



**Part A. PERSONAL INFORMATION**

**CV date** 28-03-2023

First name	María Teresa		
Family name	Pineda		

(\*) *Mandatory*

**A.1. Current position**

Position	Full Professor		
Initial date	23-12-2010		
Institution	University of Cordoba		
Department/Center	Physical Chemistry	<a href="#">Faculty of Science</a>	
Country	Spain	Teleph. number	
Key words	Physical Chemistry. Interfacial Electrochemistry. Nanotechnology. Surface Functionalization. Metallic Electrodes. Single Crystals. Self-assembled monolayers. Macromolecules/Polymers. Function. Nanoparticles. Bionanoconjugates. Supercapacitors		

**A.3. Education**

PhD, Licensed, Graduate	University/Country	Year
Chemistry	University of Cordoba	1987
PhD in Physical Chemistry	University of Cordoba	1991

**Part B. CV SUMMARY** (*max. 5000 characters, including spaces*)

I license in Chemistry (1987) and defend my PhD thesis (1991) at the University of Cordoba (UCO). The PhD contract was funded by Junta de Andalucía (JA). I got extraordinary prize of License (1988) and Doctorate (1991). I spent more than 2 years (November 1991 to December 1993) at the University of Tennessee at Knoxville (UTK) (USA) as a Research associate under a contract of the UTK (November 1991 to august 1992) and a postdoctoral fellowship from the Spanish government (September 1992 to December 1993). During this time, I was nominated as adjunct assistant professor at UTK. I came back to UCO with a Re-Entry contract of Spanish Government (Jan 94 – Apr 94) that I finish when I got an assistant professor position at the Dep. Physical Chemistry (UCO). At this time, I have the opportunity to join the research group where I made my PhD and started a new research line connecting the acquired experience in Biophysics at UTK with the research line of the FQM111 group where I have the possibility to direct several licensed works, advanced studies diplomas and Doctoral Thesis. Moreover, I participated as research member in several projects funded by JA and Spanish government. After 2007, I lead as principal investigator the funded projects of the group. In this period, we have gotten funding for basic research dealing with the synthesis and characterization of gold nanoparticles and its interactions with proteins. Moreover, we got a research project of 4 years from JA in collaboration with a jewelry company studying problems related to the electrodeposition of metals and alloys. My relationship with the jewelry sector in Cordoba served to create the University-Enterprise Catedra de Joyería de Córdoba – Caja Rural del Sur that I direct from 2018 and that is completely funded by the Caja Rural del Sur Foundation. We are working in different areas such as formation, research and divulgation. As director, I have participated in many conferences and discussion working days with the different companies trying the modernization of this sector in the Cordoba province. We have international research collaborations with the University of Lincoln (Dr. Gonzalez), Univ. of Padova (Dr. Abdirisak Ahmed Isse) and Univ. Federico II Naples (Dra. Angela Lombardi and Flavia Nastri).



My scientific carrier has given place to more than 70 indexed articles (most of them in Q1) and more than 100 meeting communications. I have been invited to impart plenary conferences at several research meetings.

I have directed 7 PhD thesis and now I am engaged in the direction of 3. I am now responsible for 2 FPU contract (Miriam Chávez, FPU17/03873 and Angela Fernández, FPU20/02616).

I act as referee of more than 40 different journals and in funding agencies, national (AEI, ANECA), international (Fondecyt, Chile; Conicet, Argentina; Agence Nationale de la Recherche, France, HOMING, Poland; National Center of Sci. and Tech., Kazakhstan). I have been member of the evaluation committee for the Ayudas para la Recualificación del Sistema Universitario de la Universidad de Burgos.

From 2006 – 2013 and 2013 - 2020 I have been secretary and department head, respectively, of the department of Physical Chemistry and Applied Thermodynamic at UCO. From 2016 to 2020 I have been member of the University government conseil as representative of the department heads in UCO working in the related committees.

I coordinate the programs of Máster and Doctorate of Electroquímica. Ciencia y Tecnología at UCO (2016 - ).

I have worked as committee member in more than 30 opposition for associated and full professor in many Spanish universities.

### **Part C. RELEVANT MERITS** (sorted by typology)

Pina-Coronado, C.; Martínez-Sobrinó, A.; Gutierrez-Galvez, L.; del Caño, R.; Martínez-Periñan, E.; García-Nieto, D.; Rodríguez-Pena, M.; Luna, M.; Milan-Rois, P.; Castellanos, M.; Abreu, M.; Canton, R.; Galan, J.C.; Pineda, T.; Pariente, F.; Somoza, R.; García-Mendiola, T.; Miranda, R.; Lorenzo, E.; Methylene Blue functionalized carbon nanodots combined with different shape gold nanostructures for sensitive and selective SARS-CoV-2 sensing. *Sens. Actuators B Chem.* **2022**, 369, 132217

del Caño, R.; Garcia-Mendiola, T.; Garcia-Nieto, D.; Álvaro, R.; Luna, M.; Alarcón Iniesta, H.; Coloma, R.; Rodríguez Diaz, C.; Milan-Rois, P.; Castellanos, M.; Abreu, M.; Cantón, R.; Galán, J.C.; Pineda, T.; Pariente, F.; Miranda, R.; Somoza, A.; Lorenzo, E.; Amplification-free detection of SARS-CoV-2 using gold nanotriangles fu... *Microchim. Acta* **2022**, 189, 171

Chávez, M.; Sánchez-Obrero, G.; Madueño, R.; Sevilla, J.M.; Blázquez, M.; Pineda, T.; Electrochemical evaluation of the grafting density of self-assembled monolayers of polyethylene glycol of different chain lengths formed by the grafting to approach under conditions close to the cloud point. *J. Electroanal. Chem.* **2022**, 913, 116294

Chávez, M.; Sánchez-Obrero, G.; Madueño, R.; Sevilla, J.M.; Blázquez, M.; Pineda, T.; Self-assembled monolayers of O-(2-Mercaptoethyl)-O'-methyl-hexa(ethylene glycol) (EG7-SAM) on gold electrodes. Effects of the nature of solution/electrolyte on formation and electron transfer blocking characteristics. *J. Electroanal. Chem.* **2022**, 914, 116303

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Gutiérrez-Gálvez, L.; del Caño, R.; Menéndez-Luque, I.; García-Nieto, D.; Rodríguez-Peña, M.; Luna, M.; Pineda, T.; Pariente, F.; García-Mendiola, T.; Lorenzo, E. Electrochemiluminescent nanostructured DNA biosensor for SARS-CoV-2 detection. *Talanta* **2022**, 240, 123203

Chavez, M.; Fernandez-Merino, A.; Sanchez-Obrero, G.; Madueno, R.; Sevilla, J.M.; Blazquez, M.; Pineda, T. Distinct thermoresponsive behaviour of oligo- and poly-ethylene glycol protected gold nanoparticles in concentrated salt solutions. *Nanoscale Adv.* **2021**, 3 (16), 4767-4779.



Chávez, M.; Sánchez-Obrero, G.; Madueño, R.; Sevilla, J.M.; Blázquez, M.; Pineda, T.; Characterization of a self-assembled monolayer of O-(2-Mercaptoethyl)-O'-methyl-hexa(ethylene glycol) (EG7-SAM) on gold... *J. Electroanal. Chem.* **2021**, 880, 114892.

del Caño, R.; Gisbert-González, J.M.; González-Rodríguez, J.; Sánchez-Obrero, G.; Madueño, R.; Blázquez, M.; Pineda, T.; Effective replacement of cetyltrimethylammonium bromide (CTAB) by mercaptoalkanoic acids in the gold nanorods (AuNRs) surfaces in aqueous solutions, *Nanoscale*, **2020**, 12, 648-668.

J. González-Rodríguez, J.M. Sevilla, T. Pineda, M. Blázquez, M.M. López-Guerrero. A study on the electrooxidation of vitamin B6 compounds on glassy carbon and polycrystalline gold electrodes, *J Electroanal. Chem*, **2020**, 877, 114525

Sánchez-Obrero, G.; Chávez, M.; Madueño, R.; Blázquez, M.; Pineda, T.; López-Romero, J. M.; Sarabia, F.; Hierrezuelo, J.; Contreras, R., Study of the self-assembly process of an oligo(ethylene glycol)-thioacetyl substituted theophylline on gold substrates. *J. Electroanal. Chem.* **2018**, 823, 663.

Jimenez-Perez, R.; Sevilla, J.M.; Pineda, T.; Blazquez, M.; Gonzalez-Rodriguez, J.; Electrocatalytic performance enhanced of the electrooxidation of gamma-hydroxybutyric acid (GHB) and ethanol on platinum nanoparticles surface. A contribution to the analytical determination of GHB in the presence of ethanol, *Sens. Actuators B* **2018**, 256, 553-563.

del Caño, R.; Mateus, L.; Sánchez-Obrero, G.; Sevilla, J.M.; Madueño, R.; Blázquez, M.; Pineda, T.; Hemoglobin becomes electroactive upon interaction with surface-protected Au nanoparticles, *Talanta* **2018**, 176 (Supplement C), 667-673.

Puente Santiago, A. R.; Sánchez-Obrero, G.; Pineda, T.; Blázquez, M.; Madueño, R., Influence of Patterning in the Acid-Base Interfacial Properties of Homogeneously Mixed CH<sub>3</sub>- and COOH-Terminated SAMs. *J. Phys. Chem. C* **2018**, 122, 2854-2865.

del Caño, R.; Mateus, L.; Sánchez-Obrero, G.; Sevilla, J.M.; Madueño, R.; Blázquez, M.; Pineda, T.; Hemoglobin bioconjugates with surface-protected gold nanoparticles in aqueous media: The stability depends on solution pH and protein properties, *J. Colloid Interface Sci.* **2017**, 505, 1165-1171.

Puente-Santiago, A.R.; Pineda, T.; Blázquez, M.; Madueño, R.; Formation of 2-D Crystalline Intermixed Domains at the Molecular Level in Binary Self-Assembled Monolayers from a Lyotropic Mixture, *J. Phys. Chem. C* **2016**, 120, 8595-8606

Jimenez-Perez, R.; Sevilla, J.M.; Pineda, T.; Blazquez, M.; Gonzalez-Rodriguez, J.; Study of the electro-oxidation of a recreational drug GHB on a platinum catalyst-type electrode through chronoamp. and spectro-electrochem, *J. Electroanal. Chem.*, **2016**, 766, 141-146

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Cárdenas, B.; Sanchez-Obrero, G.; Madueño, R.; Sevilla, J.M.; Blázquez, M.; Pineda, T. Influence of the Global Charge of the Protein on the Stability of Lysozyme-AuNP Bioconjugates. *J. Phys. Chem. C* **2014**, 118, 22274-22283

Garcia Raya, D.; Silien, C.; Blazquez, M.; Pineda, T.; Madueno, R.; Electrochemical and AFM Study of the 2D-Assembly of Colloidal Gold Nanoparticles on Dithiol SAMs Tuned by Ionic Strength, *J. Phys. Chem. C* **2014**, 118, 14617-14628

