First and Family name	**MARÍA EUGENIA MARQUÉS LÓPEZ**	
Researcher codes	Open Researcher and Contributor ID (ORCID)	0000-0001-6832-8983
	SCOPUS Author ID	6504640427
	WoS Researcher ID	E-9049-2016
Name of Institution	UNIVERSITY OF ZARAGOZA	
Department	ORGANIC CHEMISTRY	
Address and Country	FACULTAD DE CIENCIAS. Campus San Francisco	
	50009, Zaragoza	
Current position	PROFESORA TITULAR	
Key words	Asymmetric synthesis. Homogeneous enantioselective catalysis. Asymmetric organocatalysis. Aminocatalysis. Non-covalent catalysis. Squaramides. (Tio)ureas. Bioactivity.	
Web (research group)	https://asymmetricorganocatalysis.com/	

CV summary / *CV Resumen*

I graduated in Chemistry (2002) and completed my Ph.D. in Organic Chemistry (2007), under the supervision of Prof. R. Fernández and Prof. J. M. Lassaletta, at the University of Seville. During my Ph.D., I worked on the field of *N,N*-dialkylhydrazones as *N,N*-dialkylamino imines surrogates and its applications in Staudinger, Mannich and Strecker-type reactions. Mainly I worked in the development of asymmetric synthetic methodologies based on the use of chiral auxiliaries and also, I got into catalysis (metallic and organocatalysis). I also worked on the synthesis of novel diene complexes with Dr. J. M. Brown in the Chemistry Research Laboratory (CRL) at Oxford University (UK) with a Marie Curie fellowship (PHD20) (2005, 4 months).

Later I completed a postdoctoral stay at the Technische Universität Dortmund, with Prof. Christmann. I was there for a total of 32 months (2008-10), with a research contract from TU-Dortmund (8 months) and with a Postdoctoral fellowship from the Alexander von Humboldt Foundation (2 years). During this period, I developed new enantioselective organocatalytic methodologies based on aminocatalysis, more specifically the novel concept of catalysis through the formation of dienamines.

In January 2011, I returned to Spain with a JAE-doc research contract at the *Instituto de Ciencias de Materiales de Aragón* (ICMA, CSIC) in Zaragoza to work in Prof. Merino's group. After 9 months, I got a position as Assistant Professor [Prof. AYUDANTE DOCTOR (2011-16) and later, Prof. CONTRATADO DOCTOR INTERINO (2016-20)] at the University of Zaragoza. Since September 2020 I have held a position as Associate Professor (Prof. TITULAR) at the same university. I am currently member of the *Instituto de Síntesis Química y Catálisis Homogénea* (ISQCH, CSIC). Since my arrival in Zaragoza I have worked in the Asymmetric Organocatalysis research line heading for Dr. Herrera, which was initiated by her in 2008 and which in 2015 was recognized as a research group by the Government of Aragon.

At present we maintain intense scientific collaborations with different national and international research groups.

My scientific production is extensive and of high quality, having published 37 scientific articles and 18 reviews in indexed international scientific journals, receiving 2366 citations to date, which means an H index of 25 (WoS). In addition, I am the co-author of 11 book chapters, of a patent application and co-editor of the book "Multicomponents Reactions" (Wiley, 2015).

On the other hand, I have participated in 31 research projects, having been *IP* of 2 of them. Likewise, I am co-supervisor of 4 doctoral theses (2013, 2017, 2019 y 2021), and two more in progress. I have 107 contributions to national and international congresses, highlighting 35 oral communications. In 2012 I was secretary of the organizing committee and member of the scientific committee of the IX RSEQ-Sigma Aldrich Young Researchers Symposium held in Zaragoza.

Finally, it should be noted that I actively participate in the academic life of the UZ through different commissions and governing bodies and also, I am involved in scientific dissemination activities, as well as in the evaluation of scientific works in more than 10 specialized journals.

Me licencié en Ciencias Químicas en la Universidad de Sevilla (2002), donde posteriormente realicé la Tesis doctoral como becaria FPI (2007), en el dpto. Química Orgánica bajo la dirección de la Prof. Fernández y el Prof. Lassaletta. Ésta versaba sobre el uso de N,N-dialquilhidrazonas como iminas N-dialquilamino sustituidas en reacciones tipo Staudinger y Strecker. Principalmente trabajé en el desarrollo de metodologías sintéticas asimétricas basadas en el uso de auxiliares quirales y también, me introduje en la catálisis (metálica y organocatálisis). Realicé una estancia predoctoral (4 meses, 2005) en el Chemistry Research Laboratory de la Universidad de Oxford bajo la supervisión del Dr. Brown, con una beca Marie Curie (PHD20). Ahí trabajé en la síntesis de dialquenos quirales ópticamente puros y su empleo en la resolución de ligandos donadores biarilos configuracionalmente lábiles, en un procedimiento que genera directamente los catalizadores activos de Rh o Ir.

Posteriormente completé una estancia postdoctoral en la Technische Universität Dortmund, con el Prof. Christmann (2008-10), con un contrato de investigación de la TU-Dortmund (8 meses) y con una beca Postdoctoral de la Fundación Alexander von Humboldt (2 años). Durante este periodo desarrollé nuevas metodologías organocatalíticas enantioselectivas basadas fundamentalmente en aminocatálisis, más concretamente el novedoso concepto de la catálisis a través de la formación de dienaminas.

En 2011 regresé a España con un contrato de investigación de JAE-doc en el Instituto de Ciencias de Materiales de Aragón (ICMA, CSIC) de Zaragoza para trabajar en el grupo del Prof. Merino. Tras disfrutar 9 meses de este contrato me incorporé a la Universidad de Zaragoza como Profesora Ayudante Doctora (2011-16), Profesora Contratada Doctora Interina (2016-20) y Profesora Titular (11/9/2020). Actualmente estoy adscrita al Instituto de Síntesis Química y Catálisis Homogénea (ISQCH, CSIC). Desde mi llegada a Zaragoza he trabajado en la línea de investigación de Organocatálisis Asimétrica dirigida por la Dra. Herrera, que fue iniciada por la misma en 2008 y que en 2015 fue

reconocido como grupo de investigación por el Gobierno de Aragón. En la actualidad mantenemos intensas colaboraciones científicas con distintos grupos de investigación nacionales e internacionales.
Mi producción científica es extensa y de calidad, habiendo publicado 37 artículos científicos y 18 revisiones bibliográficas en revistas científicas internacionales indexadas recibiendo hasta la fecha más de 2300 citas, lo que supone un índice H de 25 (WoS). Además, soy co-autora de 11 capítulos de libro, de 1 patente y co-editora del libro "Multicomponents Reactions" (Wiley, 2015).
Por otra parte, he participado en 31 proyectos de investigación, habiendo sido IP de 2. Asimismo, he co-dirigido 4 tesis doctorales (2011, 2017, 2019 y 2021) y dos más en curso. Tengo 107 contribuciones a congresos nacionales e internacionales, destacando 35 comunicaciones orales. En 2012 fui secretaria del comité organizador y miembro del comité científico del IX Simposio de Investigadores Jóvenes RSEQ-Sigma Aldrich celebrado en Zaragoza.
Por último, destacar que participo activamente en la vida académica de la UZ a través de distintas comisiones y órganos de gobierno y, además, me implico en actividades de divulgación científica y en tareas de evaluación de trabajos científicos de más de 10 revistas especializadas.

Education

PhD, Licensed, Graduate	**University**	**Year**
Licenciada en Ciencias Químicas	University of Sevilla	1996/2001
Curso de Aptitud Pedagógica (CAP)	University of Málaga	2001/2002
Diploma de Estudios Avanzados en Química (DEA)	University of Sevilla	2002/2004
Máster en Estudios Avanzados en Química	University of Sevilla	2006/2007
Doctorado en Química	University of Sevilla	05/09/2007

General indicators of quality of scientific production

Number of six-year research: **3**, the last one dated 2020

Theses supervised (last 10 years): **4**

H index: **25**. Times Cited: **2366** (total), **35.31** (average per item). [Web of Science – 67 items]

RELEVANT MERITS

Publications: 57 SCIENTIFIC ARTICLES [55 (JCR)], **15 corresponding author**, **12 first author**; **1 BOOK** (Co-editor); **11 BOOK CHAPTERS (BC)**; **1 PATENT**

<u>10 publications (selection - last 10 years):</u>

1. **E. Marqués-López**,* I.G. Sonsona, M. Garcés-Marín, M.C. Gimeno, R.P. Herrera.* (**2023**) Asymmetric Organocatalyzed Phospha-Michael Addition for the Direct Synthesis of Biologically Active Chromenylphosphonates. *Adv. Synth. Catal.* (365) 3234-3240. Quality (2022, WOS): Chem., Org. 4/52 (Q1). IF: 5,4. Times cited (WOS, Dec. 2023): 1.

2. S. Ardevines, D. Horn, J.V. Alegre-Requena, M. González-Jiménez, M.C. Gimeno, **E. Marqués-López**,* R.P. Herrera.* (**2023**) Enantioselective C–P Bond Formation through C(sp3)–H Functionalization, *Adv. Synth. Catal.* (365) 2152-2158. Quality (2022, WOS): Chem., Org. 4/52 (Q1). IF: 5,4. Times cited (WOS, Dec. 2023): 1.
3. S. Ardevines, F. Auria-Luna, E. Romanos, V. Fernández-Moreira, A. Benedi, M.C. Gimeno, I. Marzo, **E. Marqués-López**,* R.P. Herrera.* (**2023**) 1-Benzamido-1,4-dihydropyridine derivatives as anticancer agents: in vitro and in vivo assays. *Arab. J. Chem.* (16) 104514. Quality (2021, WOS): Chem., Multid. 49/179 (Q2). IF: 6,212.
4. I.G. Sonsona, J.V. Alegre-Requena, **E. Marqués-López**, M.C. Gimeno, R.P. Herrera* (**2020**) Asymmetric organocatalyzed aza-Henry reaction of hydrazones: experimental and computational studies. *Chem. Eur. J.* (26) 5469-5478. Quality (2020, WOS): Chem., Org. 52/178 (Q2). IF: 5,236. Times cited (WOS, May 2023): 4.
5. J.V. Alegre-Requena, **E. Marqués-López**, R.P. Herrera.* (**2018**) Organocatalyzed enantioselective aldol and Henry reactions starting from benzylic alcohols. *Adv. Synth. Catal.* (360) 124-129. Quality (2018, WOS): Chem., Org. 5/57 (Q1); Chem., App. 4/71 (Q1). IF: 5,451. Times cited (WOS, Dec. 2023): 7.
6. J.V. Alegre-Requena, **E. Marqués-López**, R.P. Herrera.* (**2017**) "Push-Pull π+/π-" (PPππ) Systems in Catalysis. *ACS Catalysis* (7) 6430-6439. Quality (2017, WOS): Chem., Phys. 13/147 (Q1). IF: 11,384. Times cited (WOS, Dec. 2023): 22.
7. F. Auria-Luna, **E. Marqués-López**,* R.P. Herrera.* (**2017**) Organocatalytic enantioselective synthesis of 1,4-dihydropyridines. *Adv. Synth. Catal.* (359) 2161-2175. Quality (2017, WOS): Chem., Org. 7/57 (Q1); Chem., App. 3/72 (Q1). IF: 5,123. Times cited (WOS, Dec. 2023): 27.
8. F. Auria-Luna, **E. Marqués-López**,* M.C. Gimeno, R. Heiran, S. Mohammadi, R.P. Herrera.* (**2017**) Asymmetric organocatalytic synthesis of substituted chiral 1,4-dihydropyridine derivatives. *J. Org. Chem.* (82) 5516-5523. Quality (2017, WOS): Chem., Org. 9/57 (Q1). IF: 4,805. Times cited (WOS, Dec. 2023): 26.
9. J.V. Alegre-Requena, **E. Marqués-López**,* R.P. Herrera.* (**2016**) Trifunctional squaramide catalyst for efficient enantioselective Henry reaction activation. *Adv. Synth. Catal.* (358) 1801-1809. Quality (2016, WOS): Chem., Org. 4/59 (Q1); Chem., App. 2/72 (Q1). IF: 5,646. Times cited (WOS, Dec 2023): 38. Cited by *Synfacts* 2016, *12(07)*, 0743.
10. "Multicomponent Reactions: Concepts and Applications for Design and Synthesis" **E. Marqués-López**, R.P. Herrera (Eds.) Wiley, **2015**. ISBN: 978-1-118-01600-8. (Co-autor of 8 chapters of this book).

Research projects (selection)

1. "Química de Oro y plata" (Grupo de referencia). Financing entity: Government of Aragon. **BOA 28/04/2023 (E07-23R)**. Participating entity: Instituto de Síntesis Química y Catálisis Homogénea

(ISQCH-CSIC). Duration, from: 01/01/2023 until: 31/12/2025. Grant amount: 49.066,70 Euros. Responsible researcher: M.C. Gimeno and R.P. Herrera (CSIC). Participation: Researcher.

2. "Identificación y aplicaciones sintéticas de nuevos biocatalizadores oxidativos en biotecnología industrial (BIOXCAT)" Financing entity: Ministerio de Ciencia e Innovación (**TED2021-130803B-I00**). Participating entity: Universidad de Zaragoza. Duration, from: 01/12/2022 until: 30/11/2024. Grant amount: 190.900 Euros. Responsible researcher: P. Ferreira (U. Zaragoza) and J. Mangas-Sánchez (U. Oviedo). Participation: Researcher.
3. "Catálisis multifuncional para la construcción de complejidad molecular. Estudio de sus propiedades y aplicaciones (MULTICAT)" Financing entity: Ministerio de Ciencia e Innovación (**PID2020-117455GB-I00**). Participating entity: Instituto de Síntesis Química y Catálisis Homogénea (ISQCH-CSIC). Duration, from: 01/09/2021 until: 31/08/2024. Grant amount: 145.200 Euros. Responsible researcher: R. P. Herrera (CSIC). Participation: Researcher.
4. "New challenges in organocatalysis and studies of biological and gelling properties". Financing entity: Ministerio de Economía, Industria y Competitividad (**CTQ2017-88091-P**). Participating entity: Instituto de Síntesis Química y Catálisis Homogénea (ISQCH-CSIC). Duration, from: 01/01/2018 until: 31/12/2020. Grant amount: 54.450 Euros. Responsible researcher: R.P. Herrera (CSIC). Participation: Team work.
5. "Henry reaction from alcohols by oxidation *in situ*". Financing entity: Universidad de Zaragoza-Ibercaja (**JIUZ-2017-CIE-05**). Participating entity: "Universidad de Zaragoza", "Instituto de Síntesis y Catálisis Homogénea". Duration, from: 01/01/2018 until: 31/12/2018. Grant amount: 2.000 Euros. **Responsible researcher: E. Marqués-López** (U. Zaragoza).
6. "Squamides: Study of their synthesis and their applications". Financing entity: Universidad de Zaragoza (**JIUZ-2014-CIE-07**). Participating entity: "Universidad de Zaragoza", "Instituto de Síntesis y Catálisis Homogénea" and "Instituto de Química Avanzada de Cataluña". Duration, from: 01/01/2015 until: 31/12/2015. Grant amount: 2.100 Euros. **Responsible researcher: E. Marqués-López** (U. Zaragoza).

Patents

Eugenia Marqués-López, Juan V. Alegre-Requena, Raquel P. Herrera. "One-pot synthesis of squaramides" **2014**. Universidad de Zaragoza and Consejo Superior de Investigaciones Científicas (CSIC). Application number: European Patent Application No. 14 382 260.9.

International research stays

1. During PhD at Oxford University (Chemistry Research Laboratory). Oxford, UK. 01-05-05 / 31-08-05 (4 months). Marie Curie Grant (PHD20). Dr. Brown.

2. Postdoctoral at Technische Universität Dortmund. Dortmund, Germany. 01-05-08 / 31-12-10 (32 meses). Research contract (8 months) and Postdoctoral Alexander von Humboldt Grant (2 years). Prof. Christmann.

Supervised works

PhD theses: 4; Master theses: 4; Bachelor theses: 8; Internships students: 28; etc.

Conferences

107 participations (35 oral communications); 57 during the last 10 years (17 oral communications). Selection:

1. XXXIX Reunión Bienal de la RSEQ. Zaragoza, 2023.
2. XXXIX Reunión Bienal de la RSEQ. Granada, 2022.
3. XXXVI GEQO Congress Organometallic Chemistry Group (RSEQ). Zaragoza, 2018.
4. XXXVI Reunión Bienal de la RSEQ. Sitges, 2017.
5. 6th EuCheMS Cemistry Congress. Sevilla, 2016.
6. 7th Spanish-Portuguese-Japanese Organic Chemistry Symposium. Sevilla, 2015.
7. XXIV Reunión Bienal de Química Orgánica (RSEQ). San Sebastián, 2012.
8. XXXIII Reunión Bienal de la RSEQ. Valencia, 2011.
9. 3rd EuCheMS. Chemistry Congres. Nürnberg, 2010.
10. 239th American Chemical Society National Meeting & Exposition. San Francisco, 2010.

Secretary of the organizing committee and member of the scientific committee of the IX Simposio de Investigadores Jóvenes RSEQ – Sigma Aldrich. Zaragoza, 7-10 November 2012.

More

- Member of different Research groups: FQM-263 "Stereoselective Synthesis", financed by the Junta de Andalucía (2002-2016); E-10 "Bioorganic Chemistry", financed by the Government of Aragon (2011-2014); E-104 “Asymmetric Oraganocatalysis”, financed by the Government of Aragon (2015-2016); E-07_17R “Gold and Silver Chemistry”, financed by the Government of Aragon (2017-).
- Evaluation of scientific works in specialized journals.
- Participation in scientific dissemination activities.
- Attention to 82 training courses, seminars and workshops.
- Assistant Director for International Affairs at the Escuela Politécnica Superior (UZ) (2016-2020).
- Secretary Professor at the Doctorate School (UZ) (2021-).
- Member of different commissions and governing bodies of the University of Zaragoza.
- More than 2000 hours of university teaching in a total of 16 academic courses (outstanding positive evaluation).
- Participation in 5 teaching innovation projects.