MAHSASADAT ADEL RASTKHIZ

Date of birth: 3 June 1999 (1999-6-3)

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Email:

- Adelmahsa3@gmail.com

Education:

- Sharif University of Technology, Tehran, Iran.

  M.Sc. in Materials Selection and Characterization

  GPA: 18.08 out of 20   (September2021-up to now)

- Ferdowsi University of Mashhad-Department of Materials and Metallurgical Engineering

  B.Sc. in Material Science and Engineering

  GPA:18.80 out of 20   (September2017-September2021)

Research Experience:

M.Sc. projects:

- Photoelectrocatalytic performance of mesoporous TiO2 nanostructures decorated with a Cu-Ag-Zn nanoparticle for CO2 reduction reaction.
- electrocatalytic performance of SLM stainless steel 316L for CO2 reduction reaction.
- Supervisor: Professor Abdolreza (Arash) Simchi

B.Sc. projects:

- Solution combustion synthesis of nanocomposite specially (NiO –Ni-(NiO-Ni)) electrocatalyst for methanol oxidation in alkaline media for fuel cell application.
- Supervisors: Dr. Mostafa Mirjalili , Dr. Seyed Abdolkarim Sajjadi
- Preparation of aluminum alloys by zincate process for nickel phosphor electroless coatings.
- Supervisor: Dr. Mostafa Mirjalili
- Effect of ball milling on electro catalytic properties of Bulk NiO   and synthesis of graphite -NiO composite by ball milling process for methanol oxidation in alkaline media for fuel cell application.
- Supervisor: Dr. Mostafa Mirjalili

Honors And Awards:

Ranked 2nd among 50 bachelor students of material engineering in material science and engineering Olympiad exam   (2022)

- Permitted to study M.Sc. in material science and engineering in material selection and characterization without entrance exam in Sharif University of Technology, and Ferdowsi University of Mashhad (This permission is only awarded to talented students, introduced by the Exceptional Talents Office).

  (2021)

- Ranked top 4% of approximately 3,000 participants in Iran national universities entrance exam for M.Sc. degree

  (2021)

- Ranked 1th among 77 undergraduate students in bachelor of material science and engineering, FUM.

  (2017-2021)

Research Interests:

- Electrochemistry
- electrocatalyst and photocatalyst
- Advanced materials, Nanomaterial synthesis, Nanostructured materials, Nanocomposites

Work Experience:

- DTA Operator.
- zincate process for aluminum alloys.

Lab Skills:

- Operator of DTA-TG device
- Working with Potentiostate (cyclic voltammetry test, EIS test ,…)
- Working with planetary ball mills

Teaching Experience:

❖ Teaching assistant, Ferdowsi University of Mashhad
   - Physical properties of material , B.Sc. [Professor Mohammad Hadi Moayed](#)
   - Responsibilities included preparing and grading the homework, holding TA sessions for extra work

     (October2021- January 2022) (January 2022- June 2022)

❖ Teaching assistant, Ferdowsi University of Mashhad
   - crystallography, B.Sc., [Professor Ali Reza Kiani Rashid](#)
   - Responsibilities included preparing and grading the homework, holding TA sessions for extra work

     (January 2019-June 2019) (October 2019-January 2020) (January 2020-June 2020)

❖ Transfer Phenomena ,B.Sc., [Dr. Mostafa Mirjalili](#)

- Responsibilities included preparing and grading the homework, grading exam paper , holding TA sessions for extra work

  (October 2019-Januarry 2020)

❖ Software assistant

- Transfer Phenomena ,B.Sc., [Dr. Mostafa Mirjalili](#)
- Responsibilities included preparing and grading the homework, teaching origin lab and excel software.

  (October 2020-Januarry 2021)(January 2021-June 2021)

Language Skills:

- English: fluent (B2,C1 level)
- Farsi: Mother language

Software Skills:

❖ **Expert:**

- XPert high score plus (Quality and Quantification Analysis)
- ZView software for analysis EIS test results
- Origin lab
- Microsoft office (word, excel, PowerPoint)
- HSC
- Mendeley

❖ **Familiar:**

- Solidworks
- Repetier Host for 3D printing application
- Matlab
- C++

References:

- Professor Abdolreza (Arash) Simchi
- Professor Mohammad Hadi Moayed
- Dr. Mostafa Mirjalili
- Dr. Ghasem Barati Darband
- Dr. Seyed Abdolkarim Sajjadi