25/03/2021

Dr. Manuel Eduardo Palomar Pardavé

Curricular Summary

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Manuel Palomar-Pardavé - Google Scholar

Studies carried out and years in which the certificates and degrees were obtained: **Bachelor's Degree in Chemistry** (1992), **Master's Degree in Chemistry** (1995) and **Doctorate in Sciences** (1998), all at the Universidad Autónoma Metropolitana-Iztapalapa (Department of Chemistry, Electrochemistry Area). Present position: Professor-Researcher at the Universidad Autónoma Metropolitana (since 1991); currently he holds the professorial tenure in Basic and Applied Electrochemistry of Materials at UAM-Azcapotzalco, Department of Materials, Materials Engineering Area of the Division of Basic Sciences and Engineering.

Research Interests: Fundamental and Applied Electrochemistry: Electrosynthesis and material's characterization processes: electrodeposition, electrocrystallization of metals, conducting polymers, anodic films, nanomaterials. Physicochemistry of solutions and applications of computational Quantum Chemistry to electrochemical processes and Analytical Electrochemistry to the study of Materials. Evaluation and Protection against corrosion and environmental pollution. Modified electrodes for use in the quantification of inorganic, organic and biomolecular materials.

- **Member of the National System of Researchers since 1996,** he is currently **Level III.**
- **National Electrochemistry Award 2019** of the Mexican Society of Electrochemistry.
- **Academic Merit Recognition 2016,** granted by the ANFEI (National Association of Engineering Faculties and Schools).
- **Member of the Editorial Board** of the **"Metals" Journal (**JCR-Q1 (Metallurgy & Metallurgical Engineering), since 2021. Metals (mdpi.com)
- **154 research papers** published in **JCR** indexed journals.
- **68 Articles published in international journals** with strict arbitration.
- **15 Chapters published** in international scientific books with strict arbitration.
- **3803 citations to published works**, Source SCOPUS, January 20, 2021, h index = 34.
- **65 classes** taught at **Doctorate level**.
- **114 classes** taught at **Master** level.
- **109 classes** taught at Bachelor level.
- **4 times Principal Editor** of the "Electrochemical Society Transactions" journal.
- **3 times editor of international scientific books.**

- **458 Papers published in-extensive abstracts** of Proceedings of National and International Congresses.
- **572 research works presented** at National and International Congresses.
- **4 Invention patents**
- **42 Directed Postgraduate theses, 10 Doctorate and 32 Master's.**
- **69 Bachelor's thesis and Final Year projects.**
- **Responsible for 10 postdoctoral projects** supported by CONACYT, the Government of the Federal District of México and PROMEP.
- **Referee of more than 300 research articles** submitted to 20 different indexed international scientific journals.
- **Divisional Counsellor of DCBI,** representative of the Professors of the Materials Department from 2001 to 2002.
- **President of the Mexican Society of Electrochemistry** from 2009 to 2011
- **Vice President of the Mexican Electrochemical Society** from 2007 to 2009**.**
- **Secretary of the Board of Directors of the Mexican Society of Electrochemistry** from 2003 to 2005
- **Vice-chairman of the Mexican Section of the Electrochemical Society** from 2008 to 2016.
- **Responsible for 5 Research Projects financed by CONACyT.**
- **Reviewer of more than 30 research projects** submitted on occasion of different calls of national and international organizations, conacyt calls, scientific congresses, postgraduate programs, examination of international opposition**.**

10 most-recent published papers:

1. I. Mejía-Caballero, C. Escobar-Martínez, ***M. Palomar-Pardavé***, Tu Le Manh, M. Romero-Romo, E. Rodríguez-Clemente, L. Lartundo-Rojas, I. Campos-Silva. On the Corrosion Mechanism of Borided X12CrNiMoV12-3 Steel Immersed in a Neutral Aqueous Solution Containing Chloride and Sulfate Ions. Metallurgical and Materials Transactions A (*Metall Mater Trans A)* 51, (2020) 4868–4879. https://doi.org/10.1007/s11661-020-05869-z.
2. A. Espinoza-Vázquez, F.J. Rodríguez-Gómez, G.E. Negrón-Silva, R. González-Olvera, D. Ángeles-Beltrán, ***M. Palomar-Pardavé***, A. Miralrio, M. Castro. Fluconazole and fragments as corrosion inhibitors of API 5L X52 steel immersed in 1 M HCl. *Corrosion Science* 174 (2020) 108853. https://doi.org/10.1016/j.corsci.2020.108853.
3. Jorge Juárez-Gómez, María Teresa Ramírez-Silva, Dafne Sarahia Guzmán-Hernández, Mario Romero-Romo, ***Manuel Palomar-Pardavé***. Novel electrochemical method to evaluate the antioxidant capacity of infusions and beverages, based on in situ formation of free superoxide Radicals. *Food Chemistry* 332 (2020) 127409. https://doi.org/10.1016/j.foodchem.2020.127409.
4. L. Juárez-Marmolejo, B. Maldonado-Teodocio, M. G. Montes de Oca-Yemha, M. Romero-Romo, M. T. Ramírez-Silva, E. M. Arce-Estrada, P. Morales-Gil, J. Mostany, ***M. Palomar-Pardavé***. Mechanism and Kinetics of Palladium Nanoparticles Electrochemical Formation onto Glassy Carbon, from a Deep Eutectic Solvent (Reline). *The Journal of Physical Chemistry B*. (J. Phys. Chem. B) 124 (2020) 3973−3983. https://pubs.acs.org/action/showCitFormats?doi=10.1021/acs.jpcb.0c01014&ref=pdf.

5. M. Landa-Castro, J. Aldana-González, M.G. Montes de Oca-Yemha, M. Romero-Romo, E.M. Arce-Estrada, ***M. Palomar-Pardavé***. Ni-Co alloy electrodeposition from the cathode powder of Ni-MH spent batteries leached with a deep eutectic solvent (reline). *Journal of Alloys and Compounds* 830 (2020) 154650. https://doi.org/10.1016/j.jallcom.2020.154650.
6. Jorge Juárez-Gómez, María Teresa Ramírez-Silva, Dafne Guzmán-Hernández, Mario Romero-Romo, ***Manuel Palomar-Pardavé***. Construction and Optimization of a Novel Acetylcholine Ion-Selective Electrode and its Application for Trace Level Determination of Propoxur Pesticide. *Journal of The Electrochemical Society* 167 (2020) 087501. https://doi.org/10.1149/1945-7111/ab8874.
7. L. Juárez-Marmolejo, B. Maldonado-Teodocio, M. G. Montes de Oca-Yemha, M. Romero-Romo, M. T. Ramírez-Silva, E. M. Arce-Estrada, P. Morales-Gil, J. Mostany, ***M. Palomar-Pardavé***. Electrochemical Deposition of Pd@$Pd(OH)_2$ Core-Shell Nanoparticles onto Glassy Carbon from a Deep Eutectic Solvent (Reline) and their Use as Electrocatalyst for the Methanol Oxidation Reaction. *Journal of The Electrochemical Society* 167 (2020) 112509. https://doi.org/10.1149/1945-7111/aba7d9.
8. D.S. Guzmán-Hernández, ***M. Palomar-Pardavé***, F. Sánchez-Pérez, J. Juárez-Gómez, S. Corona-Avendaño, M. Romero-Romo, M.T. Ramírez-Silva. Spectro-electrochemical characterization and quantification of Rutin in aqueous media. *Spectrochimica Acta Part A Molecular and Biomolecular Spectroscopy* 228 (2020) 117814. https://doi.org/10.1016/j.saa.2019.117814.
9. J. Aldana-González, H. Cervantes-Cuevas, C. Alfaro-Romo, E. Rodriguez-Clemente, J. Uruchurtu-Chavarin, M. Romero-Romo, M.G. Montes de Oca-Yemha, P. Morales-Gil, L.H. Mendoza-Huizar, ***M. Palomar-Pardavé.*** Experimental and theoretical study on the corrosion inhibition of API 5L X52 steel in acid media by a new quinazoline derivative. Journal of Molecular Liquids 320 (2020) 114449. https://doi.org/10.1016/j.molliq.2020.114449.
10. A.K. Rivas-Sánchez, D.S. Guzmán-Hernández, M.T. Ramírez-Silva, M. Romero-Romo, ***M. Palomar-Pardavé***. Quinizarin characterization and quantification in aqueous media using UV-VIS spectrophotometry and cyclic voltammetry. Dyes and Pigments 184 (2021) 108641. https://doi.org/10.1016/j.dyepig.2020.10864.
11. W. Sánchez-Ortiz, J. Aldana-González, Tu Le Manh, M. Romero-Romo, I. Mejía-Caballero, M.T. Ramírez-Silva, E.M. Arce-Estrada, V. Mugica-Álvarez, ***M. Palomar-Pardavé***. A Deep Eutectic Solvent as Leaching Agent and Electrolytic Bath for Silver Recovery from Spent Silver Oxide Batteries. 2021 *Journal of The Electrochemical Society 168 (2021) 016508.* https://doi.org/10.1149/1945-7111/abdb01