



Sajjad Ebrahimi Moghaddam

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Education

M.Sc., Materials and Metallurgy Engineering

Sep 2022 – Jan 2025 (expected)

School of Metallurgy and Materials Engineering, University of Tehran, Tehran, Iran

[\(Ranked 152st in the world and 1st in Iran in material science by the US news ranking\)](#)

- **Thesis:** Recovery and adsorption of gold using synthesized reduced graphene oxide and its related environmental impact
- **Supervised by:** Dr. Fereshteh Rashchi
- **Total CGPA:** 3.86 /4 (17.57/20)

B.Sc., Materials and Metallurgy Engineering

Sep 2017 – March 2022

School of Metallurgy and Materials Engineering, Iran University of Science and Technology, Tehran, Iran

[\(Ranked 271st in material science in the world by the US news ranking\)](#)

- **Thesis:** Methods of extracting rare earth compounds from primary sources
- **Supervised by:** Dr. Somaye Alamolhoda
- **Total CGPA:** 2.73/4 (14.5/20)
- **CGPA of last two years:** 3.17/4

Research Interest

- Nanomaterials and graphene
- Adsorption
- Recycling of wastes
- Hydrometallurgy
- Waste management
- Rare earth elements

Publications

1. Ebrahimimoghaddam S.; Hamidi A.; Rashchi F.; Vahidi E.; "selectivity and mechanism study of PVDF-rGO membranes for gold adsorption and its life cycle analysis." (under preparation) **2025 (exp)**
2. Chavoshi M.; Ebrahimimoghaddam S.; Rashchi F.; Vahidi E.; "Effective microwave assisted leaching of rare earth elements from red mud using organic acids." (under preparation) **2024**

3. Rajaei A.; Ebrahimimoghaddam S.; Rashchi F.; Vahidi E.; "Electrolyte and PVDF recovery from spent Li-Ion batteries using vacuum distillation and solvent extraction." (under preparation) 2025(exp)
4. Aghaee S.; Ebrahimimoghaddam S.; Rashchi F.; Vahidi E.; Latifi M.; "Selective recovery and separation of REEs from Nd magnets of waste hard disk drives using chemically reduced graphene oxide." (under preparation) 2025(exp)

Academic Experiences

- **Teaching Assistant**, University of Tehran, Tehran, Iran. Sept2024-Feb2025
Theory of Bio,Hydro, electrometallurgy processes
Supervised by: Dr. Fereshteh Rashchi
- **Post graduate Research assistant**, University of Tehran, Tehran, Iran. 2022-2024
Recycling Laboratory
Supervised by: Dr. Fereshteh Rashchi

Selected Specialized Courses

	<u>WES score (out of 4)</u>
- Advanced Thermodynamics of materials (M.Sc)	4
- Theory of Bio,Hydro Electrometallurgy (M.Sc)	4
- Advanced methods of materials characterization (M.Sc)	4
- Kinetics of materials (B.Sc)	4
- Analytical Chemistry and Laboratory (B.Sc)	4
- Ore processing and Laboratory (B.Sc)	4

Specialized software Skills

Programming: Python(Advanced) – Machine learning (basics)

Quantum mechanics Simulations – DFT: Material Studio

Thermodynamic Softwares: HSC, Medusa

Computer-aided Design: Solidworks

Crystallographic Analysis: Xpert HighScore Plus

Others: Origin, and Design-Expert, Mini-tab, Image J, Excel

Languages & test scores

Persian – Mother tongue

English – IELTS 7.5 (S:7, L:9, W:7, R:7.5) ~ C1

German – A1

Workshops & other courses

Density Functional Theory - École Polytechnique - Coursera

Introduction to molecular spectroscopy – University of Manchester – Coursera

Nanotechnology: A Maker's Course – Duke University – Coursera

Graphene – Synthesis, Characterization and utilization – Nanoeducation.ir

Machine learning by Python - maktabkhooneh.org

Academic Projects [explore more]

- Investigating methods of extracting REEs from primary sources and red mud [Link] .
- Investigating Ammonium thiosulfate leaching of gold [Link].
- Exploring additive manufacturing of materials using material jetting technique [Link].

Work Experiences

- Internship at Fooladrizan complex – Molding, Casting, Calculations, Quality control **2022**
- Laboratory Operator (SES analysis) at Parsian Metallurgy Center **2022**

Certificates

- Solidworks fundamnetals course – Tehran institute of technology [Link]
- ImageJ course – University of Tehran [Link]
- Machine learning with python – Maktabkhoone [Link]
- IELTS 7.5 [Link]

Honors and Awards

- Ranked 28 among more than 3,000 participants in the Iran National Entrance Exam for entering the postgraduate program. **2022**
- Ranked within the top 10 students in the postgraduate program in the school of material science. **2022**

References

Name: Fereshteh Rashchi

Email: rashchi@ut.ac.ir

Location: University of Tehran, Tehran , Iran

Name: ...

Email: ...@ut.ac.ir

Location: University of Tehran, Tehran , Iran

Name: Ehsan Vahidi

Email: evahidi@unr.edu

Location: University of Nevada, Reno, Nevada , United states of America