

# **C U R R I C U L U M   V I T A E**

**2018**

**PEDRO MÁXIMO EMILIO MANCINI**

[pmancini@fiq.unl.edu.ar](mailto:pmancini@fiq.unl.edu.ar)

**Chemical Engineer.** Facultad de Ingeniería Química. Universidad Nacional del Litoral

**PhD in Chemistry.** Facultad de Ingeniería Química. Universidad Nacional del Litoral (equivalent)

**Post Doc.** Chemistry Department of the University of California in San Diego (USA). Advisor: Prof. Dr. Ernest Wenkert. (October 1986/September 1988)

**Full Professor.** Organic Chemistry. Chemistry Department, Facultad de Ingeniería Química, Universidad Nacional del Litoral

**Field Research:** Organic Reactions for Synthesis and Physical Organic Chemistry

#### **Invited profesor**

- *Organic Chemistry Department-Facultad de Ciencias Químicas-Universidad de Valencia (Valencia-Spain) April-May 2005; September-December 2007; September-December 2008; September-December 2010; June-July 2011; September-October 2011; September-December 2012; September-December 2015*
- *Organic and Inorganic Chemistry Department-Universidad Jaume I (Castellón de la Plana-Spain) February-April 2007, May-July 2009*

#### **Posgraduate Courses (Recently) 2010-2015 (Lectures)**

- “*Organic Synthesis. Strategies*” Course of the *PhD in Chemistry*. Facultad de Ingeniería Química, Universidad Nacional del Litoral.
- “*Advanced Organic Chemistry. Structure and Reaction Mechanisms*”. Course of the *PhD in Chemistry*. Facultad de Ingeniería Química, Universidad Nacional del Litoral.

#### **Graduate Courses (Recently) 2012-2015 (Lectures)**

- “*Basic Organic Chemistry 2nd Course*” in different Careers, Facultad de Ingeniería Química, Universidad Nacional del Litoral

#### **Scientific Publications**

##### **Book Chapters**

“**Ionic Liquids in Polar Diels-Alder Reactions using Carbocycles and Hetrocycles as Dienophiles**” P.M.E. Mancini, M.N. Kneeteman, C. Della Rosa, M.V. Bravo, C. Adam, in the Book “**Ionic Liquids/Classes and Properties**” (ISBN 978-953-308-66-6). Ed. Scott Handy, INTECH Publisher. Chapter 13, 311-344, 2011

“**Ionic Liquids: Binary Solvents Mixtures with selected Molecular Solvents. Characterization of its Molecular-Microscopic Properties. Reactivity**” P.M.E. Mancini, G. Fortunato, M.V. Bravo, C. Adam, Chapter 13, 335-362 in the Book

**"Green Solvents Properties and Applications in Chemistry" Book 2 (ISBN 978-94-007-2890-5; ISBN 978-94-007-2891-2 –e Book-), Eds. Ali Mohammad and M.P. Inamuddin, Springer, United Kingdom. 2012**

**"Protic and Nonprotic Ionic Liquids in Polar Diels-Alder Reactions using properly substituted Heterocycles as dienophiles. A DFT Study" P.M.E. Mancini, M.N. Kneeteman, C. Della Rosa, C. Ormachea, L.R. Domingo, Chapter in the Book "Ionic Liquids – New aspects for the future" (ISBN 980-307-626-8). Ed. J. Kadakawa, INTECH Publisher, 391-413, 2013**

**"Use of Furan Derivatives Acting as Electrophilic Dienophiles: An Experimental and Theoretical Analysis of Polar Cycloaddition Reactions" , P.M.E. Mancini, M. Cainelli, C.M. Ormachea, M.N. Kneeteman, Chapter Nº 8, isbn 978-1-53611-041-8, ID: \_46065, in the book Advances in Chemistry Research. Volume 37, ID: \_11877\_. Editor: C. Taylor, NOVA Publisher, 177-206, 2017**

### **Research Articles and Reviews in Journals (last ten years)**

**- A new highly selective chromogenic and fluorogenic chemosensor for Copper (II). M.Quindt, L. Gutierrez, P.M.E. Mancini, M. N. Kneeteman. M. Parra, S. Gil, A.M. Costero, Letter in Organic Chemistry, BSP-LOC-2017-1959, in press, 2018**

**- Teaching of chemistry applied. Development of a laboratory-scale fire started. V. Guntero, C. Ferretti, P.M.E. Mancini, María N. Kneeteman, World Journal of Chemical Education, 6, No. 2, 87-90, 2018**

**--Encapsulation of compounds biphenyls into SBA-15: Synthesis of composites for application, V.A. Guntero, C.A. Ferretti, P.M.E. Mancini, M.N. Kneeteman, Global Journal of Engineering Science and Reserches, 5, 2, 32-39, 2018**

**-Nitropyrroles, Diels-Alder reactions assisted by microwave irradiation and solvent effect. An experimental and theoretical study. P.M.E. Mancini, M.N. Kneeteman, M. Cainelli, C.M. Ormachea, L.R. Domingo, Journal Molecular Structure, Vol. 1147, 155-160, 2017**

**-Introducing Organic Chemistry Students to the Extraction of Natural Products found in Vegetal Species. V. Guntero, P.M.E. Mancini, M.N. Kneeteman, World Journal of Chemical Education, Vol. 5, Nº 4, 12-147, 2017**

**- Cycloaddition reactions assisted by microwave irradiation. Protic Ionic liquids vs free solvent" P.M.E. Mancini, M. Cainelli, C.M. Ormachea, M.N. Kneeteman, Current Microwave Chemistry, Vol. 4,3, 1-10, 2017**

**- Preparation of gel alcohol flavored with essential oils. An employ of laboratory techniques in the organic chemistry study. V. Guntero, M.N. Kneeteman and P.M.E. Mancini, World Journal of Chemical Education, Vol. 5, Nº 3, 86-90, 2017**

**- A Theoretical Study of 2-nitrofuran vs 3-nitrofuran as Dienophilic Electrophile in Polar Cycloaddition Reaction: Comparison of the Reactivity and Reaction**

**Mechanism.** M. Cainelli, C.M. Ormachea, P.M.E. Mancini, M.N. Kneeteman, **International Journal of Pure and Applied Chemistry**, 12(1) 1-9, 2016

**-A Theoretical Study of the Diels-Alder Reaction between 3-nitrofuran and Different Dienes Developed in Ionic Liquids.** M. Cainelli, C. M. Ormachea, M. N. Kneeteman, and P. M. E. Mancini, **International Journal of Pure and Applied Chemistry**, 12(2) 1-10, 2016

**-Understanding the participation of 3-Nitropiridine in Polar Diels-Alder Reactions. A DFT Study.** C.M. Ormachea, L.R. Domingo, M.N. Kneeteman, P.M.E. Mancini, **Journal of Molecular Modeling**, 1072, 36-42, 2015

**- Polar Diels-Alder Reactions using Heterocycles as Electrophiles. Influence of Microwave Irradiation.** M.N. Kneeteman, C.D. Della Rosa, A.F. López Baena, P.M.E. Mancini, **International Journal of Pure and Applied Chemistry** 8 (4), 229-235, 2015

**-5,5'-Bis-vanillin derivatives as discriminating sensors for trivalent cations.** A. M. Costero, S. Gil, M. Parra, P.M.E. Mancini, M.N. Kneeteman, M. Quind, **Tetrahedron Lett.** 56, 26, 3988-3991, 2015

**- Polar Diels-Alder Reactions Using Electrophilic Aromatic Nitrobenzothiophenes A Combined Experimental and DFT Study.** C.D. Della Rosa, P.M.E. Mancini, M.N. Kneeteman, A.F. López Baena, M. Suligoy, L.R. Domingo, **Journal of Molecular Structure**, 1079, 47-53, 2015

**- Pseudo-Pericyclic Reactions: Aromatic Compound Derivatives as Electrophiles in Polar Diels-Alder Reactions. An Experimental and Theoretical Study.** P.M.E. Mancini, C.M. Ormachea, M.N. Kneeteman, **Trends in Organic Chemistry, Review in Research Trends**, 17, 73-91, 2014

**- Solvatochromic dipolarity micro-sensor behavior in binary solvent systems of the (water+ionic liquid) type. Application of preferential solvation models and linear solvation energy relationships.** C.G. Adam, V. Bravo, P.M.E. Mancini, C.G. Fortunato, **Journal of Physical Organic Chemistry**, 27, 11, 841-849, 2014

**- Synthesis of phenantrenol derivatives employing nitronaphthalenes as electrophiles in polar thermal Diels-Alder reactions. Theoretical calculations.** M. N. Kneeteman, C. M. Ormachea, C. D. Della Rosa, A. F. López Baena, P. Giménez, P. M.E. Mancini, **Letter in Organic Chemistry**, 11, 5, 333-337, 2014

**- Molecular Solvent Effect on the Acidity Constant of Protic Ionic Liquids.** C.G. Adam, M.V. Bravo, P.M.E. Mancini, **Tetrahedron Lett.** 55, 148-150, 2014

**- Experimental and Theoretical Studies on Polar Diels-Alder Reactions of 1-Nitronaphthalene developed in Ionic Liquids.** P.M.E. Mancini, C. D. Della Rosa, C. M. Ormachea, M.N. Kneeteman, L. R. Domingo, **RCS Advances**, 3 (33), 13825-13834, 2013

**- Polar Diels-Alder reactions development in a protic ionic liquid: 3-nitroindole as dienophile. Theoretical studies using DFT methods,** C. Della Rosa, C. M.

Ormachea, A.S. Sonzogni, M.N. Kneeteman, L.R. Domingo, P.M.E. Mancini, **Letters in Organic Chemistry**, **9**, 691-695, **2012**

**-N-tosyl-nitropyrroles as dienophiles in polar cycloaddition reactions developed in protic ionic liquids.** C.M. Ormachea, A.F. López Baena, C. Della Rosa, M.N. Kneeteman, and P.M.E. Mancini, **Journal of Chemistry and Chemical Engineering**, **6**, 661-667, **2012**

**- Ionic liquids and microwave irradiation as synergistic combination for polar Diels-Alder reactions using properly substituted heterocycles as dienophiles. A DFT study.** P.M.E. Mancini, M.N. Kneeteman, C.D Della Rosa, C.M. Ormachea, A. Suarez, and L.R. Domingo, **Tetrahedron Lett.** **53**, 6508-6511, **2012**

**- A new phenanthrene-based bis-oxime chemosensor for Fe (III) and Cr (III) discrimination.** V. Bravo, S. Gil, A.M. Costero, M.N. Kneeteman, U Allosa, P.M.E. Mancini, L.E. Ochando, M. Parra, **Tetrahedron**, **68**, 4882-4887, **2012**

**- Diels-Alder reactions for the rational design of benzo[b]thiophenes. DFT-based guidelines for synthetic chemists.** R. Brasca, M.N. Kneeteman, P.M.E. Mancini, W.M.F. Fabian, **Journal of Molecular Structure: THEOCHEM**, **1010**, 158-168, **2012**

**- Diels-Alder reactions of N-tosylpirroles developed in protic ionic liquids. Theoretical studies using DFT methods.** C. Della Rosa, C. Ormachea, M.N. Kneeteman, C. Adam, P.M.E. Mancini, **Tetrahedron Lett.**, **52**, 6754-6757, **2011**

**-2-Nitrobenzofuran and 3-Nitrobenzofurans as dienophile in Polar Diels-Alder Reactions. A Simple Dibenzofurans Synthesis. Theoretical studies using DFT Methods.** C. Della Rosa, J.P. Sanchez, M.N. Kneeteman, P.M.E. Mancini. **Tetrahedron Lett.**, **52**, 2316-2319, **2011**

**- Five-membered aromatic heterocycles in polar cycloaddition reactions: theoretical studies as a complement of the experimental researches.** R. Brasca, C. Della Rosa, M. Kneeteman and P. M. E. Mancini. **Letters in Organic Chemistry**, **8**, **2**, 82-87, **2011**

**- Comprehensive DFT Study on Site-, Regio-, and Stereoselectivity of Diels-Alder Reactions Leading to 5-Hydroxybenzofurans.** R. Brasca, M.N. Kneeteman, P.M.E. Mancini, and W.M.F. Fabian. **Eur. J. Org. Chem.** 721-729, **2011**

**-2-Nitrobenzofuran as dienophile in Polar Diels-Alder reactions. A simple Dibenzofuran Synthesis.** C. Della Rosa, J.P. Sanchez, M. Kneeteman, P.M.E. Mancini. **Journal of Chemistry and Chemical Engineering**, Vol. 4, 11, (Serial 36). 54-59, **2010**

**- New solvent designed on the basis of the molecular-microscopic properties of binary mixtures of the type: protic molecular solvent + 1-butyl-3-methylimidazolium-based ionic liquids.** G. Fortunato, P.M.E. Mancini, V. Bravo, C. Adam. **The Journal of Physical Chemistry B**, **114**, 11804-11817, **2010**

- **Chromo-Fluorogenic Detection of Nerve-Agent Mimics Using Triggered Cyclization Reactions in Push-Pull Dyes.** A.M. Costero, M. Parra, S. Gil, R. Gotor, P.M.E. Mancini, R. Martínez-Mañez, F. Sancenón and S. Royo, **Chemistry – An Asian Journal.** **51**, 1573-1585, **2010**
- **Theoretical explanation of the regioselectivity of polar cycloaddition reactions between furan derivatives and Danishefsky diene.** R. Brasca, M. Kneeteman, P.M.E. Mancini, W.M.F. Fabian, **THEOCHEM**, **911**, 134-131, **2009**
- **Nucleophilic and acid catalyst behavior of a protic ionic liquid in a molecular reaction media. Part 1.** C. Adam, G. Fortunato, P.M.E. Mancini. **Journal of Physical Organic Chemistry**, **22**, 460-465, **2009**
- **Grouping of Hydrogen-Bond ability of pure solvents and their binary mixtures.** A.del C. Pérez and P.M.E. Mancini. **Journal of Physical Organic Chemistry**, **22**, 197-202, **2009**
- **Chromogenic detection of nerve agent mimics.** A.N. Costero, S. Gil, M. Parra, P.M.E. Mancini, R. Martínez-Mañez, F. Sancenón and S. Royo. **Chem. Comm.**, 6002-6004, **2008**
- **Toward an Understanding of the Participation of Nitronaphthalenes in Polar Diels-Alder Reactions.** L.R. Domingo, M.J. Aurell, M.N. Kneeteman, P.M.E. Mancini. **Journal of Molecular Structure: THEOCHEM**, **853**, 68-76, **2008**
- **Solvent effects on chemical processes. New solvents designed on the basis of the molecular-microscopic properties of binary mixtures: molecular solvent + 1,3-dialkylimidazolium ionic liquids.** P.M.E. Mancini, G. Fortunato, C. Adam and L.R. Vottero. **Journal of Physical Organic Chemistry**, **21**, 87-95, **2008**
- **A comparison of nonspecific solvent scales. Degree of agreement of Microscopic polarity values by different measurements methods.** P.M.E. Mancini, C. Adam, G. Fotunato and L.R. Vottero. **ARKIVOC**, Vol xvi, 267-280, **2007**
- **Behaviour of selenophenes substituted with electron-withdrawing groups in polar Diels-Alder reactions.** C. Della Rosa, M. Kneeteman and P.M.E. Mancini. **Tetrahedron Lett.**, **48**, 7075-7078, **2007**
- **A novel application of the Diels-Alder reaction: nitronaphthalenes as normal electron demand dienophiles.** E. Paredes, R. Brasca, M. Kneeteman and P.M.E. Mancini. **Tetrahedron**, **63**, 3790-3799, **2007**
- **Comparison of the reactivity between 2- and 3-nitropyrroles in cycloaddition reactions. A simple indole synthesis.** C. Della Rosa, M. Kneeteman and P.M.E. Mancini. **Tetrahedron Lett.**, **48**, 1435-1438, **2007**

## **Others Research Articles published in Journals**

**-Specific and Nonspecific Solvent Effects on Aromatic Nucleophilic Substitutions. Kinetics of the Reaction of 1-Fluoro-2,6-dinitrobenzene and Homopiperidine in Binary Solvent Mixtures.** P.M.E.Mancini, G. Fortunato, C. Adam, A. Terenzani, and L.R. Vottero. *J. Phys. Org. Chem.* Vol 15, 5, 258, 2002

**- Reactions of 1-Tosyl-3-substituted Indoles with Conjugated Dienes under Thermal and/or hyperbaric conditions.** B. Biolatto, M. Kneeteman, E. Paredes and P.M.E. Mancini. *J. Org. Chem.*, 66, 3906, 2001

**-Characterization of Solvent Mixtures: Preferential Solvation of Chemical Probes in Binary Solvent Systems of a Polar Aprotic Hydrogen Bond Acceptor Solvent with Acetonitrile or Nitromethane, Solvent Effects on Aromatic Nucleophilic Substitution Reactions (Part 8).** P.M.E. Mancini, A. Terenzani, C. Adam, A. Perez and L.R. Vottero. *Journal Physical Organic Chemistry*, Vol. 12, 207, 1999

**-Determination of Empirical Polarity Parameter  $E_T$  (30) for Binary Solvent Mixtures.** P.M.E. Mancini, L.R.Vottero, A.Terenzani, M.G.Gasparri, *Journal of Physical Organic Chemistry*, vol. 8, 617, 1995

**-Synthesis of alpha (Halomethyl) cycloalkanones.** E. Wenkert T.S. Arrhenius, B. Bookser, M. Guo, and P.M.E. Mancini, *J. Org. Chem.* 55, 1185, 1990

**- Solvent effects on Aromatic Nucleophilic Substitutions. Part 5. Kinetics of the Reactions of 1-Fluoro-2,4-dinitrobenzene with piperidine in aprotic solvents.** N.S. Nudelman, P.M.E. Mancini, R.D. Martinez and L.R. Vottero, *J. Chem. Soc. Perkin Trans II*, 951, 1987

**- Solvent effects on Aromatic Nucleophilic Substitutions. Part 4. Kinetics of the reaction of 1-chloro-2,4-dinitrobenzene with piperidine in protic solvents.** R.D. Martinez, P.M.E. Mancini, L.R. Vottero and N.S. Nudelman, *J. Chem. Soc. Perkin Trans II*, 1427, 1986

**- Solvents effects on aromatic nucleophilic substitutions. Part. 3. The kinetics of the reactions of 2,4-dinitrochloro benzene with piperidine in aprotic solvents.** P.M.E. Mancini, R.D. Martinez, L.R. Vottero, N. Sbarbati Nudelman. *J. Chem. Soc. Perkin Trans II*, 1133, 1984

## **Proceedings (last five years)**

- **A theoretical analysis of the reactivity of acyl derivatives of azaheterocycles as dienophiles in cycloaddition reactions.** C.M. Ormachea, M.N. Kneeteman, P.M.E. Mancini, *in Proceedings of the 21<sup>th</sup> International Conference Synthetic Organic Chemistry, 1-30 November 2017*, Sciforum Electronic Conference Series, Vol. 21, 2017 doi:10.3390/ecsoc-21-04732
- **Theoretical study of the use of new ligands based on biphenyl derivatives containing hydralazine and isoniazide moieties as chemical sensors of**

**metal ions.** M.N. Kneeteman, C.M. Ormachea, P.M.E. Mancini, P. Noriega, *in Proceedings of the 21<sup>th</sup> International Conference Synthetic Organic Chemistry, 1-30 November 2017*, Sciforum Electronic Conference Series, Vol. 21, 2017; doi:10.3390/ecsoc-21-04733

- **Microwave-assisted embedding of bis-vanillin and bis-eugenol into SBA-15: Synthesis of chemosensors precursors for the detection of metal cations.** V. Guntero, D. Espinosa Martinez, C. Ferreti, P.M.E. Mancini, M.N. Kneeteman, *in Proceedings of the 21<sup>th</sup> International Conference Synthetic Organic Chemistry, 1-30 November 2017*, Sciforum Electronic Conference Series, Vol. 21, 201; doi:10.3390/ecsoc-21-04731
- **Design and synthesis of the new bis-vainilline derivatives containing hydralazine and isoniazide moieties for the detection of trivalent metal cations.** M. Quindt, L. Gutierrez, V. Guntero, P.M.E. Mancini, M.N. Kneeteman, *in Proceedings of the 20<sup>th</sup> International Conference Synthetic Organic Chemistry, 1-30 November 2016*, Sciforum Electronic Conference Series Vol. 20, 2016, 20\_3594
- **Theoretical Study of the cycloaddition reaction between N-mesylnitroindoles and isoprene assisted by microwave irradiation. Protic ionic liquids vs free solvent.** M. Cainelli, C.M. Ormachea, P. Noriega, M. Kneeteman, P.M.E. Mancini, *in Proceedings of the 20<sup>th</sup> International Conference Synthetic Organic Chemistry, 1-30 November 2016*, Sciforum Electronic Conference Series Vol. 20, 2016, e022, doi 103390/ecsoc-20-e022
- **Synthesis of naphthothiophene derivatives through polar Diels-Alder reactions employing 5-nitrobenzothiophene as electrophile. Microwave irradiation vs classical thermal conditions.** C.D. Della Rosa, P.M.E. Mancini, M.N. Kneeteman, *In Proceedings of the 19th Int. Electron. Conf. Synth. Org. Chem.*, 1–30 November 2015
- **Theoretical Study of potentially complex reactions to the cycloaddition process of quinolines in hetero Diel-Alder systems.** M. Cainelli, C.M. Ormachea, P.M.E. Mancini, M.N. Kneeteman, *In Proceedings of the 19th Int. Electron. Conf. Synth. Org. Chem.*, 1–30 November 2015
- **Microwave Irradiation: Polar Diels-Alder Reactions Using Nitropyrrole and Nitroindole Derivates as Electrophiles.** P.M.E. Mancini, M.N. Kneeteman, A.F. Lopez Baena, C.D. Della Rosa, G. Gamboa, *In Proceedings of the 18th Int. Electron. Conf. Synth. Org. Chem.*, 1–30 November 2014; Sciforum Electronic Conference Series, Vol. 18, 2014
- **Reaction Mechanism of Polar Diels-Alder Reactions Between 3-Nitrofuran and different Dienes. A Theoretical Study.** C.Ormachea, M. Cainelli, M.N. Kneeteman and P.M.E. Mancini, *In Proceedings of the 18th Int. Electron. Conf. Synth. Org. Chem.*, 1–30 November 2014
- **Nitrothiophenes as Electrophiles in Polar Diels-Alder Reactions. Solvent Effects and Microwave Irradiation.** A.F. Lopez Baena, C.D. Della Rosa, P.M.E. Mancini, *17th International Electronic Conference on Synthetic Organic*

Chemistry (ECSOC-17) (Sección Microwave Assisted Synthesis). **2013** (1-30 November)

- **2-Nitrobenzothiophene and 3-nitrobenzothiophene as Electrophile in Polar Diels-Alder reactions. Solvent Effects.** C.D. Della Rosa, M.N. Kneeteman, P.M.E. Mancini, 17th International Electronic Conference on Synthetic Organic Chemistry (ECSOC-17) (Sección Ionic Liquids). **2013** (1-30 November)
- **Ionic Liquids and Microwave irradiation as synergistic combination for Polar Diels-Alder Reactions using properly substituted Heterocycles as Dienophiles.** P.M.E. Mancini, M.N. Kneeteman, C.D. Della Rosa, 16th International Electronic Conference on Synthetic Organic Chemistry (ECSOC-16) (Sección C: Microwave Assisted Synthesis). **2012** (1-30 November)
- **N-tosyl-nitropyrroles as dienophiles in polar cycloaddition reactions developed in protic ionic liquids.** C. Della Rosa, M.N. Kneeteman, P.M.E. Mancini. 15th International Electronic Conference on Synthetic Organic Chemistry (ECSOC-15) (Sección A: General Organic Synthesis). **2011** (1-30 November)
- **2-Nitrobenzofurans and 3-Nitrobenzofurans as dienophile in Polar Diels-Alder reactions. Theoretical studies using DFT methods.** C. Della Rosa, J.P. Sanchez, P.M.E. Mancini, M. Kneeteman, 14th International Electronic Conference on Synthetic Organic Chemistry (ECSOC-14) (Sección E: Computational Chemistry). **2010** (1-30 November)
- **Nitroquinolines as dienophiles in Polar Diels-Alder reactions. Influence of molecular solvent and ionic liquids.** S. Cancian, M. Kneeteman, P.M.E. Mancini, 14th International Electronic Conference on Synthetic Organic Chemistry (ECSOC-14) (Sección A: General Organic Synthesis). **2010** (1-30 November)

### **Communications to Scientific Congress (last years)**

**XXI Congreso Nacional de Química Orgánica (XX SINAQO)** (8-11 Noviembre de 2017), Potrero de los Funes, San Luis – Argentina. Trabajos presentados:

- *Análisis DFT sobre la reactividad de pirroles sustituidos en reacciones Diels-Alder polares.* C.M. Ormachea, L. Mántaras, P.M.E. Mancini, M.N. Kneeteman (SO)
- *Evaluacion por DFT de un nuevo sensor cromogénico y florogénico para Cu<sup>2+</sup>.* P. Noriega, C.M. Ormachea, L. Gutierrez, V. Guntero, P.M.E. Mancini, M.N. Kneeteman (SO)

**XI Jornadas Nacionales y VIII Jornadas Internacionales de Enseñanza de la Química Universitaria, Superior, Secundaria y Técnica, Asociación Química Argentina.** (24-27 octubre, 2017, Ciudad Autónoma de Buenos Aires - Argentina. Trabajos presentados:

- *Strategies for Managing the teaching of Organic Chemistry in Universitaries Carrers.* V. Guntero, L. Mántaras, P.M.E. Mancini, M.N. Kneeteman
- *An inter-disciplinary approach in teaching chemistry and history: Chemical Weapons.* V. Guntero, P. Farias, P.M.E. Mancini, M.N. Kneeteman

**4th International Workshop on Pericyclic Reactions and Synthesis of Hetero- and Carbocyclic Systems.** Milano - Italy, 28-30<sup>th</sup> of June, 2017. Trabajo Presentado (Comunicación Oral):

-*Nitropyrroles and Nitroindoles: Cycloaddition Reactions Assisted by Microwave Irradiation: Solvent Effects. An Experimental-Theoretical Study (OC3).* C.M. Ormachea, M.N. Kneeteman, P.M.E. Mancini

**XXXI Congreso Argentino de Química 2016. Asociación Química Argentina.** (25-28 octubre), Ciudad Autónoma de Buenos Aires – Argentina.

\**Un estudio teórico de las reacciones de Diels-Alder usando nitroderivados del indol como dienófilos junto a isopreno.* C.M. Ormachea, M. Cainelli, M.N. Kneeteman, P.M.E. Mancini

\**Desarrollo de dos sondas fluorogénicas derivadas de la bis-vainillina para la detección de cationes metálicos trivalelentes,* M. Quindt, L. Gutierrez, V. Guntero, P.M.E. Mancini, M.N. Kneeteman

**XX Simposio Argentino de Química Orgánica (XX SINAQO)** (11-14 Noviembre de 2015), Mar del Plata, Argentina.

\**Reacciones de cicloadición a partir de quinoleínas sustituídas y nitrofuranos. Un estudio teórico-mecanístico.* M. Cainelli, L. Vogt, C.M. Ormachea, M.N. Kneeteman, P.M.E. Mancini

\**Un estudio teórico sobre la reacción de cicloadición polar entre 3-nitropiridina y diferentes dienos. Análisis mecanístico.* C.M. Ormachea, M.N. Kneeteman, L.R. Domingo, P.M.E. Mancini

**XXX Congreso Argentino de Química** (septiembre 2014), Buenos Aires, Provincia de Buenos Aires, Argentina.

\**Irradiación por microondas: reacciones Diels-Alder polares usando heterociclos como electrófilos.* C.M. Ormachea, A.F. López Baena, G. Gamboa, C.D. Della Rosa, P.M.E. Mancini

**XIX Simposio Nacional de Química Orgánica (XIX SINAQO)**, (16-19 noviembre de 2013), Mar del Plata, Argentina

\**Análisis de los patrones de respuesta de microsensores solvatocrómicos en mezclas binarias del tipo agua + líquido iónico.* C.G. Adam, P.M.E. Mancini (FQO-1)

\**Líquidos iónicos prócticos. Análisis de su comportamiento en diferentes procesos químicos.* C.G. Adam, P.M.E. Mancini, G.G. Fortunato, M.V. Bravo (FQO-2) \**Líquidos iónicos como surfactants. Análisis de la posible formación de carbenos en sistemas miscelares acuosos.* M.V. Bravo, P.M.E. Mancini, P. Duché, S. Tindiglia, C.G. Adam (FQO-24)

\**Nitrobenzotiofenos en reacciones de cicloadición térmicas.* C.D. Della Rosa, M.N. Kneeteman, N.B. Gonzalez, D.B. Buschiazzo, P.M.E. Mancini (SO-45)

\**Conducta de nitronaftalenos en reacciones Diels-Alder polares.* P. Giménez, A.F. Lopez Baena, C.D. Della Rosa, M.N. Kneeteman, C.M. Ormachea, P.M.E. Mancini (SO-46)

**XXI Jornadas Jóvenes Investigadores de la Asociación de Universidades del Grupo de Montevideo (AUGM),** (14 al 16 de octubre de 2013), Corrientes, Argentina

\**Empleo de nitronaftalenos como electrófilos en reacciones Diels-Alder polares. Un estudio teórico-experimental.* P. Giménez, Advisor: P.M.E. Mancini

**XX Jornadas de Jovens Pesquisadores de AUGM** (03-05 octubre 2012), Curitiba, Brasil

\* *Reacciones Diels-Alder empleando 3-nitro-N-tosilindol como dienófilo: una vía eficiente para acceder a alcaloides indólicos.* A. Sonzogni, P.M.E. Mancini

**XVIII Simposio Nacional de Química Orgánica (XVIII SINAQO) (13-16 noviembre 2011)**, Córdoba, Argentina

\* *Reacciones de hidrólisis en sistemas miscelares formados por líquidos iónicos/agua* (FQO-21) V. Bravo, P.M.E. Mancini, C. Adam

\* *Ánálisis de la participación de líquidos iónicos en el diseño de rutas sintéticas sustentables* FQO-40) C. Adam, N. Pieruccione, P.M.E. Mancini, G. Fortunato, N.A. Donet

\* *Comportamiento fotoquímico de nile-red e hidroxi nile-red en miscelas acuosas de líquidos iónicos* (FQO-116) M.A. Stegmayer, P.M.E. Mancini; G. Fortunato

\* *Estudio teórico del mecanismo de cicloadición de 2-nitro heterocílicos aromáticos de 5 miembros* (SO-29) R. Brasca, M.A. Romero, M. Kneeteman, P.M.E. Mancini, W.M.F Fabian

\* *Nitropirroles como dienófilos en reacciones de cicloadición térmica. Líquidos iónicos vs solventes moleculares* (SO-64) C. Della Rosa, M.N. Kneeteman, P.M.E. Mancini

\* *Reacciones Diels-Alder polares utilizando microondas y líquidos iónicos* (SO-65) C. Della Rosa, A. Suarez, P.M.E. Mancini

\* *Nitroindoles como dienófilos en reacciones de cicloadición polares desarrolladas en presencia de un líquido iónico prótico* (SO-129) A.F. Lopez Baena, A.S. Sonzogni, C. Della Rosa, M.N. Kneeteman, P.M.E. Mancini

**XVI Simposio Nacional de Química Orgánica (XVI SINAQO)** (11-14 Noviembre 2007) y **Primer Simposio Iberoamericano de Química Orgánica (SIBEAQO I)** (11-16 de Noviembre 2007), Mar del Plata, Argentina. Trabajos presentados:

\* *Nuevos dienófilos en reacciones de cicloadición: selenofenos sustituidos* (SO-47). Della Rosa C., Brasca R., Mancini P.M.E., Kneeteman María

\* *5- y 8-nitroquinolinas como dienófilos en reacciones Diels-Alder* (SO-215). Cancian M.S., Kneeteman M., Mancini, P.M.E.

\* *Una perspectiva teórica sobre la reactividad y la regioselectividad de nitrofuranos en reacciones Diels-Alder* (FQO-24). R. Brasca, C. Della Rosa, M. Kneeteman, P.M.E. Mancini

\* *Líquidos iónicos: propiedades microscópicas de mezclas binarias con solventes moleculares próticos* (FQO-42). Fortunato G., Bravo M.V., Nocetti M.F., Mancini P.M.E., Adam C.

**XXVII Congreso Argentino de Química** (17-19 de septiembre 2008), San Miguel de Tucumán, Argentina. Trabajos presentados:

\* *Investigación de la regioselectividad en reacciones Diels-Alder térmicas previamente desarrolladas experimentalmente* (3-074). R. Brasca, C. Della Rosa, M.N. Kneeteman and P.M.E. Mancini

\* *Comparación de la reactividad de nitrotiofenos y nitroselenofenos frente a 1-metoxi-1,3-butadieno en reacciones de cicloadición* (6-044). C. Della Rosa, M. Kneeteman, J.P. Sánchez, E. Goria, P.M.E. Mancini

\* *Determinación de la Constante de hidrólisis del p-nitro fenil acetato en sistemas coloidales del tipo [líquido iónico+agua]*. Matía Villalba, Pedro M.E. Mancini, Claudia G. Adam

**XVII Simposio Nacional de Química Orgánica** (15-18 de noviembre de 2009), Mendoza, Argentina. Trabajos presentados:

\**Estudio teórico-mecanístico de la reacción Diels-Alder entre derivados del furano y el dieno de Danishefsky* (SO-22). R. Brasca, M.N. Kneeteman, P.M.E. Mancini, W.M.F. Fabian

\* *Síntesis de dibenzofuranos via reacciones Diels-Alder polares* (SO-58). C. Della Rosa, M.N. Kneeteman, P.M.E. Mancini

\* *Determinación de la zona de microemulsión formada por agua/líquido iónico/aceite* (FCO-2). C. Adam, P.M.E. Mancini, V. Bravo

\* *Líquidos iónicos prócticos con base imidazólica: síntesis y caracterización* (FCO-16). V. Benavides, P.M.E. Mancini, G.G. Fortunato

**XXXI Congreso of the International Union of Eláter Technologists and Chemists Societies (28 septiembre-1º octubre 2011)**, Valencia, España

\* *A naked-eye fluorescent sensor to check the presence of Cr<sup>+3</sup> and Fe<sup>+3</sup>*, S. Gil, A. Barba.Bon, A. Costero, M. Parra, P.M.E. Mancini, M.N. Kneeteman

**Segundo Simposio Iberoamericano de Química Orgánica (SIBEAQO-II) (08-12 de noviembre de 2010)**, Santiago de Compostela, España

\* *Chromogenic Detection of Nervous Agents Simulants (PO-89)*, A.M. Costero, M. Parra, S. Gil, R. Gotor, P.M.E. Mancini, R. Mañez, F. Sancenón, S. Royo

### **Research Programs and Projects (last programs and projects) (Director)**

- **Program:** *Organic Chemistry: Reactivity, Synthesis, Kinetic, Mechanisms, Theoretical Calculations 2009 (Res. HCS Nº 316/08)*  
**Director of 5 Research Programs (1996-2009)**

- **Principal Projects**

**National Agency of Scientific and Technological Promotion (ANCyT-FONCYT).**

*“Synthesis of Aromatic Sensors Selective for Methal Cations and Halogens Anions”(PICT Nº 1587-2014-1217)”*

**National Agency of Scientific and Technological Promotion (ANCyT-FONCYT)**

*“Indoles synthesis using Diels-Alder Reaction. A simple way for the preparation of biologic active compounds”(PICT Nº 1214-2008-1214)”*

**Spanish Agency of International Cooperation (AECIP)**

*“Synthesis and evaluation of the systems for the metallic contaminants in water detection and extraction” (A/026355/09)*

**Director of 25 Research Projects (1990-2017)**

## **Technological Transfer Projects**

### **- Project**

“Use of the industrial subproducts of eggs” Project of interest for the Santa Fe State, Argentina (**2010-2011**)

## **Human Resources Formation**

- Director of 21 PhD thesis (Dr. in Chemistry). Last one in March 2018
- Director of 12 Postgraduate Fellowships
- Director of 25 Undergraduate Fellowships
- Director of Researchers

## **Scientific work Reviewer**

- Reviewer in different national journals
- Reviewer in *Journal Physical Organic Chemistry*. 1997.
- Reviewer in *International Journal of Chemical Kinetics*. 1999.
- Reviewer in *International Journal of Chemical Kinetics*. 2002.
- Reviewer in *International Journal of Chemical Kinetics*. 2003.
- Reviewer in *Journal Physical Organic Chemistry*. 2003.
- Reviewer in *Journal Physical Organic Chemistry*. 2003.
- Reviewer in *Tetrahedron*. 2004
- Reviewer in *Journal Physical Organic Chemistry*. 2004
- Reviewer in *Journal Organic Chemistry*. 2004
- Reviewer in *Journal of Solution Chemistry*. 2005.
- Reviewer in *Journal Physical Organic Chemistry*. 2005
- Reviewer in *Journal Physics and Chemistry of Liquids*. 2006
- Reviewer in *International Journal of Chemical Kinetics*. 2006
- Reviewer in *Journal Physical and Chemistry Liquids*. 2007
- Reviewer in *Journal Physical and Chemistry Liquids*. 2007
- Reviewer in *Tetrahedron Letters*. 2007
- Reviewer in *Internacional Journal of Chemica Kinetics*. 2007
- Reviewer in *Journal of Solution Chemistry*. 2008
- Reviewer in *Journal of Molecular Structure: THEOCHEM*. 2008
- Reviewer in *International Journal of Chemical Kinetics*. 2008
- Reviewer in *Synlett*. 2008
- Reviewer in *Tetrahedron*. 2009
- Reviewer in *Journal of Sulfur Chemistry*. 2009
- Reviewer in *International Journal of Chemical Kinetic*. 2009
- Reviewer in *Advanced Synthesis & Catalysis*. 2009
- Reviewer in *Journal of Sulfur Chemistry*. 2009
- Reviewer in *International Journal of Chemical Kinetic*. 2010
- Reviewer in *The Journal of Physical Chemistry*. 2010
- Reviewer in *Canadian Journal of Chemistry*. 2010
- Reviewer in *International Journal of Chemical Kinetic*. 2010
- Reviewer in *The Journal of Physical Organic Chemistry*. 2010
- Reviewer in *Letters in Organic Chemistry*. 2010
- Reviewer in *The Journal of Physical Organic Chemistry*. 2011
- Reviewer in *International Journal of Chemical Kinetic*. 2011

- Reviewer in *Tetrahedron*. Año 2011
- Editor of the evaluating processes of a work in E-Journal of Chemistry- 2012
- Editor of the evaluating processes of a work in E-Journal of Chemistry- 2012
- Reviewer in *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*. 2012
- Editor of the evaluating processes of a work in E-Journal of Chemistry- 2012 (Ms 475368)
- Editor of the evaluating processes of a work in E-Journal of Chemistry- 2012 (Ms 687106)
- Reviewer in *Tetrahedron*. 2012
- Reviewer in *Chemistry - An Asian Journal*. 2012
- Editor of the evaluating processes of a work in E-Journal of Chemistry- 2012 (Ms 230296). 2012
- Reviewer in *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*. 2012
- Reviewer in *The Journal of Physical Chemistry B*, 2013
- Editor of the evaluating processes of a work in E-Journal of Chemistry
- Editor of the evaluating processes of a work in E-Journal of Chemistry- Año 2013 (Ms 131520)
- Reviewer “*Special Issue Organophosphorus and Organosulfur Compounds*” Ed. Hindawi Publishing Corporation, 2013
- Reviewer “*Special Issue on Solvation Effects on Organic Reactions in Ionic Liquids and Conventional Solvent*”. Ed. Hindawi Publishing Corporation, 2013
- Reviewer in *African Journal of Pharmacy and Pharmacology*, 2013
- Editor of the evaluating processes of a work in E-Journal of Chemistry- 2013 (Ms 131520)
- Editor of the evaluating processes of a work in E-Journal of Chemistry- 2013 (Ms 145729)
- Reviewer “*Special Issue Separation of Organic and Inorganic Compound*” Ed. Hindawi Publishing Corporation, 2013
- Reviewer “*Special Issue on Synthetic Exploitation of Alkenes*” Ed. Hindawi Publishing Corporation, 2013
- Editor of the evaluating processes of a work in E-Journal of Chemistry- Año 2014 (Ms 163235)
- Reviewer in *Current Organic Chemistry*, 2014
- Reviewer “*Special Issue Natural Products Chemistry*” Ed. Hindawi Publishing Corporation, 2014
- Reviewer in *African Journal of Pharmacy and Pharmacology*, 2014
- Reviewer “*Special Issue Polymers Supported Reagents and Polymers Supported Catalysts, Green Chemistry Approach*” Ed. Hindawi Publishing Corporation, 2014
- Reviewer “*Special Issue on Color Chemistry*” Ed. Hindawi Publishing Corporation, 2014
- Reviewer in *Physical Chemistry Chemical Physics*, 2014
- Reviewer in *RCS Advances*, 2014
- Reviewer “*Special Issue Total Synthesis of Bioactive Natural Products*” Ed. Hindawi Publishing Corporation, 2014
- Reviewer in *International Journal of Quantum Chemistry*, 2014
- Reviewer in *Physical Chemistry Chemical Physics*, 2014
- Reviewer in *Arabian JC*, 2015
- Reviewer in *Canadian Journal Chemistry*, 2015

- Reviewer in *Journal of Molecular Catalysis A*, 2015
- Reviewer in *Reports in Theoretical Chemistry*, 2015
- Reviewer in *The Journal of Chemistry*, 2015
- Reviewer in *The Journal of Physical Chemistry*, 2015
- Reviewer in *Journal Physical Organic Chemistry*, 2015
- Reviewer in *African Journal of Pharmacy and Pharmacology*, 2015
- Reviewer in *Journal of Molecular Structure*, 2015
- Reviewer in *Synthetic Comm.*, 2015
- Reviewer in *Synthetic Comm.*, 2016
- Reviewer in *Physical Chemistry Chemical Physics*, 2016
- Reviewer in *Journal Industry and Engineering Chemistry*, 2016
- Reviewer in *Journal Molecular Structure*, 2016
- Reviewer in *Advances in Science, Technology and Engineering System Journal (ASTEJJ)*, 2016
- Reviewer of Special Issue in *Journal Chemistry* "Natural Products a Great Chemical Space for the Fragment-Based Drug Discovery Strategy", 2016
- Reviewer in *Journal Molecular Structure*, 2016
- Reviewer in *Journal Physical Organic Chemistry*, 2016
- Reviewer in *MAYFEB Journal of Chemistry*, 2017
- Reviewer in *Green and Sustainable Chemistry*, 2017
- Reviewer in *Tetrahedron*, 2017
- Editor in E-Journal of Chemistry- 2017 (Ms 9254831)
- Reviewer in *Current Green Chemistry*, 2017
- Reviewer in *Chemical Sciences International Journal*, 2017
- Reviewer in *Current Microwave Chemistry*, 2017
- Editor in E-Journal of Chemistry- 2017 (Ms 5646903)
- Reviewer in *African Journal of Pharmacy and Pharmacology*, 2017
- Editor in E-Journal of Chemistry- 2017 (Ms 4102796)
- Reviewer in *Journal Molecular Structure-THEOCHE*, 2017
- Reviewer in *Letters in Organic Chemistry*, 2017
- Reviewer in *Tetrahedron*, 2017
- Reviewer in *Current Microwave Chemistry*, 2017
- Reviewer (2<sup>o</sup> version) in *Journal Pharmaceutical Research International*, 2017
- Reviewer Re-review in *Current Microwave Chemistry*, 2017
- Reviewer in *African Journal of Pharmacy and Pharmacology*, 2017
- Reviewer in *Sustainable Chemistry and Pharmacy*, 2017
- Editor in E-Journal of Chemistry- 2018 (Ms 8097829)
- Reviewer in *Journal Chemical Society of Pakistan*, 2018
- Reviewer in *Industrial & Engineering Chemistry Research*, 2018
- Reviewer in *Separation and Purification Technology*, 2018
- Reviewer in *African Journal of Pharmacy and Pharmacology*, 2018

### **Member of the Editorial Boards in Journals**

- Co-Editor of the *Journal Physical Organic Chemistry*, special issue (2006)
- Member of the Editorial Board in *International Journal of Organic Chemistry* March 2011
- E-Journal of Chemistry. March 2012
- Pure and Applied Chemical Sciences. January 2013

- JP Journal of Chemical Engineering 2018-2021

**Member of different Evaluation Committees (Institutional, Research Project, Researchers, Scholar, Career -Grade and Postgrade-)**

**Lectures (last years)**

- “*Binary solvent mixtures: microscopic characterization of its properties through empirical solvatochromic scales. Applications*”. Organic and Inorganic Chemistry Department Universidad Jaume I. Castellón, Spain, June **2009**
- “*Solvents in Organic Chemistry. Characterization, design, effects and special properties*”. Universidad Politécnica de Valencia-Spain, November **2010**
- “*Polar Diels-Alder Reactions*”, Seminar in the Chemistry Department of Organic Chemistry -UBA-, Buenos Aires, May 09, **2012**
- “*Cleans solvents. Ionic líquids. Green Organic Synthesis*”. IV Taller Latinoamericano de Química Verde, Facultad de Ingeniería Química, Universidad Nacional del Litoral, Santa Fe, Argentina, April 21-24 **2013**
- “*Aromatic Electrophiles in polar Diels-Alder reactions*” Universidad Nacional de Rosario, Rosario, Argentina, March 06, **2015**

**Full Member in several Evaluation Commissions: Institutional, R & D Projects, Researchers, Scholarships, etc.**

**Member of Committee in Charge in several PhD Thesis**

**Pedro M.E. Mancini (2018)**