

Joshua Reyes Morales

Universidad Ana G. Méndez at Gurabo, Gurabo, Puerto Rico 00777 (US Citizen)

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ACADEMIC METRICS ([Link to Google Scholar](#))

h- index: 6

Mentored: Over 30 undergraduate and 5 graduate students

Publications: 8 (6 are 1st author)

Courses taught: electrochemistry graduate course; Analytical chemistry course and lab; Instrumental chemistry course and lab; General chemistry I and II course and lab; Spectroscopy course

PAST RESEARCH EXPERIENCE

Dr. Jeffrey Dick – Purdue University, IN, USA

July 2022- July 2023

Dr. Jeffrey Dick – University of North Carolina at Chapel Hill, NC, USA

June 2019- June 2022

Dr. Lisandro Cunci - Universidad Ana G. Méndez, Gurabo, P.R.

March 2017- May 2019

Dr. Héctor Abruña- Cornell University, NY, USA

June 2018- August 2018

EDUCATION

Purdue University, Indiana, USA

-Ph.D. in Chemistry (Analytical Division)

July 2022- July 2023

University of North Carolina at Chapel Hill, North Carolina, USA

-M.A. Chemistry (Analytical Division)

August 2019- June 2022

Universidad Ana G. Méndez, Gurabo, Puerto Rico

-Bachelor's in Chemistry; **Summa Cum Laude**

August 2014- May 2019

Ramon Power & Giralt High School, Las Piedras, Puerto Rico

-Vocational School: Electricity; **GPA: 4.0**

August 2011- May 2014

PUBLICATIONS

Reyes-Morales, J.; Paul, S. ; Vullo, M.; Edwards, M.; Dick, J.E. Room Temperature Electrochemical-Shock Synthesis of Solid-Solution Medium-Entropy Alloy Nanoparticles for Hydrogen Evolution. **2024. Published** [Link](#)

Paul, S.; **Reyes-Morales, J.**; Dick, J.E., Electrodeposition of IrO_x Under Anodic Conditions with Aqueous Nanoreactors. *ACS Nanoscience Au*. **2024. Published, Co-First Author** [Link](#)

Reyes-Morales, J.; Dick, J.E., Electrochemical-Shock Synthesis of Nanoparticles from Sub-Femtoliter Nanodroplets. *Acc. Chem. Res.* **2023. Published** [Link](#)

Reyes-Morales, J.; Moazeb, M.; Colón-Quintana, G. S.; Dick, J.E., The Electroneutrality Condition Allows for Electrodeposition of Gold Nanoparticles from Aqueous Nanodroplets. *Chem Comm* **2022. Published** [Link](#)

Reyes-Morales, J.; Vanderkwaak, B. T.; Dick, J. E., Enabling Practical Nanoparticle Electrodeposition from Aqueous Nanodroplets. *Nanoscale* **2022. Published** [Link](#)

Reyes-Morales, J.; Glasscott, M. W., Pendergast, A. D., Goines, S.; Dick, J. E., The Oxidation of Ferrocene in Sessile Toluene Macro- and Microdroplets: An Opto-Electrochemical Study. *Journal of Electroanalytical Chemistry* **2021. Published** [Link](#)

Tarolla, N. E.; Voci, S.; **Reyes-Morales, J.**; Pendergast, A. D.; Dick, J. E., Electrodeposition of Ligand-Free Copper Nanoparticles from Aqueous Nanodroplets. *Journal of Materials Chemistry A* **2021. Published** [Link](#)

López, L.; Hernández, N.; **Reyes Morales, J.**; Cruz, J.; Flores, K.; González-Amoretti, J.; Rivera, V.; Cunci, L., Measurement of Neuropeptide Y Using Aptamer-Modified Microelectrodes by Electrochemical Impedance Spectroscopy. *Analytical Chemistry* **2021**, 93 (2), 973-980. **Published** [Link](#)

HONORS AND AWARDS

ABRCMS 2024 Judge Travel Award	September 4, 2024
R. Mark Wightman Graduate Student Excellence Fund in Chemistry	2021-2022
Matthew Stuart Morrison Summer Fellowship	May 2019- July 2019
2019 Undergraduate Award in Physical Chemistry Presented by ACS	May 31, 2021
Third place best chemistry student in Puerto Rico by Colegio de Químicos de P.R.	August 1, 2018
Travel Award for Annual Biomedical Research Conference for Minority Students	2018
Outstanding student of Chemistry presented by Colegio de Químicos de P.R.	2017
Third place at the Natural Sciences and Technology Olympic of Universidad Ana G. Mendez at Gurabo, Puerto Rico	2016 & 2019

INVITED TALKS

2025 NSF-PREM CIE2M / DOE-RENEW PIRES-PR Joint Symposium	January 31-February 1, 2025
Universidad de Puerto Rico at Río Piedras Campus, Puerto Rico	
Seminar at Graduate School Course	December 10, 2024
Universidad Ana G. Méndez. Cupey, Puerto Rico	
Single-Entity Electrochemistry	November 28, 2023
University of Puerto Rico at Río Piedras Campus, Puerto Rico	
Graduate School Seminar	September 7, 2023
Universidad Ana G. Méndez. Gurabo, Puerto Rico	

GRANTS

Consortium of Hybrid Resilient Energy (DOE) (\$22,346) Received	January 2025- Present
Subaward (\$120,000) from Center for Interfacial Electrochemistry of Energy Materials (CiE2M): Advancing the PREM Pathway in Puerto Rico - Nanomaterials for Sustainable Renewable Energy (total award is \$4,200,000) (National Science Foundation) Received	
	September 1, 2024- Present
PR-INBRE Pilot Proposal (National Institute of Health) (\$100,000) Received	July 1, 2024- Present
Subaward (\$50,000) from Center for the Advancement of Wearable Technologies: Engineered (Bio) Interfaces, Energy Harvesting/Storage and Data Analysis for Health and Diagnostic Monitoring (National Science Foundation) Received	
	January 2024- January 2025
Consortium of Hybrid Resilient Energy (DOE) (\$14,525) Received	January 2024-September 2024

SCHOLARSHIPS

Turabo Undergraduate Education and Research Excellence System	
(Tu ERES). (USDE-MSEIP).	September 1, 2018- May 2019

National Institutes of Health- IDeA Networks of Biomedical Research Excellence

(NIH-INBRE)

September 1, 2017- May 31, 2018

INTERNSHIPS

Cornell Center for Materials Research REU, Cornell University June 2018- August 2018

-Research in searching for organic electrode materials for electrical energy storage with **Dr. Héctor Abruña**.

Primer Summer Research Internship, Universidad Ana G. Mendez (USDA) June 2017- July 2017

-Research in dopamine detection with electrochemical methods like Fast Scan Cyclic Voltammetry & Electrochemical Impedance Spectroscopy with a Platinum microelectrode with **Dr. Lisandro Cunci**.

WORK EXPERIENCE

Assistant Professor at Universidad Ana G. Méndez. Gurabo, P.R. August 1, 2023- Present

Giving Recitations of General Chemistry II at Purdue University January 2023- July 2023

Teacher Assistant in General Chemistry II at Purdue University January 2023- July 2023

Head Teacher Assistant in Electrochemistry Course at Purdue August 2022- December 2022

Research Assistant at Purdue University July 2022- Present

Research Assistant at UNC-Chapel Hill June 2020- June 2022

Teacher Assistantship in Analytical Chemistry at UNC-Chapel Hill August 2019- May 2020

Tutoring Program CASA Turabo of Chemistry and Calculus I and II January 2017- May 2018

Study and Work helping Math Teacher in Precalculus II August 2016- May 2017

ASSOCIATIONS

American Chemical Society UAGM Gurabo Chapter August 2023- Present

UNC-Chapel Hill President of the Triangle ECS Chapter January 2022- July 2022

Diversity, Equity, and Inclusion Graduate Student Subcommittee September 2021- May 2022

UNC-Chapel Hill Vice-President of Triangle ECS Chapter September 2021- December 2021

UNC-Chapel Hill Liaison of the Triangle ECS Chapter September 2020- May 2021

The Electrochemical Society; Active Membership September 2020- Present

American Chemical Society; Membership August 2017-Present

Vice-President of ACS Chapter in Ana G. Mendez University at Gurabo, P.R. August 2017- May 2019

PRESENTATIONS IN CONFERENCES

2025 NSF-PREM CIE2M / DOE-RENEW PIRES-PR Joint Symposium

Universidad de Puerto Rico at Río Piedras Campus, Puerto Rico January 31-February 1, 2025

46th American Chemical Society Senior Technical Meeting

Guayanilla, Puerto Rico November 2023

The American Chemical Society National Meeting (Poster)

Indianapolis, Indiana in United States of America March 26, 2023

The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (Poster)

Philadelphia, Pennsylvania in United States of America March 21, 2023

Southeastern Regional Meeting ACS (Poster)

San Juan, Puerto Rico October 20, 2022

Abstract Accepted for The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (Poster) 2021

Triangle Student Research Competition

Virtual Poster Session October 16, 2020

The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (Poster)

Chicago, Illinois in United States of America March 4, 2020

38th American Chemical Society Junior Technical Meeting (Oral)

Mayaguez, Puerto Rico May 4, 2019

Annual Biomedical Research Conference for Minority Students (ABRCMS) (Poster)

Indianapolis, Indiana in United States of America November 15, 2018

256th American Chemical Society National Meeting (Poster)

Boston, Massachusetts in United States of America August 19, 2018

Third Health Sciences Interdisciplinary Research Exposition (Oral)

Universidad Ana G. Mendez. Gurabo, Puerto Rico May 15, 2018

IX Symposium Puerto Rico Energy Center, Energy and Environment (Oral)

Universidad Ana G. Mendez. Gurabo, Puerto Rico February 16, 2018

Presentation on Undergraduate Summer Research in Science and Engineering (Oral)

Universidad Ana G. Mendez. Gurabo, Puerto Rico August 25, 2017

EXTRACURRICULAR ACTIVITIES

NSF GRFP Reviewer

Online December 2024

Invited Speaker from John Hopkins- Dr. Netz Arroyo

Gurabo, Puerto Rico November 18, 2024

Seminar: Opportunities in Graduate School in STEM

Gurabo, Puerto Rico October 21, 2024

Helping as a volunteer at the Chemistry Festival- Collaborating with the American Chemical Society

San Juan, Puerto Rico October 20, 2024

Invited Speaker from University of Delaware for Student Recruitment- Dr. Emil Hernández

Gurabo, Puerto Rico October 2, 2024

Resume and Personal Statement Workshop to Apply for Summer Internships

Gurabo, Puerto Rico

October 6, 2023