

CUONG V. NGUYEN

EDUCATION

- PhD** University of Alabama in Huntsville, Materials Science May 2021
Dissertation: “Effects of Deposition Parameters and Constrained Area on the Characteristics of Langmuir Film of Nanoparticles”
Committee: Dr. Jeffrey Weimer, Dr. Surangi Jayawardena, Dr. Seyed Sadeghi, Dr. Emanuel Waddell, Dr. Lee Moradi
- MS** University of Alabama in Huntsville, Chemical Engineering May 2015
Thesis: “Passive Cooling of Pentium 4 and i3 Processors”
Committee: Dr. James Smith, Dr. Michael Banish, Dr. Emanuel Waddell
- MS** University of Science, Chemistry May 2011
Thesis: “Investigation the Process of Preparation and Capability of Calcium Phosphates in Absorbing Some Heavy Metals in Industrial Waste Water and Drinking Water”
Committee: Dr. Chinh Nguyen, Dr. Nhu Le, Dr. Nam Hoang, Dr. Nguyen Le.
- BS** An Giang University, Chemistry May 2006
Graduated Milestone: “Investigation Oxidizing Ability of Nitric Acid at Different Concentrations on Metal Iron”.
Committee: MSc. Hue Le, MSc. Quang Le, MSc: Thieu Dang, MSc. That Nguyen.

HONORS AND AWARDS

- Pattern application No. 62/905,868 in “Controlled Method to Spontaneously Self-Assembly Uniform, Well-Ordered Films of Solid Nanoparticles” – Pending 2021
Brief description: Constrained area and touch deposition method can be used to form uniform and well-ordered films of nanoparticles.
- Second place winner of Alabama Academic of Science Conference in Chemistry 2018
Brief description: I presented my research at this conference and won the second place.
- Master thesis work in passive cooling system for computer was on the news 2015
 - 1) <https://www.uah.edu/news/research/computer-cooling-system-could-save-us-6-point-3-billion-dollars-in-electricity-a-year>
 - 2) https://www.google.com/search?client=firefox-b-1-d&ei=oUabXeXCAsfs_Qbu6JY4&q=cuong+nguyen+uah+passive+cooling&oq=cuon

[g+nguyen+uah+passive+cooling&gs_l=psy-ab.3.33i29912.4363.14230.14588...9.0..0.194.2448.18j7.....0....1..gws-wiz.....33i160j33i22i29i30.V6bJuFE5xwg&ved=0ahUKEwill9uTqYrIAhVHdt8KHW60BQcQ4dUDCAo&uact=5](https://www.researchgate.net/publication/3312991243631423014588900194244818j70001gws-wiz331160j33i22i29i30.V6bJuFE5xwg&ved=0ahUKEwill9uTqYrIAhVHdt8KHW60BQcQ4dUDCAo&uact=5)

- Award from Chancellor of An Giang University for academic excellence. 2006
- Third prize in National Chemistry Olympic. 2005
- Recipient of Nguyen Thai Binh's Scholarship. 2004
- Recipient of "Overcome difficulties, Study well" Scholarship. 2004

TEACHING EXPERIENCE

University of Alabama in Huntsville, AL

Aug 2021 to present

Part time Instructor, Department of Chemistry

- Quantitative Chemical Analysis (CH 223), an undergraduate course that has around 40 students, covering the following topics: Quantitative chemical analysis experimental, error statistical analysis, titrations – acid/base, complexometric, electrochemistry potentiometry, redox titrations, voltammetry, spectrophotometry, chromatography
- Quantitative Chemical Analysis Lab (CH 224), an undergraduate course that has around 40 students, covering the following topics: Introduction to quantitative analytical chemistry laboratory, experiments include pH measurements, spectrochemical, gravimetric, and volumetric titrations.
- General Chemistry (CH 121), an undergraduate course that has around 60 students, covering the following topics: Chemical properties of elements, their periodic groups, and their compounds reactions and stoichiometry, nature of the chemical bond, molecular structure, thermochemistry, properties of gases, liquids, and solids.
- Teaching Assistant for Chemical Instrumental Analysis Lab, an undergraduate and graduate course that has around 30 students, covering the following topics: Contact angle, GC-MS, HPLC, Raman, UV-Vis, IR Spectroscopy.
- Developed quizzes, exams, and homework, and grade them.
- Using Achieve from Mac Millan learning system for teaching CH 223.
- Using Connect from McGraw Hill Education learning system for teaching CH 121.

University of Alabama in Huntsville, AL

Aug 2015 to May 2021

Teaching Assistant, Department of Chemistry

- Summarize experiments before students do it, stress on important parts and skills that students need to know. Assist students during the lab, explain the results, answer questions from students, grade their reports with explanation, meet them at office hours and by appointment, reply to their emails as soon as possible.

RESEARCH EXPERIENCE

Dissertation, University of Alabama in Huntsville, AL

2021

Advisor: Dr. Jeffrey Weimer

Create Langmuir thin film of quantum dots (CdSe, CdTe/ZnS), deposit methods (drop and touch methods), use Atomic force spectroscopy, Brewster angle microscope, taking images under ultraviolet and low light conditions, process images using Igor Pro and ImageJ software.

Thesis, University of Alabama in Huntsville, AL

2012 to 2015

Advisor: Dr. James Smith

Design processors to let FC-72 liquid go through to cool computers. Using software to acquire temperature data and process them. Using knowledge from heat and mass transfer classes to explain and discuss results.

PATENTS

Pattern application No. 62/905,868 in “Controlled Method to Spontaneously Self-Assembly Uniform, Well-Ordered Films of Solid Nanoparticles” – Pending

2021

PRESENTATIONS

Nguyen, Cuong and Weimer, Jeffrey, “Investigations of Langmuir and Langmuir-Schaefer Films of Quantum Dots with n-Heptyl Acetate”. AVS 63rd International Symposium and Exhibition Nashville Convention Center, Nashville, Tennessee. November 06 - 11, 2016.

Nguyen, Cuong and Weimer, Jeffrey, “Investigations of Langmuir and Langmuir-Schaefer Films of Quantum Dots” Alabama Academy of Science 93rd Meeting, The University of North Alabama, February 17-19, 2016.

Nguyen, Cuong and Weimer, Jeffrey, “Toward Reliable Production of Well-Structured, Self-Assembled Thin Films of Quantum Dots for Surface Coatings”. 2017 Southeast Regional Meeting (SERMACS). Charlotte, North Carolina, November 7-11, 2017.

Nguyen, Cuong and Weimer, Jeffrey, “Generating a State Diagram of Self-Assembled Films of Quantum Dots”, Alabama Academy of Science 95th Meeting, 2018.

LANGUAGES

List the languages that you know, along with your level of proficiency. Use an appropriate proficiency scale such as the ACTFL which provides guidelines for Novice, Intermediate, Advanced, Superior, and Distinguished levels in Listening, Speaking, Reading, and Writing.

English: Proficient in four skills: reading, listening, speaking and writing.

Vietnamese: Native language.

REFERENCES

1. **Dr. Jeffrey Weimer**
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University of Alabama in Huntsville,
Materials Science Building, Room 125
256.824.6954
jeffrey.weimer@uah.edu
2. **Dr. Emanuel Waddell**
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Materials Science Building, Room 207E
256.824.6844
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3. **Dr. Carmen Scholz**
PROFESSOR
University of Alabama in Huntsville,
Materials Science Building, Room 221
256.824.6188
carmen.scholz@uah.edu