

Part A. PERSONAL INFORMATION		CVA Date		2-10-2019
Name and surname	Joaquín González Sánchez			
DNI/NIE/passport		Age	48	
Researcher's identification number	Researcher ID	K-3769-2017		
	Orcid	0000-0001-6848-074X		

A.1. Current professional situation

Organism	Universidad de Murcia			
Dpto./Center	Química Física / Facultad de Química			
Address	Campus de Espinardo, 30100 Espinardo, Murcia			
Land line phone	868887429	Email	josquin@um.es	
Professional category	Professor	Start date	2018	
UNESCO code	221005			
Keywords	Electrochemistry, Physical Chemistry			

A.2. University Education (*title, institution, date*)

BSc/Degree/MSc/Doctorate	University	Year
BSc in Chemistry	University of Murcia	1994
Doctorate in Chemistry	University of Murcia	1997

A.3. General indicators of the quality of scientific production (*see instructions*)

Number of six-year research periods: **4** (the last one in 2018)

Number of doctoral thesis directed (last 10 years): **2**

Total citations (Web of Science, October 2019): **967**

Average number of citations/year during the period 2009-2018 (Web of Science, October 2018): **69.2**

Total publications in the first quartile (Journal Citation Reports, 2018 Edition): **65**

h-index (Web of Science, October 2019): **17**

Part B. FREE SUMMARY OF CV (*maximum 3500 characters, including blank spaces*)

Global merits

- **104 publications, with 65 corresponding to journals within the 1st quartile** of the areas of Physical Chemistry, Analytical Chemistry and Electrochemistry of JCR (2018 Edition).
- Co-author of the book "**Pulse Voltammetry in Physical Electrochemistry and Electroanalysis**" (Springer, 2016, ISBN: 978-3-319-21250-0; doi: 10.1007/978-3-319-21251-7), with 61 citations (WoS, October 2019).
- Co-author of **4** book chapters.
- Director of **4** Doctoral Thesis. Another Thesis is currently being developed.
- **Participation in 11 Research Projects** (4 of national scope). Main researcher of project CTQ2015-65243-P with very good evaluation results.
- 56 communications to National or International Meetings
- Research staff training fellowship (1995-1998).
- Extraordinary Doctorate Award and European Mention of the Doctoral Thesis (1997).
- Predoctoral and postdoctoral stays in the "Universidade de Lisboa", under supervision of Dña. M^a Luisa Abrantes (1998-1999).
- Member of the Spanish Royal Society of Chemistry (R.S.E.Q.), the Iberoamerican Society of Electrochemistry (S.I.B.A.E.) and the International Society of Electrochemistry (I.S.E.).
- Positive evaluation of 4 teaching periods.
- External evaluator of the Czech Science Academy
- Participation in organising congresses:
 - Secretary of the "XXXII Reunión del Grupo de Electroquímica de la Real Sociedad Española de Química-XIII Encontro Ibérico de Electroquímica" (Murcia, 2011).
 - Member of the Scientific Committee of the "XXXIII Reunión del Grupo de Electroquímica de la Real Sociedad Española de Química" (Madrid, 2012).

- Member of the Scientific Committee of the “XXXIV Reunión del Grupo de Electroquímica de la Real Sociedad Española de Química-XIV Encontro Ibérico de Electroquímica” (Valencia, 2013).
- Reviewer of the following journals:
 - Journal of the American Chemical Society (ACS, ISSN: 0002-7863)
 - Electrochimica Acta (Elsevier, ISSN: 0013-4686)
 - Journal of Electroanalytical Chemistry (Elsevier, ISSN: 1572-6657)
 - Bioelectrochemistry (Elsevier, ISSN: 1567-5394)
 - Sensors (MDPI, ISSN: 1424-8220)
 - Nanomaterials (MDPI, ISSN: 2079-4991)
 - Molecules (MDPI, ISSN: 1420-3049)
 - Revista Eureka sobre Enseñanza y Divulgación de las Ciencias (University of Cádiz, ISSN: 1697-011X)

Research lines

Main line: Modelling of complex charge transfer processes at different interfaces and experimental analysis of relevant electrochemical situations.

- 1.- Analytical and numerical resolution of differential diffusive and kinetic-diffusive equations for electrodes of different geometries, sizes and different boundary conditions.
- 2.- Charge transfer processes (ionic and electronic) at non-uniformly accessible micro and nanosurfaces.
3. Modelling of charge transfer processes at semiconductor electrode-electrolyte interfaces.
- 4.- Study of charge transfer processes with pulse and scanning electrochemical techniques.
- 5.- Study of electrocatalysis of molecules and biomolecules confined in a surface.
- 6.- Study of homogeneous catalytic processes and other reaction mechanisms in macroelectrodes, microelectrodes and nanoelectrodes.
- 7.- Sensors and microsensors for the detection of electroactive pollutants in natural media.
- 8.- Study of multielectronic electrode processes with and without coupled homogeneous chemical reactions.
- 9.- Simple and assisted ion transfer processes at micro and nanometric interfaces.
- 10.- Theoretical and experimental study of charge transfer at electrodes and liquid|liquid interfaces modified with nanoparticles.

Part C. MOST RELEVANT MERITS (classified by type)

C.1. Publications

1. Authors: Y. B. VOGEL, A. MOLINA, J. GONZALEZ, S. CIAMPI

Title: Quantitative Analysis of Cyclic Voltammetry of Redox Monolayers Adsorbed on Semiconductors: Isolating Electrode Kinetics, Lateral Interactions, and Diode Currents

Reference: Analytical Chemistry

Ranking JCR: Chemistry, Analytical. *Impact factor* (JCR 2018): 6.350.

Position: 7/84 (Q1, D1) **Type:** Article. **Nº of citations:** 1

Volume: 91. **Pages initial, final:** 5929-5937. **Date:** 2019

2. Authors: L. ZHANG, E. LABORDA, N. DARWISH, B. NOBLE, J. TYRELL, S. PLUCZYK, A. LE BRUN, G. WALLACE, J. GONZALEZ, M. COOTE, S. CIAMPI

Title: Electrochemical and electrostatic cleavage of alkoxyamines

Reference: Journal: Journal of the American Chemical Society

Ranking JCR: Chemistry, Multidisciplinary. *Impact factor* (JCR 2018): 14.695

Position: 12/172 (Q1, D1) **Type:** Article. **Number of citations:** 31

Volume: 140 **Pages initial, final:** 766-774. **Date:** 2018

3. Authors: Y. VOGEL, L. ZHANG, N. DARWISH, V. GONÇALES, A. LE BRUN, J. GOODING, A. MOLINA, G. WALLACE, M. COOTE, J. GONZALEZ, S. CIAMPI

Title: Reproducible flaws unveil electrostatic aspects of semiconductor electrochemistry

Reference: Journal: Nature Communications

Ranking JCR: Multidisciplinary sciences. *Impact factor* (JCR 2018): 11.878

Position: 5/69 (Q1, D1) **Type:** Article. **Nº of citations:** 14

Volume: 8. **Pages initial, final:** 1-9. **Date:** 2017

4. Authors: A. MOLINA, J. GONZALEZ

Title: Pulse Voltammetry in Physical Electrochemistry and Electroanalysis: Theory and applications

Reference: Springer Monographs on Electrochemistry

Type: Book. N° of citations: 59
ISBN: 978-3-319-21250-0; doi: 10.1007/978-3-319-21251-7 (2016)
Publishing (book): Springer International Publishing. Place of publication: Heidelberg
5. Authors: J. GONZÁLEZ, J. A. COCA, A. MOLINA, E. LABORDA, J. M. GOMEZ GIL, L. A. RINCON
Title: Carbon Support Effects and Mechanistic Details of the Electrocatalytic Activity of Polyoxometalates Investigated via Square Wave Voltcoulometry
Reference: Journal: ACS Catalysis
Ranking JCR: Chemistry, Physical. Impact factor (JCR 2018): 12.221.
Position: 11/148 (Q1, D1) Type: Article. N° of citations: 7
Volume: 7. Pages initial, final: 1501-1511. Date: 2017
6. Authors: A. MOLINA, J. GONZÁLEZ, E. O. BARNES, R. G. COMPTON
Title: Simple analytical equations for the current-potential curves at microelectrodes: A universal approach
Reference: Journal: Journal of Physical Chemistry C
Ranking JCR: Material science. Impact factor (JCR 2019): 4.309.
Position: 60/293 (Q1) Type: Article. N° of citations: 15
Volume: 118. Pages initial, final: 346-356. Date: 2014
7. Authors: E. LABORDA, J. GONZALEZ, A. MOLINA
Title: Recent advances on the theory of pulse techniques: A mini review
Reference: Electrochemistry Communications
Ranking JCR: Electrochemistry. Impact factor (JCR 2018): 4.197.
Position: 7/26 (Q2) Type: Article. N° of citations: 31
Volume: 43 Pages initial, final: 25-30. Date: 2014
8. Authors: J. GONZALEZ, M. LOPEZ-TENES, A. MOLINA
Title: Non-Nernstian Two-Electron Transfer Reactions for Immobilized Molecules: A Theoretical Study in Cyclic Voltammetry
Reference: Journal of Physical Chemistry C
Ranking JCR: Material science. Impact factor (JCR 2019): 4.309.
Position: 60/293 (Q1) Type: Article. N° of citations: 6
Volume: 117 Pages initial, final: 5208-5220. Date: 2013
9. Authors: J. GONZALEZ, A. MOLINA, F. M. ORTIZ, E. LABORDA
Title: Characterization of the Electrocatalytic Response of Monolayer-Modified Electrodes with Square-Wave Voltammetry
Reference: Journal of Physical Chemistry C
Ranking JCR: Material science. Impact factor (JCR 2019): 4.309.
Position: 60/293 (Q1) Type: Article. N° of citations: 10
Volume: 116 Pages initial, final: 11206-11215. Date: 2012
10. Authors: A. MOLINA, J. GONZALEZ, M. HENSTRIDGE R. G. COMPTON
Title: Voltammetry of Electrochemically Reversible Systems at Electrodes of Any Geometry: A General, Explicit Analytical Characterization
Reference: Journal of Physical Chemistry C
Ranking JCR: Material science. Impact factor (JCR 2019): 4.309.
Position: 60/293 (Q1) Type: Article. N° of citations: 47
Volume: 115 Pages initial, final: 4054-4062. Date: 2011

C.2. Projects

1. Title of the project: Advances in the study of charge transfer processes at static and dynamic micro- and nano-interfaces (19887/Grupos de Excelencia de la Región de Murcia /15). Funding entity: Fundación Séneca de la Región de Murcia. Duration: 2016-2020. Total amount: 250.000 Euros. Principal Researcher: Ángela Molina Gómez. Number of researchers: 5
2. Title of the project: Electrocatálisis molecular en diferentes interfaces: análisis de la respuesta electroquímica (CTQ2015-65243-P). Funding entity: Ministerio de Economía y competitividad. Duration: 2016-2018. Total amount: 46.000 Euros. Principal Researcher: Joaquín González Sánchez. Number of researchers: 5
3. Title of the project: Desarrollo de modelos para la caracterización de nanopartículas mediante técnicas electroquímicas (18968/JLI/13). Funding entity: Fundación Séneca de la

Región de Murcia. Duration: 2014-2016. Total amount: 40.000 Euros. Principal investigator: Eduardo Laborda Ochando. Number of researchers: 7

4. Title of the project: Electroquímica dinámica en interfases convencionales, micrométricas y nanométricas (CTQ2012-36700). Funding entity: Ministerio de Economía y Competitividad. Duration: 2013-2015. Total amount: 90.090 Euros. Principal Researcher: Ángela Molina Gómez. Number of researchers: 7

5. Title of the project: Estudio de procesos de transferencia electrónica e iónica en diferentes superficies activas (CTQ2009-13023). Funding entity: Dirección General de Investigación (Ministerio de Ciencia y Tecnología). Duration: 2010-2012. Total amount: 106.480,00 euros. Principal Researcher: Ángela Molina Gómez. Number of researchers: 7

6. Title of the project: Avances en el desarrollo y diseño de técnicas electroquímicas (08813/PI/08). Funding entity: Fundación Séneca de la Región de Murcia. Duration: 2009-2013. Total amount: 58.600,00 euros. Principal Researcher: Ángela Molina Gómez. Number of researchers: 8

C.5 Other achievements

- Coordinator for the University of Murcia of the interuniversity Master program "Electroquímica. Ciencia y Tecnología" (<http://web.ua.es/es/ecyt/master-universitario-en-electroquimica-ciencia-y-tecnologia.html>). Teaching in this Master from the academic course 2013/2014 (first course of the master). Director of 3 MSc Thesis.
- Participation in the Excellence Network "Sensores y Biosensores", corresponding to the Electrochemistry Group of the RSEQ, in order to establish contact with technological centers and obtain national or international fundings for coordinate projects.
- Director of 6 MSc Thesis of the program "Teaching staff training".
- Co-director of an end-of-degree project of the Degree of Chemistry of the University of Murcia.
- Co-director of 1 Bachelor's Thesis.
- Member of the scientific committee of MasterChem contest (<https://www.um.es/web/ucc/masterchem>).