

# Curriculum Vitae

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## Azadeh Nazemi

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### Educational Background

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- ❖ **PhD student** at University of North Texas, Denton, TX (Fall 2016-present)  
Advisor: Prof. Thomas R. Cundari  
Expected graduation date: May 2020
- ❖ **Master of Science** in Physical Chemistry, Iran University of Science and Technology, Tehran, Iran (Sep 2010-Nov 2012)  
**Thesis Title:** “Electrofabrication of aluminium oxide nanowires from high purity aluminium film via two step anodization”
- ❖ **Bachelor of Science** in Chemistry, Alzahra University, Tehran, Iran (Sep 2006-July 2010)

### Research Experiences

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#### In University of North Texas:

- ✓ Modeling and DFT calculations of organometallic compounds and catalysts
- ✓ DFT study of C-H bond activation based on ethylbenzene dehydrogenase (EBDH) active-site mimics.

#### In Iran University of Science and Technology:

- ✓ Electrochemical synthesis of nanowires
- ✓ Synthesis of Semiconductors (TiO<sub>2</sub>) and investigation of their application

### Research Publications:

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1. J. Oscar C. Jimenez-Halla\*, **Azadeh Nazemi**, Thomas R. Cundari\*, “DFT study of substituent effects in the hydroxylation of methane and toluene mediated by an ethylbenzene dehydrogenase active site model”, *Journal of Organometallic Chemistry*, (2018) 44-49.
2. **Azadeh Nazemi**, Thomas. R. Cundari\*, “Control of C-H bond activation by Mo-oxo complexes: pK<sub>a</sub> or bond dissociation free energy (BDFE)?”, *Inorganic Chemistry*, (2017) 56, 12319-12327.
3. Ahmad Najafian, Rahmatollah Rahimi, Solmaz Zargari, Masoumeh Mahjoub-Moghaddas, **Azadeh Nazemi**, “Synthesis and photocatalytic activity of V-doped mesoporous TiO<sub>2</sub> photosensitized with porphyrin supported by SBA-15”, *Research on Chemical Intermediates*, (2016) 42, 3441-3458.
4. **Azadeh Nazemi**, Ahmad Najafian, Seyed Abolfazl Seyed Sadjadi, “Aluminium oxidenanowires synthesis from high purity aluminium films via two-step anodization”, *Superlattices and Microstructures*, (2015) 81, 1-6.

5. **Azadeh Nazemi**, Seyed Abolfazl Seyed Sadjadi, "Controlling the anodizing conditions in preparation of a nanoporous anodic aluminium oxide template", *Materials Science-Poland*, (2014) 32, 4, 565-570.

### *Conferences and Presentations:*

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1. **Azadeh Nazemi.**; Thomas R. Cundari\*. "Control of C-H Activation by Mo-Oxo Complexes: pKa or BDFE?". Oral Presentation at ACS Meeting in Miniature, Fort Worth, TX. **2017**.
2. **Azadeh Nazemi.**; Thomas R. Cundari\*. "Control of C-H Activation by Mo-Oxo Complexes: pKa or BDFE?". Oral Presentation at ACS Southwest Regional Meeting, Lubbock, TX. **2017**.
3. **Azadeh Nazemi**, Seyed Abolfazl Seyed Sadjadi\*, Fabrication of AAO template and investigating the potential effect on its structures, Nanotechnology Conference, Iranian Society of the Nanomedicines, Tehran, Iran, **2013**.
4. **Azadeh Nazemi**, Seyed Abolfazl SeyedSadjadi\*, Analysing the impact of electrolyte concentration on AAO template in order to fabrication of one-dimensional nanostructures, Nanotechnology Conference of Tarbiate Modares University, Tehran, Iran, **2013**.

### *Teaching and Work Experiences*

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- Research Assistant in Dr. Thomas Cundari's Research Group, Chemistry Department, University of North Texas, United States (Fall 2016- present).
- Teaching Assistant, Chemistry Department, University of North Texas, United States for "physical chemistry lab" (Fall 2017).
- Teaching Assistant for the course "physical chemistry", Iran University of Science and Technology, Tehran, Iran (Two semesters).
- Teaching "industrial chemistry" course in Payam-e-Noor University, Tehran, Iran (Two semesters).
- Two years of experience in teaching "chemistry" at highschool, Tehran, Iran.

### *Professional Societies Membership*

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- Member of American Chemical Society (ACS)

### *Awards*

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- George Vaughan Memorial Award as outstanding 1<sup>st</sup> or 2<sup>nd</sup> year graduate student in the Department of Chemistry, UNT (May 2018)

### *Reference*

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- **Professor Thomas R. Cundari** , Chemistry Department, University of North Texas, 1155 Union Cir., Denton, TX 76203, (940) 565-3525.