

Jian-Sian (Albert) Li

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SUMMARY

5+ years of experience in semiconductor fabrication, characterization and simulation, including metrology, photolithography, wet/dry etching, polishing, thin-film deposition, band alignment and TCAD.
First-author paper*20, co-author paper*40, citation*424, conference*11, awards*7

EDUCATION

University of Florida Florida, USA
Ph.D. in Chemical Engineering *Aug. 2021 – Dec. 2024*
 Topic: Fabrication and characterization of Ultra-wide bandgap semiconductor

- Holding several world records for rectifiers

National Taiwan University (NTU) Taipei, Taiwan
B.S. in Chemical Engineering *Sep. 2011 – Jun. 2015*
M.S. in Chemical Engineering *Sep. 2015 – Jun. 2018*

- Thesis: Transient electrophoresis of a dielectric circular cylinder with arbitrary double-layer thickness

EXPERIENCE

NAND Metrology Development Engineer (Intern)
Micron Technology (Boise, Idaho) *May 2024 – Aug 2024*

- Project 1: Establishment of non-destructive detection on under-etched NAND pillars
- Project 2: Modify integrated metrology tool on chemical-mechanical polishing (CMP) machine

 *Received return offer

Research Assistant
Advanced Research Center for Green Materials Science and Technology
College of Engineering, NTU (Taipei, Taiwan) *Dec 2019 – Aug 2021*

- Project 1: High-performance organic field effect transistors (OFETs) and polymer solar cells (PSCs).
- Project 2: Development of High Performance Solid State Polymeric Electrolytes (SPEs).

Research & Development (Intern)
Daxin Materials Corporation (Taichung, Taiwan) *Jun 2016 – Aug 2016*

- Project: Establishment of basic formula for aqueous pigments dispersion

 *Established a systematic research model of experiments and theoretical calculations, which is still used in the company today

SKILLS

Equipment:

Plasma-enhanced CVD, e-beam evaporator, RIE/ICP dry etch, wet etch, sputter deposition, mask making, photolithography, ellipsometer, SEM, XPS, UV/Vis spectrometer, dicing machine, wire-bonding, polisher

Computational tools:

Python, C++, Matlab, DFT, TCAD, NanoDiffraction, CasaXPS, SRIM, Layout Editor, JMP

AWARDS

2024 ECS Conference <i>The Electrochemical Society in San Francisco</i>	<i>2024</i>
• Student presentation award	
Research Excellence Award <i>Chemical Engineering, University of Florida</i>	<i>2023</i>
2023 CS Mantech Conference <i>Compound Semiconductor Manufacturing Technology</i>	<i>2023</i>
• First award in Poster Competition	
Bruce Deal & Andy Grove Young Author Award <i>The Electrochemical Society</i>	<i>2022</i>
2022 FLAVS Conference <i>American Vacuum Society in Florida</i>	<i>2022</i>
• Third award in Poster Competition	
Doctoral Excellence Fellowship <i>Chemical Engineering, University of Florida</i>	<i>2021</i>
• Doctoral Excellence Fellowship	
FFHMT 2018 <i>International Conference on Fluid Flow, Heat and Mass Transfer</i>	<i>2018</i>
• The youngest oral presenter	

CONFERENCE

Oral Presentation

1. 82st Device Research Conference (DRC), **College Park, MD**, June, 2024.
2. 244th the Electrochemical Society (ECS), **San Francisco, CA** May, 2024.
3. Florida-American Vacuum Society (FLAVS), **Gainesville, FL** March, 2024.
4. American Institute of Chemical Engineers (AIChE), **Orlando, FL** Nov, 2023.
5. 243rd the Electrochemical Society, **Boston, MA** May, 2023.
6. 242nd the Electrochemical Society, **Atlanta, GA** Oct, 2022.
7. International Conference on Fluid Flow, Heat and Mass Transfer (FFHMT'18), **Niagara Falls, Canada** June, 2018.

Poster Presentation

1. 81st Device Research Conference (DRC), **Santa Barbara, CA** June, 2023.
2. International Conference on Compound Semiconductor Manufacturing Technology (CS Mantech), **Orlando, FL** May, 2023.
3. IEEE Nuclear and Space Radiation Effects Conference (NSREC) 2022, **Provo, UT** July, 2022.
4. FL-American Vacuum Society (FLAVS) 2022 , **Orlando, FL** May, 2022.



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