

BRIEF CURRICULUM VITAE

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PERSONAL DATA Birth place and date: Madrid (Spain), 30th July 1962
Citizenship: Spanish

ACADEMIC DEGREES

1990 Ph.D. in Chemistry from Madrid Complutense University (Spain)
1985 B.S. in Chemistry (Physical Chemistry) from Madrid Complutense University (Spain)

APPOINTMENTS

2014 - Director of Center for Ultrafast Lasers (CLUR), Complutense University Madrid (Spain)
2007 - *Catedrático de Universidad* (Full Professor) at Physical Chemistry Department, Chemical Sciences Faculty, Complutense University Madrid (Spain)
1998 - 2006 *Profesor Titular de Universidad* at Physical Chemistry Department, Chemical Sciences Faculty, Complutense University Madrid (Spain)
1995 - 1998 Associate Professor at Physical Chemistry Department, Chemical Sciences Faculty, Complutense University Madrid (Spain)
1995 - 1996 Alexander von Humboldt Stiftung Visiting Associate. Institute of Physics, University of Würzburg, Germany. Supervisor: Prof. Gustav Gerber
1990 - 1992 Fulbright Postdoctoral Visiting Associate at the Arthur Amos Noyes Laboratory, California Institute of Technology, Pasadena, California, USA. Supervisor: Prof. Ahmed H. Zewail, Nobel Laureate in Chemistry 1999
1989 - 1995 Assistant Professor at Physical Chemistry Department, Chemical Sciences Faculty, Madrid Complutense University (Spain)

RESEARCH AREAS

Molecular Reaction Dynamics, Femtochemistry and Laser Spectroscopy

He is an expert in the use of molecular beams, laser spectroscopy, ion and photoelectron imaging and ultrafast lasers techniques in the experimental side and on quantum reactive scattering and quasiclassical trajectory calculations on the theoretical side, dedicated to study the dynamics of photodissociation and bimolecular reactions. He has also experience in laser desorption/ionization and matrix assisted laser desorption ionization coupled to time-of-flight mass spectrometry and on ultrafast pulsed laser deposition and materials ultrafast laser micromachining.

MERITS

Author of about 260 peer reviewed papers published in international journals, 5 book chapters, 1 book editor and about 330 contributions to International Conferences including many invited talks. Person in charge and principal investigator of research projects at National and European levels.

More than 30 years teaching experience in Physical Chemistry and training of PhD students and postdocs. Supervisor of 10 PhD theses.

Fellow of the Royal Society of Chemistry (FRSC). Member of the Spanish Royal Society of Chemistry and the Spanish Royal Society of Physics. He has been president of the Spanish Specialized Group of Atomic and Molecular Physics (GEFAM) and member of the Spanish Specialized Group of Photochemistry. He is president of the Specialized Group of Ultrafast Lasers (GELUR).

Associate Editor of *Physical Chemistry Chemical Physics* edited by the Royal Society of Chemistry. Member of the *Advisory Board* of the journals *Journal of Physical Chemistry A,B,C,Letters* of the American Chemical Society, *Journal of Physics B: Atomic, Molecular and Optical Physics* of IOP Publishing and *Applied Sciences,Optics/Lasers/ Photonics* section edited by MDPI (Multidisciplinary Digital Publishing Institute). He is member of the *Editorial Board (Review Editor)* of the journal *Frontiers in Physics (Section Physical Chemistry Chemical Physics)*. He is *co-editor* of the *Journal of Physical Chemistry and Functional Materials* edited by JournalPark (TÜBİTAK ULAKBİM) Turkey.

Member of several Scientific Committees of International Conferences such as the Femtochemistry Conference and the International Molecular Beams Symposium. Chairman and organizer of national and international conferences and several summer schools. He is acting routinely as reviewer of national and International research projects and of a large number of scientific journals.

Statistics

Total citations: 7041	Citations/item: 26.77	Citations/year (last 5 years): 318
Total publications: 263	h-index: 49	Source: Web of Science. Clarivate Analytics
Total citations: 8011	Citations/item: 24.65	Citations/year (last 5 years): 362
Total publications: 324	h-index: 52 i10-index: 168	Source: Google Scholar

Ten Relevant Publications (last 10 years)

1. *Controlled alloying of Au@Ag core-shell nanorods induced by femtosecond laser irradiation*, G. González-Rubio, P. Díaz-Núñez, W. Albrecht, V. Manzaneda-González, **L. Bañares**, A. Rivera, L. M. Liz-Marzán, O. Peña-Rodríguez, S. Bals, A. Guerrero-Martínez, **Adv. Opt. Mat.**, in press (2021).
2. *Structural dynamics effects on the electronic predissociation of alkyl iodides*, M. L. Murillo-Sánchez, A. Zanchet, S. Marggi Poullain, J. González-Vázquez, **L. Bañares**, **Sci. Rep.**, **20**, 6700 (2020).
3. *Site-specific hydrogen-atom elimination from photoexcited ethyl radical*, D. V. Chicharro, S. Marggi Poullain, A. Zanchet, A. Bouallagui, M. L. Senent, A. García-Vela, L. Rubio-Lago, **L. Bañares**, **Chem. Sci.**, **10**, 6494 (2019).
4. *Coulomb explosion imaging for the visualization of a conical intersection*, M. E. Corrales, J. González-Vázquez, **L. Bañares**, R. de Nalda, **J. Phys. Chem. Lett.**, **10**, 138 (2019).
5. *Strong laser field control of fragment spatial distributions from a photodissociation reaction*, M. E. Corrales, R. de Nalda, **L. Bañares**, **Nature Comm.**, **8**, 1345 (2017).
6. *Femtosecond laser-pulse reshaping yields gold nanorods with ultranarrow surface plasmon resonances*, G. González-Rubio, P. Díaz-Núñez, A. Rivera, A. Prada, G. Tardajos, J. González-Izquierdo, **L. Bañares**, P. Llompарт, L. González-MacDowell, M. Alcolea Palafox, L. M. Liz-Marzán, O. Peña-Rodríguez, A. Guerrero-Martínez, **Science**, **358**, 640 (2017).
7. *Femtosecond time-resolved photofragment angular momentum alignment in electronic predissociation dynamics*, M. E. Corrales, P. Shternin, L. Rubio-Lago, R. de Nalda, O. Vasyutinskii, **L. Bañares**, **J. Phys. Chem. Lett.**, **7**, 4458 (2016).
8. *Femtosecond laser-controlled tip-to-tip assembly and welding of gold nanorods*, G. González-Rubio, J. González-Izquierdo, **L. Bañares**, G. Tardajos, A. Rivera, T. Altantzis, S. Bals, O. Peña-Rodríguez, A. Guerrero-Martínez, Luis M. Liz-Marzán, **Nano Lett.**, **15**, 8282 (2015).
9. *Control of ultrafast molecular photodissociation by laser induced potentials*, M. E. Corrales, J. González-Vázquez, G. Balerdi, I. R. Solá, R. de Nalda, **L. Bañares**, **Nature Chem.**, **6**, 785 (2014).
10. *Strong field control of predissociation dynamics*, M. E. Corrales, G. Balerdi, V. Lorient, R. de Nalda, **L. Bañares**, **Faraday Discuss.**, **163**, 447 (2013).