

CURRICULUM VITAE

Name: ANTONIO M. ECHAVARREN PABLOS

Date: March, 2018

Name and title: Antonio M. Echavarren

Professor of Organic Chemistry

Date and place of birth: Bilbao (Spain), May 25, 1955

Address: Institute of Chemical Research of Catalonia (ICIQ)
Av. Països Catalans 16, 43007 Tarragona (Spain)

Deegrees: Graduate in Chemistry, Universidad Autónoma de Madrid (UAM), 1977
Ph.D. in Chemistry, UAM (Prof. Francisco Fariña), 1982

Researcher ID: A-2116-2010 (<http://www.researcherid.com/rid/A-2116-2010>)

Código Orcid: <http://orcid.org/0000-0001-6808-3007>

Appointments

Current Position **Group Leader**, Institute of Chemical Research of Catalonia (ICIQ) (2004-present)

Professor of Organic Chemistry, UAM (1992-2009) and Universitat Rovira i Virgili (2009-).

Previous positions **Postdoctoral Research Associate**, Boston College (Prof. T. Ross Kelly), (1982-1984).

Assistant Professor, UAM, (1984-1986).

NATO Fellow, Colorado State University, (Prof. John K. Stille), (1986-1988).

CSIC Researcher (Institute of Organic Chemistry), CSIC, Madrid, (1988-1992).

Visiting Professor, Université Louis Pasteur, Strasbourg, France (2001)

Visiting Professor, Universidad de Santiago de Compostela (2002)

CSIC Research Professor (2005-).

Visiting Professor, Université Pierre et Marie Curie, Paris, France (2007).

Research Interests: Organic synthesis and organometallic chemistry: development of new methods, synthesis of polyarenes, and synthesis of natural products.

Other Research and Teaching Appointments:

Spanish Royal Society of Chemistry (RSEQ): Secretary General (Oct 1999- March 2004). President of the Catalan section (2012-2017). Member of the Committee of the Organic Chemistry Group (GQOR) (2016-2017). President (2018-).

Universidad Autónoma de Madrid: Vice-Dean for Laboratory Safety, Faculty of Sciences (6/96 – 12/98) and Delegate for Safety of the University President (1/99 – 5/02).

Institute of Chemical Research of Catalonia (ICIQ): Vice-Director for Academic Affairs, ICIQ, 2009-.

Consultant: Eli Lilly, Alcobendas, Madrid (2002-2006). Enantia, Barcelona (2006). PharmaMar, Colmenar Viejo, Madrid (2008-2010). Esteve-ICIQ Unit (2010-2014).

Member of **American Chemical Society** (1983-) / **Real Sociedad Española de Química** (1990-) (Organic and Organometallic groups) / **The Royal Society of Chemistry** (2012-).

Editorial duties / Committees:

Scientific committees: **EUCHEMs Organic Chemistry Division** (Spanish representative, 2007-2015) / **International Scientific Committee of ESOC** (2007-2015, President-elect, 2011; President 2014-2015) / **Ischia Advanced School of**

Organic Chemistry (IASOC Conference) (2011-2015) / **International Conference on Organometallics and Catalysis (OM&Cat)** (2012-2016) / **Asian European Symposium on Metal Mediated Efficient Organic Synthesis** (2014-).

Editorial Advisory Boards: **ChemSusChem** (2007-2015) / **Organic Biomolecular Chemistry** (2008-) / **Chemical Society Reviews** (2010-) / **Advanced Synthesis and Catalysis** (Academic Advisory Board, 2011-) / **Organic Letters** (2014-) / **Tetrahedron Lett.** (2015-) (Board of consulting editors) / **ChemCatChem** (2017-)

Editorial Board: **ChemCatChem** (2009-2016), **Chem. Eur. J.** (2014-)

Associate Editor: **Chemical Communications** (4/2011-).

Co-editor: Themed issue **ChemSocRev** – “Coinage Metals in Organic Synthesis”, 2016. **Advanced Synthesis & Catalysis** Special Issue “Gold Catalysis: Quo Vadis?”, 2016, 358, 1347.

Awards:

Bachelor Extraordinary Award (1977). Doctoral Thesis Extraordinary Award (1982).

2004 **Janssen-Cilag Organic Chemistry Award** of the Spanish Royal Society of Chemistry (RSEQ).

Liebig Lecturship 2006, Organic Division, German Chemical Society.

Abbot Lecture in Organic Chemistry University of Illinois at Urbana-Campaign, 2009.

Gold Medal of the Spanish Royal Society of Chemistry (RSEQ) and **FEIQUE Research Award 2010**.

Schulich Visiting Professor Lectureship (Technion, Haifa, 2011).

Sir Robert Robinson Distinguished Lecture, University of Liverpool, UK, 28 November 2011.

Bristol-Myers Squibb (BMS) Lectureship, Chemistry Department at The Scripps Research Institute, La Jolla, California, 2012.

Fellow of the Royal Society of Chemistry (January 2012).

Thomson Reuters Highly Cited Researcher (2014, 2015, 2016).

2014-2015 Novartis Lecturer in Organic Chemistry, Massachusetts Institute of Technology.

Arthur C. Cope Scholar Award 2015, ACS.

Author profile (More than 25 articles since 2000 in **Angewandte Chemie**), *Angew. Chem. Int. Ed.* **2016**, 55, 10.1002/anie.201606837.

2017 Kurt Alder Lectureship, University of Cologne, July 2017.

2019 University of California Irvine Organic Synthesis Lecturer

Research Grants

- **Preparation and Study of new Organometallic Complexes.**
PB87-0201-C03-02. Dirección General de Investigación Científica and Técnica (DGICYT) 1988-1991.
IP: Antonio M. Echavarren (CSIC) [IP Coordinated project: Prof. Ernesto Carmona].
- **Insertion, Carbonilation, Cycloaddition and Other Reactions. New Application sof Organometallic Compounds in Organic Synthesis.**
PB91-0612-C03-02. DGICYT, 1992 -1994.
IP: Antonio M. Echavarren (CSIC) [IP Coordinated project: Prof. Ernesto Carmona].
- **Special Action APC 48/93.**
DGICYT, 1993.
IP: Antonio M. Echavarren (UAM).
- **Special Action APC 95-0003.**
DGICYT, 1995.
IP: Antonio M. Echavarren (UAM)
- **New Methods for the Formation of C-C Bonds Based on the Organometallic Chemistry of Pd, Ni and Ru: Fundamental Aspects and Applications in Organic Synthesis.**
PB94-0163. 1995 -1997.
IP: Antonio M. Echavarren (UAM)
- **Special Action APC 97-0040.**
DGICYT, 1997.
IP: Antonio M. Echavarren (UAM)
- **The Design of Novel Palladium-Catalyzed Routes to Selective Synthesis of Carbocyclic and N-, O-, and S-Heterocyclic Compounds.**
COST D2 ("Selective Synthesis") Project: D2/0002/95. 1995-1997.
IP: Michel Pfeffer, U. Louis Pasteur, Strasbourg.
- **Organometallic Chemistry of Pf and Ru: New Reactions and Applications in Organic Synthesis.**
PB97-0002-C02-01. DGICYT, 1998-2000.
IP: Antonio M. Echavarren (UAM)
- **Novel Palladium and Ruthenium-Catalyzed Routes to Waste-Free Carbon-Carbon Bond Syntheses.**
COST D12 ("Organic Transformations: Selective Processes and Asymmetric Catalysis") Project: D12/0010/98. 27/09/1998 - 17/12/2002.
IP: Michel Pfeffer, U. Louis Pasteur, Strasbourg.
- **New Routes for the Synthesis of Compounds of the Ecteinascidine Family (Spito-Tetrahydroisoquinolines) with Exceptional Antitumor Activity Actividad Antitumoral.**
PPQ2000-0114-P4-02. Ministerio de Ciencia and Tecnología (MCYT) 2001-2004.
IP: Antonio M. Echavarren (UAM)
- **Synthesis of Fullerene Fragments: Development of New Molecular Materials.**
Madrid Autonomous Community (CAM) 2001, 07N/0061/2001
IP: Antonio M. Echavarren (UAM)
- **Organometallic Chemistry of Pt, Pd, and other Transition Metals. Synthetic Applications and Synthesis of Polyarenes.**
BQU2001-0193-C-02-01. MCYT, 2002-2004.
IP: Antonio M. Echavarren (UAM)
- **Fullerene Fragments: Synthesis and Cyclization Processes.**
CAM. 2003-2004, 07N/0047/2002
IP: Antonio M. Echavarren (UAM)
- **New Methods for the Organometallic Electrophilic Activation of Organic Molecules.**

- CTQ2004-02869. Ministerio de Educación and Ciencia (MEC) 2005-2007.
IP: Antonio M. Echavarren (ICIQ)
- **Computing Inside Single Molecule Using Atomic Scale Technologies.**
PICOINSIDE, 015847.
Sixth Framework Programme, Priority 3, IST-FET. 2005-2009.
Coordinator: Christian Joachim. *IP project P11*: Antonio M. Echavarren (ICIQ)
 - **Biomimetic Models of Surface Processes: Design Of New Metalloenzyme Models Derived from Porphyrins.**
NAN2004-08881-C02-02. MEC 2006-2008.
IP: Antonio M. Echavarren (ICIQ) [*Coordinator*: Rodolfo Miranda (UAM)].
 - **Grups Recerca de Catalunya.**
Grup singular 00993
Agència de Gestió d'Ajuts Universitaris i de Recerca, Generalitat de Catalunya, 2005-2008.
IP: Antonio M. Echavarren (ICIQ)
 - **Design of Catalysts for a Sustainable Chemistry: An Integrated Approach (INTECAT).**
CONSOLIDER-INGENIO 2010. CSD2006-0003.
MEC, 2006-2010.
Coordinator: Miquel Pericàs (ICIQ)
 - **Design, Synthesis and Evaluation of New Devices in Molecular Electronics Based on Carbon.**
FQM-1726. Junta de Andalucía. 2007-2009.
Coordinator: Juan Manuel Cuerva (U. Granada)
 - **New Methods and Catalysts for the Electrophilic Activation of Organic Molecules.**
CTQ2007-60745/BQU. MEC, 2008-2010.
IP: Antonio M. Echavarren (ICIQ)
 - **Catalytic Activation of Dihydrogen Bioinspired on the Hydrogenases from Methanogenic Archaea.**
CTQ2008-04607-E/BQU (project EXPLORA). Ministerio de Ciencia e Innovación (MICINN), 2009-2010.
IP: Antonio M. Echavarren (ICIQ).
 - **Grups Recerca de Catalunya.**
Grup de recerca reconegut i finançat **Química Organometàlica en Síntesi Orgànica** (2009 SGR 47).
Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR), Generalitat de Catalunya, 2009-2014.
IP: Antonio M. Echavarren (ICIQ).
 - **Neogenius Pharma Project.**
Esteve (CENIT-E). MICINN, 2010-2012.
IP: Miquel À. Pericàs, Pau Ballester, Rubén Martín, and Antonio M. Echavarren.
 - **Gold-Catalysis: New Reactions and Synthesis.**
CTQ2010-16088/BQU, MICINN 2011-2013.
IP: Antonio M. Echavarren (ICIQ).
 - **AtMol – Atomic Scale and Single Molecule Logic Gate Technologies.**
FP7-ICT-2009-6. 2011-2014.
Coordinator: Christian Joachim. *IP subproject P4*: Antonio M. Echavarren.
 - **Organic Nanodevices for Molecular Electronics: Design, Synthesis, and Evaluation.**
P09-FQM04571, Junta de Andalucía. 2010-2014.
Coordinator: Juan Manuel Cuerva.
 - **Derivatives of Natural Products as Antitumor Agents.**
VALOR 00015. 2011-2013.
IP: Antonio M. Echavarren (ICIQ)
 - **Activation of Methane and Other Alkanes with Electrophilic Gold Complexes (MethanGold)**

Marie Curie Intra European Fellowship (IEF), 7th Framework Program, PIEF-GA-2010-272427
2011. Researcher: Dr. Riccardo Sinisi.
IP: Antonio M. Echavarren.

- **Advancing Gold Catalysis (CATGOLD)**
ERC Advanced Grant, 7th Framework Programme, Grant agreement 321066, 2013-2018.
IP: Antonio M. Echavarren (ICIQ)
- **Grups Recerca de Catalunya.**
Reconeguts i Finançats per la Generalitat de Catalunya 2014-2016.
2014 SGR 818.
Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR), Generalitat de Catalunya.,
IP: Antonio M. Echavarren (ICIQ).
- **Gold Catalysts as Artificial Cyclases: New Designs, Methods, and Total Synthesis.**
CTQ2013-42106-P. MINECO, 2014-2016.
IP: Antonio M. Echavarren (ICIQ).
- **Arthur C. Cope Scholar Award 2015, ACS.**
Unrestricted Research Grant.
- **From gold to silver: streamlining metal-catalysed cross-coupling reactions (Silvercatpharma)**
Marie Skłodowska-Curie Individual Fellowship (IF-EF)
2015-2017 Researcher: Dra. Beatrice Ranieri
IP: Antonio M. Echavarren (ICIQ).
- **Polynuclear Gold Catalysis (Goldcluster)**
Marie Skłodowska-Curie Individual Fellowship (IF-EF)
2016-2018 Researcher: Dr. Yin-Ming Yang
IP: Antonio M. Echavarren (ICIQ).
- **Preparation of General Purpose Gold(I) and Silver(I) Catalysts and Precatalysts (Valgoldcat)**
"La Caixa" Valorization Projects
2016
IP: Antonio M. Echavarren (ICIQ).
- **Advanced Electrophilic Catalysts for the Synthesis of Complex Systems**
CTQ2016-75960-P, MINECO, 2017-2019
IP: Antonio M. Echavarren (ICIQ).
- **Polynuclear Gold Cluster Catalysis (PGOLDCAT)**
Marie Skłodowska-Curie Individual Fellowships (IF-EF)
2017-2019 Researcher: Dr. Xia-Li Pei
IP: Antonio M. Echavarren (ICIQ).

Industrial Grants

- **Synthesis of Tin Carboxylates and Related Compounds.**
NUSA, S.A. / FGUAM. 1998-1999.
IP: Antonio M. Echavarren (UAM)
- **Development of New Bioactive Compounds.**
PHARMAMAR / FGUAM. 1999-2004.
IP: Antonio M. Echavarren (UAM)
- **Chelated Metal Additives.**
NOREL S.A. / FUAM. 2004-2005.
IP: Antonio M. Echavarren (UAM)
- **Synthesis of Antifungal Products.**
Química Sintética 2005-2006.

IP: Antonio M. Echavarren (ICIQ)

- **New Additives for the Traceability of Explosives.**
Unión Española de Explosivos. 2005-2009.
IP: Antonio M. Echavarren (ICIQ)
- **Syntheses of Marine Natural Products of Marine Origin.**
Pharmamar, 2008-2009.
IP: Antonio M. Echavarren (ICIQ)

PUBLICATIONS

1. Polycyclic Hydroxyquinones. 4. Diels-Alder Reaction with 2-Substituted Naphthazarins.
Echavarren, A.; Fariña, F.; Prados, P.
An. Quím. **1980**, 76 C, 222-225.
2. Polycyclic Hydroxyquinones. 7. Synthesis of 6-Substituted-1,2,3,4-Tetrahydroquinizarins. A Novel Route to Anthracyclines via Vinylketene Acetals.
Echavarren, A.; Fariña, F.; Prados, P.; Del Sol, G.
J. Chem. Research (S) **1981**, 316-317; *(M)* **1981**, 3675-3691.
3. INDO and EPR Study of the 6-Chloro-8-hydroxy-5-methoxy-1,4-naphthoquinone Radical Anion.
Sieiro, C.; Sánchez, A.; Echavarren, A.
J. Mol. Struct. **1981**, 77, 305-312.
4. Charge Transfer Complexes between Several Chloronaphthazarin Derivatives and Triethylamine.
Sieiro, C.; Sánchez, A.; Echavarren, A.
J. Phys. Chem. (Wiesbaden) **1982**, 131, 139-146.
5. Synthesis of the Rifamycin Chromophore.
Kelly, T. R.; Behforouz, M.; Echavarren, A.; Vaya, J.
Tetrahedron Lett. **1983**, 24, 2331-2334.
6. Synthesis of 6-Bromo- and 6-Chloro-2-acetamidobenzoquinone: A Structure Revision.
Kelly, T. R.; Echavarren, A.; Behforouz, M.
J. Org. Chem. **1983**, 48, 3849-3851.
7. Polycyclic Hydroxyquinones. 13. A Novel Synthesis of Islandicin and Digitopurpone.
Cano, P.; Echavarren, A.; Prados, P.
J. Org. Chem. **1983**, 48, 5373-5376.
8. Synthesis of Berninamycinic Acid.
Kelly, T. R.; Echavarren, A.; Chandrakumar, N. S.; Köksal, Y.
Tetrahedron Lett. **1984**, 25, 2127-2130.
9. Polycyclic Hydroxyquinones. 14. Regioselective Diels-Alder Reactions with 9-Chloro-10-hydroxy-1,4-anthraquinone and Derivatives. Application to the Synthesis of Anthracycline Precursors.
Carretero, J. C.; Cuevas, J. C.; Echavarren, A.; Fariña, F.; Prados, P.
J. Chem. Research (S) **1984**, 6-7; *(M)* **1984**, 147-194.
10. Polycyclic Hydroxyquinones. 19. Regiospecific Synthesis of Anthracyclines via the Diels-Alder Reaction with Dichloronaphthazarins.
Echavarren, A.; Prados, P.; Fariña, F.
Tetrahedron **1984**, 40, 4561-4567, (*Tetrahedron Symposium-in-Print "Recent Aspects of Anthracycline Chemistry"*).
11. Polycyclic Hydroxyquinones. 17. Regiospecific Diels-Alder Cycloadditions with Chloronaphthoquinones as Model Reactions for Regiospecific Construction of the A-Ring of Anthracyclines.
Echavarren, A.; Prados, P.; Fariña, F.
J. Chem. Research (S) **1986**, 364-365.; *(M)* **1986**, 3137-3161.

12. Polycyclic Hydroxyquinones. 18. Diels-Alder Cycloadditions with Chloronaphthazarins as Model Reactions for Regiospecific Construction of the D-Ring of Anthracyclines.
Echavarren, A.; Fariña, F.; Prados, P.
J. Chem. Research (S) **1986**, 366-367; *(M)* **1986**, 3162-3188.
13. Synthesis of the Chromophore of Rubrolone.
Kelly, T. R.; Echavarren, A.; Whiting, A.; Weibel, F.; Miki, Y.
Tetrahedron Lett. **1986**, 27, 6049-6050.
14. Palladium-Catalyzed Coupling of Aryl Triflates with Organostannanes.
Echavarren, A. M.; Stille, J. K.
J. Am. Chem. Soc. **1987**, 109, 5478-5486.
15. Palladium-Catalyzed Carbonylative Coupling of Aryl Triflates with Organostannanes.
Echavarren, A. M.; Stille, J. K.
J. Am. Chem. Soc. **1988**, 110, 1557-1565.
16. Total Synthesis of Amphimedine.
Echavarren, A. M.; Stille, J. K.
J. Am. Chem. Soc. **1988**, 110, 4051-4053.
17. Palladium-Catalyzed Coupling of Vinyl Epoxides with Organostannanes.
Echavarren, A. M.; Tueting, D. R.; Stille, J. K.
J. Am. Chem. Soc. **1988**, 110, 4039-4041.
18. Anion-Receptor Molecules: Synthesis of a Chiral and Functionalized Binding Subunit, a Bicyclic Guanidinium Group Derived from *L*- or *D*-Asparagine.
Echavarren, A.; Galán, A.; de Mendoza, J.; Salmerón, A.; Lehn, J.-M.
Helv. Chim. Acta **1988**, 71, 685-693.
19. On the Preparation of Tris(tribenzylideneacetylacetonate)-tripalladium: a Correction.
Echavarren, A. M.; Stille, J. K.
J. Organomet. Chem. **1988**, 356, C35-C37.
20. Palladium Catalyzed Coupling of Organostannanes with Vinyl Epoxides.
Tueting, D. R.; Echavarren, A. M.; Stille, J. K.
Tetrahedron **1989**, 45, 979-992, in *Tetrahedron Symposium-in-Print* Organotin in Organic Synthesis.
21. Chiral Recognition of Aromatic Carboxylate Anions by an Optically Active Abiotic Receptor Containing a Rigid Guanidinium Binding Subunit.
Echavarren, A.; Galán, A.; Lehn, J.-M.; de Mendoza, J.
J. Am. Chem. Soc. **1989**, 111, 4994-4995.
22. Reactions of Cationic Hydrido Complexes $[\text{Ru}(\text{CO})\text{H}(\text{MeCN})_2(\text{PPh}_3)_2] \text{A}$ ($\text{A} = \text{ClO}_4, \text{PF}_6$) with Alkynes. The crystal structure of $[\text{Ru}(\text{CO})(\text{MeOOC}=\text{CHCOOMe})(\text{MeCN})_2(\text{PPh}_3)_2]\text{ClO}_4$.
López, J.; Romero, A.; Santos, A.; Vegas, A.; Echavarren, A. M.; Noheda, P.
J. Organomet. Chem. **1989**, 373, 249-258.
23. Bis-insertion Reactions of $\text{Ru}(\text{CO})\text{HCl}(\text{PPh}_3)_3$ with Methyl Propiolate. The Unexpected Formation of (Methoxycarbonylethenyl)triphenylphosphonium chloride.
Castaño, A. M.; Echavarren, A. M.; López, J.; Santos, A.
J. Organomet. Chem. **1989**, 379, 171-175.
24. Reactions of Alkenyl Carbonyl Ruthenium(II) Complexes with *tert*-Butyl Isocyanide. Synthesis of Acylruthenium(II) Complexes by Intramolecular CO Insertion.
Montoya, J.; Santos, A.; Echavarren, A. M.; Ros, J.
J. Organomet. Chem. **1990**, 390, C57-C60.
25. Reactions of $\text{Ru}(\text{CO})\text{ClH}(\text{C}_5\text{H}_5\text{N})(\text{PPh}_3)_2$ with 1-Alkynes.
Romero, A.; Santos, A.; López, J.; Echavarren, A. M.
J. Organomet. Chem. **1990**, 391, 219-223.

26. Lewis Acid Catalyzed Reactions of α,β -Unsaturated *N,N*-Dimethylhydrazones with 1,4-Benzoquinone. Formation of Indoles by a Novel Oxidative Rearrangement.
Echavarren, A. M.
J. Org. Chem. **1990**, *55*, 4255-4260.
27. Regioselective Functionalization of Chiral Nickelacycles Derived from *N*-Protected Aspartic and Glutamic Anhydrides.
Castaño, A. M.; Echavarren, A. M.
Tetrahedron Lett. **1990**, *31*, 4783-4786.
28. Synthesis of Anthraquinone Derivatives by Palladium-Catalyzed Coupling of Triflates with Stannanes.
TaMay, N.; Echavarren, A. M.; Paredes, M. C.; Fariña, F.; Noheda, P.
Tetrahedron Lett. **1990**, *31*, 5189-5192.
29. Synthesis of Secondary Amines by Rhodium Catalyzed Hydrogenation of Nitriles.
Galán, A.; de Mendoza, J.; Prados, J.; Rojo, J.; Echavarren, A. M.
J. Org. Chem. **1991**, *56*, 452 - 454.
30. Reactions of Cationic Ruthenium Hydrides with 1-Alkynes: Formation of σ -Alkynylruthenium Complexes and Reduction of 1-Alkynes to 1-Alkenes.
Echavarren, A. M.; López, J.; Santos, A.; Romero, A.; Hermoso, J. A.; Vegas, A.
Organometallics **1991**, *10*, 2371 - 2376.
31. Phenylacetylene Dimerization Promoted by Ruthenium(II) Complexes.
Echavarren, A. M.; López, J.; Santos, A.; Montoya, J.
J. Organomet. Chem. **1991**, *414*, 393 - 400.
32. Stereoselective Synthesis of (\pm)-4-epi-Acetomycin by the Ester Enolate Rearrangement.
Echavarren, A. M.; de Mendoza, J.; Prados, P.; Zapata, A.
Tetrahedron Lett. **1991**, *32*, 6421 - 6424.
33. Synthesis of Isoascididemin, a Regioisomer of the Marine Alkaloid Ascididemin.
Gómez-Bengoa, E.; Echavarren, A. M.
J. Org. Chem. **1991**, *56*, 3497 - 3501.
34. Reactions of Alkenyl-ruthenium(II) $\text{Ru}(\text{CO})\text{Cl}(\text{RC}=\text{CHR}')(\text{PPh}_3)_2$ Complexes with CO. Formation of Dicarbonyl Complexes or η^2 -Acyl Complexes depending on the R and R' Groups.
Loumrhari, H.; Ros, J.; Torres, M. R.; Santos, A.; Echavarren, A. M.
J. Organomet. Chem. **1991**, *411*, 255 - 261.
35. Palladium-Catalyzed Coupling of 2-Bromonaphthoquinones with Stannanes: A Concise Synthesis of Antibiotics WS 5995 A and C and Related Compounds.
TaMay, N.; Echavarren, A. M.; Paredes, M. C.
J. Org. Chem. **1991**, *56*, 6488 - 6491.
36. 4-Methoxy-4'-nitrobiphenyl.
Stille, J. K.; Echavarren, A. M.; Williams, R. M.; Hendrix, J. A.
Organic Syntheses **1992**, *71*, 97 - 106.
37. Reactions of Alkenyl and Alkynyl Ruthenium(II) Complexes with Isocyanides: Synthesis of α,β -Unsaturated η^1 -Acylruthenium(II) complexes and X-Ray Structure of $[\text{Ru}(\text{C}\equiv\text{CPh})(\text{CN}-t\text{-Bu})_3(\text{PPh}_3)_2]\text{PF}_6$.
Montoya, J.; Santos, A.; López, J.; Echavarren, A. M.; Ros, J.; Romero, A.
J. Organomet. Chem. **1992**, *426*, 383 - 398.
38. A Receptor for the Enantioselective Recognition of Phenylalanine and Tryptophan under Neutral Conditions.
Galán, A.; Andreu, D.; Echavarren, A. M.; Prados, P.; de Mendoza, J.
J. Am. Chem. Soc. **1992**, *114*, 1511 - 1512.
39. L-Aspartic Acid Bis(trimethylsilyl) Ester: A Convenient Starting Material for the Acylation of L-Aspartic Acid.
Castaño, A. M.; Echavarren, A. M.
Tetrahedron **1992**, *48*, 3377 - 3384.

40. Reactions of Silyl Enol Ethers with Phenylethynylethoxy Carbene Metal (Cr, W) Complexes.
Camps, F.; Jordi, L.; Moretó, J. M.; Ricart, S.; Castaño, A. M.; Echavarren, A. M.
J. Organomet. Chem. **1992**, 436, 189 - 198.
41. Synthesis of 1,4-Diketones by Palladium-Catalyzed reductive Coupling of Acid Chlorides with (*E*)-1,2-Bis(tri-*n*-butylstannyl)ethene or β -Stannyl Enones.
Pérez, M.; Castaño, A. M.; Echavarren, A. M.
J. Org. Chem. **1992**, 57, 5047 - 5049.
42. Strategies for the Synthesis of Palladium Enolates and Homo-enolates: Palladation of Ketone *N,N*-Dimethylhydrazones.
Cárdenas, D. J.; Echavarren, A. M.
Anales de Química **1993**, 89, 107-110.
43. Synthesis of Ru(II) Hydride and Alkenyl Amidine Complexes. The Crystal Structure of [Ru(CO)(CH=CHCMe₃){NH=C(Me)(Me₂pz)}(PPh₃)₂]PF₆.
López, J.; Santos, A.; Romero, A.; Echavarren, A. M.
J. Organomet. Chem. **1993**, 443, 221 - 228.
44. Synthesis of Butenylnylruthenium Complexes from Hydrido, Alkenyl or Alkynyl Complexes.
Santos, A.; López, J.; Matas, L.; Ros, J.; Galán, A.; Echavarren, A. M.
Organometallics **1993**, 12, 4215 - 4218.
45. Synthesis of Protected 3-Methylaspartic Acids from Glutamic Anhydride via Nickelacycles.
Castaño, A. M.; Echavarren, A. M.
Tetrahedron Lett. **1993**, 34, 4361 - 4362.
46. Synthesis of the Benzo[*b*]carbazoloquinone with the Structure Proposed for Prekinamycin.
Echavarren, A. M.; TaMay, N.; Paredes, M. C.
Tetrahedron Lett. **1993**, 34, 4713 - 4716.
47. Aliphatic Palladation of Ketone *N,N*-Dimethylhydrazones.
Cárdenas, D. J.; Echavarren, A. M.; Vegas, A.
Organometallics **1994**, 13, 882 - 889.
48. Reactivity of a Nickelacycle Derived from Aspartic Acid: Alkylations, Insertions, and Oxidations.
Castaño, A. M.; Echavarren, A. M.
Organometallics **1994**, 13, 2262 - 2268.
49. Palladium-Catalyzed Reductive Coupling of Acid Chlorides with β -Stannyl Enones: Synthesis of 1,4-Diketones and Mechanistic Aspects.
Echavarren, A. M.; Pérez, M.; Castaño, A. M.; Cuerva, J. M.
J. Org. Chem. **1994**, 59, 4179 - 4185.
50. Synthesis of New Ruthenium(II) Carbonyl Hydrido, Alkenyl, and Alkynyl Complexes with Chelating Diphosphines.
Santos, A.; López, J.; Montoya, J.; Noheda, P.; Romero, A.; Echavarren, A. M.
Organometallics **1994**, 13, 3605 - 3615.
51. Formation of α,β -Unsaturated Carbonyl Compounds by Palladium-Catalyzed Oxidation of Allylic Alcohols.
Gómez-Bengoa, E.; Noheda, P.; Echavarren, A. M.
Tetrahedron Lett. **1994**, 35, 7097 - 7098.
52. Synthesis of Antibiotics WS5995 A and C and Related Compounds by Palladium-Catalyzed Coupling of 2-Bromonaphthoquinones with Organostannanes.
Echavarren, A. M.; TaMay, N.; Cárdenas, D. J.
J. Org. Chem. **1994**, 59, 6075 - 6083.
53. A Concise Synthesis of (\pm)-Monomorine I by way of a Palladium-Catalyzed Reductive Coupling.
Castaño, A. M.; Cuerva, J. M.; Echavarren, A. M.
Tetrahedron Lett. **1994**, 35, 7435 - 7438.

54. Synthesis of Oxa- and Azapalladacycles from Organostannanes.
Cárdenas, D. J.; Mateo, C.; Echavarren, A. M.
Angew. Chem., Int. Ed. Engl. **1994**, *33*, 2445 – 2447; *Angew. Chem.* **1994**, *106*, 2529 - 2531.
55. Design and Synthetic Applications of New Heterometallacycles.
Echavarren, A. M.; Cárdenas, D. J.; Castaño, A. M.; Cuerva, J. M.; Mateo, C.
Bull. Soc. Chim. Belg. **1994**, *103*, 549 - 558.
56. Synthesis of 3-Methylaspartic Acids by Ring-Contraction of a Nickelacycle Derived from Glutamic Anhydride.
Echavarren, A. M.; Castaño, A. M.
Tetrahedron **1995**, *51*, 2369-2378.
57. Selectivity in the Aliphatic Palladation of Ketone Hydrazones. An Example of Palladium-Promoted Intramolecular Addition of a *N,N*-Dimethylhydrazone to an Alkene.
Cárdenas, D. J.; Echavarren, A. M.
Organometallics **1995**, *14*, 4427-4430.
58. Calix[4]arene Sulfonates: Palladium-Catalyzed Intermolecular Migration of Sulfonyl Groups and Isolation of a Calix[4]arene in a Chiral 1,2-Alternate Conformation.
González, J. J.; Nieto, P. M.; Prados, P.; Echavarren, A. M.; de Mendoza, J.
J. Org. Chem. **1995**, *60*, 7419-7423.
59. Palladium-Catalyzed Coupling of Allyl Carbonates with Stannanes.
Castaño, A. M.; Echavarren, A. M.
Tetrahedron Lett. **1996**, *37*, 6587-6590.
60. Palladium-Switchable Bisnucleophiles.
Castaño, A. M.; Ruano, M.; Echavarren, A. M.
Tetrahedron Lett. **1996**, *37*, 6591-6594.
61. Michael reaction of Stabilized Carbon Nucleophiles Catalyzed by [RuH₂(PPh₃)₄].
Gómez-Bengoia, E.; Cuerva, J. M.; Mateo, C.; Echavarren, A. M.
J. Am. Chem. Soc. **1996**, *118*, 8553-8565.
62. Syntheses of Phenanthroviridone, Gilvocarcin BE-12406X₂, and Antibiotic WS 5995B Based on the Palladium and Copper Catalyzed Coupling of Organostannanes with Bromoquinones.
de Frutos, O.; Echavarren, A. M.
Tetrahedron Lett. **1996**, *37*, 8953-8956.
63. Isolation of Transmetallation Intermediates in the Stille Cross-Coupling Reaction of Stannanes: Synthesis of Palladacycles, Ligand Substitution, and Insertion Reactions.
Mateo, C.; Cárdenas, D. J.; Fernández-Rivas, C.; Echavarren, A. M.
Chem. Eur. J. **1996**, *2*, 1596-1606.
64. Synthesis of Heterocyclic Quinones by Aza-Diels-Alder Reaction of a 4-Stannyl-1-azadiene.
Cuerva, J. M.; Echavarren, A. M.
Synlett **1997**, 173-174.
65. Synthesis of Spiro Polycyclic Aromatic Hydrocarbons by Intramolecular Palladium-Catalyzed Arylation.
González, J. J.; García, N.; Gómez-Lor, B.; Echavarren, A. M.
J. Org. Chem. **1997**, *62*, 1286-1291.
66. Cationic Intermediates in the Intramolecular Insertion of Alkenes into (η^3 -Allyl)palladium(II) Complexes.
Gómez-Bengoia, E.; Manuel Cuerva, J.; Echavarren, A. M.; Martorell, G.
Angew. Chem., Int. Ed. Engl. **1997**, *36*, 767-769; *Angew. Chem.* **1997**, *109*, 795-797.
67. Isolation of the Transmetallation Step in the Hiyama Cross-Coupling of Organosilanes.
Mateo, C.; Fernández-Rivas, C.; Echavarren, A. M.; Cárdenas, D. J.
Organometallics **1997**, *16*, 1997-1999.
68. The Effect of *N*-Donor Ligands on the Reaction of Ruthenium Hydrides with 1-Alkynes.
Santos, A.; López, J.; Galán, A.; González, J. J.; Tinoco, P.; Echavarren, A. M.

- Organometallics* **1997**, *16*, 3482-3488.
69. Palladium-Catalyzed Synthesis of Tetraethynyl and Tetraethenyl Biphenyls: Elongated Tetrahedral Tectons. Gómez-Lor, B.; Echavarren, A. M.; Santos, A. *Tetrahedron Lett.* **1997**, *38*, 5347-5350.
70. Palladium-Catalyzed Coupling of Naphthoquinone Triflates with Stannanes. Unprecedented Nucleophilic Aromatic Substitution on a Hydroxynaphthoquinone Triflate. Echavarren, A. M.; Frutos, Ó.; TaMay, N.; Noheda, P.; Calle, P. *J. Org. Chem.* **1997**, *62*, 4524-4527.
71. An Approach to the Synthesis of the Benzo[b]fluorene Core of the Kinamycins by an Arylalkyne-Allene Cycloaddition. de Frutos, Ó.; Echavarren, A. M. *Tetrahedron Lett.* **1997**, *38*, 7941-7942.
72. Synthesis of Benzo[b]carbazoloquinones by Coupling of Organostannanes with Bromoquinones. Echavarren, A. M.; TaMay, N.; de Frutos, Ó.; García, A. *Tetrahedron* **1997**, *53*, 16835-16846.
73. Synthesis of (±)-10-epi-Elamol by a Highly Stereoselective Intramolecular Coupling of an Allylstannane with an Allyl Acetate. Cuerva, J. M.; Gómez-Bengoá, E.; Méndez, M.; Echavarren, A. M. *J. Org. Chem.* **1997**, *62*, 7540-7541.
74. Steric Hindrance Facilitated Synthesis of Enynes and Their Intramolecular [4+2] Cycloaddition with Alkynes. González, J. J.; Francesch, A.; Cárdenas, D. J.; Echavarren, A. M. *J. Org. Chem.* **1998**, *63*, 2854-2857.
75. Intramolecular Transmetalation of Arylpalladium(II) and Arylplatinum(II) Complexes with Silanes and Stannanes. Mateo, C.; Fernández-Rivas, C.; Cárdenas, D. J.; Echavarren, A. M. *Organometallics* **1998**, *17*, 3661-3669.
76. *syn*-Trialkylated Truxenes: Building Blocks which Self-Associate by Arene Stacking. de Frutos, Ó.; Gómez-Lor, B.; Granier, T.; Monge, M. Á.; Gutiérrez-Puebla, E.; Echavarren, A. M. *Angew. Chem. Int. Ed.* **1999**, *38*, 204 - 207; *Angew. Chem.* **1999**, *111*, 186 - 189.
77. Direct Synthesis of *N*-Aryl Quinone Imine Acetals and Quinol Imines from Acetals. Carreño, M. C.; Cuerva, J. M.; Ribagorda, M.; Echavarren, A. M. *Angew. Chem. Int. Ed.* **1999**, *38*, 1449-1452; *Angew. Chem.* **1999**, *111*, 1552 - 1555.
78. Divergent Behavior of Pd(II) and Pt(II) in the Metalation of 1,3-Di(2-pyridyl)benzene. Cárdenas, D. J.; Echavarren, A. M.; Ramírez de Arellano, M. C. *Organometallics* **1999**, *18*, 3337 - 3341.
79. New Synthesis of Pyridoacridines Based on an Intramolecular Aza-Diels-Alder Reaction Followed by an Unprecedented Rearrangement. Cuerva, J. M.; Cárdenas, D. J.; Echavarren, A. M. *Chem. Commun.* **1999**, 1721-1722.
80. Intracluster Transmetalation of Cuprates with Stannanes. Mateo, C.; Cárdenas, D. J.; Martín-Matute, B.; Echavarren, A. M. *Chem. Commun.* **1999**, 2205-2206.
81. Synthesis of "Crushed Fullerene" C₆₀H₃₀. Gómez-Lor, B. de Frutos, Ó.; Echavarren, A. M. *Chem. Commun.* **1999**, 2431-2432.
82. Metal-Catalyzed Carbocyclization by the Intramolecular Reaction of Allylsilanes and Allylstannanes with Alkynes. Fernández-Rivas, C.; Méndez, M.; Echavarren, A. M.

- J. Am. Chem. Soc.* **2000**, *122*, 1221-1222.
83. Palladium-Catalyzed Reaction of a Sterically Constrained Trialkyne: A Dimerization-type reaction with a Surprising Finale.
Granier, T.; Cárdenas, D. J.; Echavarren, A. M.
Tetrahedron Lett. **2000**, *41*, 6775-6779.
84. Platinum-catalyzed Hydroxy- and Alkoxy-cyclization of Enynes.
Méndez, M.; Muñoz, M. P.; Echavarren, A. M.
J. Am. Chem. Soc. **2000**, *122*, 11549-11550.
85. Synthesis of Benzo[b]phenanthridines and Related Naturally Occurring 2-Aryl-1,4-Naphthoquinones by the Palladium and Copper Catalyzed Coupling of Organostannanes with Bromoquinones
de Frutos, Ó.; Atienza, C.; Echavarren, A. M.
Eur. J. Org. Chem. **2001**, 163-171.
86. Reaction of Vinyl Epoxides with Palladium-Switchable Bisnucleophiles: Synthesis of Carbocycles.
Castaño, A. M.; Méndez, M.; Ruano, M.; Echavarren, A. M.
J. Org. Chem. **2001**, *66*, 589-593.
87. Formation of Benzo[b]fluorenes and the Benzo[a]fluorene Core of the Fluostatins by Cyclization of Diaryldiynes.
Atienza, C.; Mateo, C.; Frutos, Ó.; Echavarren, A. M.
Org. Lett. **2001**, *3*, 153-155.
88. Intramolecular C-H Activation by Alkylpalladium(II) Complexes: Insights into the Mechanism of the Palladium-Catalyzed Arylation Reaction.
Martín-Matute, B.; Mateo, C.; Cárdenas, D. J.; Echavarren, A. M.
Chem. Eur. J. **2001**, *7*, 2341-2348.
89. Synthesis of New C_{3v} and C_{3h} truxene Derivatives.
Gómez-Lor, B. de Frutos, Ó.; Ceballos, P. A.; Granier, T.; Echavarren, A. M.
Eur. J. Org. Chem. **2001**, 2107-2114.
90. New Palladacycles with a Pd-O Bond: Synthesis, Structure and Reactions.
Fernández-Rivas, C.; Cárdenas, D. J.; Monge, Á.; Gutiérrez-Puebla, E.; Echavarren, A. M.
Organometallics **2001**, *20*, 2998-3006.
91. Palladacycles as Precatalysts in Heck and Cross-Coupling Reactions
Muñoz, M. P.; Martín-Matute, B.; Fernández-Rivas, C.; Cárdenas, D. J.; Echavarren, A. M.
Adv. Synt. & Catal. **2001**, *343*, 338-342.
92. Ruthenium-Capping of Di- and Tetraethynylbiphenyls.
Gómez-Lor, B.; Santos, A.; Ruiz, M.; Echavarren, A. M.
Eur. J. Inorg. Chem. **2001**, 2305-2310.
93. Cyclizations of Enynes Catalyzed by PtCl₂ or Other Transition Metal Chlorides: Divergent Reaction Pathways.
Méndez, M.; Muñoz, M. P.; Nevado, C.; Cárdenas, D. J.; Echavarren, A. M.
J. Am. Chem. Soc. **2001**, *123*, 10511-10520.
94. Pt(II)-catalyzed Intramolecular Reaction of Furans with Alkynes.
Martín-Matute, B.; Cárdenas, D. J.; Echavarren, A. M.
Angew. Chem. **2001**, *113*, 4890-4893; *Angew. Chem. Int. Ed.* **2001**, *40*, 4754-4757.
95. Zipping up 'the crushed fullerene' C₆₀H₃₀: C₆₀ by fifteen-fold, consecutive intramolecular H₂ losses.
Gómez-Lor, B.; Koper, C.; Fokkens, R. H.; Vlietstra, E. J.; Cleij T. J.; Jenneskens, L. W.; Nibbering, N. M. M., Echavarren, A. M.
Chem. Commun. **2002**, 370-371.
96. New Strategies for the Synthesis of Carbocycles Based on Transition-Metal Catalyzed Cyclization reactions of Organostannanes and Organosilanes.
Méndez, M.; Echavarren, A. M.

- Eur. J. Org. Chem.* **2002**, 15-28. (Cover Picture: *Eur. J. Org. Chem.* **2002**, 7).
97. Synthesis and Self-Association of *syn*-5,10,15-Trialkylated Truxenes.
de Frutos, Ó.; Granier, T.; Gómez-Lor, B.; Jiménez-Barbero, J.; Monge, A.; Gutiérrez-Puebla, E.; Echavarren, A. M.
Chem. Eur. J. **2002**, 8, 2879-2890.
 98. Intramolecular Michael-type Addition of Azadienes to 1,4-Naphthoquinones instead of Aza-Diels-Alder Cycloaddition: A Synthesis of Ascididemín.
Cuerva, J. M.; Cárdenas, D. J.; Echavarren, A. M.
J. Chem. Soc., Perkin Trans. 1 **2002**, 1360-1365.
 99. Intramolecular Coupling of Allyl Carboxylates with Allylstannanes and Allylsilanes: A New Type of Reductive Elimination Reaction?
Méndez, M.; Cuerva, J. M.; Gómez-Bengoa, E.; Cárdenas, D. J.; Echavarren, A. M.
Chem. Eur. J. **2002**, 8, 3620-3628.
 100. Reaction of Allylsilanes and Allylstannanes with Alkynes Catalyzed by Electrophilic Late Transition Metal Chlorides.
Fernández-Rivas, C.; Méndez, M.; Nieto-Oberhuber, C.; Echavarren, A. M.
J. Org. Chem. **2002**, 67, 5197-5201.
 101. The Final Steps of the Oppolzer Cyclization: Mechanism of the Insertion of Alkenes into Allylpalladium(II) Complexes.
Cárdenas, D. J.; Alcamí, M.; Cossío, F.; Méndez, M.; Echavarren, A. M.
Chem. Eur. J. **2003**, 9, 96-105.
 102. Palladium-Catalyzed Intramolecular Arylation Reaction: Mechanism and Application for the Synthesis of Polyarenes.
Echavarren, A. M.; Gómez-Lor, B.; González, J. J.; de Frutos, Ó.
Synlett **2003**, 585-597.
 103. On the Mechanism of Carbohydroxypalladation of Enynes. Additional Insights on the Cyclization of Enynes with Electrophilic Metal Complexes.
Nevado, C.; Charruault, L.; Michelet, M.; Nieto-Oberhuber, C.; Muñoz, M. P.; Méndez, M.; Rager, M.-N.; Genet, J.-P.; Echavarren, A. M.
Eur. J. Org. Chem. **2003**, 706-713.
 104. Reaction of Enol Ethers with Alkynes Catalyzed by Transition Metals: 5-*Exo-Dig* vs. 6-*Endo-Dig* Cyclizations via Cyclopropyl Platinum or Gold Carbene Complexes.
Nevado, C.; Cárdenas, D. J.; Echavarren, A. M.
Chem. Eur. J. **2003**, 9, 2627-2635.
 105. Intramolecular Reactions of Alkynes with Furans and Electron Rich Arenes Catalyzed by PtCl₂: The Role of Platinum Carbenes as Intermediates.
Martín-Matute, B.; Nevado, C.; Cárdenas, D. J.; Echavarren, A. M.
J. Am. Chem. Soc. **2003**, 125, 5757-5766.
 106. Mechanistic Aspects of Metal-Catalyzed C,C- and C,X-Bond Formation Reactions Allyl Stannanes as Electrophiles or Nucleophiles in the Palladium-Catalyzed Reactions with Alkynes.
Martín-Matute, B.; Buñuel, E.; Cárdenas, D. J.; Méndez, M.; Nieto-Oberhuber, C.; Echavarren, A. M.
J. Organomet. Chem. **2003**, 687, 410-419. (contribución invitada número especial Palladium 2003).
 107. Hydroxy- and Alkoxy-cyclizations of Enynes Catalyzed by PtCl₂.
Muñoz, M. P.; Méndez, M.; Nevado, C.; Cárdenas, D. J.; Echavarren, A. M.
Synthesis **2003**, 2898-2902.
 108. Overcrowded 5,10,15-Trisubstituted Derivatives: Synthesis of 5,10,15-Tri(flourenylidene)truxene.
Ruiz, M.; Gómez-Lor, B.; Santos, A.; Echavarren, A. M.
Eur. J. Org. Chem. **2004**, 858-866.
 109. New persubstituted 1,3,5-trisethynyl benzenes via Sonogashira coupling.

- Hennrich, G.; Echavarren, A. M.
Tetrahedron Lett. **2004**, *45*, 1147-1149.
110. Total Synthesis of Natural Myriaporones.
Pérez, M.; Pozo, C.; Reyes, F.; Rodríguez, A.; Francesch, A.; Echavarren, A. M.; Cuevas, C.
Angew. Chem. **2004**, *116*, 1756-1759; *Angew. Chem. Int. Ed.* **2004**, *43*, 1724-1727.
111. Cationic Gold(I) Complexes: Highly Alkynophylic Catalysts for the Exo- and Endo-Cyclization of Enynes.
Nieto-Oberhuber, C.; Muñoz, M. P.; Buñuel, E.; Nevado, C.; Cárdenas, D. J.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2004**, *43*, 2402-2406. *Angew. Chem.* **2004**, *116*, 2456-2460; ["Cover Picture" and "Hot Paper", 2^o most cited communication in *Angew. Chem. Int. Ed.* published in 2004/2005].
112. Synthesis of C₃ Benzo[1,2-e:3,4-e':5,6-e'']tribenzo[*l*]acephenanthrylenes (Crushed Fullerene Derivatives) by Intramolecular Palladium-Catalyzed Arylation.
Gómez-Lor, B.; González-Cantalapiedra, E.; Ruiz, M.; de Frutos, Ó.; Cárdenas, D. J.; Santos, A.; Echavarren, A. M.
Chem. Eur. J. **2004**, *10*, 2601-2608.
113. Synthesis of a Triaza Analogue of Crushed-Fullerene by Intramolecular Palladium-Catalyzed Arylation.
Gómez-Lor, B.; Echavarren, A. M.
Org. Lett. **2004**, *6*, 2993-2996.
114. New Annulations via Platinum-Catalyzed Enyne Cyclization and Cyclopropane Cleavage.
Nevado, C.; Ferrer, C.; Echavarren, A. M.
Org. Lett. **2004**, *6*, 3191-3194.
115. Palladium(II)-Catalyzed Isomerization-Claisen Rearrangement of 2-Alkoxy Diallyl Ethers.
Nevado, C.; Echavarren, A. M.
Tetrahedron **2004**, *60*, 9735-9744 (invited paper in "Tetrahedron Symposium-in-Print" *Catalytic Tools Enabling Total Synthesis*).
116. Mechanistic aspects of C-C bond formation involving allylpalladium complexes: the role of computational studies.
Cárdenas, D. J.; Echavarren, A. M.
New J. Chem. **2004**, *28*, 338-347.
117. Cyclopropyl Metal Carbenes in the Reactions of Alkynes with Alkenes and Furans Hydroxy- and Alkoxycyclizations of Enynes Catalyzed by PtCl₂.
Echavarren, A. M.; Méndez, M.; Muñoz, M. P.; Nevado, C.; Martín-Matute, B.; Nieto-Oberhuber, C.; Cárdenas, D. J.
Pure & Appl. Chem. **2004**, *76*, 453-463.
118. Non-stabilized Transition Metal Carbenes as Intermediates in Intramolecular Reactions of Alkynes with Alkenes.
Echavarren, A. M.; Nevado, C.
Chem. Soc. Rev. **2004**, *33*, 431-436.
119. The Mechanisms of the Stille Reaction.
Espinete, P.; Echavarren, A. M.
Angew. Chem. **2004**, *116*, 4808-4839; *Angew. Chem. Int. Ed.* **2004**, *43*, 4704-4734.
120. Ligand Effects in Gold- and Platinum-Catalyzed Cyclization of Enynes: Chiral Gold Complexes for the Enantioselective Alkoxycyclization
Muñoz, M. P.; Adrio, J.; Carretero, J. C.; Echavarren, A. M.
Organometallics **2005**, *24*, 1293-1300. (n^o 1 most cited paper in *Organometallics*, 2005).
121. Couplings with Monoorganotin Compounds: A "Radical" Twist from the Original Stille Reaction.
Echavarren, A. M.
Angew. Chem. **2005**, *117*, 4028-4031; *Angew. Chem. Int. Ed.* **2005**, *44*, 3962-3965 (invited Highlight).
122. Intramolecular Hydroarylation of Alkynes Catalyzed by Platinum or Gold: Mechanism and Endo Selectivity.
Nevado, C.; Echavarren, A. M.

- Chem. Eur. J.* **2005**, *11*, 3155-3164. (n° 9 in the most cited papers published in 2005/2006).
123. Intramolecular [4+2] Cycloadditions of 1,3-Enynes or Arylalkynes with Alkenes with Highly Reactive Cationic Phosphine Au(I) Complexes.
Nieto-Oberhuber, C.; López, S.; Echavarren, A. M.
J. Am. Chem. Soc. **2005**, *127*, 6178-6179. (*J. Am. Chem. Soc.* Hot Paper n° 5, January 2007; Hot Paper n° 3, March 2007).
124. Transition Metal-Catalyzed Arylation of Alkynes.
Nevado, C.; Echavarren, A. M.
Synthesis **2005**, 167-182.
125. New Building Blocks Based on Truxene Cores: Synthesis of Functionalized syn-Tri- and Hexasubstituted Derivatives.
González-Cantalapiedra, E.; Ruiz, M.; Gómez-Lor, B.; Alonso, B.; García-Cuadrado, D.; Cárdenas, D. J.; Echavarren, A. M.
Eur. J. Org. Chem. **2005**, 4127-4140.
126. Divergent Mechanisms for the Skeletal Rearrangement and [2+2] Cycloaddition of Enynes Catalyzed by Gold.
Nieto-Oberhuber, C.; López, S.; Muñoz, M. P.; Cárdenas, D. J.; Buñuel, E.; Nevado, C.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2005**, *44*, 6146-6148. *Angew. Chem.* **2005**, *117*, 6302-6304;
127. Gold(I)-Catalyzed Cyclizations of 1,6-Enynes: Alkoxy cyclizations and *Exo/Endo* Skeletal Rearrangements.
Nieto-Oberhuber, C.; Muñoz, M. P.; López, S.; Jiménez-Núñez, E.; Nevado, C.; Herrero-Gómez, E.; Raducan, M.; Echavarren, A. M.
Chem. Eur. J. **2006**, *12*, 1677-1693. (n° 14 in the most cited papers published in 2005/2006).
128. Intramolecular Cyclopropanation of Dienynes Catalyzed by Gold(I).
Nieto-Oberhuber, C.; López, S.; Muñoz, M. P.; Jiménez-Núñez, E.; Buñuel, E.; Cárdenas, D. J.; Echavarren, A. M.
Chem. Eur. J. **2006**, *12*, 1694-1702 (selected as VIP paper).
129. Gold-Catalyzed Intramolecular Reaction of Indoles with Alkynes: Facile Formation of Eight-Membered Rings and an Unexpected Allenylation.
Ferrer, C.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2006**, *45*, 1105-1109; *Angew. Chem.* **2006**, *118*, 1123-1127.
130. Synthesis of the Benzo[b]fluorene Core of the Kinamycins by Arylalkyne-Allene and Arylalkyne-Alkyne Cycloadditions.
González-Cantalapiedra, E.; de Frutos, Ó.; Atienza, C.; Mateo, C.; Echavarren, A. M.
Eur. J. Org. Chem. **2006**, 1430-1443.
131. Proton Abstraction Mechanism for the Palladium-Catalyzed Intramolecular Arylation.
García-Cuadrado, D.; Braga, A. A. C.; Maseras, F.; Echavarren, A. M.
J. Am. Chem. Soc. **2006**, *128*, 1066-1067.
132. Synthesis Ecteinascidin Analogues from Cyanosafracin B: Isolation of a Kinetically Stable Quinonimine Tautomer of a 5-Hydroxyindole
Ceballos, P. A.; Pérez, M.; Cuevas, C.; Francesch, A.; Manzanares, I.; Echavarren, A. M.
Eur. J. Org. Chem. **2006**, 1926-1933.
133. Aryl Transfer between Pd(II) Centers or Pd(IV) Intermediates in Pd-Catalyzed Domino Reactions.
Cárdenas, D. J.; Martín-Matute, B.; Echavarren, A. M.
J. Am. Chem. Soc. **2006**, *128*, 5033-5040.
134. Molecular Panels for Energy Transduction in C₆₀-Based Conjugates.
Sánchez, L.; Martín, N.; González-Cantalapiedra, E.; Echavarren, A. M.; Rahman, G. M. A.; Guldi, D. M.
Org. Lett. **2006**, *8*, 2451-2454.
135. The Mechanistic Puzzle of Transition Metal-Catalyzed Skeletal Rearrangements of Enynes.
Nieto-Oberhuber, C.; López, S.; Jiménez-Núñez, E.; Echavarren, A. M.

- Chem. Eur. J.* **2006**, *12*, 5916-5923. (invited Concept article in special issue on the 1st European Chemistry Congress, Budapest, Hungary).
136. Redox-active C₃-Symmetric Triindole based Triazacyclophane.
Gómez-Lor, B.; Hennrich, G.; Alonso, B.; Monge, A.; Gutierrez-Puebla, E.; Echavarren, A. M.
Angew. Chem. **2006**, *118*, 4603-4603; *Angew. Chem. Int. Ed.* **2006**, *45*, 4491-4494.
137. Prins Cyclizations in Au^I-Catalyzed Reactions of Enynes.
Jiménez-Núñez, E.; Claverie, C. K.; Nieto-Oberhuber, C.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2006**, *45*, 5452-5455. *Angew. Chem.* **2006**, *118*, 5578-5581;
138. Cationic η^1/η^2 -Gold(I) Complexes of Simple Arenes.
Herrero-Gómez, E.; Nieto-Oberhuber, C.; López, S.; Benet-Buchholz, J.; Echavarren, A. M.
Angew. Chem. **2006**, *118*, 5581-5585; *Angew. Chem. Int. Ed.* **2006**, *45*, 5455-5459.
139. Gold(I)-Catalyzed Intermolecular Cyclopropanation of Enynes with Alkenes: Trapping of Two Different Gold Carbenes.
López, S.; Herrero-Gómez, E.; Pérez-Galán, P.; Nieto-Oberhuber, C.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2006**, *45*, 6029-6032. *Angew. Chem.* **2006**, *118*, 6175-6178; (selected as Hot paper).
140. Intra- and Intermolecular Reactions of Indoles with Alkynes Catalyzed by Gold.
Ferrer, C.; Amijs, C. H. M.; Echavarren, A. M.
Chem. Eur. J. **2007**, *13*, 1358-1373. (16th most frequently cited among those published in 2007 or 2008).
141. Gold(I)-Catalysed Arylation of 1,6-Enynes: Different Site Reactivity of Cyclopropyl Gold Carbenes.
Amijs, C. H. M.; Ferrer, C.; Echavarren, A. M.
Chem. Commun. **2007**, 698-700. (One of the top 50 articles published in ChemComm from 2007).
142. Intramolecular Carbostannylation of Alkynes Catalyzed by Silver(I).
Porcel, S.; Echavarren, A. M.
Angew. Chem. **2007**, *119*, 2726-2730; *Angew. Chem. Int. Ed.* **2007**, *46*, 2672-2676.
143. Molecular Diversity through Gold Catalysis with Alkynes.
Jiménez-Núñez, E.; Echavarren, A. M.
Chem. Commun. **2007**, 333-346. (Highest cited article published in ChemComm from 2007).
144. Palladium Catalyzed Arylation for the Synthesis of Polyarenes
Pascual, S.; de Mendoza, P.; Echavarren, A. M.
Org. Biomol. Chem. **2007**, *5*, 2727-2734 (invited review).
145. Missing Cyclization Pathways and New Rearrangements Unveiled in the Gold(I) and Platinum(II)-Catalyzed Cyclization of 1,6-Enynes.
Ferrer, C.; Raducan, M.; Nevado, C.; Claverie, C. K.; Echavarren, A. M.
Tetrahedron **2007**, *63*, 6306-6316. (Special "Symposium in Print" as the commemorative issue on the occasion of the 50th anniversary of Tetrahedron).
146. Proton-Abstraction Mechanism in the Palladium-Catalyzed Intramolecular Arylation: Substituent Effects.
García-Cuadrado, D.; de Mendoza, P.; Braga, A. A. C.; Maseras, F.; Echavarren, A. M.
J. Am. Chem. Soc. **2007**, *129*, 6880-6886.
147. Gold-Catalyzed Cyclizations of 1,7-Enynes.
Cabello, N.; Rodríguez, C.; Echavarren, A. M.
Synlett **2007**, 1753-1758 (invited "Cluster" on Gold catalysis).
148. The Puzzling Endocyclic Skeletal Rearrangement of 1,6-Enynes.
Cabello, N.; Jiménez-Núñez, E.; Buñuel, E.; Cárdenas, D. J.; Echavarren, A. M.
Eur. J. Org. Chem. **2007**, 4217-4223 (invited paper for the 10th anniversary of *Eur. J. Org. Chem.*).
149. Gold(I)-Catalyzed Addition of Carbon Nucleophiles to Propargyl Carboxylates.
Amijs, C. H. M.; López-Carrillo, V.; Echavarren, A. M.
Org. Lett. **2007**, *9*, 4021-4024.
150. Sodium Tetramethoxyborate: an Efficient Catalyst for Michael Additions of Stabilized Carbon Nucleophiles.

- Campaña, A. G.; Fuentes, N.; Gómez-Bengoia, E.; Mateo, C.; Oltra, J. E.; Echavarren, A. E.; Cuerva, J. M. *J. Org. Chem.* **2007**, *72*, 8127-8130.
151. Gold(I)-Catalyzed Intramolecular [4+2] Cycloadditions of Arylalkynes or 1,3-Enynes with Alkenes: Scope and Mechanism.
Nieto-Oberhuber, C.; Pérez-Galán, P.; Herrero-Gómez, E.; Lauterbach, T.; Rodríguez, C.; López, S.; Bour, C.; Rosellón, A.; Cárdenas, D. J.; Echavarren, A. M. *J. Am. Chem. Soc.* **2008**, *130*, 269-279.
152. Gold(I)-Catalyzed Allyl-Allyl Coupling.
Porcel, S.; López-Carrillo, V.; García-Yebra, C.; Echavarren, A. M. *Angew. Chem.* **2008**, *120*, 1909-1912; *Angew. Chem. Int. Ed.* **2008**, *47*, 1883-1886. (selected as Hot paper).
153. Bidentate Phosphines as Ligands in the Palladium-Catalyzed Intramolecular Arylation: The Intermolecular Base-Assisted Proton Abstraction Mechanism.
Pascual, S.; de Mendoza, P.; Braga, A. A. C.; Maseras, F.; Echavarren, A. M. *Tetrahedron* **2008**, *64*, 6021-6029. ("Symposium in Print" on C-H activation).
154. Gold-catalyzed Cycloisomerization of Enynes: A Mechanistic Perspective.
Jiménez-Núñez, E.; Echavarren, A. M. *Chem. Rev.* **2008**, *108*, 3326-3350. (Invited review. Guest Editors Y. Yamamoto and B. Lipschutz).
155. Molecular Conformation, Organizational Chirality, and Iron Metallation of Meso-Tetramesitylporphyrins on Copper(100).
Écija, D.; Trelka, M.; Urban, C.; Otero, R.; Miranda, R.; de Mendoza, P.; Echavarren, A. M.; Mateo-Martí, E.; Rogero, C.; Martín-Gago, José A.; Gallego, J. M. *J. Phys. Chem. C* **2008**, *112*, 8988-8994.
156. Selective Homogeneous and Heterogeneous Gold Catalysis with Alkynes and Alkenes: Similar Behavior, Different Origin.
García-Mota, M.; Cabello, N.; Maseras, F.; Echavarren, A. M.; Pérez-Ramírez, J.; López, N. *ChemPhysChem* **2008**, *11*, 1624-1629.
157. Templated Growth of an Ordered Array of 2D Mesopores.
Écija, D.; Trelka, M.; Urban, C.; de Mendoza, P.; Echavarren, A. M.; Otero, R.; Gallego, J. M.; Miranda, R. *Appl. Phys. Lett.* **2008**, *92*, 223117.
158. Fullerenes from aromatic precursors by surface catalysed cyclodehydrogenation.
Otero, G.; Biddau, G.; Sánchez-Sánchez, C.; Caillard, R.; López, M. F.; Rogero, C.; Palomares, F. J.; Cabello, N.; Basanta, M. A.; Ortega, J.; Méndez, J.; Echavarren, A. M.; Pérez, R.; Gómez-Lor, B.; Martín-Gago, J. A. *Nature* **2008**, *454*, 865-868.
159. Divergent Titanium-Mediated Allylations via Modulation by Nickel or Palladium.
Campaña, A. G.; Bazdi, B.; Fuentes, N.; Robles, R.; Cuerva, J. M.; Oltra, J. E.; Porcel, S.; Echavarren, A. M. *Angew. Chem. Int. Ed.* **2008**, *47*, 7515-7519.
160. Gold(I)-Catalyzed Intermolecular Addition of Carbon Nucleophiles to 1,5- and 1,6-Enynes.
Amijs, C. H. M.; López-Carrillo, V.; Raducan, M.; Pérez-Galán, P.; Ferrer, C.; Echavarren, A. M. *J. Org. Chem.* **2008**, *73*, 7721-7730.
161. *Cis*-Selective Single-Cleavage Skeletal Rearrangement of 1,6-Enynes Reveals the Multifaceted Character of the Intermediates in Metal-Catalyzed Cycloisomerizations.
Jiménez-Núñez, E.; Claverie, C. K.; Bour, C.; Cárdenas, D. J.; Echavarren, A. M. *Angew. Chem.* **2008**, *120*, 8010-8013; *Angew. Chem. Int. Ed.* **2008**, *47*, 7892-7895.
162. Gold(I) Complexes with Hydrogen-Bond-Heterocyclic Carbenes as Active Catalysts in Reactions of 1,6-Enynes.
Bartolomé, C.; Ramiro, Z.; Pérez-Galán, P.; Bour, C.; Raducan, M.; Echavarren, A. M.; Espinet, P. *Inorg. Chem.* **2008**, *47*, 11391-11397.
163. Gold-catalyzed olefin cyclopropanation.
Prieto, A.; Fructos, M. R.; Díaz-Requejo, M. M.; Pérez, P. J.; Pérez-Galán, P.; Delpont, N.; Echavarren, A. M.

- Tetrahedron* **2009**, *65*, 1790-1793. ("Symposium in Print" Catalysis using Gold Complexes).
164. Gold-Catalyzed Reactions of 1,5- and 1,6-Enynes with Carbonyl Compounds: Cycloaddition vs. Metathesis. Escribano-Cuesta, A.; López-Carrillo, V.; Janssen, D.; Echavarren, A. M. *Chem. Eur. J.* **2009**, *11*, 5646-5650.
165. Carbene or cation? Echavarren, A. M. *Nature Chem.* **2009**, *1*, 431-433. (Invited News and Views).
166. Evolution of Propargyl Ethers into Allyl-Gold Cations in Cyclizations of Enynes. Jiménez-Núñez, E.; Raducan, M.; Lauterbach, T.; Molawi, K.; Solorio, C. R.; Echavarren, A. M. *Angew. Chem. Int. Ed.* **2009**, *48*, 6152-6155; *Angew. Chem.* **2009**, *121*, 6268-6271;
167. Synthesis of the Tetracyclic Core of the Lundurines by a Gold-Catalyzed Cyclization. Ferrer, C.; Escribano-Cuesta, A.; Echavarren, A. M. *Tetrahedron* **2009**, *65*, 9015-9020 ("Symposium in Print" "Modern Applications of Transition Metal Catalysis in Heterocycle Synthesis).
168. Stereoselective Gold-Catalyzed Cycloaddition of Functionalized Ketoenynes: Synthesis of (+)-Orientalol F. Jiménez-Núñez, E.; Molawi, K.; Echavarren, A. M. *Chem. Commun.* **2009**, 7327-7329.
169. Nitrogen Acyclic Gold(I) Carbenes, Excellent and Easily Accessible Catalysts in Reactions of 1,6-Enynes. Bartolomé, C.; Ramiro, Z.; García-Cuadrado, D.; Pérez-Galán, P.; Raducan, M.; Bour, C.; Echavarren, A. M.; Espinet, P. *Organometallics* **2010**, *29*, 951-956. (9th most cited article in *Organometallics* 2008-2010).
170. Complexity via Gold-Catalyzed Molecular Gymnastics. Echavarren, A. M.; Jiménez-Núñez, E. *Topics in Catalysis*, **2010**, *53*, 924-930.
171. Metal-Arene Interactions in Dialkylbiarylphosphane Complexes of Copper, Silver, and Gold. Pérez-Galán, P.; Delpont, N.; Herrero-Gómez, E.; Maseras, F.; Echavarren, A. M. *Chem. Eur. J.* **2010**, *16*, 5324-5332. (Cover picture issue 18).
172. Synthesis of Arenes and Heteroarenes by Hydroarylation Reactions Catalyzed by Electrophilic Metal Complexes. de Mendoza, P.; Echavarren, A. M. *Pure Appl. Chem.* **2010**, *82*, 801-820.
173. Enantioselective Synthesis of (-)-Englerins A and B. Molawi, K.; Delpont, N.; Echavarren, A. M. *Angew. Chem. Int. Ed.* **2010**, *49*, 3517-3519. (Highlighted in: Faculty of 1000 Biology; RSC: Totally Synthetic; *Natur. Chem.* **2010**, *2*, 519-520; *Nachrichten aus der Chemie* **2010**, *58*, 728; *Synfacts* **2010**, *9*, 973). Most accessed article in *Angew. Chem. Int. Ed.* in 04/2010.
174. Functionalized organic molecules: Adsorption and diffusion of single molecules on KBr surface. Such, B.; Trevethan, T.; Glatzel, T.; Kawai, S.; Zimmerli, L.; Meyer, E.; Shluger, A.; Amijs, C. H. M.; de Mendoza, P.; Echavarren, A. M. *ACS Nano* **2010**, *4*, 3429-3439.
175. Unlikelihood of Pd-Free Gold(I)-Catalyzed Sonogashira Coupling Reactions. Lauterbach, T.; Livendahl, M.; Rosellón, A.; Espinet, P.; Echavarren, A. M. *Org. Lett.* **2010**, *12*, 3006-3009. (Highlighted in *Chem. & Eng. News* **2010**, July 26, p. 41; 4th Most Accessed Article in *Org. Lett.* 2010. Selected for the ACS virtual issue focused on "Cross-Coupling Reactions").
176. Gold(I)-Catalyzed Intermolecular [2+2] Cycloaddition of Alkynes with Alkenes. López-Carrillo, V.; Echavarren, A. M. *J. Am. Chem. Soc.* **2010**, *132*, 9292-9294. (Highlighted in Organic Chemistry Portal: <http://www.organic-chemistry.org/abstracts/lit2/961.shtm>).

177. Gold-Catalyzed Annulation/Fragmentation: Formation of Free Gold Carbenes by Retro-Cyclopropanation. Solorio-Alvarado, C. R.; Echavarren, A. M. *J. Am. Chem. Soc.* **2010**, *132*, 11881-11883.
178. Palladium-Catalyzed Arylation Reactions: A Mechanistic Perspective. Livendahl, M.; Echavarren, A. M. *Isr. J. Chem.* **2010**, *5-6*, 630-651. (Invited review, special issue on Metal-Catalyzed Cross-Coupling Reactions).
179. Mechanism of the Gold-Catalyzed Cyclopropanation of Alkenes with 1,6-Enynes. Pérez-Galán, P.; Herrero-Gómez, E.; Hog, D. T.; Martín, N. J. A.; Maseras, F.; Echavarren, A. M. *Chem. Sci.* **2011**, *2*, 141-149.
180. Carbocations or Cyclopropyl Gold Carbenes in Cyclizations of Enynes. Pérez-Galán, P.; Martín, N. J. A.; Campaña, A. G.; Cárdenas, D. J.; Echavarren, A. M. *Chem. Asian J.* **2011**, *6*, 482-486. (Invited paper, special issue on Dedicated to Professor Eiichi Nakamura on the occasion of his 60th birthday).
181. Manipulating molecular quantum states with classical metal atom inputs: demonstration of a single molecule NOR logic gate. Soe, W.-H.; Manzano, C.; Renaud, N.; de Mendoza, P.; Sarkar, A. D.; Ample, F.; Hliwa, M.; Echavarren, A. M.; Chandrasekhar, N.; Joachim, C. *ACS Nano* **2011**, *5*, 1436-1440.
182. Ti/Pd Bimetallic Systems for the Efficient Allylation of Carbonyl Compounds and Homocoupling Reactions. Millán, A.; Campaña, A. G.; Bazdi, B.; Miguel, D.; Álvarez de Cienfuegos, L.; Echavarren, A. M.; Cuerva, J. M. *Chem. Eur. J.* **2011**, *17*, 3985-3994.
183. A Multipurpose Gold(I) Precatalyst. Raducan, M.; Rodríguez-Esrich, C.; Cambeiro, X. C.; Escudero-Adán, E.; Pericàs, M. A. Echavarren, A. M. *Chem. Commun.* **2011**, *47*, 4893-4895.
184. Demonstration of a NOR logic gate using a single molecule and two surface gold atoms to encode the logical input. Soe, W.-H.; Manzano, C.; Sarkar, A. D.; Ample, F.; Chandrasekhar, N.; Renaud, N.; de Mendoza, P.; Echavarren, A. M.; Hliwa, M.; Joachim, C. *Phys. Rev. B* **2011**, *83*, 155443.
185. Organic Molecules Reconstruct Nanostructures on Ionic Surfaces. Trevethan, T.; Such, B.; Glatzel, T.; Kawai, S.; Shluger, A. L.; Meyer, E.; de Mendoza, P.; Echavarren, A. M. *Small* **2011**, *7*, 1264-1270.
186. STM and AFM high resolution intramolecular imaging of a single decastarphene molecule. Guillermet, O.; Gauthier, S.; Joachim, C.; de Mendoza, P.; Lauterbach, T.; Echavarren, A. M. *Chem. Phys. Lett.* **2011**, *511*, 482-485. (Selected as the result of the month by Omicron: <http://www.omicron.de/en/result-of-the-month/87>).
187. Is Gold a Catalyst in Cross-Coupling Reactions in the Absence of Palladium? Livendahl, M.; Espinet, P.; Echavarren, A. M. *Platinum Metals Rev.* **2011**, *55*, 216-218 (Invited Final Analysis).
188. Cyclopropanation with Gold(I) Carbenes by Retro-Buchner Reaction from Cycloheptatrienes. Solorio-Alvarado, C. R.; Wang, Y.; Echavarren, A. M. *J. Am. Chem. Soc.* **2011**, *133*, 11952-11955.
189. Surface assembly of porphyrin nanorods with one-dimensional zinc oxygen spinal cords. Trelka, M.; Urban, C.; Rogero, C.; de Mendoza, P.; Mateo-Marti, E.; Wang, Y.; Silanes, I.; Écija, D.; Alcamí, M.; Yndurain, F.; Arnau, A.; Martín, F.; Echavarren, A. M.; Martín-Gago, J. A.; Gallego, J. M.; Otero, R.; Miranda, R. *Cryst. Eng. Comm.* **2011**, *13*, 5591-5595.
190. Nature of the Intermediates in Gold(I)-Catalyzed Cyclizations of 1,5-Enynes. López-Carrillo, V.; Huguet, N.; Mosquera, A.; Echavarren, A. M.

- Chem. Eur. J.* **2011**, *17*, 10972-10978.
191. Synthesis of Fluoranthenes by Hydroarylation of Alkynes Catalyzed by Gold(I) or Gallium Trichloride.
Pascual, S.; Bour, C.; de Mendoza, P.; Echavarren, A. M.
Beilstein J. Org. Chem. **2011**, *7*, 1520-1525 (invited for Gold chemistry issue).
 192. Phosphate Ligands in the Gold(I)-Catalysed Activation of Enynes.
Raducan, M.; Moreno, M.; Bour, C.; Echavarren, A. M.
Chem. Commun. **2012**, *48*, 52-54.
 193. Gold-Catalyzed Cyclizations of Oxo-1,5-enynes.
Huguet, N.; Echavarren, A. M.
Synlett **2012**, *23*, 49-53 (Invited Gold Cluster).
 194. Catalytic Hydrocarbon Functionalization with Gold Complexes Containing N-Heterocyclic Carbene Ligands with Pendant Donor Groups.
Delgado, M.; Beltrán, A.; Prieto, A.; Díaz-Requejo, M. M.; Echavarren, A. M.; Pérez, P. J.
Eur. J. Inorg. Chem. **2012**, 1380-1386.
 195. The Role of Cyclobutenes in Gold(I)-Catalysed Skeletal Rearrangement of 1,6-Enynes.
Escribano-Cuesta, A.; Pérez-Galán, P.; Herrero-Gómez, E.; Sekine, M.; Braga, A. A. C.; Maseras, F.; Echavarren, A. M.
Org. Biomol. Chem. **2012**, *12*, 6105-6111. (Invited for the 10th anniversary *Org. Biomol. Chem.*)
 196. Gold for the Generation and Control of Fluxional Barbaralyl Cations.
McGonigal, P. R.; de León, C.; Wang, Y.; Homs, A.; Solorio-Alvarado, C. R.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2012**, *51*, 13093-13096.
 197. Gold-Catalyzed O-H Bond Addition to Unsaturated Organic Molecules.
Huguet, N.; Echavarren, A. M.
Topics Organomet. Chem. **2013**, *43*, 291-324.
 198. Encapsulation studies of cationic gold complexes within a self-assembled hexameric resorcin[4]arene capsule.
Adriaenssens, L.; Escribano-Cuesta, A.; Homs, A.; Echavarren, A. M.; Ballester, P.
Eur. J. Org. Chem. **2013**, 1494-1500.
 199. Intermolecular Gold-Catalyzed Cycloaddition of Alkynes with Oxoalkenes.
Obradors, C.; Echavarren, A. M.
Chem. Eur. J. **2013**, *19*, 3547-3551.
 200. Gold(I)-Catalyzed Macrocyclization of 1,n-Enynes.
Obradors, C.; Leboeuf, D.; Aydin, Y.; Echavarren, A. M.
Org. Lett. **2013**, *15*, 1576-1579. (Highlighted in Organic Chemistry Portal: <http://www.organic-chemistry.org/Highlights/2013/09December.shtml>).
 201. Intermolecular Gold(I)-Catalyzed Cyclization of Furans with Alkynes: Formation of Phenols and Indene.
Huguet, N.; Leboeuf, D.; Echavarren, A. M.
Chem. Eur. J. **2013**, *19*, 6581-6585.
 202. Synthesis of (+)-Schisanwilsonene A by Tandem Gold-Catalyzed Cyclization-1,5-Migration-Cyclopropanation.
Gaydou, M.; Miller, R. E.; Delpont, N.; Ceccon, J.; Echavarren, A. M.
Angew. Chem. **2013**, *125*, 6524-6527; *Angew. Chem. Int. Ed.* **2013**, *52*, 6396-6399. [Highlighted in: *Synfacts* **2013**, *9*, 808]
 203. A Hexanuclear Gold Cluster Supported by 3-Center-2-Electron Bonds and Auophilic Interactions.
Smirnova, E. S.; Echavarren, A. M.
Angew. Chem. **2013**, *125*, 9193-9296; *Angew. Chem. Int. Ed.* **2013**, *52*, 9023-9026.
 204. Modular Chiral Gold(I) Phosphite Complexes.
Delpont, N.; Escofet, I.; Pérez-Galán, P.; Spiegl, D.; Raducan, M.; Bour, C.; Sinisi, R.; Echavarren, A. M.
Cat. Sci. Technol. **2013**, *3*, 3007-3012 (invited to theme issued on Gold Catalysis).
 205. Access to the Protoilludane Core by Gold-Catalyzed Allene-Vinylcyclopropane Cycloisomerization.

- Pitaval, A.; Leboeuf, D.; Ceccon, J.; Echavarren, A. M.
Org. Lett. **2013**, *15*, 4580-4583.
206. Contacting a Conjugated Molecule with a Surface Dangling Bond Dimer on a Hydrogenated Ge(001):H Surface Allows Imaging of the Hidden Ground Electronic State.
Godlewski, S.; Kolmer, M.; Kawai, H.; Such, B.; Zuzak, R.; Saeys, M.; de Mendoza, P.; Echavarren, A. M.; Joachim, C.; Szymonski, M.
ACS Nano **2013**, *7*, 10105-10111.
207. On the Silver Effect and the Formation of Chloride-Bridged Digold Complexes.
Homs, A.; Escofet, I.; Echavarren, A. M.
Org. Lett. **2013**, *15*, 5782-5785.
208. Gold-Catalyzed Synthesis of Tetrazoles from Alkynes by C-C Bond Cleavage.
Gaydou, M.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2013**, *52*, 13468-13471. (Highlighted in *Synfacts* 2014, 10 (3), 0250).
209. Intriguing Mechanistic Labyrinths in Gold(I) Catalysis.
Obradors, C.; Echavarren, A. M.
Chem. Comm. **2014**, *50*, 16-28. (Invited Feature article) Top 10% highly cited in the RSC (2/2016).
210. Gold(I) Carbenes by Retro-Buchner Reaction: Generation and Fate.
Wang, Y.; McGonigal, P. R.; Herlé, B.; Besora, M.; Echavarren, A. M.
J. Am. Chem. Soc. **2014**, *136*, 801-809.
211. Rationale for the Sluggish Oxidative Addition of Aryl Halides to Au(I).
Livendahl, M.; Goehry, C.; Maseras, F.; Echavarren, A. M.
Chem. Comm. **2014**, *50*, 1533-1536.
212. Dissecting Anion Effects in Gold(I)-Catalyzed Intermolecular Cycloadditions.
Homs, A.; Obradors, C.; Leboeuf, D.; Echavarren, A. M.
Adv. Synth. Catal. **2014**, *356*, 221-228.
213. Gold-Catalyzed Rearrangements and Beyond.
Obradors, C.; Echavarren, A. M.
Acc. Chem. Res. **2014**, *47*, 902-912. (Invited Account).
214. Gold(I) as Artificial Cyclase: Short Stereodivergent Syntheses of (-)-Epiglobulol, (-)-4 β ,7 α , and (-)-4 α ,7 α -Aromadendranediols.
Carreras, J.; Livendahl, M.; McGonigal, P. R.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2014**, *53*, 4896-4899. (Highlighted in *Synfacts* **2014**, *10*, 0669)
215. Meeting the Challenge of Intermolecular Gold(I)-Catalyzed Cycloadditions of Alkynes and Allenes.
Muratore, M. E.; Homs, A.; Obradors, C.; Echavarren, A. M.
Chem. Asian. J. **2014**, *9*, 3066-3082. (Invited Focus review).
216. Intermolecular Reactions of Gold(I)-Carbenes with Furans by Related Mechanisms.
Leboeuf, D.; Gaydou, M.; Wang, Y.; Echavarren, A. M.
Org. Chem. Front. **2014**, *1*, 759-764. (Invited on the occasion of Prof. Max Malacria's 65th birthday).
217. Novel ortho-OPE Metallofoldamers: Binding-Induced Folding Promoted by Nucleating Ag(I)-Alkyne Interactions
Martín-Lasanta, A.; Alvarez de Cienfuegos, L.; Johnson, A.; Miguel, D.; Mota, A. J.; Orte, A.; Ruedas-Rama, M. J.; Ribagorda, M.; Cárdenas, D. J.; Carreño, M. C.; Echavarren, A. M.; Cuerva, J. M.
Chem. Sci. **2014**, *5*, 4582-4591.
218. Formal (4+1) Cycloaddition of Methylcyclopropanes with 7-aryl-1,3,5-cycloheptatrienes via Triple Gold(I)-Catalysis.
Wang, Y.; Muratore, M. E.; Rong, Z.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2014**, *53*, 14022-14026.
219. Towards the Ideal Synthesis of Homoallylic Ketones.
Ferrer, S.; Muratore, M. E.; Echavarren, A. M.

- ChemCatChem* **2015**, *7*, 228–229. (invited highlight).
220. Enantioselective Total Synthesis of (–)-Nardoaristolone B via a Gold(I)-Catalyzed Oxidative Cyclization. Homs, A.; Muratore, M. E.; Echavarren, A. M. *Org. Lett.* **2015**, *17*, 461–463. Highlighted in *Synfacts* **2015**, *11*, 0351.
221. Gold Carbene or Carbenoid, is there a Difference? Wang, Y.; Muratore, M. E.; Echavarren, A. M. *Chem. Eur. J.* **2015**, *21*, 7332–7339. (invited concept).
222. Tetrabenzocircumpirene: A Nanographene Fragment with an Embedded Peripentacene Core. Dorel, R.; Manzano, C.; Grisolia, M.; Soe, W.-H.; Joachim, C.; Echavarren, A. M. *Chem. Comm.* **2015**, *51*, 6932–6935.
223. Gold(I)-Catalyzed Activation of Alkynes for the Construction of Molecular Complexity. Dorel, R.; Echavarren, A. M. *Chem. Rev.* **2015**, *115*, 9028–9072.
224. Anatomy of Gold Catalysts: Facts and Myths. Ranieri, B.; Escofet, I.; Echavarren, A. M. *Org. Biomol. Chem.* **2015**, *13*, 7103–7118. (Selected as recommended Open Access research from RSC).
225. Gold-Catalyzed Reactions via Cyclopropyl Gold Carbene-like Intermediates. Dorel, R.; Echavarren, A. M. *J. Org. Chem.* **2015**, *80*, 7321–7332.
226. Interaction of a conjugated polyaromatic molecule with a single dangling bond quantum dot on a hydrogenated semiconductor. Godlewski, S.; Kolmer, M.; Engelund, M.; Kawai, H.; Zuzak, R.; Garcia-Lekue, A.; Saeys, M.; Echavarren, A. M.; Joachim, C.; Sanchez-Portal, D.; Szymonski, M. *Phys. Chem. Chem. Phys.* **2016**, *18*, 3854–3861.
227. Broad Scope Aminocyclization of Enynes with Cationic JohnPhos-Gold(I) Complex as the Catalyst. Miller, R.; Carreras, J.; Muratore, M. E.; Gaydou, M.; Camponovo, F.; Echavarren, A. M. *J. Org. Chem.* **2016**, *81*, 1839–1849.
228. Gold(I)-Catalyzed Inter- and Intramolecular Additions of Carbonyl Compounds to Allenenes. Jiménez, T.; Carreras, J.; Echavarren, A. M. *Org. Lett.* **2016**, *18*, 1410–1413.
229. Synthesis and Biological Evaluation of New (–)-Englerin Analogues. López-Suárez, L.; Riesgo, L.; Bravo, F.; Ransom, T. T.; Beutler, J. A.; Echavarren, A. M. *Chem. Med Chem.* **2016**, *11*, 1003–1007.
230. Synthesis of Rumphellaone A and Hushinone by a Gold-Catalyzed [2+2] Cycloaddition. Ranieri, B.; Obradors, C.; Mato, M.; Echavarren, A. M. *Org. Lett.* **2016**, *18*, 1614–1617.
231. Concise Total Synthesis of Lundurines A–C Enabled by Gold Catalysis and a Homodienyl Retro-Ene / Ene Isomerization. Kirillova, M. S.; Muratore, M. E.; Dorel, R.; Echavarren, A. M. *J. Am. Chem. Soc.* **2016**, *138*, 3671–3674. (Highlighted in: *Synfacts* **2016**, *12*, 0562).
232. Synthesis of (–)-Cannabimovone and Revised Structure of Anhydrocannabimovone via Gold(I)-Catalyzed Cycloisomerization. Carreras, J.; Kirillova, M. S.; Echavarren, A. M. *Angew. Chem. Int. Ed.* **2016**, *55*, 7121–7125. (Highlighted in: *Synfacts* **2016**, *12*, 0666, ans Organic Chemistry Portal: <http://www.organic-chemistry.org/Highlights/2016/12December.shtml>).
233. Polynuclear Gold [Au]₄, [Au]₈, and Bimetallic [Au₄Ag] Complexes: C-H Functionalization of Carbonyl Compounds and Homogeneous Carbonylation of Amines. Smirnova, E. S.; Muñoz-Molina, J. M.; Johnson, A.; Bandeira, N. A. G.; Bo, C.; Echavarren, A. M.

- Angew. Chem. Int. Ed.* **2016**, *55*, 7487–7491.
234. Intermolecular [2+2] Cycloaddition of Alkynes with Alkenes Catalyzed by Gold(I).
de Orbe, E.; Echavarren, A. M.
Org. Synth. **2016**, *93*, 115–126. ("Feature Article" on the homepage of the Organic Syntheses website (<http://www.orgsyn.org/>)).
235. Diels–Alder Attachment of a Planar Organic Molecule to a Dangling Bond Dimer on a Hydrogenated Semiconductor Surface.
Godlewski, S.; Kawai, H.; Englund, M.; Kolmer, M.; Zuzak, R.; Garcia-Lekue, A.; Novell-Leruth, G.; Echavarren, A. M.; Sanchez-Portal, D.; Joachim, C.; Saeys, M.
Phys. Chem. Chem. Phys. **2016**, *18*, 16757–16765.
236. Diastereoselective Gold(I)-Catalyzed [2+2+2] Cycloaddition of Oxo-1,5-Enynes.
Calleja, P.; Muratore, M. E.; Jiménez, T.; Echavarren, A. M.
Synthesis **2016**, *48*, 3183–3198. (Invited in memory of Prof. J. Normant).
237. Synthesis of a New Crushed Fullerene C₆₀H₂₄ via Six-fold Palladium-Catalyzed Arylation.
Dorel, R.; de Mendoza, P.; Calleja, P.; Pascual, S.; González-Cantalapiedra, E.; Cabello, N.; Echavarren, A. M.
Eur. J. Org. Chem. **2016**, 3171–3176. (Invited on the occasion of Prof. U. Ronchi's 80th birthday).
238. Hydroacenes Made Easy by Gold(I) Catalysis.
Dorel, R.; McGonigal, P. R.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2016**, *55*, 11120–11123.
239. Barbaralones and Bullvalenes Made Easy by Gold Catalysis.
Ferrer, S.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2016**, *55*, 11178–11182.
240. α,β -Unsaturated Gold(I) Carbenes by Tandem Cyclization and 1,5-Alkoxy Migration of 1,6-Enynes: Mechanisms and Applications.
Calleja, P.; Pablo, Ó.; Ranieri, B.; Gaydou, M.; Pitaval, A.; Moreno, M.; Raducan, M.; Echavarren, A. M.
Chem. Eur. J. **2016**, *22*, 13613–13618.
241. Single Molecule Rotational Switch on a Dangling Bond Dimer Bearing.
Godlewski, S.; Kawai, H.; Kolmer, M.; Zuzak, R.; Echavarren, A. M.; Joachim, C.; Szymonski, M.; Saeys, M.
ACS Nano **2016**, *10*, 8499–8507.
242. Ready Access to the Echinopines Skeleton via Gold(I)-Catalyzed Alkoxy cyclizations of Enynes.
Dorel, R.; Echavarren, A. M.
J. Org. Chem. **2016**, *81*, 8444–8454.
243. Strategies for the Synthesis of Higher Acenes.
Dorel, R.; Echavarren, A. M.
Eur. J. Org. Chem. **2017**, 14–24. (invited review). Front cover.
244. Gold(I) Carbenoids: On-Demand Access to Gold(I) Carbenes in Solution.
Sarria Toro, J.; García-Morales, C.; Raducan, M.; Smirnova, E. S.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2017**, *56*, 1859–1863.
245. Functional-Group-Tolerant, Silver-Catalyzed N-N Bond Formation by Nitrene Transfer to Amines.
Maestre, L.; Dorel, R.; Pablo, Ó.; Sameera, W. M. C.; Álvarez, E.; Maseras, F.; Diaz-Requejo, M. M.; Echavarren, A. M.; Pérez, P. J.
J. Am. Chem. Soc. **2017**, *139*, 2216–2223.
246. Broad Scope Gold(I)-Catalysed Polyenyne Cyclisations for the Formation of up to Four Carbon-Carbon Bonds
Rong, Z.; Echavarren, A. M.
Org. Biomol. Chem. **2017**, *15*, 2163–2167. (invited manuscript for the special issue on "Polycyclizations in Synthesis and Biosynthesis").
247. Stereoselective *Cis*-Vinylcyclopropanation via Gold(I)-Catalyzed Retro-Buchner Reaction under Mild Conditions.

- Herlé, B.; Holstein, P. M.; Echavarren, A. M.
ACS Catal., **2017**, *7*, 3668–3675.
248. Cyclobutene vs. 1,3-Diene Formation in the Gold-Catalyzed Reaction of Alkynes with Alkenes: The Complete Mechanistic Picture.
de Orbe, M. E.; Amenós, L.; Kirillova, M. S.; Wang, Y.; López-Carrillo, V.; Maseras, F.; Echavarren, A. M.
J. Am. Chem. Soc. **2017**, *139*, 10302–10311.
249. Nonacene Generated by On-Surface Dehydrogenation.
Zuzak, R.; Dorel, R.; Krawiec, M.; Such, B.; Kolmer, M.; Szymonski, M.; Echavarren, A. M.; Godlewski, S.
ACS Nano **2017**, *11*, 9321–9329.
Highlighted:http://www.chemistryviews.org/details/news/10616307/Nonacene_Synthesized_on_a_Gold_Surface.html
250. Enantioselective Synthesis of Cyclobutenes by Intermolecular [2+2] Cycloaddition with Non-C2 Symmetric Digold Catalysts
García-Morales, C.; Ranieri, B.; Escofet, I.; López-Suarez, L.; Obradors, C.; Konovalov, A. I.; Echavarren, A. M.
J. Am. Chem. Soc. **2017**, *139*, 13628–13631.
251. Gold(I)-Catalyzed Synthesis of Indenes and Cyclopentadienes: Access to (±)-Laurokamurene B and the Skeletons of Cycloaurenones and Dysiherbols
Yin, X.; Mato, M.; Echavarren, A. M.
Angew. Chem. Int. Ed. **2017**, *56*, 14591–14595.
252. Ferrocene derivatives of liquid chiral molecules allow for absolute structure determination by X-ray crystallography.
Holstein, P. M.; Holstein, J. J.; Escudero, E. C.; Baudoin, O.; Echavarren, A. M.
Tetrahedron Asymm. **2017**, *28*, 1321–1329 (special Issue in memory of Howard Falck).
253. Ruthenium-Catalyzed Peri- and Ortho-Alkynylation with Bromoalkynes via Insertion and Elimination.
Tan, E.; Konovalov, A. I.; Fernández, G. A.; Dorel, R.; Echavarren, A. M.
Org. Lett. **2017**, *19*, 5561–5564.
254. Total Syntheses of Pyrroloazocine Indole Alkaloids: Challenges and Reaction Discovery.
Kirillova, K. S.; Miloserdov, F.; Echavarren, A. M.
Org. Chem. Front. **2018**, *5*, 273–287
255. On the Role of σ,π -Digold(I) Alkyne Complexes in Reactions of Enynes.
Ferrer, S.; Echavarren, A. M.
Organometallics **2018**, DOI: 10.1021/acs.organomet.7b00668.
256. Broad-Scope Rh-Catalyzed Inverse-Sonogashira Reaction Directed by Weakly Coordinating Groups
Tan, E.; Quinonero, O.; de Orbe, M. E.; Echavarren, A. M.
ACS Catal. **2018**, *8*, 2166–2172.
257. Unified Total Synthesis of Pyrroloazocine Indole Alkaloids Sheds Light on Their Biosynthetic Relationship
Miloserdov, F. M.; Kirillova, M. S.; Muratore, M. E.; Echavarren, A. M.
J. Am. Chem. Soc. **2018**, *140*, DOI: 10.1021/ja-2018-014118.

Book Chapters

1. Synthesis and Complexing Properties of Chiral Guanidinium Receptors Designed for Molecular Recognition of Anions. Echavarren, A. M.; Galán, A.; Lehn, J.-M.; de Mendoza, J. de *Inclusion Phenomena and Molecular Recognition*; Atwood, J., Ed.; Plenum Press, New York, **1990**; pp. 119-124.
2. Recent Developments in the Synthesis of Marine Pyrroloacridine Alkaloids. Echavarren, A. M. *Advances in Nitrogen Heterocycles*, Vol. 2, Cap. 5; Moody, C. J. Ed.; JAI Press: Greenwich, **1996**.
3. New Metallacycles of Nickel: Fundamental Aspects and Synthetic Applications. Echavarren, A. M.; Castaño, A. M. *Advances in Metal Organic Chemistry*, Vol. 6, Cap. 1; Liebeskind, L. S. Ed.; JAI Press: Greenwich, **1998**.

4. Synthesis of Fullerene Fragments. Echavarren, A. M.; Gómez-Lor, B.; de Frutos, Ó. *Proc. Electrochem. Soc.* (2000), (Fullerenes 2000-Volume 9: Functionalized Fullerenes), 136-155.
5. Mechanistic Aspects of Metal-Catalyzed C,C- and C,X-Bond Formation Reactions. Echavarren, A. M.; Cárdenas, D. J. Chapter 1 in "Metal-catalyzed Cross-coupling Reactions", Eds. A. de Meijere, F. Diederich, Wiley-VCH, 2004.
6. Product Class 6: Phenanthrene-9,10-diones, Stilbenequinones, Diphenequinones, and Related Ring Assemblies. Porcel, S.; Echavarren, A. M. *Science of Synthesis, Houben-Weyl Methods of Molecular Transformations. Quinones and Heteroatom Analogues, Chapter 28.6.* 2006. Thieme Verlag.
7. Stille Cross-Coupling for the Synthesis of Natural Products. Pascual, S.; Echavarren, A. M. *Tin Chemistry - Fundamentals Frontiers, and Applications.* G. Davies, M. Gielen, K. H. Pannell, E. R. T. K. Tiekink, Eds., Wiley, 2008; chapter 5.4.
8. Gold in Homogeneous Catalysis. Jiménez-Núñez, E.; Echavarren, A. M. *Encyclopedia of Inorganic Chemistry*, Wiley, 2008, Chichester. DOI: 10.1002/0470862106.ia459.
9. Mechanistic Aspects of Transition-Metal-Catalyzed Arylation Reactions. de Mendoza, P.; Echavarren, A. M. *Modern Arylation Methods*, Wiley, 2008, Chap. 11. Lutz Ackermann, Ed. (Invited chapter).
10. Transition-Metal Catalyzed Cycloisomerizations and Nucleophilic Cyclization of Enynes. Herrero-Gómez, Elena.; Echavarren, A. M. *Handbook of Cyclization Reactions*, Wiley, 2008, Chap. 12. Shenming Ma, Ed. (Invited chapter).
11. Intramolecular Reactions of Alkynes with Alkenes catalyzed by Platinum and Gold. Echavarren, A. M.; Nevado, C.; Nieto-Oberhuber, C.; Muñoz, M. P.; López, S. *New Methodologies and Techniques for a Sustainable Organic Chemistry. Book Series: NATO Science Series, Series ii: Mathematics, Physics and Chemistry*, 2008, 246, 99-117.
12. Gold-Catalyzed Cycloisomerizations of Enynes. López-Carrillo, V.; Echavarren, A. M. *Science of Synthesis, Organometallic Complexes of Gold (Update 1, 2011)*, Chapter 3.6.11.1, pp. 1-70. Thieme Verlag, 2011.
13. Intramolecular Hydroarylation Reaction. de Mendoza, P.; Echavarren, A. M. *Modern Gold Catalyzed Synthesis*, First Edition. A. Stephen K. Hashmi and Dean F. Toste, Eds. Chapter 5, 2012, 135-152. Wiley-VCH Verlag GmbH & Co.
14. Asymmetric Gold-Catalyzed Reactions. Huguet, N.; Echavarren, A. M. *Asymmetric Synthesis II*, M. Christmann, S. Bräse, Eds. Chapter 26 (pp. 205-212), 2012, Wiley-VCH Verlag GmbH & Co.
15. Organotin Cross-Coupling Reactions. Pitaval, A.; Echavarren, A. M. *Science of Synthesis*, Thieme Verlag, chapter 1.3.1, Cross Coupling and Heck-Type Reactions 1. 2013.
16. Mechanistic Aspects of Metal-Catalyzed C,C-and C,X-Bond-Forming Reactions. Homs, A.; Echavarren, A. M. *Metal Catalyzed Cross-Coupling Reactions and More (DeMeijere; Braese; Oestreich, Eds.)*. Wiley-VCH. 2013. DOI:10.1002/9783527655588.ch1.
17. Cycloisomerization Reactions of 1,n-Enynes. Huguet, N.; Echavarren, A. M. *Homogeneous Gold Catalysis*, chapter 8 (pp. 275-330) in *Gold Catalysis. A Homogeneous Approach* (V. Michelet, F. D. Toste, Eds.). World Scientific, Imperial College Press. 2014. ISBN 978-1-84816-852-7.
18. Gold-catalyzed hydroarylation of alkynes. Muratore, M. N.; Echavarren, A. M. *The Chemistry of Organogold Compounds*, edited by Z. Rappoport, J.F. Liebman and I. Marek. John Wiley & Sons, Ltd: Chichester, UK, pp. 805-900. 2014. ISBN 9781118438732.
19. Gold-catalyzed cyclizations of alkynes with alkenes and arenes. Echavarren, A. M.; Muratore, M. N.; López-Carrillo, V.; Escribano-Cuesta, A.; Huguet, A.; Obradors, C. *Organic Reactions* 2017, vol. 92, chapter 1. (http://organicreactions.org/index.php?title=Gold-catalyzed_cyclization_reactions)
20. Gold-Catalyzed Oxidation of Alkynes, Calleja, P.; Dorel, R.; Echavarren, A. M. *Catalytic Oxidation in Organic Synthesis, Science of Synthesis*, 2017, 1, 479 (DOI: 10.1055/sos-SD-225-00261).

21. Hydroarylation of Alkynes using Cu, Ag and Au Catalysts. Kirillova, M.; Miloserdov, F. M.; Echavarren, A. M. *Catalytic Hydroarylation of Carbon-Carbon Multiple Bonds*, Ackermann, L.; Goj, L.; Gunnoe, T. B. Eds. John Wiley & Sons, Ltd: Chichester, UK, 2017.

Other publications

- Nuevas síntesis de fragmentos de fullerenos.
Echavarren, A. M.; de Frutos, Ó.; Granier, T. Gómez-Lor, B.
Los Materiales Moleculares en España en el umbral del siglo XXI.
Vázquez, P.; Torres, T.; Martín, N., Eds.; UAM Ediciones; 2001, pp. 383-400.
- Handbook of C-H Transformations. Applications in Organic Synthesis. Edited by Gerald Dyker.
Echavarren, A. M.
Angew. Chem. 2006, 118, 2221–2222; *Angew. Chem. Int. Ed.* 2006, 45, 2165–2166 (Book review).
- Design of New Polyarene Scaffolds.
Echavarren, A. M.
E-nano newsletter, 2006, 4, 25–26.
- Isoprene epoxide. (Update)
López, S.; Echavarren, A. M.
Encyclopedia of Reagents in Organic Synthesis (EROS), Wiley, 2006.
- 2-Dicyclohexylphosphino-2',6'-dimethoxybiphenyl.
Pérez-Galán, P.; Echavarren, A. M.
Encyclopedia of Reagents in Organic Synthesis (EROS), Wiley, 2007.
- Bis(1,1-dimethylethyl)[2,4,6-tris(1-methylethyl)[1,1-biphenyl]-2-yl]-phosphine and Dicyclohexyl[2,4,6-tris(1-methylethyl)[1,1-biphenyl]-2-yl]-phosphine.
Herrero-Gómez, E.; Echavarren, A. M.
Encyclopedia of Reagents in Organic Synthesis (EROS), Wiley, 2008.
- Nobel Prize Awarded for Catalysis.
Echavarren, A. M.
Chem. Cat. Chem. 2010, 2, 1331–1332.
- El Premio Nobel de Química 2010 a la Química Organometálica del Paladio.
Echavarren, A. M.
Anales de Química 2010, 106, 293–295.
- Chloro[1,3-dihydro-1,3-bis(2,4,6-trimethylphenyl)-2H-imidazol-2-ylidene]Gold.
Obradors, C.; Echavarren, A. M.
Encyclopedia of Reagents in Organic Synthesis, Wiley, 2011.
- Gold, [[1,1'-biphenyl]-2-ylbis(1,1-dimethylethyl)phosphine]chloro- and Gold(1+), (acetonitrile)[[1,1'-biphenyl]-2-ylbis(1,1-dimethylethyl)phosphine] (OC-6-11)-hexafluoroantimonate(1-).
Gaydou, M.; Echavarren, A. M.
Encyclopedia of Reagents in Organic Synthesis, Wiley, 2011.
- Gold(I) Catalysis in Cross-Coupling Reactions
Livendahl, M.; Echavarren, A. M.
Chimica Oggi / Chemistry Today 2012, 30, 19–21.
- Catálisis homogénea con oro: Desde los primeros pasos hasta la fiebre del oro
Carreras, J.; Echavarren, A. M.
An. Quím. 2014, 110, 149-143.
- Gold, Chloro[dicyclohexyl[2,4,6-tris(1-methylethyl)[1,1-biphenyl]-2-yl]phosphine]
Rong, Z.; Echavarren, A. M.
Encyclopedia of Reagents in Organic Synthesis, Wiley, 2016.
- Gold Catalysis – Steadily Increasing in Importance.

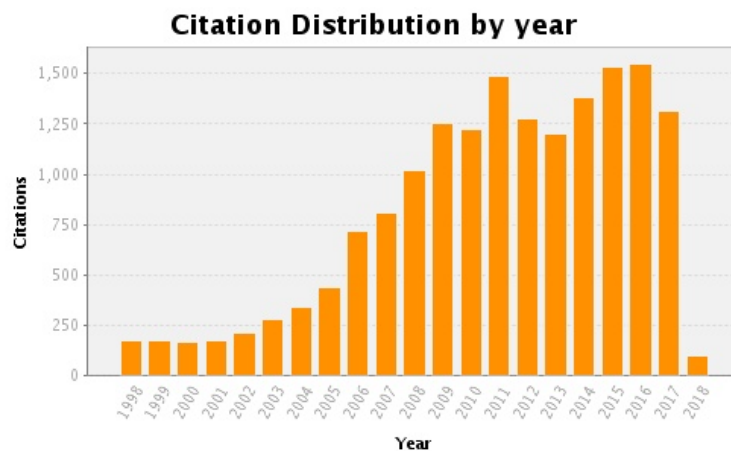
Echavarren, A. M.; Hashmi, A. S. K.; Toste, F. D.
Adv. Synt. Catal. **2016**, 358, 1347. (Commentary to the special issue "Gold Catalysis: Quo Vadis")

- Coinage metals in organic synthesis
Echavarren, A. M.; Jiao, N.; Govorgyan, V.
Chem. Soc. Rev., **2016**, 45, 4445. (Editorial to the special issue Coinage metals in organic synthesis)
- Author profile (More than 25 articles since 2000 in Angewandte Chemie)
Echavarren, A. M.
Angew. Chem. Int. Ed. **2016**, 55, 10952–10953.

PATENTS

Method for obtaining fullerenes and fullerenes thus obtained.

- Martín-Gago, J. Á.; Gómez-Lor, B.; Méndez, J.; López, F.; Caillard, R.; Otero, G.; Sánchez-Sánchez, C.; Echavarren, A. M.; Rogero, C. (ICMM-CISC, ICIQ, INTA-CSIC). Ref. WO2009156539(A1) (30-12-2009); ES2331281(A1) (28-12-2009).
- **A process for the preparation of (-)-englerin A, and analogues and intermediates thereof.** Echavarren, A. M.; Molawi, K.; Delpont, N. (ICIQ). Ref. WO 2011/120886 (29-9-2011).
- **Compounds for treating cancer and diabetes.** Beutler, J. A.; Echavarren, A. M.; López, L.; Bravo, F., Riesgo, L.; Ranson, T. T. NCI-ICIQ. PCT/US16/27262. 2015.
- **Method for the preparation of a partially hydrogenated polyacene and an intermediate thereof.** Dorel, R.; McGonigal, P. R.; Echavarren, A. M. Appl. No. EP16382362. 2016. N° PCT/EP2017/050676. EPO 16382362 EP 26/07/2016.
- **Englerin A analogs for cancer treatment.** Echavarren, A. M.; Bravo, F.; Suppo, J-S.; Beutler, J. A.; Beech, D., Chain, W. NCI-ICIQ. submitted. (U.S. Patent Application No. 15/564,353 filed October 4, 2017)
-

CITATIONS**H index = 66 (web of knowledge)**Total citations = 18007, average citation = 67.4.^{1,2}

13 Top papers (11 Au chemistry, 2 Pd chemistry).

2014, Thomson Reuters Highly Cited Researcher

2015, Thomson Reuters Highly Cited Researcher

2016 Thomson Reuters Highly Cited Researcher

(1) ISI Web of Knowledge, February 22, 2018.

(2) Google scholar (https://scholar.google.es/citations?hl=en&user=Utjnj2gAAAAJ&view_op=list_works): h index = 70 (since 2013 = 49), i10-index = 207 (since 2013 = 140)

INVITED AND PLENARY LECTURES

1988-1992

- *Invited Lecture.* **II Jornadas de Química Orgánica.** Sigüenza, June, **1988.**
- *Invited Lecture.* **XIII Reunión del Grupo de Química Orgánica de la RSEQ.** Sitges (Barcelona), July, **1991.**
- *Invited Lecture.* **24 Reunión Bienal de la Real Sociedad Española de Química.** Torremolinos (Málaga), September, **1992.**

1993

- *Invited Lecture.* **Instituto de Química Orgánica, CSIC.** Madrid, January, **1993.**
- *Invited Lecture.* **Young Chemists Workshop on Selective Synthesis (CERC3).** Gent (Belgium), April, **1993.**
- *Invited Lecture.* **First International Symposium on Selective Synthesis Mediated by Organometallic Compounds.** (Fundación Ramón Areces). Oviedo, July, **1993.**
- *Invited Lecture.* **Groupe d'Etudes de Chimie Organique (GECO XXXIV).** Aspet (France), August - September, **1993.**
- *Invited Lecture.* **French-Italian-Spanish Organic Chemistry Conference (FISOC I).** Córcega (France), September, **1993.**

1994

- *Invited Lecture.* **Departamento de Química Inorgánica, Universidad de Valladolid.** Valladolid, June, **1994.**
- *Plenary Lecture.* **XVIth European Colloquium on Heterocyclic Chemistry.** Bled (Slovenia), September, **1994.**

1995

- *Invited Lecture.* **XV Reunión del Grupo de Química Orgánica de la RSEQ.** Perlorá (Asturias), April, **1995.**
- *Invited Lecture.* **Department of Organic Chemistry, University of Uppsala.** Uppsala (Sweden), November, **1995.**
- *Invited Lecture.* **Organic Division of the French Chemical Society.** Paris (France), December, **1995.**

1996

- *Invited Lecture.* **1ª Escuela de Química Organometálica, Universidad de Murcia.** Murcia, February, **1996.** *Comunicación.* "Palladacycles as Key Intermediates in Synthetic and Mechanistic Studies". **COST D2 Meeting.** Strasburg (France), March, **1996.**
- *Invited Lecture.* **Glaxo-Wellcome España.** Tres Cantos, Madrid, October, **1996.**
- *Invited Lecture.* **Lilly, España.** Aljete, Madrid, November, **1996.**

1997

- *Invited Lecture.* **AMGEM.** Thousand Oaks, CA, USA, July, **1997.**
- *Invited Lecture.* **Gordon Research Conference (Organometallic Chemistry).** Rhode Island (USA), July-August, **1997.**
- *Invited Lecture.* **Department of Chemistry, Boston College.** Boston, MA, USA, July, **1997.**
- *Invited Lecture.* **Department of Chemistry, University of Toronto.** Toronto, Canada, August, **1997.**
- *Invited Lecture.* **First Spanish-Japanish Organic Chemistry Symposium.** Alicante, September, **1997.**
- *Invited Lecture.* **Fifth Chemical Congress of North America.** Cancún, México, November, **1997.**
- *Invited Lecture.* **Departamento de Química Orgánica, Universidad Complutense de Madrid.** Madrid, November, **1997.**

1998

- *Invited Lecture.* **Presente and futuro de los Fullerenos: una nueva rama de la Química** (Seminarios Internacionales Complutenses). Universidad Complutense de Madrid, Madrid, March, **1998.**
- *Invited Lecture.* **XVII Reunión Bienal del Grupo Especializado de Química Organometálica.** Barcelona, July, **1998.**

- *Lecture. Curso de verano de la UAM.* Miraflores de la Sierra, September, **1998.**

1999

- *Invited Lecture. Instituto de Química Orgánica, CSIC.* Madrid, April, **1999.**
- *Invited Lecture. First European Catalysis Symposium.* Valencia, April, **1999.**
- *Lecture. COST D12 Meeting.* Paris (France), May, **1999.**
- *Invited Lecture. IV Escuela Nacional de Materiales Moleculares.* El Escorial, Madrid, June, **1999.**
- *Lecture. Curso de verano de la UAM.* Miraflores de la Sierra, September, **1999.**
- *Invited Lecture. Instituto de Investigaciones Químicas, CSIC.* Sevilla, December, **1999.**

2000

- *Invited Lecture. 197th meeting of The Electrochemical Society (symposium “Fullerenes, Nanotubes and Carbon Nanoclusters).* Toronto, Canada, May, **2000.**
- *Invited Lecture. Department of Chemistry, University of Toronto.* Toronto, Canada, May, **2000.**
- *Invited Lecture. “New Metal-Catalyzed Cyclization Reactions”.3th Italian-Spanish Symposium on Organic Chemistry (ISSOC-3).* Benalmádena (Málaga), September, **2000.**

2001

- *Invited Lecture. Departamento de Química Inorgánica. Universidad de Valladolid,* February, **2001.**
- *Invited Lecture. Van der Kerk Meeting.* U. Utrecht, The Netherlands, March, **2001.**
- *Invited Lecture. Universite Louis Pasteur, Faculte de Chimie.* Strasbourg France, April, **2001.**
- *Invited Lecture. Second International Symposium on Selective Synthesis Mediated by Organometallic Compounds.* (Fundación Ramón Areces). Oviedo, June, **2001.**
- *Invited Lecture. Tenth International Conference on the Coordination Chemistry of Ge, Sn, and Pd (ICCOG-GTL-10).* Bordeaux, France, July, **2001.**
- *Invited Lecture. 0th International Symposium on Novel Aromatics (ISNA-10).* La Jolla, California, USA, August, **2001.**
- *Invited Lecture. International School of Organometallic Chemistry.* Camerino (Macerata), Italy, September, **2001.**
- *Invited Lecture. Universidad Internacional Menéndez Pelayo.* Formigal (Huesca), September, **2001.**
- *Invited Lecture. Universite Louis Pasteur, Faculte de Chimie.* Strasbourg, France, October, **2001.**

2002

- *Invited Lecture. Departamento de Química Orgánica, Universidad de Barcelona,* March, **2002.**
- *Invited Lecture. Departamento de Química Orgánica, Universidad de Castilla-La Mancha,* Ciudad Real, April, **2002.**
- *Invited Lecture. 1er Simposio Científico Lilly “Avances recientes en síntesis orgánica”,* Madrid, May, **2002.**
- *Lecture. COST meeting, UAM* Madrid, June, **2002.**
- *Lectures. Universidad Internacional Menéndez Pelayo.* Santander, July, **2002.**
- *Invited Lecture. IX International Summer School Nicolás Cabrera “Frontiers in Science and Technology: Molecular Electronics”* Miraflores de la Sierra, Madrid, **2002.**

2003

- *Invited Lecture. Departamento de Química, Universidad Autónoma de Barcelona,* February, **2003.**
- *Invited Lecture. Departamento de Química Orgánica, Universidad del País Vasco,* Bilbao, May, **2003.**
- *Plenary Lecture. Organometallic Chemistry towards Organic Synthesis (OMCOS) 12,* Toronto, Canada, July, **2003.**
- *Lectures invitadas. Universidad Internacional Menéndez Pelayo.* Santander, July, **2003.**
- *Plenary Lecture. 19th, International Congress of Heterocyclic Chemistry* Colorado State University, Fort Collins, Colorado, USA, August, **2003.**
- *Invited Lecture. 13th European Symposia on Organic Chemistry (ESOC),* Cavtat-Dubrovnik, Croatia, September, **2003.**
- *Lecture. Ninth International Kyoto Conference on New Aspects of Organic Chemistry (IKCOC-9)*

Kyoto, Japan, November, 2003. *Presentación oral invitada.*

- *Lecture.* **3rd Tateshina Conference on Organic Chemistry** Nagano, Japan, November, 2003.
- *Invited Lecture.* **University of Tokyo** Tokyo, Japan, November, 2003.
- *Invited Lecture.* **Waseda University** Tokyo, Japan, November, 2003.
- *Invited Lecture.* **Tokyo Institute of Technology**, Yokohama, Japan, November, 2003.

2004

- *Invited Lecture.* **Universitat Rovira i Virgili**. Tarragona, March, 2004.
- *Invited Lecture.* "Cyclization of Enynes with Au(I) Complexes". **3er Rencontres de Chimie Organique de Marseille (ROCM 3)**, Marseille, France, 2004.
- *Invited Lecture.* **Stockholm University**, Stockholm, Sweden, May, 2004.
- *Invited Lectures.* "Activación de Alquinos por Complejos de Metales de Transición / Síntesis de Poliarenos Naturales and No Naturales". **Universidad Internacional Menéndez Pelayo**. Santander, July 2004.
- *Invited Lecture.* **Lilly, Erl-Wood**, UK, 9 September 2004.
- *Plenary Lecture.* "Activation of Alkynes with Platinum and Gold Complexes". **Stereocat 2004**, Venice, Italy, 16-19 September 2004.
- *Invited Lecture.* "Activation of Alkynes with Platinum and Gold Complexes". **1st International Forum on Homogeneous Catalysis**, Hangzhou, China, 10-13 October 2004.
- *Invited Lecture.* "Catalysis with Electrophilic Transition Metal Complexes". **DSM Scientific Meeting, Homogeneous Catalysis for Future Industrial Applications: New Carbon-Carbon Bond Forming and Asymmetric Catalysis** Vaals, The Netherlands, November 15-16, 2004.

2005

- *Invited Lecture.* **The University of Bristol**, Bristol, UK, 28 February-1 March, 2005.
- *Invited Lecture.* **Univ. de Barcelona (Félix Serratosa Lecture)**, Barcelona, 7 March, 2005.
- *Invited Lecture.* **Universidad de Oviedo**, Oviedo, 31 March, 2005.
- *Invited Lecture.* **Universitat Jaume I**, Castellón, 7 April, 2005.
- *Invited Lecture.* **Institut für Organische Chemie der Georg-August-Universität**, Göttingen, Germany, 6 June, 2005.
- *Invited Lecture.* **Leibniz-Institut für Organische Katalyse an der Universität Rostock e.V. (IfOK)**, Rostock, 7 June, 2005.
- *Invited Lecture.* **University of Utrecht**, Utrecht, The Netherlands, 15 June, 2005.
- *Invited Lecture.* "Solving the Mechanistic Puzzle of Metal-Catalyzed Enyne Cyclizations and Beyond". **XXX Reunión Bienal de la RSEQ**, Lugo, September, 2005.
- *Invited Lecture.* **Universidad de A Coruña**, A Coruña, 10 October, 2005.
- *Invited Lecture.* "Reactions of Alkynes with Electrophilic Transition Metal Complexes, Parts 1 and 2". **Advanced Study Institute, New Methodologies and Techniques in Organic Chemistry: Sustainable Development in a Secure Environment (NeMeTOC)**. Certosa di Pontignano (Siena), Italy, 14-23 October, 2005.
- *Invited Lecture.* "New Cyclizations of Functionalized Enynes with Transition Metal Complexes". **Asian-European Symposium on Metal-Mediated Efficient Organic Synthesis**. Nagasaki, Japan, 6-8 November, 2005.
- *Invited Lecture.* **Chinese University of Hong Kong**, Hong Kong. 10 November, 2005.
- *Invited Lecture.* **University of Stuttgart**, Stuttgart, Germany, 1 December, 2005.

2006

- *Invited Lecture.* **Universite Pierre et Marie Curie**. Paris, France, 9 January, 2006.
- *Invited Lecture.* **Institut de Chimie Moléculaire et des Matériaux d'Orsay**. Orsay-Ville, France, 10 January, 2006.
- *Invited Lecture.* **Ecole Supérieure de Physique Chimie Industrielle de la ville de Paris**. Paris, France, 11 January, 2006.
- *Invited Lecture.* **Institut de Chimie des Substances Naturelles- CNRS**. Gif sur Yvette, France, 12 January, 2006.

- *Invited Lecture*. "The Mechanistic Puzzle of Metal-Catalyzed Cyclization of Enynes". **DETIC-06 (DETIC: Dialogues Experiment-Theory in Chemistry)**, Universitat Autònoma de Barcelona. Barcelona, 3 February, 2006.
 - *Invited Lecture*. "New Gold-Catalyzed Cyclizations of Enynes". **Two-Day Meeting on Transition Metal Catalysis**, Universidad de Zaragoza. Zaragoza, 23-24 February, 2006.
 - *Plenary Lecture*. "Reactions of Enynes with Gold Complexes". **NCCC VII (Netherlands' Catalysis and Chemistry Conference)**. Noordwijkerhout, The Netherlands, 6-8 March, 2006.
 - *Plenary Lecture*. "On The Mechanistic Puzzle of Metal-Catalyzed Cyclization of Enynes and Beyond". **41st EUCHEM Conference on Stereochemistry 2006 (Bürgenstock)**. Bürgenstock, Switzerland, 22-28 April, 2006.
 - *Invited Lecture*. **Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic**. Prague, Czech Republic, 24 May, 2006.
 - *Lectures*. "Platinum and Gold-Catalyzed Reactions of Enynes: The Mechanistic Puzzle and Beyond // Synthesis of Biaryls and Polyarenes by Palladium-Catalyzed Arylations". 2006 ICIQ Summer School. Tarragona, 25-28 July, 2006.
 - *Invited Lecture*. "New Cyclizations of Enynes with Gold Complexes". **1st European Chemistry Congress, EUCHEM, (Symposium: New Concepts and Methods in Catalysis)**. Budapest, Hungary, 28-30 August, 2006. (Lecture highlighted in *Chem. Eng. News* October 16, 2006, p. 44).
 - *Plenary Lecture*. "New Cyclizations of Functionalized Enynes with Transition Metal Complexes". **IASOC 2006. Organic Chemistry from Synthesis to the Interfaces of Life Sciences**. Ischia Porto, Napoli, Italy, 16-21 September, 2006.
 - *Plenary Lecture*. "Nuevas Reacciones Catalizadas por Oro". **X Semana Científica "Antonio González"**. La Laguna; Tenerife, 4-6 October, 2006.
 - *Invited Lecture*. **Universidad de Guajajuato**. Guanajuato, México, 10 October, 2006.
 - *Invited Lecture*. **Centro de Investigación and de Estudios Avanzados (Cinvestav)**. Ciudad de México, México, 12 October, 2006.
 - *Liebig Lectures*: **TU München, Ludwig-Maximilians-Universitaet München, Uni. Freiburg, Uni. Bonn, Max-Planck-Institut für Kohlenforschung (Mülheim), RWTH Aachen**. 22 November-1 December, 2006.
 - *Invited Lecture*. **Lecture Lilly-IQOG**. Instituto de Química Orgánica, CSIC, Madrid, 11 December, 2006.
- 2007**
- *Invited Lecture*. **Institut de Chimie, CNRS/Université Louis Pasteur**. Strasbourg, France, 26 January, 2007.
 - *Invited Lecture*. **Stratingh Institute for Chemistry, University of Groningen**. Groningen, The Netherlands, 8 February, 2007.
 - *Invited Lecture*. **Ecole Normale Supérieure**. Paris, France, 14 February, 2007.
 - *Invited Lecture*. **Université Pierre et Marie Curie, Paris VI**. Paris, France, 19 February, 2007.
 - *Invited Lecture*. **RCOF, Rouen**. Rouen, France, 20 February, 2007.
 - *Invited Lecture*. **Departamento de Química Orgánica, Universidad Autónoma de Madrid**. Madrid, 8 March, 2007.
 - *Invited Lecture*. **Department of Organic Chemistry, University of Geneva**. Geneva, Switzerland, 21 March, 2007.
 - *Invited Lecture*. **Department of Chemistry, Boston University**. Boston, Massachusetts, USA, 2 April, 2007.
 - *Invited Lecture*. **Department of Chemistry, Boston College**. Boston, Massachusetts, USA, 3 April, 2007.
 - *Invited Lecture*. **Department of Chemistry, Massachusetts Institute of Technology**. Cambridge, Massachusetts, USA, 6 April, 2007.
 - *Invited Lecture*. **Department of Chemistry, Emory University**. Atlanta, Georgia, USA, 9 April 2007.
 - *Invited Lecture*. **Department of Chemistry, Vanderbilt University**. Nashville, Tennessee, USA, 11 April, 2007.
 - *Invited Lecture*. **Department of Chemistry, Colorado State University**. Fort Collins, Colorado, USA, 13 April 2007.

- *Invited Lecture*. **Sanofi-Aventis**. Frankfurt, Germany, 10 May, **2007**.
- *Plenary Lecture*. Gold-Catalyzed Cyclizations of Enynes and Beyond. **15th European Symposium on Organic Chemistry (ESOC)**. Dublin, Ireland, 10 July, **2007**.
- *Lectures*. "Gold-Catalyzed Cyclizations of Enynes and Beyond // Palladium Catalyzed Arylation Mechanistic Insights". 2007 ICIQ Summer School, Tarragona, 23-27 July, **2007**.
- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis: Cyclizations of 1,6-Enynes and Beyond". **22th William S. Johnson Symposium in Organic Chemistry. Department of Chemistry, University of Stanford**. Stanford, CA, USA, 12 October, **2007**.
- *Invited Lecture*. **Department of Chemistry, University of Michigan**. Ann Arbor, Michigan, USA, 15 October, **2007**.
- *Invited Lecture*. **Department of Chemistry, University of Ottawa**. Ottawa, Canada, 17 October, **2007**.
- *Invited Lecture*. **Department of Chemistry, University of Toronto**. Toronto, Canada, 19 October, **2007**.
- *Invited Lecture*. **Department of Organic Chemistry, ETH**. Zurich, Switzerland, 12 November, **2007**.
- *Invited Lecture*. **Institute of Organic Chemistry, University of Zurich**. Zurich, Switzerland, 13 November, **2007**.
- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis". **Trends in Organic Chemistry: Metal-Mediated Reactions Symposium**. Division of Organic Chemistry, Swedish Chemical Society. Göteborg, Sweden, 3 December, **2007**.

2008

- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis". **Organometallic Chemistry, Structure and Catalysis** The Royal Society of Chemistry, Dalton Division / Real Sociedad Española de Química Sevilla, 7 March, **2008**.
- *Invited Lecture*. **Eli Lilly** Alcobendas, Madrid, 24 March, **2008**.
- *Invited Lecture*. "Gold-Catalyzed Skeletal Rearrangement of Enynes and Beyond". **A Noble Cause: Modern Gold and Platinum Group Catalysis** SCI Fine Chemicals Group. London, UK, 16 April, **2008**.
- *Invited Lecture*. "Molecular Diversity through Gold Catalysis". **5th Asian-European Symposium**, Obernai, France, 25-28 May, **2008**.
- *Invited Lecture*. **Departamento de Química Orgánica, Universidad de Valencia**. Valencia, 29 May, **2008**.
- *Invited Lecture*. **Departamento de Química Orgánica, Universidad del País Vasco**. San Sebastián, 6 June, **2008**.
- *Invited Lecture*. **CINQUIMA, Universidad de Valladolid**. Valladolid, 16 July, **2008**.
- *Lecture*. "Catalysis by Gold and Other Electrophilic Transition Metal Complexes". **2008 ICIQ Summer School**. ICIQ, Tarragona, 25 July, **2008**.
- *Invited Lecture*. "New Approaches for the Synthesis of Natural Products through Gold Catalysis". **The 3rd International Forum on Homogeneous Catalysis and The First China-Spain Bilateral Symposium on Catalysis**. Shanghai, 23-28 September, **2008**.
- *Invited Lecture*. "Gold-Catalyzed Asymmetric Synthesis". **2ª Jornadas Red CASI**. Palma de Mallorca, 2-3 October, **2008**.
- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis". **Imperial College, London**. London, UK, 21 October, **2008**.

2009

- *Invited Lecture*. "New Approaches to Molecular Diversity through Gold-Catalysis". **Chemical Research Laboratory, University of Oxford**. Oxford, UK; 19 February, **2009**.
- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis". **Département de Chimie Moléculaire (SERCO), Université Joseph Fourier**. Grenoble, France, 25 March, **2009**.
- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis". *Abbot Lecture in Organic Chemistry* **University of Illinois at Urbana-Campaign**. Illinois, USA, 30 March, **2009**.
- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis". **Purdue University**. West Lafayette, Indiana, USA, 31 March, **2009**.
- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis". **University of Illinois at Chicago**. Illinois,

USA, 2 April, 2009.

- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis". **University of Chicago**. Chicago, Illinois, USA, 3 April, 2009.
- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis". **University of Pennsylvania**. Philadelphia, Pennsylvania, USA, 6 April, 2009.
- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis". **Columbia University**. New York, 8 April, 2009.
- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis". **Yale University**, New Haven, USA, 9 April, 2009.
- *Invited Lecture*. "Molecular Diversity through Gold-Catalysis". **Syngenta Crop Protection**, Münchwilen AGStein, Switzerland, 14 May, 2009.
- *Invited Lecture*. "Nuevas Reacciones para la Síntesis de Sistemas Policíclicos". **Instituto Universitario CINQUIMA**. Universidad de Valladolid. Valladolid, 4 June, 2009.
- *Invited Lecture*. "New Strategies for the Synthesis of Polycyclic Aromatic Compounds". **13th International Symposium on Novel Aromatic Compounds (ISNA 13)**. Luxembourg, 19-24 July, 2009.
- *Invited Lecture*. "Building Molecular Complexity via Gold Catalysis". **3rd International Symposium on Advances in Synthetic and Medicinal Chemistry**, Kiev (Ukraine) August 23 - 27, 2009.
- *Invited Lecture*. "Building Molecular Diversity via Gold Catalysis". **Gregynog Synthesis Symposium**. Gregynog, UK, 11-13 September, 2009.
- *Plenary Lecture*. "Building Molecular Diversity via Gold Catalysis". **International Symposium on Relations between Homogeneous and Heterogeneous Catalysis (ISHHC XIV)** Stockholm, Sweden, 13-18 September, 2009.
- *Invited Lecture*. "Building Molecular Diversity via Gold Catalysis". **Departament de Química, Universitat de Girona**. Girona, 14 October, 2009.
- *Invited Lecture*. "Building Molecular Diversity via Gold Catalysis". **Organic Chemistry, Dortmund University of Technology**. Dortmund, Germany, 21 October, 2009.
- *Invited Lecture*. "Building Molecular Diversity via Gold Catalysis". **IRTG (MS-NG), Organisch-Chemisches Institut, Universität Münster**. Münster, Germany, 22 October, 2009.
- *Invited Lecture*. "Building Molecular Diversity via Gold Catalysis". **5th SPJ Organic Chemistry Symposium**. Osaka, Japan, 6-8 November, 2009.
- *Invited Lecture*. "Building Molecular Diversity via Gold Catalysis". **Pekin University**. Beijing, China, 10 November, 2009.
- *Invited Lecture*. "Building Molecular Diversity via Gold Catalysis: Gold-Catalyzed Molecular Gymnastics". **University of Science and Technology of China**. Hefei, China, 12 November, 2009.
- *Plenary Lecture*. "Gold-Catalyzed Molecular Gymnastics". **Annual Meeting of the State Key Laboratory of Elemento-Organic Chemistry**. Tianjin, China, 14 November, 2009.
- *Invited Lecture*. "Gold-Catalyzed Molecular Gymnastics". **Chinese University of Hong Kong, Hong Kong**. Hong Kong, China, 16 November, 2009.
- *Invited Lecture*. "Gold-Catalyzed Molecular Gymnastics". **National Tsing Hua University**. Hsinchu, Taiwan, 18 November, 2009.
- *Invited Lecture*. "Gold-Catalyzed Molecular Gymnastics". **National Taiwan University**, Taipei, Taiwan, 19 November, 2009.

2010

- *Invited Lecture*. "Gold Catalysis in the Construction of Molecular Complexity". **Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic**. Invited Lecture Series. Prague, Czech Republic, 19 February 2010.
- *Invited Lecture*. "Building-up Molecular Complexity with Gold Catalysis". **Sciences Chimiques de Rennes, Université de Rennes I**. Rennes, France, 4 March 2010.
- *Invited Lecture*. "New Cycloaddition Reactions Catalyzed by Gold". **6th Asian-European Symposium on Metal-Mediated Efficient Organic Synthesis**. Nanyang Technological University, Singapore, June 7-9, 2010.
- *Plenary Lecture*. "Más allá de las ciclaciones de eninos". **1st Workshop on Chemistry of Group 11**

Elements. Universidad de La Rioja, Logroño, 30 June - 2 July, **2010**

- *Plenary Lecture.* “Gold-Catalysis: Beyond Enyne Cyclizations”. **Belgian Organic Synthesis Symposium (BOSS XII)**. Namur, Belgium, July 11-16, **2010**.
- *Plenary Lecture.* “Gold-Catalysis: Beyond Enyne Cyclizations”. **SIBEAQO-II**. Santiago de Compostela, September 8-11, **2010**.
- *Invited Lecture.* “Gold-Catalysis: Beyond Enyne Cyclizations”. **A Celebration of Organic Chemistry**. SCI, GSK, Stevenage, UK, September 13-14, **2010**.
- *Invited Lecture.* “Deconstructing the Gold-Catalyzed Enantioselective Activation of Alkynes”. **3ª Jornadas Red CASI**. Palma de Mallorca, 7-8 October, **2010**.
- *Invited Lecture.* “Beyond Enyne Cyclizations”. **A Celebration of Organic Chemistry**. Niedersächsisches Katalyse-Symposium (NiKaS). Georg-August University Göttingen, Germany, October 21-22, **2010**.
- *Invited Lecture.* “Catálisis con Oro”. **X Semana de la Ciencia**. Facultad de Farmacia, Universidad San Pablo – CEU. Madrid, 19 November, **2010**.

2011

- *Invited Lecture.* “Gold-Catalyzed Stereoselective Cyclizations of Enynes and Beyond”. **44th Annual meeting on Modern aspects of Stereochemistry**. Sheffield, UK, 11 January, **2011**.
- *Invited Lecture.* “Invención de Nuevas Reacciones Catalizadas por Oro”. **Año Internacional de la Química**, *Universitat Autònoma de Barcelona*. Barcelona, 19 January, **2011**.
- *Invited Lecture.* “Gold-Catalyzed Cyclizations of Enynes and Beyond”. **University of Tel Aviv**. Tel Aviv, Israel, 23 January, **2011**.
- *Invited Lecture.* “New Strategies for the Synthesis of Polycyclic Aromatic Compounds”. **Technion – Israel Institute of Technology, Organic Chemistry Colloquium**. Haifa, Israel, 24 January, **2011**.
- *Invited Lecture.* “Gold-Catalyzed Cyclizations of Enynes and Beyond”. **Weizmann Institute**. Rehovot, Israel, 25 January, **2011**.
- *Invited Lecture.* “Gold-Catalyzed Cyclizations of Enynes and Beyond”. **The Hebrew University of Jerusalem**. Jerusalem, Israel, 26 January, **2011**.
- *Schulich Visiting Professor Lectureship.* “Gold-Catalyzed Cyclizations of Enynes and Beyond” **Technion – Israel Institute of Technology**. Haifa, Israel, 27 January, **2011**.
- *Invited Lecture.* “Gold-Catalyzed Cyclizations of Enynes and Beyond” “A Celebration of International Organic Chemistry”, Division of Organic Chemistry of the American Chemical Society, **National American Chemical Society Meeting** in Anaheim (March 27-31, 2011). Anaheim, California, 29 March, **2011**.
- *Invited Lecture.* “Gold-Catalyzed Cyclizations of Enynes and Beyond”. **Benemérita Universidad Autónoma de Puebla**. Puebla de los Ángeles, México, 4 April, **2011**.
- *Plenary Lecture.* “New Gold-Catalyzed Cyclizations of Enynes and Beyond”. 70º Aniversario del Instituto de Química de la Universidad Autónoma Nacional de México (UNAM). **Universidad Autónoma Nacional de México**. México D.F., 5 April, **2011**.
- *Invited Lecture.* “Nuevas Reacciones con Metales de los Grupos 10 and 11”. **Cinvestad**. México D.F., 6 April, **2011**.
- *Invited Lecture.* “Invención de Nuevas Reacciones Catalizadas por Oro”. **7ª Reunión de las Academia Mexicana de Química Orgánica**. Cuernavaca, México, 7 April, **2011**.
- *Plenary Lecture.* “New Gold-Catalyzed Cyclizations of Enynes and Beyond”. **1st Oskar Widman Symposium**. Uppsala, Sweden, 28-29 April, **2011**.
- *Invited Lecture.* “New Strategies for the Synthesis of Nanographenes”. **The First Symposium on Carbon Nanoforms**. Nanoscience, Nanotechnology and molecular materials Institute (INAMOL-UCLM). Toledo, 2-3 June, **2011**.
- *Plenary Lecture.* “New Gold-Catalyzed Activation of Alkynes and Beyond”. **Innovation V, COST Meeting** University of Malta. Valleta, Malta, 14-16 June, **2011**.
- *Invited Lecture.* “New Gold-Catalyzed Cyclizations of Enynes and Beyond”. **Tetrahedron Symposium**. Sitges, Barcelona, 21-24 June, **2011**.
- *Plenary Lecture* “New Gold-Catalyzed Cyclizations of Enynes and Beyond” **XIX EuCOMC**, Toulouse, France, 4-7 July, **2011**.
- *Plenary Lecture.* “New Gold-Catalyzed Cyclizations of Enynes and Beyond”. **Symposium on**

Organometallic Chemistry directed towards Organic Synthesis (OMCOS 16) Shanghai, China, 24-27 July, 2011.

- *Plenary Lecture*. "New Gold-Catalyzed Cyclizations of Enynes and Beyond" **Bienal RSEQ**. Valencia, 28 July, 2011.
- *Invited Lecture*. "Molecular Complexity through Gold Catalysis". **ESF-COST High-level Research Conference, Natural Products Chemistry, Biology and Medicine**. Aquafredda di Maratea, Italy, August 28 - September 1, 2011.
- *Invited Lecture*. "Molecular Complexity through Gold Catalysis". **Summer School in Antwerp**, Flanders, Belgium, 12-14 September, 2011.
- *Plenary Lecture*. "Molecular Complexity through Gold Catalysis". **Norwegian Chemical Society Fall Meeting**, Oslo, Norway, 28-29 September, 2011.
- *Invited Lecture*. "Gold-Catalyzed Molecular Gymnastics". **1st Organic Chemistry Day at UAM**. Departamento de Química Orgánica, UAM, Madrid, 14 October, 2011.
- *Invited Lecture*. "Molecular Complexity through Gold Catalysis". **GDCh Colloquium, Institut für Organische Chemie. Leibniz Universität Hannover**, Germany, 20 October, 2011.
- *Invited Lecture*. "Molecular Complexity through Gold Catalysis". **AstraZeneca**. Manchester, 28 November, 2011.
- *Invited Lecture: Sir Robert Robinson Distinguished Lecture*. "Molecular Complexity through Gold Catalysis". University of Liverpool, Liverpool, UK, 29 November, 2011.
- *Invited Lecture*. "Molecular Complexity through Gold Catalysis". **University of Manchester**, Manchester, UK, 30 November, 2011.
- *Plenary Lecture*. "Beyond Gold-Catalyzed Cyclizations", **Organic Chemistry Division of the French Chemical Society**, Paris, France, 7 December 2011.
- *Invited Lecture*. "Beyond Gold-Catalyzed Cyclizations". **Sanofi**, Paris, France, 8 December 2011.

2012

- *Invited Lecture*. "Beyond Gold-Catalyzed Cyclizations". **Université de Lyon – Bayer CropScience**, France, 1 March, 2012.
- *Invited Lecture*. "Gold-Catalysed Molecular Gymnastics". **California Institute of Technology (Caltech)**, Department of Chemistry, Pasadena, California, USA, 20 March, 2012.
- *Invited Lecture*. "Gold-Catalysed Molecular Gymnastics". **Bristol-Myers Squibb (BMS) Lecture**, Chemistry Department at Scripps, La Jolla, California, USA, 21 March, 2012.
- *Invited Lecture*: "Gold-Catalyzed Cyclizations and Beyond", **Bayer Healthcare**, Wuppertal, Germany, May 23, 2012.
- *Plenary Lecture*: "Gold-Catalysed Molecular Gymnastics". **ISACS 7, Challenges in Organic Chemistry and Chemical Biology**, Edinburgh, Scotland, UK, June 12-15 2012.
- *Invited Lecture*: "Molecular Complexity through Gold Catalysis". **University of Western Australia, Perth**, Australia, June 23, 2012.
- *Plenary Lecture*: "Gold-Catalyzed Molecular Gymnastics". **19th International Conference on Organic Synthesis**, Melbourne, Australia, 1-6 July 2012.
- *Invited Lecture*: "Gold Carbenes and Their Role in Catalysis". **International Symposia on Reactive Intermediates and Unusual Molecules" (ISRIUM)**, Ascona, Italy, 8-13 July, 2012.
- *Invited Lecture*: "Gold Catalysis for the Construction of Complex Architectures". **Ely Lilly España**, Alcobendas, Spain, 19 July, 2012.
- *Invited Lecture / Tutorial Speaker*: "Molecular Complexity through Gold Catalysis". **6th International Conference on Gold Science, Technology, and Applications**, Tokyo, Japan, 5-8 September, 2012.
- *Plenary Lecture*: "Molecular Complexity through Gold Catalysis". **ICCOS 2012, Catalysis in Organic Synthesis**, Moscow, Russia, 15-20 September, 2012.
- *Invited Lecture*: "Generation and Fate of Gold Carbene Intermediates". **Oxford University, ICIQ / Oxford Chemistry meeting in Catalysis**, Oxford, UK, September 26-27, 2012.
- *Invited Lecture*: "Gold Carbene Intermediates from Cycloheptatrienes". **1st International Conference on Organometallics and Catalysis**, Beijing, China, October 18-20, 2012.
- *Invited Lecture*: "Molecular Complexity through Gold Catalysis". **30 Congreso Latinoamericano de Química 2012**, Cancún, México 27-31 October, 2012.

- *Invited Lecture*: “New Transformations Through Gold Carbenes”. **Mini-Symposium on Catalysis. Queen Mary University of London**, London, UK, 7 November, 2012.

2013

- *Plenary Lecture*: “Catalysis Through Gold Carbenes”. **Journées Franco-Catalanes de Chimie Moléculaire. Laboratoire Trans-Pyrénéen de la Molécule aux Matériaux LEA - LTPMM** Toulouse, 24-25, January, 2013.
- *Invited Lecture*: “Molecular Complexity through Gold Catalysis”. **XIII Institut de Chimie des Substances Naturelles Symposium**, Gif-sur-Yvette, 13-14 June, 2013.
- *Invited Lecture*: “Synthesis of Nanographene Fragments”. **14th Trends in Nanotechnology International Conference (TNT 2013)**, Sevilla, 9-13 September, 2013.
- *Plenary Lecture*: “Molecular Complexity through Gold Catalysis”, **SINAQO2013**, 16-19 November, Mar de Plata, Argentina, 2013.
- *Plenary Lecture*: “Beyond Gold-Catalyzed Rearrangements”, **New Perspectives in Asymmetric and Organometallic Synthesis 4th edition**, 22 November, Univeritat de València, 2013.
- *Plenary Lecture*: “Molecular Gymnastics with Gold Catalysis” **VIII Trobada de Joves Investigadors dels Països Catalans**, Andorra, 27-29 November, 2013.
- *Invited Lecture*: “Molecular Complexity through Gold Catalysis” **Dipartimento di Chimica “G. Ciamician”, Università di Bologna**, 3 December, 2013.

2014

- *Invited Lecture*: “Building Molecular Complexity with Gold” **Novartis Pharma AG**, Basel, Switzerland, 10 February, 2014.
- *Plenary Lecture*: “Stereoselective Gold-Catalyzed Cascade Reactions” **Asymmetric Zing Conference**, Nerja, Málaga, 25-28 February, 2014.
- *Invited Lecture*: “Gimnástica Molecular con Oro” **IV Workshop UFI-QOSYC**, Universidad del País Vasco, Donostia, 21 March, 2014.
- *Invited Lecture*: “Fragmentos de Fullerenos y Nanografenos” **Departamento de Química Orgánica**, Universidad de Granada, Granada, 16 May, 2014.
- *Plenary Lecture*: “Gold-Catalyzed Cascade Processes” **25th Bienal de Química Orgánica**, Universidad de Alicante, Alicante, 4-6 June, 2014.
- *Invited Lecture*: “Synthesis of Nanographene Fragments,” **XII Girona Seminar**, University of Girona, 30 June 2014.
- *Invited Lecture*: “Molecular Complexity through Gold Catalysis” **Institute of Organic Chemistry, Polish Academy of Sciences**, Warsaw, Poland, 18 June, 2014.
- *Invited Lecture*: “Molecular Complexity through Gold Catalysis” **East China Normal University**, Shanghai, China, 3 July, 2014.
- *Invited Lecture*: “Molecular Complexity through Gold Catalysis” **Shanghai Institute of Organic Chemistry**, Shanghai, China, 4 July, 2014.
- *Invited Lecture*: “Molecular Complexity through Gold Catalysis” **Fudan University**, Shanghai, China, 4 July, 2014.
- *Invited Lecture*: “Molecular Complexity through Gold Catalysis” **Peking University**, Beijing, China, 7 July, 2014.
- *Invited Lecture*: “Molecular Complexity through Gold Catalysis” **Department of Chemistry, University of Michigan University**, Ann Arbor, Michigan, 28 July, 2014.
- *Invited Lecture*: “Gold-Catalyzed Cascade Reactions” **8th Asian-European Symposium on Metal-Mediated Efficient Organic Synthesis**, Cesme, Turkey, 7-10 September, 2014.
- *Invited Lecture*: “Molecular Gymnastics with Gold Catalysis” **ETH Zürich, Laboratory of Organic Chemistry**, Zürich, Switzerland, 29 September, 2014.
- *Invited Lecture*: “New Gold(I)-Catalyzed Cascade Reactions” **Givaudam Schweiz AG**, Zürich, Switzerland, 30 September, 2014.
- *Invited Lecture*: “Catalyst Design in Asymmetric Gold Catalysis?” **Red CASI**, Palma de Mallorca, 2-3 October, 2014.

- *Invited Lecture*: “Gimnástica Molecular con Oro” **CIQSO, Universidad de Huelva**, Huelva, 27 October, 2014.

2015

- *Invited Lecture*: “Gold-Catalyzed Molecular Gymnastics”, **Novartis Lecture in Organic Chemistry 2015, MIT**, Cambridge, Massachusetts, 5 February, 2015.
- *Invited Lecture*: “Gold-Catalyzed Cascade Reactions”, **Centre de Chimie Verte et Catalyse, Université Laval**, Ville de Québec, Quebec, Canada, 25 February, 2015.
- *Invited Lecture*: “Gold-Catalyzed Cascade Reactions”, **Centre de Chimie Verte et Catalyse, Université Montréal**, Montréal, Quebec, Canada, 26 February, 2015.
- *Invited Lecture*: “Gold-Catalyzed Cascade Reactions”, **Centre de Chimie Verte et Catalyse, McGill University**, Montréal, Quebec, Canada, 27 February, 2015.
- *Invited Lecture*: “Gold-Catalyzed Cascade Reactions”, **PhD program in Organic Chemistry, Universitat de Barcelona**, Barcelona, 13 March, 2015.
- *Plenary Lecture*: “Synthesis of Natural Products via Gold-Catalyzed Reactions”, **Anatolian Conference on Synthetic Organic Chemistry**, Antalya, Turkey, 16-19 March, 2015.
- *Invited Lecture*: “Gold-Catalyzed Cyclopropanation and Polycyclization Reactions”, **CIQUS, Universidad de Santiago de Compostela**, Santiago de Compostela, 27 March, 2015.
- *Invited Lecture*: “Synthesis of Natural Products by Gold-Catalyzed Cyclizations”, **Universitet Ghent**, Ghent, Belgium, 12 May, 2015.
- *Plenary Lecture*: “Gold-Catalyzed Cascade Reactions”, **7th Spanish-Portuguese-Japanese Organic Chemistry Symposium**, Sevilla, Spain, 23-26 June, 2015.
- *Invited Lecture*: “Progress on the Synthesis of Crushed Fullerenes and Nanographenes”, **16th International Symposium on Novel Aromatic**, Madrid, Spain, 5-10 July, 2015.
- *Invited Lecture*: “New Gold-Catalyzed Cyclizations”, **Molecular catalysis, ICIQ-UniCat Summer School**, Berlin, July 6-9, 2015.
- *Plenary Lecture*: “New Gold-Catalyzed Cyclizations”, **24th International Symposium Synthesis in Organic Chemistry**, Cambridge University, UK, 20-23 July, 2015.
- *Invited Lecture*: “New Gold-Catalyzed Cyclizations”, **Vertex Pharmaceuticals UK**, Oxford, UK, 24 July, 2015.
- *Keynote Lecture*: “Synthetic Transformations via Gold-Carbenes”, **Gold 2015 World Conference**, Cardiff, UK, 26-29 July, 2015.
- *Plenary Lecture*: “Gold-Catalyzed Cycloisomerizations”, Arthur C. Cope Award, **American Chemical 250th National Meeting**, Boston, 16-20 August, Boston, MA, 2015.
- *Invited Lecture*: “Total Synthesis with a Golden Touch”, **Barluenga Symposium**, Oviedo, 26 October, 2015.
- *Keynote Lecture*: “Gold-Catalyzed Cascade Reactions”, Homogeneous Gold Catalysis: Methods, Theories and Applications, **PACIFICHEM 2015**, Honolulu, Hawaii, 15-17 December.

2016

- *Keynote Lecture*: “Golden Path for the Synthesis of Lundurines and Grandilodines”, **XXVI Reunión Bienal de Química Orgánica de la RSEQ**, Punta Umbría, Huelva, 14-17 June, 2016.
- *Invited Lecture*: “Metal Catalyzed Approaches for the Synthesis of Polyarenes”, **Symposium: A Journey through Carbon Nanostructures: From Fullerenes to Graphene**, Toledo, 28 June, 2016.
- *Plenary Lecture*: “Natural (and non-natural) Product Synthesis with a Golden Touch”. **Balticum Organicum Symposium (BOS)**, Riga (Latvia), July 3-7, 2016.
- *Invited Lecture*: “Natural (and Non-Natural) Product Synthesis with a Golden Touch”. **Department of Organic and Inorganic Chemistry, University of Oviedo**, Oviedo, September 7, 2016.
- *Plenary Topic Lecture*: “Golden Avenues for the Synthesis of Natural Products”. **6th EuCheMS Chemical Congress, Sevilla**, September 11-15, 2016.
- *Plenary Lecture*: “Natural Product Synthesis with a Golden Touch”. **The 3rd International Symposium on Natural Product Synthesis and process Methods for Drug Manufacture (NPSPM)**, Beijing, Peking University, October 14-16, 2016.

- *Invited Lecture*: "Natural Product Synthesis with a Golden Touch". **Department of Chemistry, University of Delaware**, Delaware, October 24-25, 2016.
- *Invited Lecture*: "Synthesis of Englerin and Related Sesquiterpenes via Gold Catalysis", Englerin Meeting, Session II: Medicinal Chemistry and Synthesis, **National Cancer Institute**, Frederick, October 24-25.
- *Invited Lecture*: "Natural (and Non-Natural) Product Synthesis with a Golden Touch". van 't Hoff Institute for Molecular Sciences, **University of Amsterdam**, Amsterdam, November 21, 2016.
- *Invited Lecture*: "Gold Catalysis for the Synthesis of Natural and Non-Natural Products". Stratingh Institute for Chemistry, **University of Groningen**, Groningen, November 22, 2016.
- *Invited Lecture*: "Gold Catalysis for the Synthesis of Natural and Non-Natural Products". **Syncom**, Groningen, November 23, 2016.
- *Invited Lecture*: "Natural (and Non-Natural) Product Synthesis with a Golden Touch". Departement of Organic Chemistry, **Universidad Autónoma de Madrid**, Madrid, December 15, 2016.

2017

- *Invited Lecture*: "Gold Catalysis for the Synthesis of Natural Products". Eli Lilly UK, Earwood, March 6, 2017.
- *Invited Lecture*: "Chemistry with a Golden Touch". ERC-day, ICIQ, Tarragona, March 16, 2017.
- *Plenary Lecture*: "Gold Catalysis for the Synthesis of Natural Products". Spanish-Japanese Symposium on Modern Synthetic Methodology, Gijón, April 24-26, 2017.
- *Plenary Lecture*: "Gold Catalysis for the Synthesis of Natural and Non-Natural Products". SECO 54, Saint-Martin-de-Londres, May 7-13, 2017.
- *Plenary Lecture*: "Gold Catalysis for the Synthesis of Natural and Non-Natural Products". Organic Chemistry Seminars, École Polytechnique Fédérale de Lausanne, Lausanne, May 31, 2017.
- *Plenary Lecture*: "Gold Catalysis for the Synthesis of Natural Products". International Summer School in Organic Synthesis "A. Corbella", Garhnano, Italy, Università degli Studi di Milano, June 18-22, 2017.
- *Kurt Alder Lecture*: "New Gold-Catalyzed Reactions for the Synthesis of Natural Products". ESOC17, Cologne, Germany, July 2-6, 2017.
- *Key Note*: "Making and Breaking Cyclopropanes with Gold". IUPAC17, Sao Paulo, Brazil. July 7-13, 2017
- *Plenary Lecture*: "Gold-Catalysis for the Synthesis of Biologically Active Natural Products", XXV-SPQ meeting, Lisboa, Portugal. 16-19 July, 2017
- *Invited Lecture*: "Gold-Catalysis for the Synthesis of Natural Products", University of Vienna, Austria. 5 October 2017

Organization of scientific meetings and courses

- Member of the Organizing Committee.
III Jornadas de Química Orgánica. Barco de Ávila, June, 1989.
- Member of the Scientific Advisory Board and Session Chairman.
2nd Italian-Spanish Symposium on Organic Chemistry (ISSOC-2). Lecce, Italy, June, 1998.
- Member of the Scientific Advisory Board and Session Chairman
XVII Reunión Bienal de Química Orgánica. Logroño, June, 1998.
- Director (with Dr. Diego J. Cárdenas).
UAM summer school: El Papel de la Química Orgánica en la Industria Farmacéutica. September, 1998.
- Session Chairman.
Stereochemistry Conference – Bürgenstock. Switzerland, April, 1999.
- Director (with Dr. Diego J. Cárdenas).
UAM summer school: Nuevas Fronteras de la Química Orgánica. September, 1999.
- Member of the Scientific Advisory Board and Session Chairman
XVIII Reunión Bienal de Química Orgánica. A Coruña, April, 2000.
- Director (with Dr. Diego J. Cárdenas).
UAM summer school: Diseño Molecular. July, 2001.

- Member of the Scientific Advisory Board and Session Chairman
XXVIII Reunión Bienal de la Real Sociedad Española de Química. Madrid, November, 2001.
- Organizer.
Reunión COST D12 Novel Palladium and Ruthenium-Catalysed Routes to Waste-Free Carbon-Carbon Bond Syntheses, Universidad Autónoma de Madrid, June, 2002.
- Director
Curso de Formación del Profesorado de Enseñanza Secundaria: "La Física and La Química: Implicaciones en la Tecnología and en la Sociedad de Hoy" Universidad Internacional Menéndez Pelayo. Santander, September, 2002.
- Member of the Scientific Advisory Board and Session Chairman.
Jornada sobre Didáctica de la Química and Vida Cotidiana. Universidad Politécnica de Madrid, Madrid, May, 2002.
- Secretary of the Scientific Advisory Board and co-organizer
XXIX Reunión Bienal (Centenario) de la Real Sociedad Española de Química. Madrid, July, 2003.
- Member of the National Scientific Committee
XXII International Conference on Organometallic Chemistry, Zaragoza, July, 2006.
- Co-director of the "Enrique Moles ICIQ School of Organometallic Chemistry" ICIQ.
Tarragona, July 24-28, 2006.
- President of the Organizing Committee
III Simposium de Investigadores Jóvenes, RSEQ, ICIQ Tarragona, November, 2006.
- Co-director of the "2007 ICIQ Summer School".
Tarragona, July 23-27, 2007.
- Session Chairman
15th European Symposium on Organic Chemistry (ESOC)
Dublin, Ireland, 9 July, 2007.
- Session chairman.
5th Asian-European Symposium
Obernai, France, 25-28 May, 2008.
- Member of the Scientific Committee and session chairman
XXII Reunión Bienal del grupo de Química Orgánica, Tarragona, 25-27 June 2008.
- Co-director of the "2008 ICIQ Summer School".
Tarragona, July 21-26, 2008.
- Session Chairman
2nd European Chemistry Congress, EUCHEM, (Symposium: Organo Catalysis Symposium).
Torino, Italy, 17 September, 2008.
- Co-organizer and Session Chairman
The 3rd International Forum on Homogeneous Catalysis and The First China-Spain Bilateral Symposium on Catalysis
Shanghai, 23-28 September, 2008.
- Co-director of the "2009 ICIQ Summer School".
Tarragona, July 20-24, 2007.
- Member of the Scientific Committee and Session Chairman
ESOC 2009
Prague, July 13-17, 2009.
- Member of the Scientific Committee
XXIII Reunión Bienal del grupo de Química Orgánica, 2010.
Murcia, June 16-18, 2010.
- Member of the Scientific Committee.
XXVII Reunión Bienal del Grupo de Química Organometálica, RSEQ.
Huelva, October 7-10, 2010.
- Chairman of the Organizing and Scientific Committees.
2nd China-Spain Bilateral Symposium on Catalysis.
ICIQ, Tarragona, November 22-24, 2010.
- Invited Organizer, Member of the Scientific Committee, and Session Chairman
19 Lilly Symposium "Organic Synthesis in the International Year of Chemistry

- El Escorial, April, Madrid, 2011.
- Member of the International Scientific Committee.
ESOC 2011 (17th European Symposium on Organic Chemistry)
Crete, Greece, July 10-15, 2011.
 - Co-director 2011 ICIQ Summer School
Tarragona, July 18-22, 2011.
 - Chairman of the Organizing and Scientific Committees. 7th Asian European Symposium on Metal-Mediated Efficient Organic Synthesis
Tarragona, July 22-25, 2012.
 - Member of the International Advisory Board.
International Conference on Organometallics and Catalysis (OM&Cat)
Beijing, October 18-21, 2012.
 - Member of the International Scientific Committee.
ESOC 2013 (18th European Symposium on Organic Chemistry)
Marseille, July 7-12, 2013.
 - Vicepresident and session chairman
48th EUCHEM Conference on Stereochemistry 2013 (Bürgenstock)
Brunnen, April 29- May 5, 2013.
 - President
49th EUCHEM Conference on Stereochemistry 2014 (Bürgenstock)
Brunnen, May 4 - Friday 9, 2014.
 - Chairman of the Scientific Committee. 8th Asian European Symposium on Metal-Mediated Efficient Organic Synthesis
Cesme, Turkey, September, 2014.
 - Session-chairman (past-president)
50th EUCHEM Conference on Stereochemistry 2014 (Bürgenstock)
Brunnen, April 26 - May 1, 2015.
 - President of the Organizing Committee (Chair).
Organometallic Chemistry in Organic Synthesis (OMCOS-18). 28 June – 2 July, 2015, Sitges-Barcelona.
 - President and session chairman
ESOC 2015 (19th European Symposium on Organic Chemistry)
Lisbon, July 12-16, 2015.
 - Member of the Scientific Committee and Session Chairman, XXVI Reunión Bienal de Química Orgánica de la RSEQ, Punta Umbría, Huelva, 14-17 June, 2016.
 - Member of the Scientific Committee and Session Chairman, EuCheMS Organic Division 8th Young Investigator's Workshop, Islantilla, Huelva, 16-17 September.
 - Member of the Organizing Committee and Session Chairman.
5th Lilly Chemistry Symposium "Chemistry, The Central Science" 27-27 October, 2016, El Escorial, Madrid.
 - Session Chairman. 3rd Barluenga Symposium.
Universidad de Oviedo, November 3, 2016.
 - President Scientific Committee.
XXXVI Reunión Bienal RSEQ, 25-29 June, 2017, Sitges, Barcelona.
 - Member of the Scientific Committee, XXVII Reunión Bienal de Química Orgánica de la RSEQ, Santiago de Compostela, 2018.

Lectures on Chemistry Popularization

- *Invited Lecture.* **Curso de Estío de la Universidad de Valladolid.** Universidad de Valladolid, September, **2001.**
- *Invited Lecture.* **Universidad de Valladolid,** February, **2002.**
- *Invited Lecture.* **Universidad Internacional Menéndez Pelayo,** Santander, September, **2002.**
- *Invited Lecture.* **Universidad de Valladolid,** January, **2003.**
- *Invited Lecture.* **Universidad de Castilla-La Mancha,** Toledo, December, **2003.**
- *Invited Lecture.* **Universidad de León,** León, January, **2004.**

- *Invited Lecture*. **Fundació “la Caixa”**, Tarragona, 11 April, **2005**.
- *Invited Lecture*. **Not Strictly Inorganic Chemistry (NoSIC-2)**, Prullans de Cerdanya, Lleida, Tarragona, 31 May-2 June, **2006**.
- *Invited Lecture*. **Conferencia San Alberto Magno**, Semana de la Ciencia. Universitat Rovira I Virgili, Tarragona, 15 November, **2006**.
- *Invited Lecture*. **La Química a Escena**, Semana de la Ciencia. Museo de la Ciencia de Valladolid, Valladolid, 3 November, **2011**.

DOCTORAL THESIS

1. Síntesis de receptores abióticos de aniones basados en subunidades de guanidina.
Amalia Galán
Universidad Autónoma de Madrid
1989 Apto cum laude (co-directed with Prof. J. de Mendoza). PhD Extraordinary Award.
2. Reacciones de electrófilos orgánicos con organoestannanos catalizadas por paladio: aplicación a la síntesis de productos naturales.
Nuria Tamayo
Universidad Autónoma de Madrid
1992 Apto cum laude
3. Aplicación de la química organometálica del Níquel and del Paladio a la síntesis and funcionalización de aminoácidos.
Ana M. Castaño
Universidad Autónoma de Madrid
1993 Apto cum laude
4. Hidro-rutenación de alquinos: Síntesis de aquenil, alquinil and eninil complejos de Ru(II).
Javier López Pérez de Lema
Universidad Autónoma de Madrid
1993 Apto cum laude (co-directed with Dr. A. Santos)
5. Ciclación de complejos (η^3 -alil)paladio: Aplicación a la síntesis de elemanos.
Enrique Gómez-Bengoa
Universidad Autónoma de Madrid
1994 Apto cum laude
6. Nuevos métodos de síntesis de paladaciclos: Paladiación alifática de hidrazonas and transmetalación de estannanos.
Diego J. Cárdenas
Universidad Autónoma de Madrid
1994 Apto cum laude. PhD Extraordinary Award.
7. Aplicación de la Química Organometálica del Pd a la Síntesis de Hidrocarburos Aromáticos Policíclicos.
Juan J. González
Universidad Autónoma de Madrid
1997 Apto cum laude
8. Síntesis de palada- and platinaciclos mediante reacciones de transmetalación and activación C-H.
Cristina Mateo
Universidad Autónoma de Madrid
1997 Apto cum laude (co-directed with Dr. Diego J. Cárdenas). PhD Extraordinary Award.
9. Nuevos Métodos de Ciclación: I. Síntesis de Piridoacridinas Mediante Cicloadición and II. Carbociclaciones Catalizadas por Pd.
Juan M. Cuerva
Universidad Autónoma de Madrid
1997 Apto cum laude
10. Desarrollo de Nuevas Síntesis de Derivados Aromáticos Policíclicos.
Óscar de Frutos
Universidad Autónoma de Madrid
1998 Sobresaliente cum Laude

11. Nuevos Oxapaladaciclos and Desarrollo de Métodos de Formación de Enlaces C-C and C-X Basados en la Química de los Metales de Transición.
Carolina Fernández-Rivas
Universidad Autónoma de Madrid
1999 Sobresaliente cum Laude (co-directed with Dr. Diego J. Cárdenas). PhD Extraordinary Award.
12. Cyclizations of Allyl-Palladium and Alkyne-Platinum Complexes with Alkenes and Allylic Nucleophiles.
María Méndez
Universidad Autónoma de Madrid
2001 Sobresaliente cum Laude. PhD Extraordinary Award.
13. Transition-Metal Catalyzed Reactions: Intramolecular Arylations and Cyclizations of Furans with Alkynes.
Belén Martín-Matute
Universidad Autónoma de Madrid
2002 Sobresaliente cum Laude. PhD Extraordinary Award.
14. Síntesis 5,10,15-Triariltruxenos and otros truxenos con conjugación extendida.
Marta Ruiz
Universidad Autónoma de Madrid
2003 Sobresaliente cum Laude (co-directed with Dr. B. Gómez-Lor and Dr. A. Santos)
15. Competing Pathways in the Cyclizations of 1,6-Enynes Catalyzed by Transition Metals: Selectivity Studies.
M. Paz Muñoz-Herranz
Universidad Autónoma de Madrid
2004 Sobresaliente cum Laude
16. Cyclizations of Enol Ethers and Arenes with Alkynes Catalyzed by Transition Metals.
Cristina Nevado
Universidad Autónoma de Madrid
2004 Sobresaliente cum Laude. PhD Extraordinary Award.
17. New Polyarenes: Towards the Síntesis of Non-Planar Aromatic Surfaces.
Esther González-Cantalapiedra
Universidad Autónoma de Madrid
2004 Sobresaliente cum Laude (co-directed with Dr. Diego J. Cárdenas)
18. Synthetic Studies on Polycyclic Quinonoid Natural Products.
Plácido Ceballos
Universidad Autónoma de Madrid
2005 Sobresaliente cum Laude
19. Gold-Catalyzed Skeletal Rearrangements and Cycloadditions of Enynes.
Cristina Nieto-Oberhuber
Universidad Autónoma de Madrid
2006 Sobresaliente cum Laude. PhD Extraordinary Award.
20. Convergent Approach to the Synthesis of Myriaporone 4 and Derivatives.
Almudena Díaz
Universidad Autónoma de Madrid
2007 Sobresaliente cum Laude
21. New Catalytic Processes based on Cyclizations of Allystannanes with Late Transition Metals.
Susana Porcel
Universidad Autónoma de Madrid
2007 Sobresaliente cum Laude
22. Cyclizations of Indoles and Enol Ethers with Alkynes Catalyzed by Platinum and Gold.
Catalina Ferrer Llabrés
Universitat Rovira i Virgili
2008 Sobresaliente cum Laude
23. Gold-Catalyzed Cascade Cyclizations of Functionalized 1,6-Enynes.
Eloísa Jiménez-Núñez
Universidad Autónoma de Madrid
2008 Sobresaliente cum Laude
24. Gold(I)-Catalyzed Cyclizations of 1,6- and 1,7-Enynes: New Gold Complexes and Cyclopropanation Reactions.
Elena Herrero-Gómez

- Universitat Rovira i Virgili
2009 Sobresaliente cum Laude
25. Solving the Mechanistic Puzzle of Gold-Catalyzed Reactions of 1,6- and 1,7-Enynes.
Patricia Pérez-Galán
Universitat Rovira i Virgili
2010 Sobresaliente cum Laude
26. Palladium-Catalyzed Arylation Reactions for the Synthesis of Polyarenes.
Paula de Mendoza Bonmatí
Universitat Rovira i Virgili
2010 Sobresaliente cum Laude
27. Mastering the Reactivity of Gold(I) Carbenes
Verónica López-Carrillo
Universitat Rovira i Virgili
2010 Sobresaliente cum Laude. PhD Extraordinary Award.
28. New Gold(I) Alkynophilic Catalysts.
Mihai Raducan
Universitat Rovira i Virgili
2010 Sobresaliente cum Laude
29. Gold catalysis: Total Synthesis of the Englerins and an Approach Towards Schisanwilsonene A.
Nicolas Delpont
Universitat Rovira i Virgili
2011 Sobresaliente cum Laude
30. Development of Gold(I)-Catalyzed Retro-Cyclopropanation and Trindane-Based Approach toward C₆₀.
César Rogelio Solorio-Alvarado
Universitat Rovira i Virgili
2011 Sobresaliente cum Laude
31. New Gold-Catalysed Reactions and Applications for the Synthesis of Alkaloids.
Ana Escribano-Cuesta
Universitat Rovira i Virgili
2012 Sobresaliente cum Laude
32. Approaches for the Synthesis of Small and Large Polyarenes.
Claudia de León
Universitat Rovira i Virgili
2012 Apto cum Laude
33. Gold-Catalyzed Cyclizations of 1,5-Enynes and Development of an Intramolecular Phenol Synthesis
Núria Huguet
Universitat Rovira i Virgili
2013 Apto cum Laude. PhD Extraordinary Award.
34. Mechanistic Studies on Gold Mediated Cross-Coupling Reactions and Total Synthesis of (±)-Epiglobulol
Madeleine Livendahl
Universitat Rovira i Virgili
2013 Excelente cum Laude
35. Gold Catalysis for the Synthesis of Protoilludane Sesquiterpenes and Other Cyclic Systems
Anthony Pitaval
Universitat Rovira i Virgili
2014 Excelente cum Laude
36. Gold Carbenes from Cycloheptatrienes: Generation and Fate
Yahui Wang
Universitat Rovira i Virgili
2014 Excelente cum Laude
37. Gold-Catalyzed Cyclizations and Enantioselective Total Synthesis of (+)-Schisanwilsonene A
Morgane Gaydou
Universitat Rovira i Virgili

- 2014** Excelente cum Laude. PhD Extraordinary Award.
38. Dissecting Intermolecular Gold Catalysis: Application to the Total Synthesis of Rumphellaone A
Carla Obradors
Universitat Rovira i Virgili
2014 Excelente cum Laude
39. Digging into Gold(I) Catalysis: Silver and Counterion Effects and Total Synthesis of Nardoaristolone B
Anna Homs
Universitat Rovira i Virgili
2015 Excelente cum Laude
40. Polynuclear Gold(I) Catalysts: When One Gold(I) is not Enough
Ekaterina S. Smirnova
Universitat Rovira i Virgili
2016 Excelente cum Laude
41. Total Synthesis of Cannabinone and the Lundurines with a Golden Touch
Mariia S. Kirillova
Universitat Rovira i Virgili
2016 Excelente cum Laude
42. New Annulation Strategies: From Polycyclic Aromatic Hydrocarbons to Natural Products
Ruth Dorel
Universitat Rovira i Virgili
2017 Excelente cum Laude
43. Gold-Catalyzed Synthesis of 5 and 6-Membered Rings for the Construction of Molecular Diversity
Pilar Calleja
Universitat Rovira i Virgili
2017 Excelente cum Laude
44. Bioinspired Gold(I)-Catalyzed Polycyclizations
Zhouting Rong
Universitat Rovira i Virgili
2017 Excelente cum Laude
45. Stereoselective Cyclopropanations via Gold(I)-Catalyzed Retro-Buchner Reactions
Bart Herlé
Universitat Rovira i Virgili
2017 Excelente cum Laude

Current Graduate Students (ICIQ)

Xiang Yin (ICIQ fellowship), 2014-	Joan Guillem Mayans (ICIQ fellowship), 2016-
M. Elena de Orbe (Severo Ochoa fellowship), 2014 -	Margherita Zanini (La Laixa fellowship), 2016
Cristina García-Morales (FPI fellowship), 2014 -	Ulysse Caniparoli (ICIQ fellowship), 2017-
Sofia Ferrer (FPU fellowship), 2014-	Mauro Mato (Severo Ochoa fellowship), 2017-
Giuseppe Zuccarello (ICIQ fellowship), 2015-	Helena Armengol-Relats (ICIQ fellowship), 2017-
Eric Tan (LMU-ICIQ fellowship), 2015-	Imma Martín (ICIQ fellowship), 2017-
Otilia Stoica (ICIQ fellowship), 2016-	

VISITING STUDENTS / RESEARCHERS

Raquel Simancas, Universidad Autónoma de Madrid, 1st July-30st August 2004.
Dr. Christian Winter, University of Dortmund, 8th July-30th August 2008.
Daniel Hog, Universität Münster, 1st May-31st July 2008

Zoraida Ramiro, Universidad de Valladolid, 1st September-30th October 2009 (FPI fellowship)
 Ángeles Mosquera, Universidad de A Coruña, 14th April- 14th July 2009 (FPI fellowship)
 Alba Millán, Universidad de Granada, 7th April-6th June 2010.
 Masaki Sekine, The University of Kyoto, 5th January-22nd April 2011
 Elina Buitrago, Stockholm University, 15th September-21st December 2011
 Lourdes Maestre Cera, Universidad de Huelva, 20th February-20th May 2012
 Lena Hesping, University of Münster, 1st October-31st December 2012.
 Nicholas Green, Research School of Chemistry, Australian National University, Canberra, Australia, June-July, 2013.
 Amanda Cook, Department of Chemistry, University of Michigan, July-August 2014.
 G. Araceli Fernández, Universidad Nacional del Sur, Argentina, July-December 2014.
 Hilary Kerchner, Department of Chemistry, University of Michigan, July-August 2015.
 Jordan Boothe, Department of Chemistry, University of Michigan, July-August 2015.
Undergraduates / High School students: Sara Domingo, URV, April-May 2008 / Marta Font, Bachillerato, Col.legi Sagrat Cor, 20-30 June 2011 /Núria Arbó, Bachillerato, IES Joan Guinjoan, 27 June -l 22 July 2011 / Enric Prats, Bachillerato, IES Joan Guinjoan, 18- 22 June -18 July -3 August 2012 / Sergi Pascual, IQS, Barcelona. 1 July, 15 September / Olga Sokalova, Russian Academy of Sciences, Moscow, July-September 2015.

ICIQ Summer Fellows: Núria Huguet Subiela, 2008 / Jose Antonio Blanco Barrera, 2009 / Carla Obradors Llobet, 2010 / Pilar Calleja Ramos, 2011 / Vladimir Sánchez Gonzaga, 2012 / M. Elena de Orbe (ICIQ fellowship), 2013 / Mauro Mato (2015) / Evaristo Villaseco (2016) / Alba Helena Pérez (2017)

Visiting Professors: Frank McDonald (Emory University), October-December 2006 (MEC). John Montgomery (University of Michigan), January-June 2011 (AGAUR).

BACHELOR / MASTER THESIS

- Bachelor Thesis:* Síntesis con los ácidos aspártico and glutámico: Adición oxidativa a complejos de níquel(0).
Ana M. Castaño Mansanet
 Universidad Complutense de Madrid, 1989 Sobresaliente
- Bachelor Thesis:* Reacciones de hidruro complejos de rutenio con alquinos. Formación de σ -acetiluro complejos de rutenio, reducción, dimerización and ciclotrimerización de alquinos.
Javier López Pérez de Lema
 Universidad Autónoma de Madrid, 1989 Sobresaliente (codirected with Dr. Amelia Santos)
- Bachelor Thesis:* Síntesis de Isoascididemina and aproximación a la síntesis de las cistoditinas.
Enrique Gómez Bengoa
 Universidad Autónoma de Madrid, 1990 Sobresaliente
- Bachelor Thesis:* Reactividad de hidruro, alquencil and alquinil complejos de rutenio(II) con isocianuros. Síntesis de η^1 -acil complejos.
Julio J. Montoya Gutiérrez
 Universidad Autónoma de Madrid, 1990 Sobresaliente (codirected with Dr. Amelia Santos)
- Bachelor Thesis:* Síntesis de 1,4-dicetonas por acoplamiento reductor de cloruros de ácido con alquencil estannanos catalizado por Pd.
Marta Pérez Álvarez
 Universidad Autónoma de Madrid, 1992 Sobresaliente
- Bachelor Thesis:* Reacciones de epóxidos de dienos con nucleófilos catalizadas por paladio: Desarrollo de un nuevo método de ciclación 3+2.
María Ruano González
 Universidad Autónoma de Madrid, 1994 Sobresaliente
- Bachelor Thesis:* Síntesis de benzo[b]carbazolquinonas mediante acoplamiento de Stille and heterociclación.
Alicia García Bravo
 Universidad Autónoma de Madrid, 1994 Sobresaliente
- Bachelor Thesis:* Acoplamiento de 2-bromoquinonas con estannanos catalizado por Pd: Síntesis de productos naturales quinónicos.

- Óscar de Frutos García**
Universidad Autónoma de Madrid, **1995** Sobresaliente
9. *Bachelor Thesis*: Síntesis de paladaciclos mediante activación C-H and transmetalación. Aislamiento de la reacción de transmetalación de Stille.
- Carolina Fernández-Rivas**
Universidad Autónoma de Madrid, **1995** Sobresaliente (codirected with Dr. Diego J. Cárdenas)
10. *Bachelor Thesis*: Acoplamiento de carbonatos alílicos and ciclación de eninos.
- Francisco Parra**
Universidad Autónoma de Madrid
1997 Sobresaliente
11. *Bachelor Thesis*: Aproximación a la síntesis de pradinonas.
- M. Luisa Carrascosa Arranz**
Universidad Autónoma de Madrid, **1997** Sobresaliente (codirected with Dr. Pedro Noheda)
12. *Advanced Studies Degree*: Síntesis de truxenos funcionalizados and optimización de la síntesis de la Ecteinascidina-743.
- Plácido Alberto Ceballos Chiaruchi**
Universidad Autónoma de Madrid, **2000** Apto
13. *Advanced Studies Degree*: Estudio mecanístico de reacciones organometálicas de transmetalación and activación C-H.
- Belén Martín Matute**
Universidad Autónoma de Madrid, **2000** Apto (codirected with Dr. Diego J. Cárdenas)
14. *Advanced Studies Degree*: Desarrollo de nuevos métodos de formación de enlace C-C catalizados por Pt, Ru and Pd.
- M. Paz Muñoz Herranz**
Universidad Autónoma de Madrid, **2001** Apto
15. *Advanced Studies Degree*: Síntesis de nuevos poliarenos and sus derivados organometálicos de rutenio.
- Marta Ruiz Bermejo**
Universidad Autónoma de Madrid, **2001** Apto (co-directed with Dr. B. Gómez-Lor and Dr. A. Santos).
16. *Advanced Studies Degree*: Síntesis de superficies aromáticas no planas: Desarrollo de nuevos materiales moleculares.
- Esther González-Cantalapiedra**
Universidad Autónoma de Madrid, **2001** Apto
17. *Advanced Studies Degree*: Síntesis de benzo[a]- and benzo[b]fluorenos por ciclación de diarildiinonas.
- Carmen M. Atienza Castellanos**
Universidad Autónoma de Madrid, **2001** Apto
18. *Advanced Studies Degree*: New Activation of Alkynes with Pt and Pd.
- Cristina Nevado**
Universidad Autónoma de Madrid, **2003** Apto
19. *Advanced Studies Degree*: Cyclization of Enynes with Pt(II) and Au(I).
- Cristina Nieto-Oberhuber**
Universidad Autónoma de Madrid, **2004** Apto
20. *Advanced Studies Degree*: Gold-Catalyzed Hydroarylation of Alkynes for the Synthesis of Indole Derivatives.
- Catalina Ferrer**
Universidad Autónoma de Madrid, **2005** Apto
21. *Advanced Studies Degree*: Allylstannane-Allylacetate Cyclizations Catalyzed by Pd(0) or Rh(I) Complexes.
- Susana Porcel**
Universidad Autónoma de Madrid, **2005** Apto
22. *Advanced Studies Degree*: Gold(I)-Catalyzed Polycyclizations of Functionalized 1,6-Enynes.
- Eloísa Jiménez-Núñez**
Universidad Autónoma de Madrid, **2005** Apto
23. *Advanced Studies Degree*: Gold(I)-Catalysis: New Gold(I) Catalysts and Intermolecular Cyclopropanation.
- Elena Herrero Gómez**
Universitat Rovira i Virgili, **2006** Apto
24. *Advanced Studies Degree*: Gold(I)-Catalysis: Cycloaddition and Carbene Migration Reactions.
- Patricia Pérez Galán**

- Universitat Rovira i Virgili, 2006 Apto
25. *Advanced Studies Degree: Trapping of Gold(I) Carbenes with Carbon Nucleophiles.*
Verónica López Carrillo
Universitat Rovira i Virgili, 2007 Apto
26. *Advanced Studies Degree: Design of New Polyaromatic Scaffolds for Nano-Scale Applications.*
Paula de Mendoza Bonmatí
Universitat Rovira i Virgili, 2007 Apto
27. *Master in Catalysis: New Platinum Catalysts for the Cyclization of 1,6-Enynes.*
Mihai Raducan
Universitat Rovira i Virgili, 2007 Sobresaliente
28. *Master in Catalysis: Reaction of 1,6-Enynes with Aldehydes Catalyzed by Gold.*
Ana Escribano-Cuesta
Universitat Rovira i Virgili
2008 Sobresaliente
29. *Master in Synthesis and Catalysis: Approach to the Total Synthesis of Pycnanthuquinone C by Gold(I)-Catalyzed Cyclization of 1,5-Enynes.*
Núria Huguet
Universitat Rovira i Virgili, 2009 Sobresaliente (Extraordinary Award)
30. *Master in Synthesis and Catalysis: Towards a Rational Approach to the Synthesis of Small Gold Clusters.*
Anna Homs
Universitat Rovira i Virgili, 2011 Sobresaliente
31. *Master in Synthesis and Catalysis: Development of New Gold(I) Alkynophilic Catalysts and an Approach to the Development of a Gold(I)-Catalyzed Macrocyclization via [2+2] Cycloaddition of 1,n-Enynes (n≥10).*
Carla Obradors
Universitat Rovira i Virgili, 2011 Sobresaliente (Extraordinary Award)
32. *Master in Synthesis and Catalysis: Selectivity Studies on Gold(I)-Catalysed Cyclizations.*
J. Ismael Arroyo
Universitat Rovira i Virgili, 2012 Sobresaliente
33. *Master in Synthesis and Catalysis: The Triindane Approach to C60 Molecules.*
Pilar Calleja
Universitat Rovira i Virgili, 2012 Sobresaliente
34. *Master in Synthesis and Catalysis.*
Ruth Dorel
Universitat Rovira i Virgili, 2013 Sobresaliente (Extraordinary Award)
35. *Master in Synthesis and Catalysis.*
Laura Amenós
Universitat Rovira i Virgili, 2013 Sobresaliente
36. *Master in Synthesis, Catalysis, and Molecular Design*
Cristina García
Universitat Rovira i Virgili, 2014 Sobresaliente
37. *Master in Synthesis and Catalysis.*
Elena de Orbe
Universitat Rovira i Virgili, 2014 Sobresaliente
38. *Master in Synthesis and Catalysis.*
Sofia Ferrer
Universitat Rovira i Virgili, 2014 Sobresaliente
39. *Master in Synthesis and Catalysis.*
Alba González
Universitat Rovira i Virgili, 2014 Sobresaliente
40. *Master in Synthesis, Catalysis and Molecular Design*
Giuseppe Zuccarello
Universitat Rovira i Virgili, 2016 Sobresaliente
41. *Master in Synthesis, Catalysis and Molecular Design*
Mauro Mato

- Universitat Rovira i Virgili, 2017 -
42. *Master in Synthesis, Catalysis and Molecular Design*
Helena Armengol
 Universitat Rovira i Virgili, 2017 -

POSTDOCTORAL RESEARCH ASSOCIATES

1. **Dr. Andrés Francesch.** *Postdoctoral Fellowship:* Universidade de Santiago de Compostela. Universidad Autónoma de Madrid, 1997-1998.
2. **Dr. Thierry Granier.** *Postdoctoral Fellowship:* Swiss National Science Foundation. Universidad Autónoma de Madrid, 1999-2001.
3. **Dr. Cristina Mateo.** *Postdoctoral Fellowship:* Incorporación de Doctores and Tecnólogos, MCyT.
4. Universidad Autónoma de Madrid, 2000.
5. **Dr. Cristina García-Yebra.** *Postdoctoral Fellowship:* Comunidad de Madrid. Universidad Autónoma de Madrid, 2003-2004.
6. **Dr. Gunther Hennrich.** *Ramón and Cajal Researcher.* Universidad Autónoma de Madrid, 2002-2004.
7. **Dr. Berta Gómez-Lor.** *Postdoctoral Fellowship:* Comunidad de Madrid, Universidad Autónoma de Madrid, 2000-2001. *Ramón and Cajal Researcher,* CSIC, 2001-2003.
8. **Dr. Salome López.** *Postdoctoral Fellowship:* ICIQ and Torres Quevedo (MEC). ICIQ, 3/2004 – 2/2007.
9. **Dr. Domingo García-Cuadrado.** *Postdoctoral Fellowship:* ICIQ and Torres Quevedo (MEC). ICIQ, 9/2004 – 3/2006.
10. **Dr. Antonio Rosellón.** *Postdoctoral Fellowship:* ICIQ and Torres Quevedo (MEC). ICIQ, 10/2005 – 8/2006.
11. **Dr. Catelijne H. M. Amijs.** *Postdoctoral Fellowship:* EU contract (PicoInside). ICIQ, 7/2005 – 9/2007.
12. **Dr. Christelle K. Claverie.** *Postdoctoral Fellowship:* C-Red (Generalitat de Catalunya). ICIQ, 2/2005 – 3/2007.
13. **Dr. Cristina Rodríguez.** *Postdoctoral Fellowship:* Farmiva (México). ICIQ, 1/2006 – 7/2007.
14. **Dr. Christophe Bour.** *Postdoctoral Fellowship:* Consolider (MEC). ICIQ, 3/2007 – 7/2008.
15. **Dr. Noemí Cabello.** *Postdoctoral Fellowship:* ICIQ and Torres Quevedo (MEC). ICIQ, 5/2006 – 8/2007.
16. **Dr. Sergio Pascual.** *Juan de la Cierva Researcher (MEC).* ICIQ, 2/2006 – 1/2009.
17. **Dr. Thorsten Lauterbach.** *Juan de la Cierva Researcher (MEC).* ICIQ, 12/2006 – 11/2009.
18. **Dr. Dominic Janssen.** *Postdoctoral Fellowship:* ICIQ and Torres Quevedo (MEC). ICIQ, 10/2007 – 3/2008.
19. **Dr. Dirk Spiegl.** *Postdoctoral Fellowship:* Deutsche Forschungsgemeinschaft (DFG). ICIQ, 7/2008 – 1/2010.
20. **Dr. Julien Ceccon.** *Postdoctoral Fellowship:* ICIQ and Torres Quevedo (MEC). ICIQ, 3/2009 – 2/2011.
21. **Dr. Nolwenn Martin.** *Postdoctoral Fellowship:* ICIQ. ICIQ, 4/2009 – 3/2011.
22. **Dr. Vincent Coeffard.** *Postdoctoral Fellowship:* ICIQ. ICIQ, 10/2009 – 9/2010.
23. **Dr. José M. Blasco.** *Postdoctoral Fellowship:* Intecact-Cosolider. ICIQ, 10/2009 – 11/2010.
24. **Dr. Francesco Camponovo.** *Postdoctoral Fellowship:* Swiss National Science Foundation. ICIQ, 10/2009 – 1/2011.
25. **Dr. Kian Molawi.** *Postdoctoral Fellowship:* Intecat-Cosolider. ICIQ, 10/2009 – 1/2011.
26. **Dr. Juhanes Aydin.** *Postdoctoral Fellowship:* Wenner-Gren Foundations (Sweden). ICIQ, 2/2010 – 4/2011.
27. **Dr. Riccardo Sinisi.** *Marie Curie Postdoctoral Researcher.* ICIQ, 2/2011 – 1/2012.
28. **Dr. María Moreno.** *Postdoctoral Fellowship:* ICIQ. ICIQ, 2/2011 – 1/2012.
29. **Dr. Paul McGonigal.** *Postdoctoral Fellowship:* AtMol. ICIQ, 2/2011 – 1/2012.
30. **Dr. Lorena Riesgo.** *Postdoctoral Fellowship (AGAUR) / Juan de la Cierva Researcher (MICINN).* ICIQ, 4/2011 – 9/2013.
31. **Dr. Ricarda Miller.** *Postdoctoral Fellowship:* AtMol project. ICIQ, 6/2012-8/2013.
32. **Dr. David Leboeuf.** *Postdoctoral Fellowship:* Beatriu de Pinós Researcher (AGAUR). ICIQ, 7/2012-7/2013.
33. **Dr. Tania Jiménez.** *Postdoctoral Fellowship:* ICIQ. ICIQ, 4/2013-12/2014.
34. **Dr. Laura López.** *Celex Postdoctoral Fellowship:* ICIQ, 9/2013-11/2014.
35. **Dr. Óscar Pablo.** *Postdoctoral Fellowship:* ICIQ. ICIQ, 9/2013- 9/2015.
36. **Dr. José M. Muñoz.** *Postdoctoral Fellowship:* ICIQ. ICIQ, 10/2013-2/2015.
37. **Dr. Estíbaliz Coya.** *Celex Postdoctoral Fellowship.* ICIQ, 12/2014-6/2015.
38. **Dr. Philipp Holstein.** *Postdoctoral Fellowship:* ICIQ. ICIQ, 2/2015-.

39. **Dr. Javier Carreras.** *Postdoctoral Fellowship: Beatriu de Pinós Researcher (AGAUR).* ICIQ, 3/2013- 2/2015.
40. **Dr. Michael Muratore.** *Postdoctoral Fellowship: COFUND (Marie Curie).* ICIQ, 4/2013-.
41. **Dr. Beatrice Ranieri.** *Postdoctoral Fellowship: COFUND (Marie Curie) – Marie Curie.* ICIQ, 5/2014-9/2016.
42. **Dr. Ana Pereira.** *Postdoctoral Fellowship: ICIQ.* ICIQ, 4/2015-10/2016.
43. **Dr. Andrei Konovalov.** *Postdoctoral Fellowship: ICIQ.* ICIQ, 11/2015-3/2017.
44. **Dr. Gaungwu Zhang.** *Postdoctoral Fellowship: ICIQ.* ICIQ, 3/2016-2/2017.
45. **Dr. Araceli Fernández.** *Postdoctoral Fellowship: ICIQ.* ICIQ, 5/2016-3/2017.
46. **Dr. Juan Sarria.** *Postdoctoral Fellowship: Swiss National Science Foundation.* ICIQ, 3/2015-2/2017.
47. **Dr. Ruth Dorel,** *Postdoctoral Fellowship: ICIQ.* ICIQ, 2/2017-6/2017.
48. **Dr. Mariia Kirillova.** *Postdoctoral Fellowship: ICIQ.* ICIQ, 6/2016-8/2017.
49. **Dr. Hanna Bruss.** *Postdoctoral Fellowship: Deutsche Forschungsgemeinschaft.* ICIQ, 10/2015-9/2017.

Present postdocs

50. **Dr. Fedor Miloserdov.** *Postdoctoral Fellowship: ICIQ.* ICIQ, 4/2015-.
51. **Dr. Jean-Simon Suppo.** *Postdoctoral Fellowship: La Caixa.* ICIQ, 1/2016-.
52. **Dr. Jin-Ming Yang.** *Marie Skłodowska-Curie Postdoctoral Fellowship.* ICIQ, 6/2016-.
53. **Dr. Xiao-Li Pei.** *Postdoctoral Fellowship: ICIQ.* ICIQ, 9/2016-2/2017. *Marie Skłodowska-Curie Postdoctoral Fellowship: 3/2017-.*
54. **Dr. Miguel Peña,** *Juan de la Cierva Researcher.* ICIQ, 2/2017-.
55. **Dr. Ophelie Quinero,** *Juan de la Cierva Researcher.* ICIQ. ICIQ, 3/2017-

RESEARCH STAYS IN OTHER CENTERS

- **Department of Chemistry, Boston College.**
Boston Massachusetts, USA
Postdoctoral Research Associate (Prof. T. Ross Kelly).
1982 – 1984 (20 months)
- **Department of Chemistry, Colorado State University.**
Fort Collins, Colorado, USA
Becario NATO (Prof. John K. Stille).
1986 – 1988 (18 months)
- **Laboratoire de Synthèses Métallo-Induites, CNRS. Université Louis Pasteur.**
Strasbourg (France)
Visiting Professor.
2001 (July and November, 4 weeks).
- **Universidad de Santiago de Compostela.** Departamento de Química Orgánica.
Visiting Professor.
2002, November
- **Université Pierre et Marie Curie (Paris VI).**
Paris, (France)
Visiting Professor.
2007, February.
- **Universidad de Santiago de Compostela.** Departamento de Química Orgánica
Visiting Professor.
2010, March

TEACHING

Universidad Autónoma de Madrid

Chemistry Degree

- **Complementary Aspects of Bonding Theory** (1 semester, 1^{er} year). 1996-97, 1997-98 and 1998-99.
- **Organic Chemistry** (2 semesters, 3^{er} year). 1992-93, 1993-94, 1994-95, 1995-96, 1996-97 and 1997-98.

- **Organic Chemistry** (2 semesters, 2^o year.). 2002-2003, 2003-2004.
- **Organic Synthesis** (2 semesters). 1984-85 and 1985-86.
- **Advanced Organic Chemistry** (2 semesters, 3^{er} year). 1998-99, 1999-2000, 2000-2001 and 2001-2002.
- **Organic Chemistry in Everyday Life** (1 semesters). 1999-2000, 2000-2001, 2001-2002, 2002-2003 and 2003-2004.

PhD. Program

- **Advanced Organometallic Chemistry** (4 credits). 1989-90, 1990-91, 1991-92, 1992-93, 1993-94, 1994-95, and (in collaboration with Dr. Diego J. Cárdenas) 1995-96, 1997-98, 2000-2001, 2001-2002 and 2002-2003.
- **Advanced Organic Synthesis** (4 credits). 1996-97, 1997-98, 1998-99 and 1999-2000.
- **Methods and Strategy of Advanced Organic Synthesis** (5 credits). 2004-2005 and 2005-2006.

Universitat Rovira i Virgili

- **Synthesis of Fine Chemicals. Asymmetric Synthesis** (1 credit). 2004-2005 and 2005-2006.
- **Organic Synthesis (Master Synthesis and Catalysis)** (2 credits). 2006-2007, 2007-2008, and 2008-2009.
- **Methods of Synthesis and Synthetic Analysis (Master Synthesis, Catalysis and Molecular Design)** (6 credits). 2009-2010, 2010-2011, and 2011-2012, 2012-13, 2013-14, 2014-15, 2015-2016, 2016-2017.
- **Co-Coordinator of the Master Synthesis, Catalysis and Molecular Design, 2009-**

Universitat de les Illes Balears

- **Advanced Organometallic Chemistry** (2 credits, PhD. Program). 1990-1991 (July 1991), 1994-1995, (July 1995).

Universidad de Valladolid

- **Studies on Advanced Chemistry** (1 credit), PhD. Program). 2004-2005, 2005-2006; 2006-2007; 2008-2009.

REVIEW PANELS AND REFEREE WORK

- Member of the review panel for research projects of the Spanish Plan Nacional de I+D+I, MINECO, and several Autonomous Communities.
- Member of the review panel for pre- and postdoctoral fellowships from the MEC.
- Member of the Bilateral Committee for the Integrated Actions Spain-Portugal (2001, 2002, 2003) and Spain-Italy (1996).
- Member of the evaluation panel for pre- and postdoctoral fellowships of the Basque Government (2000-2004).
- Member of the evaluation panel for the Ramón and Cajal program (2000 and 2008).
- Member of the RSEQ Awards Committee (2007, 2011, 2012, 2014, 2015).
- Coordinator of the Chemistry panel of the FPU program, MEC (2009-2012).
- Member of the external Evaluation of Committee the Czech Academy of Sciences (December 2015, Prague and Brno).
- Member of the panel of Advanced Grants of European Research Council (2015 -)
- Member Advisory Board "Centro de Investigación en Química Sostenible (CIQSO), University of Huelva.
- Member Award Committee "Banc Sabadell Prize in Science and Engineering Ciències 2017".
- *Reviewer: Reaxys Prize / Promotion Committee, The Scripps Research Institute / Promotion Committee, University of California, Santa Barbara / Promotion Committee, EPFL, Lausanne.*
- Reviewer of grant proposals from: *Council for Chemical Sciences (CW) of the Netherlands Organization for Scientific Research (NWO) / Research Coordination Office (RCO) K. U. Leuven, Belgium / Petroleum Research Fund, USA / Agencia Nacional de Promoción Científica and Tecnológica de la Argentina / The Israel Science Foundation / Hong Kong Research Grant Council / Swiss National Science Foundation / National Science Foundation USA / Academic Council of the Academy of Sciences of the Czech Republic / Comisión Nacional de Investigación Científica and Tecnológica (CONICYT), Chile / Projectos de Investigação Científica*

(Portugal) / Austrian Science Fund (FWF) / Romanian National Council for Scientific Research / ETH Zurich Research Commission / Deutschen Forschungsgemeinschaft / European Research Council Starting Grants / Agence Nationale de la Recherche (France) / Promotion Committee, University of California, Santa Barbara / Thieme – IUPAC prize.

- Certificate of Appreciation for the service in peer review ACS, 2011 / Certificate of Appreciation for the service in peer review Org. Lett. / Certificate of Appreciation for the service in peer review Acc. Chem. Res.
- Outstanding Reviewer certificate, *Angewandte Chemie Int. Ed.* 2009, 2010, 2012
- Outstanding Reviewer certificate, ChemPubSoc Europe, the Asian Chemical Editorial Society (ACES) 2015
- Referee activity (≥ 10 yearly referee reports): *Angew. Chem. Int. Ed.* (top 5 % of reviewers 2013-2015); *J. Am. Chem. Soc.*; *Org. Lett.*; *J. Org. Chem.*; *Chem. Eur. J.*; *Organometallics*; *Chem. Commun.*; *Org. Biol. Chem.*

MENTORING

Selected positions and awards of the following former graduate students:

Dr. Amalia Galán: Professor, Universidad Alfonso X el Sabio, Madrid. PhD Extraordinary Award, UAM.

Dr. Nuria Tamayo: Principal Scientist (Chemistry Research and Discovery), AMGEN (California, USA).

Dr. Ana M. Castaño: Principal Research Scientist, Lilly Laboratories, Alcobendas, Madrid.

Dr. Enrique Gómez-Bengoia (1994): Associate Professor, Departamento de Química Orgánica I, Universidad del País Vasco (UPV-EHU), San Sebastián.

Dr. Diego J. Cárdenas: Professor of Organic Chemistry, Departamento de Química Orgánica, Universidad Autónoma of Madrid. PhD Extraordinary Award, UAM; Young Researcher Award (RSEQ) 2001; Young Researcher Award (Lilly) 2006.

Dr. Juan J. González: Researcher, PharmaMar, Colmenar Viejo, Madrid.

Dr. Cristina Mateo: Researcher, Pharma-Mar, Colmenar Viejo, Madrid, PhD Extraordinary Award, UAM.

Dr. Juan M. Cuerva: Associate Professor, Departamento de Química Orgánica, Universidad of Granada, Granada.

Dr. Óscar of Frutos: Senior Research Scientist, Lilly Laboratories, Alcobendas, Madrid.

Dr. Carolina Fernández-Rivas: Patent agent, Ferrer, San Cugat, Barcelona. PhD Extraordinary Award, UAM.

Dr. María Méndez: Laboratory Leader of Science and Medical Affairs, Chemical Sciences, Sanofi-Aventis Deutschland GMBH, Frankfurt, Alemania. PhD Extraordinary Award, UAM. Humboldt Fellow.

Dr. Belén Martín-Matute: Professor, Department of Chemistry, University of Stockholm, Sweden. PhD Extraordinary Award, UAM; Young Researcher Award (RSEQ) 2007.

Dr. Marta Ruíz: Científico Titular (CSIC-INTA), Madrid.

Dr. M. Paz Muñoz: Lecturer in Chemistry (tenured), School of Chemistry, University of East Anglia, UK.

Dr. Cristina Nevado: Professor of Organic Chemistry. Organic Chemistry Institute-University of Zürich, Zürich, Switzerland. Lilly Award, 2003. Extraordinary Award, UAM. Humboldt Fellow. Young Researcher Award (RSEQ) 2008; ERC Starting Grant fellow (2012).

Dr. Esther González: Research Associate, Medicinal Chemistry, Centro Nacional de Investigaciones Oncológicas (CNIO), Madrid.

Dr. Cristina Nieto-Oberhuber: Investigator II, Novartis Pharma AG, Basel, Switzerland. PhD Extraordinary Award. Lilly Award, 2004.

Dr. Almudena Díaz: Patent Officer, Pons Patentes y Marcas, Barcelona, Spain.

Dr. Susana Porcel: Research Scientist, UNAM, Ciudad de México, México.

Dr. Catalina Ferrer: Researcher, Syncom, Groningen, The Netherlands. Lilly poster award at the 2008 Lilly Research Awards.

Dr. Eloísa Jiménez-Núñez: Investigator, Bayer, Germany.

Dr. Elena Herrero-Gómez: Syncom, Groningen. Lilly Award 2008.

Dra. Ana Escribano-Cuesta, Researcher, BASF, Ludwigshafen.

Dr. Paula de Mendoza: Researcher, Syncom, Groningen, The Netherlands

Dr. Patricia Pérez: Taros Chem, Germany. Lilly Award 2011.

Dr. Mihai Raducan, Syncom, Groningen.

Dr. Verónica López-Carrillo: Lab. Team Leader, BASF, Germany. Lilly Award 2010. PhD Extraordinary Award, URV.

Dr. Nicolas Delpont: Research Manager, Genes'ink, France. Lilly poster award at the 2010 Lilly Research Awards.

C. Rogelio Solorio: Research Scientist, Universidad de Guanajuato, México. Premio Estatal al Mérito Juvenil 2011 (PEMJ) (Science and Technology) from the Mexican State of Michoacán. Lilly poster award at the 2011 Lilly Research Awards.

Dr. Claudia de León, Professor, Universidad Mariano Gálvez, Guatemala.

Dr. Núria Huguet, Lab. Team Leader, BASF, Germany. PhD Extraordinary Award.

Dr. Anthony Pitaval, Project Manager, Roowin, France.

Dr. Anna Homs, Project Manager, Ferrer, San Cugat, Barcelona. Lilly Award 2014.

Dr. Yahui Wang, Ass. Prof. Nanjing Tech University.

Dr. Madeleine Livendahl, Scientist at Sprint Bioscience, Umea, Sweden.

Dr. Carla Obradors, Postdoctoral Associate, Max-Planck-Institut für Kohlenforschung (Mülheim).

Dr. Ekaterina S. Smirnova, Postdoctoral Associate, ICIQ (Julio Lloret).

Dr. Zouting Rong, Assistant Professor in Zhejiang Wanli University.

Dr. Pilar Calleja, Postdoctoral Associate, Catalysis Research Laboratory of University of Heidelberg

Dr. Mariia S. Kirillova, Postdoctoral Associate, University of Zurich.

Dr. Bart Herlè, Postdoctoral Associate, Max-Planck-Institut für Kohlenforschung (Mülheim).

Dr. Ruth Dorel, Postdoctoral Associate Stratingh Institute for Chemistry, University of Groningen. Groningen. RSEQ-Reaxys Young Researcher Award 2017.

EVALUATION OF RESEARCH AND TEACHING ACTIVITIES

- Positive evaluation of 6 Six-Year Research periods (sexenios) CNEAI (last period: 2009-2014).
 - Positive evaluation of 5 Five-Year Teaching periods at the UAM (last period: 1999-2003).
 - Positive evaluation of the 2 Five-Year Research periods at the ICIQ (2004-2008 // 2009-2013).
-