LA-UR-23-28377

Title: ASTERIX & LANL Experiences

Author(s): Pinzon, Sofia Kelsey

Intended for: Presentation on LANL experiences through the ASTERIX Consortium for
the ASTERIX Consortium meeting at Florida International University
with LANL

Issued: 2023-07-24

ASTERIX/LANL EXPERIENCES

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ASTERIX TIMELINE

ASTERIX Program
FIU
January 2021

UGA Researcher Position
LANL
May 2021

B.S. Electrical Engineering
FIU
Summer 2021

GRA Researcher Position
LANL
Fall 2021

M.S. Electrical Engineering
FIU
Fall 2022

Job Offers
MPA-11, E-2, & Q-6
LANL
October 2022

Accepted
E-2
R&D Engineer 2
November 2022

FIU Engineering & Computing
FLORIDA INTERNATIONAL UNIVERSITY

Los Alamos
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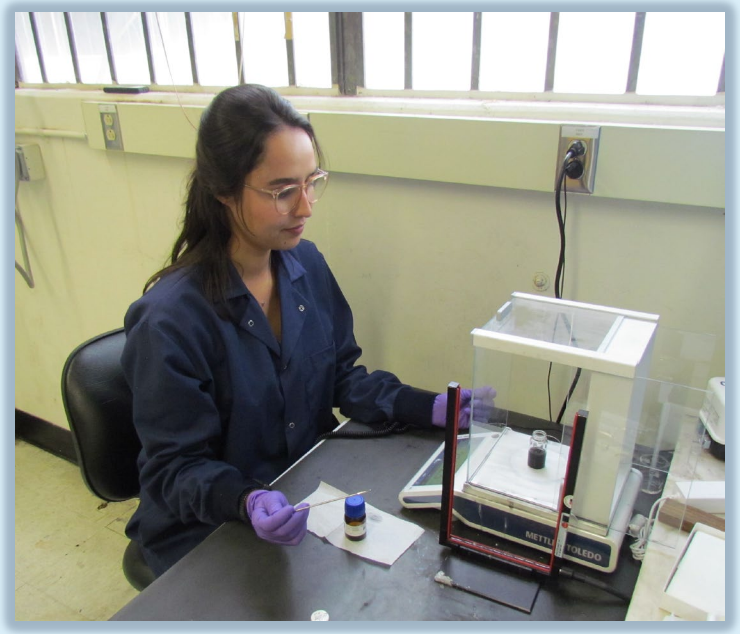
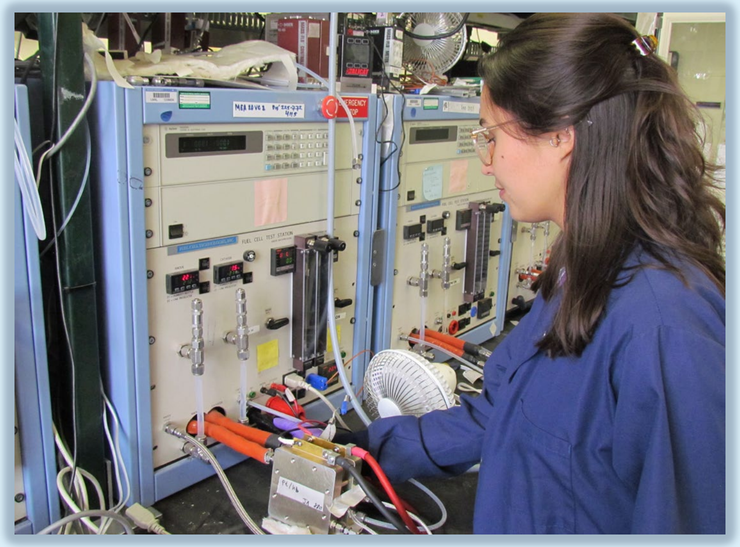
GRADUATE RESEARCH ASSISTANT

- Fuel Cells
  - Fabrication and characterization of Pt inks
  - Fabrication and characterization of MEAs
- Thin Films
  - Fabrication of thin films using PVD
  - Characterization of thin films
  - Assembly of new PVD system
- Mentoring
  - Collaborating and assisting FIU senior design teams
  - Assisting new summer students





THIN FILMS RESEARCH


RESEARCH ARTICLE | MARCH 24 2023

Effects of processing parameters on the morphologies of complex sesquioxide thin films

Sofia K. Pinzon ; James A. Valdez ; Vancho Kocevski ; J. K. Baldwin ; Blas P. Uberuaga ; Cortney R. Kreller ; Benjamin K. Derby

Journal of Vacuum Science & Technology A 41, 033404 (2023)

https://doi.org/10.1116/6.0002398


JVST A

Journal of Vacuum Science & Technology A | 2nd Series | Volume 41, Number 3 | May/June 2023

Atomic Layer Etching

Image Credit: J. A. Michaels, N. Delegan, Y. Tsaturyan, J. R. Renzas, D. D. Awschalom, J. G. Eden, and F. J. Heremans, JVST A 41 (3), 10.1116/6.0002447, (2023).

Review Articles:

Influence of local chemical environment and external perturbations of porphyrins on surfaces

José J. Ortiz-Garcia and Rebecca C. Quardokus

Perspective:

Perspective on improving the quality of surface and material data analysis in the scientific literature with a focus on x-ray photoelectron spectroscopy (XPS)

George H. Major, Joshua W. Pinder, Daniel E. Austin, Donald R. Baer, Steven L. Castle, Jan Čechal, B. Maxwell Clark, Hagai Cohen, Jonathan Counsell, Alberto Herrera-Gomez, Pavitra Govindan, Seong H. Kim, David J. Morgan, Robert L. Opila, Cedric J. Powell, Stanislav Průša, Adam Roberts, Mario Rocca, Naoto Shirahata, Tomáš Šikola, Emily F. Smith, Regina C. So, John E. Stovall, Jennifer Strunk, Andrew Teplyakov, Jeff Terry, Stephen G. Weber, and Matthew R. Linford

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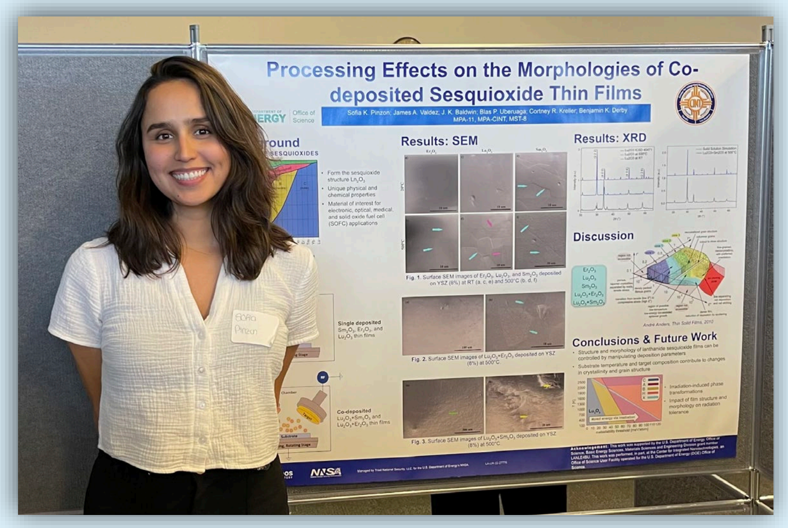
ASTERIX/LANL EXPERIENCE



- Specialized hands-on learning and experience
- Exposure to different projects
- Collaboration with other scientists/engineers/students
- Expand network
- Access to many resources