic Derivatives of a Cyclotriphosphazene”
Journal of Solid State Chemistry 20, 1595-1603 (2010).
- 109.-** **C. Díaz**, María Luisa Valenzuela and Pedro Aguirre.
“Solid-State Gelation of N₃P₃[NH(CH₂)₃Si(OEt)₃]_{6-n}[X]_n X = NH(CH₂)₃Si(OEt)₃, NCH₃(CH₂)₃CN and OC₆H₄(CH₂)CN, N= 0 or 3 at the liquid /air interface”.
Journal of the Chilean Chemistry Society 55, 415-418 (2010).
- 110.-** **C. Diaz** , M.L.Valenzuela, D. Bravo, C. Dickinson and C. O'Dwyer.
“Solid-State Synthesis of Embedded Single-Crystal Oxide and Phosphate Nanoparticles and In-Situ Crystallization”.
Journal of Colloid and Interface Science 362, 21-32, (2011).
- 111.-** **C. Díaz** , M.L. Valenzuela, V. Lavayen, K. Mendoza, O.Peña, C. O'Dwyer.
“Nanostructured copper oxides and phosphates from a new solid-state route”.
Inorganica Chimica Acta 377, 5-11, (2011).
- 112.-** **C. Diaz** , M.L. Valenzuela, V. Villalobos, N. Yutronic and G. Barrera.
“Nanostructured VOx/VO(PO₄)_n Using Solid-State Vanadium Containing Phosphazene Precursors: A Useful Potential Bi-Catalyst System”.
Journal of Cluster Science 22, 693-704, (2011).
- 113.-** **C. Díaz**, G.A. Carriedo, M.L. Valenzuela , L. Zuñiga and C. O'Dwyer.
“Polymer/Trimer/Metal Complex Mixtures as Precursors of Gold Nanoparticles:Tuning the Morphology in the Solid-State”.

Journal of Inorganic and Organometallic Polymer and Materials 22,447-454, (2012).

- 114.- **C. Díaz**, M.L. Valenzuela, V. Lavayen, and O'Dwyer.
"Layered Graphitic Carbon Host Formation during Liquid-free Solid Stat Growth of Metal Pyrophosphates".
Inorganic Chemistry 51, 6228-6236, (2012).
- 115.- **C. Díaz**, M.L. Valenzuela, M.L. Valenzuela, D. Garrido and P. Aguirre.
"Sol-Gel Incorporation of Organometallic Compounds into Silica-. Useful Precursors to Metallic Nanostructured Materials".
Journal of the Chilean Chemistry Society 57, 1155-1160, (2012).
- 116.- **C. Díaz**, M.L. Valenzuela, Daniel Carrillo, Jose Riquelme and Renato Díaz.
"The inclusion of Organometallic Derivatives of Cyclotriphosphazenes Inside SiO₂ Matrix and Their Conversion to Nanostructured Metal-oxides and Phosphates".
Journal of Inorganic and Organometallic Polymer and Materials 22, 1101-1112, (2012).
- 117.- **C. Díaz**, M.L. Valenzuela, S. Caceres and C. O'Dwyer.
"Solution and surfactant-free growth of supported high index facet SERS active nanoparticles of rhenium by phase demixing".
Journal of Materials Chemistry A 1, 1566-1572, (2013).
- 118.- **C. Díaz**, G.A. Carriedo, M. L. Valenzuela, L. Zuñiga C. O'Dwyer.
"Solid State Pathways to Complex Shape Evolution and Tunable Porosity during Metallic Crystal Growth".
Scientific Report 3,1-8, (2013).
- 119 .- **C. Díaz**, M. L. Valenzuela, S. Cáceres, R. Diaz and C. O'Dwyer.
"Solvent and Stabilizer free growth of Ag and Pd nanoparticles using metallic salts/Cyclotriphosphazene mixtures".
Materials Chemistry and Physics 143, 124-132, (2013).
- 120.- **C. Diaz**, M.L.Valenzuela and D. Bobadilla.
"Bimetallic Au/Ag Metal Superstructures from Macromolecular Metal Complexes in Solid State".
Journal Of Chilean Chemical Society 58, 1994-1997, (2013).
- 121.- **C. Diaz** , S. Platoni, A. Molina, M.L. Valenzuela, H. Geaney and C. O'Dwyer
"Novel Solid-State Route to Nanostructured Tin, Zinc and Cerium Oxides as Potential Materials for Sensors".
Journal of Nanoscience and Nanotechnology 14, 7648-7653, (2014).

- 122.-** O. Crespo, C. Diaz, C. O'Dyer, M. Concepcion Gimeno, A. Laguna , I. Ospino and M.L. Valenzuela.
"Luminescent Gold and Silver Complexes with the Monophosphane 1-(PPh₂)-2-Me-C₂B₁₀H₁₀ and Their Conversion to Gold Micro-and Superstructured Materials".
Inorganic Chemistry 54, 7260-7269, (2014).
- 123.-** C. Díaz, M.L.Valenzuela G.A. Carriedo and N. Yutronic.
"Solid state synthesis of micro and nanostructured metal oxides using organometallic-polymers precursors".
Journal Of Chilean Chemical Society 58, 1994-1997, (2014).
- 124.-** C. Diaz, G. Barrera, M. Segovia, M.L. Valenzuela, M. Osiak, and C. O'Dwyer.
"Crystallizing Vanadium Pentoxide Nanostructures in the Solid State using Modified Block co-Polymer and Chitosan Complexes".
Journal of Nanomaterials 2015DOI:[org/10.1155/2015/105157](https://doi.org/10.1155/2015/105157).
- 125.-** C. Diaz, M.L. Valenzuela, R. Baez, and, M. Segovia.
"Solid State Morphology and Size Tuning of Nanostructured Platinum Using Macromolecular Complexes".
J. Chil. Chem.Soc. 60,2986-2990, (2015).
- 126.-** C. Diaz, G. Barrera, M. Segovia, M.L. Valenzuela, M. Osiak, and C. O'Dwyer.
"Solvent-less method for efficient photocatalytic α-Fe₂O₃ nanoparticles for using macromolecular polymeric precursors".
New J. Chem. 40, 6768-6776 , (2016).
- 127.-** C. Díaz, M.L. Valenzuela, Cristian Rios and Marjorie Segovia.
"Oxidation Facility by Temperature Dependence on the Metal Noble Nanostructured M°/M_xO_y Phase Products Using a Solid –Sate Method : The case of Pd".
J. Chil. Chem.Soc. 61,3014-3017. (2016).