

# Zahra

# Zamani faradonbeh

Curriculum Vitae

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Tehran, Iran

Z.Zamani faradonbeh

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## Profile

I am a graduated Master's student in Materials Science and Engineering, educated at the best technological university in Iran, with three published papers in reputable journals, proficient in technical tools, with a high GPA, and more than five years of work and research experience.

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## Education

- 2019-2022

**M.S. in Material science and Engineering**

Sharif University of Technology, Tehran, Iran

**Thesis title:** "Construction and characterization of photoelectrodes based on double layer hydroxide FeNiCo / WO<sub>3</sub> for solar seawater splitting "

**Supervisor: Dr. Abdoreza(Arash) Simchi / Dr. Alireza Moshfegh**

- 2016-2019

**B.S. in Materials Science and Engineering**

Shahrekord University, Shahrekord, Iran

**Thesis title:** Construction and characterization of magnetic induction and hypothermic furnaces on an industrial scale

**Supervisor: Dr. Ebrahim Sharifi**

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## Publication

1. Behnam Nourmohammadi Khiarak, Majdoddin Mojaddami, **Zahra Zamani Faradonbeh**, Angelina Olegovna Zekiy, Abdolreza Simchi, "ACS Energy & Fuels", **Efficient Electrocatalytic Overall Water Splitting on a Copper-Rich Alloy: An Electrochemical Study**.
2. **Zahra Zamani Faradonbeh**, Nafise bolghanabadi, Mohsen saeedi, Matin Mohebi, Abdolreza Simchi "Under review", **Topological insulator Bi<sub>2</sub>Te<sub>3</sub> co-catalyst on Ternary NiFeCo-metal-organic framework for overall water splitting**.
3. **Zahra Zamani Faradonbeh**, Mohsen saeedi, Abdolreza Simchi, Alireza Moshfegh "Under review", **Ternary NiCoFe-layered double hydroxide Co-catalyst on WO<sub>3</sub> photoanode for low bias photoelectrochemical seawater oxidation**

## Workshops and conferences

- **Motion graphic** Workshops, Sharif University of Technology, December 2022.
- **Machine Learning** Workshops, Sharif University of Technology, currently 2020.
- **MATLAB** Workshops, Sharif University of Technology, September 2020.
- **Coding / Python** Workshops, Sharif University of Technology, April 2020.

- **Photoshop** Workshops, Sharif University of Technology, December 2019.
- "Casting" competitions and educational conference / 8th Iranian Materials Science and Metallurgy Engineering Student Competition, Shahrekord University, October 2019.
- "Non-destructive welding" workshop, technical and professional in Isfahan, October 2018.
- Workshop and educational conference "Steel Structure" / Scientific Conference on Materials Engineering of Saba Steel Zagros Company, Shahrekord University, May 2018.
- "**Expert Software**" workshops, Shahrekord University, September 2018.
- CMAT Workshop and Educational Conference / 14th Iranian Conference on Materials and Metallurgy Engineering, Shahrekord University, October 2017.
- Workshop "Industrial Design Introductory Course with Solid Works Software", Shahrekord University, May 2018.

## Work Experience and Activities

- **Education and research and development expert**, Sharif Entrepreneurship, 2021-now
- **Expert research and development**, karyabisharif, 2019-2021
- **Teaching assistant** For the course of physical metallurgy **Dr.M.Reisi** 2021.
- **Teaching assistant** For the course of Solidification **Dr.M.Reisi** 2021.
- **Research assistant** in the field of electrochemistry and photoelectrochemistry and in the discussion of clean and renewable hydrogen energy, Department of Materials, **Sharif University**, From 2019.  
Laboratory: **Dr. Abdoreza(arash) Simchi / Dr. Alireza Moshfegh**
- **chief editor**  
Journal of Growth and Entrepreneurship, Sharif University of Technology, June 2020.
- **The internship**  
Saba Steel Zagros Company, Quality Control Laboratory and Production Line Inspector, Summer 2019.
- **Research Assistant**  
Biomaterials Laboratory, Department of Materials, Shahrekord University, August 2016. Laboratory: **Dr. Ali Dost Mohammadi**
- **Research Assistant**  
Biomaterials Laboratory, Department of Materials, Shahrekord University, September 2018. to July 2019  
Laboratory: **Dr. Ebrahim Sharifi**
- **Research Assistant**  
Composite and alloying laboratory, Department of Materials, Shahrekord University, August 2016.  
Laboratory: **Dr. Ali Dost Mohammadi**

## Achievements

- Selected as the top idea give at Inoka Festival
- Construction of induction furnace and obtaining the degree of knowledge-based company
- Ranked 11 countries in the 2019 master's entrance exam

## Skills

Laboratory skills (experimental experiences)/ software (computer proficiencies)

- Microscope Operator SEM ,TEM

- Galvanostate & Potentiostat devices
- Industrial design with SolidWorks software
- Phase analysis with software Xpert
- Work with statistical software Minitab/ Nova/ Matlab/ Photoshop

#### **Language**

- Persian (native)
- English(Studying for the IELTS test)
- Very little German (For personal interest)
- Turkish (Mother tongue)
- Arabic

#### **Interest**

- Teamwork
- Study in the field of health
- Mountaineering
- Swim
- Walk among the people

### **References**

- **Dr. Abdoreza(arash)Simchi**  
[simchi@sharif.edu](mailto:simchi@sharif.edu)  
Engineering and Materials Science Department, Sharif University of Technology, Tehran, Iran
- **Dr. Alireza Moshfegh**  
[moshfegh@sharif.edu](mailto:moshfegh@sharif.edu)  
Physics Department, Sharif University of Technology, Tehran, Iran
- **Dr. Ali Doostmohammadi**  
[Doost@yorku.ca](mailto:Doost@yorku.ca)  
Mechanical Department, York University, Toronto, Canada