**First name:** Shima
**Last name:** Kalantarifard
**Email:** shima.kf1996@gmail.com

Gender: Female | Age: 27 | T: (+421) 949 619 823

Dedicated and ambitious Nano Chemistry graduate with a passion for research and innovation in Polymer Science. Possessing a solid foundation in Nano materials synthesis and characterization, coupled with a keen interest in the intricate properties of polymers, I am driven to pursue a Ph.D. in Polymer Science to further explore novel materials and contribute to advancements in various industries. With a strong background in research methodologies and a commitment to academic excellence, I am eager to leverage my skills and knowledge to tackle complex challenges and make meaningful contributions to the field of materials science.

## EDUCATION

**2018 to 2022**
**M.Sc.: Nano Chemistry**
Department of Chemistry, Institute for Advanced Studies in Basic Sciences (IASBS), zanjan, Iran.
**Thesis:** Investigation of Water Oxidation by Nickel compounds.
**GPA:** 18.06/20

**2015 to 2018**
**B.Sc.: Pure Chemistry**
Department of Basic Sciences, Zanjan University, Zanjan, Iran.
**GPA:** 15.95/20

**2011 to 2015**
**Diploma: Mathematik**
Hoda School, Zanjan, Iran.

## PUBLICATIONS

**2023**
**Application of a Nickel complex for Water Oxidation under Neutral and Acidic Conditions.**
**ACS, Applied Energy Materials**

**Shima Kalantarifard**, Nader Akbari, Pavlo Aleshkevych, Subhajit Nandy, Keun Hwa Chae, Mohammad Mahdi Najafpour.
**Doi:** 10.1021/acsaem.3c00055

**2022**

**Water Oxidation in the presence of a Nickel Coordination Compound: Decomposition Product, Fe Impurity in the Electrolyte, and a Candidate as a Catalyst.**

**ACS, The Journal of Physical Chemistry C**

**Shima Kalantarifard**, Rahman Bikas, Subhajit Nandy, Tadeusz Lis, Keun Hwa Chae, Mohammad Mahdi Najafpour.
**Doi:** 10.1021/acs.jpcc.2c02611

**2020**

**Water oxidation by a nickel complex: New challenges and an alternative mechanism.**

**ELSEVIER, International Journal of Hydrogen Energy**

**Shima Kalantarifard**, Suleyman I.Allakhverdiev, Mohammad Mahdi Najafpour.
**Doi:** 10.1016/j.ijhydene.2020.09.111

## WORK EXPERIENCE

**2023**

**Research Assistant**

Department of Chemistry, Institute for Advanced Studies in Basic Sciences (IASBS), zanjan, Iran.
**Main focus of my research was synthesis and modification of polycyclodextrin**

**2024- Now**

**Research Assistant**

Department for Biomaterials Research, Polymer Institute Slovak Academy of sciences (PISAS), Bratislava, Slovakia.
**My project involves synthesis polysaccharide-based hydrogels with self-healing properties.**

## RESEARCH INTERESTS

- Tissue engineering
- Cell Encapsulation
- Cyclodextrin-based polymer synthesis and characterization
- Injectable hydrogels
- Water Oxidation
- CO2 reduction

## WORKSHOPS & SEMINARS

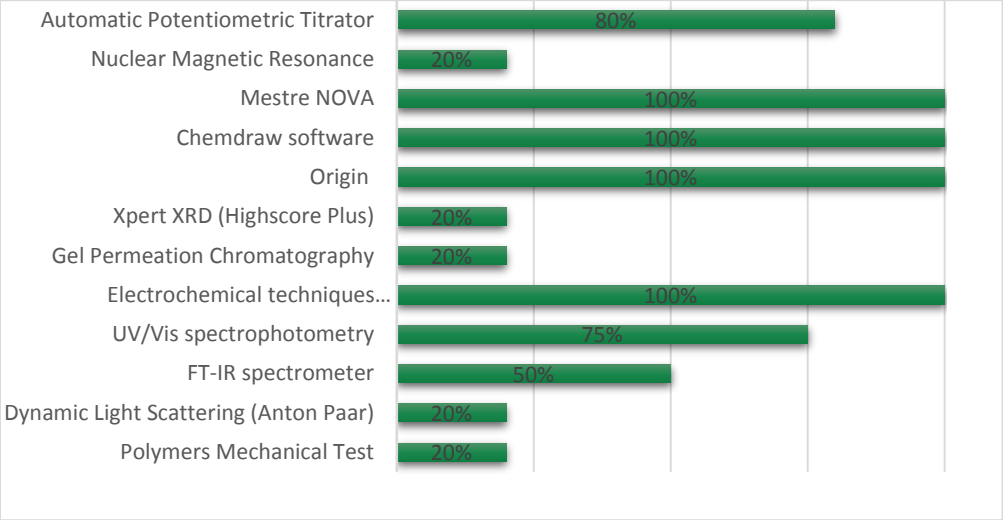
- Certificated in Infrared spectroscopy (IR) UV/Vis spectrophotometry
- Certificated in Nano materials Synthesis and Characterization Techniques
- Certificated in Atomic Force Microscopy (AFM)

- Certificated in First Aids for Babies, Children and adults
- Certificated in Scanning Electron Microscopy (SEM) – Transmission Electron Microscopy (TEM)
- Certificated in X-ray Diffraction (XRD)
- Certificated in Dynamic Light Scattering (DLS)
- Attended the conference on Iranian organometallic compounds at Zanjan University.
- Attended the Second Seminar on Organic Metal Chemistry at the Institute for Advanced Studies in Basic Sciences.

## SKILLS

- Familiarity with safety in the laboratory
- High teamwork ability

## TECHNICAL METHODS AND SKILLS




## LANGUAGES

- Persian (Native)
- Azari (Native)
- English (Advanced)
- Germany (Intermediate)
- Turkish (Basic)