

# SeyedMajid Farvid

Room 386, Chemistry Building, University of North Texas, **EDUCATION**

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**PhD Student**, Chemistry, (2016-present) University of North Texas (UNT), Denton, Texas, USA

Supervisor: Dr. Mohammad A. Omary

**Master of Science**, Polymer Engineering/Color Science and Technology. (2009-2012)  
Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran

Supervisors: Dr. Alireza Khosravi, Dr. Kamaladin Gharanjig

**Thesis:** Synthesis and Characterization of the Novel Fluorescent Compounds Based on Naphthalimide Derivatives

**Bachelor of Science**, Polymer Engineering/Color Science and Technology. (2005-2009)  
Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran

Supervisor: Dr. Seyed Mohsen Mohseni Bozorgi

**Project:** Determination of Surface Energy of Polyurethane Anti-Graffiti Coatings Using Tensile Test

## SKILLS

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### Synthesis

- Synthesis and characterization of conventional hybrid polyurethanes having low to very low surface energy
- Synthesis of organic and organometallic compounds by several versatile organic reactions like nitration, oxidation, imidation, reduction, coupling, sulphonation, acetylation, acylation, desulfonation, diazotisation and amination.
- Purification of organic and organometallic compounds by various methods such as crystallization, sublimation, column chromatography, and thin layer chromatography.
- Spectroscopic techniques such as FTIR,  $^1\text{H}$ NMR and  $^{13}\text{C}$ NMR.

### Characterization

- Ultraviolet-visible spectrophotometer (UV-Vis), Photoluminescence (PL), Fourier transform infrared (FTIR), Proton nuclear magnetic resonance ( $^1\text{H}$ NMR), Carbon

nuclear magnetic resonance ( $^{13}\text{C}$ NMR), Differential scanning calorimetry (DSC), Stress-strain analysis (SSA), Wilhelmy plate tensiometer, Mass Spectrometry, Electrochemical impedance spectroscopy (EIS), Thermal gravimetric analysis (TGA), Electroluminescence (EL)

### **Languages**

- Native in Persian
- Fluent in English

### **Computer**

- Matlab7, Microsoft office, Pascal, SPSS, Chem Office, Origin

## **RESEARCH EXPERIENCE**

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### **Research Assistant**

*University of North Texas, Denton, TX, Omary Lab (March 2016-present)*

- Fabricating Organic Light Emitting Diode devices

*Department of Polymer Eng & Color Tech., Amirkabir University of Technology, Tehran, Iran (2009-2012)*

- Investigating the fluorescent properties of organic components in various solvents
- Researching the correlation between Stokes shift and orientation polarizability using the Lipert-Mataga equation
- Supervising undergraduate students in experiments and training on lab instrumentation

*Department of Polymer Eng & Color Tech., Amirkabir University of Technology, Tehran, Iran (2008-2009)*

- Producing anti-graffiti properties on polyurethane coatings using silicone additives
- Exploring optical properties, free surface energy, and modulus measurements of anti-graffiti coatings
- Optimizing the ratio of additive to achieve the best anti-graffiti and mechanical properties and sold the formulation to a company

### **Course project**

- Writing a Matlab code for modeling the solvent evaporation process from the surface of a coating using Finite Element Method, (2010).

## **PRESENTATION**

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**Farvid, S. M.** Khosravi, A. Gharanjig, K. (2011) “The synthesis and properties of triazine-stilbene reactive dye containing the 1,8- naphthalimide” 4<sup>th</sup> International Color and Coating Congress, November 22-24, 2011, Tehran, Iran

**Seyedmajid Farvid**, et al. (2017) “Improving the performance of prototypical bi-layer devices by a novel double-doping method” 50<sup>th</sup> ACS Meeting-in-Miniature (MiM), April 29, 2017, DFW, USA

## **TEACHING EXPERIENCE**

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### **Teaching Assistant**

*Amirkabir University of Technology, Department of Polymer Eng & Color Tech., Tehran, Iran*

Synthesis Intermediate and Colorants Lab (2010-2012)

*University of North Texas, Department of Chemistry, Denton, TX,*  
General Chemistry lab (2017-2018)