



## Adriana MENDOZA-GARCIA

Research Scientist

+65 6824 7147 agarcia@nbl.a-star.edu.sg

Research Scientist, NanoBio Lab, Singapore, 2019-present

Postdoctoral Research Associate, Brown University, USA, 2015-2018

Ph.D. in Chemistry, Brown University, USA, 2015

M.Sc. in Chemistry, Simon Bolivar University, Venezuela, 2010

B.Sc. in Chemistry, Simon Bolivar University, Venezuela, 2008

## Publications

1. D. Rubenstein, W. Patterson, I. Peng, F. Schunk, A. Mendoza-Garcia, M. Lyu, and L-Q Wang, "Introductory Chemistry Laboratory: Quantum Mechanics and Color," *Journal of Chemical Education*, (2020) DOI: 10.1021/acs.jchemed.0c00908. Impact Factor (IF) 1.770
2. A. Mendoza-Garcia, C. Masterson, A. Prakash, M. Nakamoto, D. Garcia-Rojas, C. Ozsoy-Keskinbora, D. Bell, V. L. Colvin, "Ultrathin Graphene-Like Carbon Coated Iron Oxide Nanocrystals Formed During Liquid Phase Synthesis," *ACS Applied Nano Materials*, 2 (2019) 667-672
3. B. Shen, A. Mendoza-Garcia, S. Baker, S. McCall, C. Yu, L. Wu, S. Sun, "Stabilizing Fe Nanoparticles in the SmCo<sub>5</sub> Matrix," *Nano Letters*, 17 (2017) 5695-5698
4. Z. Xi\*, A. Mendoza-Garcia\*, H. Zhu, M. Chi, D. Su, D. Erdosy, S. Sun, "Ni<sub>x</sub>WO<sub>2.72</sub> Nanorods as an Efficient Electrocatalyst for Oxygen Evolution Reaction," *Green Energy & Environment*, 2 (2017) 119-123  
\* *These authors contributed equally.*
5. Z. Xi, D. Erdosy, A. Mendoza-Garcia, P. Duchesne, J. Li, M. Muzzio, Q. Li, P. Zhang, S. Sun, "Pd Nanoparticles Coupled to WO<sub>2.72</sub> Nanorods for Enhanced Electrochemical Oxidation of Formic Acid," *Nano Letters*, 17 (2017) 2727-2731
6. L. Wu, A. Mendoza-Garcia, Q. Li, S. Sun, "Organic Phase Syntheses of Magnetic Nanoparticles and their Applications," *Chemical Reviews*, 116 (2016) 10473-10512
7. O. Metin, A. Mendoza-Garcia, D. Dalmazrak, M. S. Gültekin, S. Sun, "FePd Alloy Nanoparticles Assembled on Reduced Graphene Oxide as a Catalyst for Selective Transfer Hydrogenation of Nitroarenes to Anilines Using Ammonia Borane as a Hydrogen Source," *Catalysis Science & Technology*, 6 (2016) 6137-6143

8. A. Mendoza-Garcia, D. Su, S. Sun, "Sea-Urchin Like Cobalt Iron Phosphide as Active Catalyst for the Oxygen Evolution Reaction," *Nanoscale*, 8 (2016) 3244-3247
9. A. Mendoza-Garcia and S. Sun, "Recent Advances in the Chemical Synthesis of Ferromagnetic Nanoparticles," *Advanced Functional Materials*, 26 (2016) 3809-3817
10. A. J. Krejci, A. Mendoza-Garcia, S. Sun, J. H. Dickerson, "Comparing Highly Ordered Monolayers of Nanoparticles Fabricated Using Electrophoretic Deposition: Cobalt Ferrite Nanoparticles versus Iron Oxide Nanoparticles," *Journal of the Electrochemical Society*, 162 (2015) D3036-D3039
11. A. Mendoza-Garcia, H. Zhu, Y. Yu, Q. Li, Lin Zhou, D. Su, M. Kramer, S. Sun, "Controlled Anisotropic Growth of Co-Fe-P from Co-Fe-O Nanoparticles," *Angewandte Chemie International Edition*, 127 (2015) 9778-9781
12. L. Wu, Q. Li, C. Wu, H. Zhu, A. Mendoza-Garcia, B. Shen, M. Salmeron, S. Sun, "Stable Cobalt Nanoparticles as an Efficient Electrocatalyst for Oxygen Evolution Reaction," *Journal of the American Chemical Society*, 137 (2015) 7071-7074
13. Q. Li, L. Wu, G. Wu, H. Lv, W. Zhu, A. Casimir, H. Zhu, A. Mendoza-Garcia, S. Sun, "A New Approach to Fully-Ordered fct-FePt Nanoparticles for Much Enhanced Electrocatalysis in Acid," *Nano Letters*, 15 (2015) 2468-2473
14. H. Göksu, S. Ho, O. Metin, K. Korkmaz, A. Mendoza-Garcia, M. Gültekin, S. Sun, "Tandem Dehydrogenation of Ammonia Borane and Hydrogenation of Nitro/Nitrile Compounds Catalyzed by Graphene-Supported NiPd Alloy Nanoparticles," *ACS Catalysis*, 4 (2014) 1777
15. S. Ho, A. Mendoza-Garcia, S. Guo, D. Su, S. Liu, O. Metin, S. Sun, "A Facile Route to Monodisperse MPd (M = Co or Cu) Alloy Nanoparticles and their Catalysis for Electrooxidation of Formic Acid," *Nanoscale*, 6 (2014) 6970-6973
16. S. Guo, X. Zhang, W. Zhu, K. He, D. Su, A. Mendoza-Garcia, S. Ho, G. Lu, S. Sun, "Nanocatalyst Superior to Pt for Oxygen Reduction Reaction: The Case of Core/Shell Ag(Au)/CuPd Nanoparticles," *Journal of the American Chemical Society*, 136 (2014) 15026-15033
17. Y. Yu, A. Mendoza-Garcia, B. Ning, S. Sun, "Cobalt-Substituted Magnetite Nanoparticles and their Assembly into Ferrimagnetic Nanoparticle Arrays," *Advanced Materials*, 25 (2013) 3090-3094
18. J. L. Paz and A. Mendoza-Garcia, "Solvent Influence on the Nonlinear Optical Properties of Molecular Systems in the Presence of Degenerate and Non-Degenerate Four-Wave Mixing," *Journal of Modern Optics*, 59 (2012) 71-82
19. A. Mendoza-Garcia, A. Romero-Depablos, J. Récamier, W. Mochán, J. L. Paz, "Algebraic Methods Applied to the Study of Energy Transfer in Anharmonic Systems," *Molecular Physics*, 108 (2010) 3417-3424
20. A. Mendoza-Garcia, A. Romero-Depablos, M. A. Ortega, J. L. Paz, L. Echevarría, "Theoretical Model for the Calculation of Optical Properties of Gold Nanoparticles," *Journal of Nonlinear Optical Physics & Materials*, 19 (2010) 427-436
21. J. L. Paz, A. Mendoza-Garcia, A. Mastrodomenico, "Absorptive and Dispersive Optical Profiles in Fluctuating Environments: A Stochastic Model," *Journal of Quantitative Spectroscopy and Radiative Transfer*, 112 (2010) 100-108

22. A. Mendoza-Garcia, J. L. Paz, A. Romero-Depablos, E. Castro, P. Martín, "Determination of Nonlinear Optical Properties Using the Voigt Function: Stochastic Considerations," *Journal of Quantitative Spectroscopy and Radiative Transfer*, 111 (2010) 155-159
23. A. Romero-Depablos, J. L. Paz, A. Mendoza-Garcia, P. Martín, E. Castro, "Optical Properties of a Molecular System Coupled to the Solvent," *International Journal of Modern Physics B*, 23 (2009) 5801-5809
24. J. L. Paz, A. Mendoza-Garcia, A. Romero-Depablos, "Efectos del Solvente en el Estudio de Propiedades Absortivas y Dispersivas en Sistemas Moleculares," *Physical, Mathematical and Natural Sciences Venezuelan Academy Bulletin*, Vol. LXIX, No. 3 (2009) 9-23
25. A. Mendoza-Garcia, J. L. Paz, M. Gorayeb, E. Castro, P. Martín, "Solvent Effects in the Determination of Nonlinear Properties," *Journal of Nonlinear Optical Physics & Materials*, 17 (2008) 511-520