

PERSONAL INFORMATION

**Bardia Irajian**

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 [ORCID 0000-0002-4642-9422](https://orcid.org/0000-0002-4642-9422)

Gender Male | Date of birth 6 December 1999 | Nationality Iranian

JOB APPLIED FOR **Student**

WORK EXPERIENCE

December 2019 – Present **Research and Development Manager**

Padrapat Pars
Motahari Street, Paknejad Avenue, Saadat-Abad, Tehran (Iran)/ padrapat.com

- Waterborne Epoxy and Hardener
- Polyurethane Sealants
- Polyurethane Foam Formulation
- Epoxy Pre-Polymer with Lower Heat and Shrinkage

January 2021 – June 2022 **Teacher Assistance**

Organic Chemistry TA
University of Tehran

January 2021 – January 2022 **Internship (Polymer Technician)**

APEK Hose
Zavaree Industrial Town, Saveh Road (Iran)/ apekco.com

- Rubber Hose Curing Simulation
- Rubber Hose Mechanical Simulations
- Rubber Compounding and Process

November 2021 – November 2022 **Editor In Chief**

MIM Scientific Journal
Scientific Association of Chemical and Polymer Engineering, University of Tehran

- Organizing editing, designing, and writing teams.
- Developing a website for the journal (mimsj.ut.ac.ir)

EDUCATION AND TRAINING

2018-2022 **Bachelor of Science in Polymer Engineering**

University of Tehran, Iran

- Final Project: Synthesis of Polyurea Polyaspartic High Abrasion and Chemical Resistance Coatings
- Concepts of polymers: Synthesis, Behavior, Design, and Process
- Recycling Methods
- Modeling and Process Control
- Economics and Design
- Ranked 1 out of 26 students (top 5 percent)

2018-2022 **Chemistry Minor**

University of Tehran, Iran

- Polymer Chemistry
- Industrial Chemistry
- Inorganic Chemistry
- Catalysts

 Summer 2017 **Iranian National Chemistry Olympiad (IrChO) Silver Medalist**

Young Scholars' Club, Iran

- First silver medal in national Chemistry Olympiad
- Ranked 9 out of 45 students

PERSONAL SKILLS

Mother tongue Persian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	B2

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

- teamwork: I have worked in various types of teams from research teams in the university and workplace.
- presentation skills: While I was working in APEK, we communicate with new customers and I presented the company products and goals to them.

Organizational/managerial skills

- I managed a team for MIM Scientific journal and we published seven volumes in a year.
- In Padrapat Pars, I created a team for research projects. Also, I handle a team for a presentation at an exhibition on construction chemicals.
- I have experience working with Gantt charts for project management.

Digital competences

SELF-ASSESSMENT				
Information Processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Independent user	Proficient user	Proficient user

[Digital competences - Self-assessment grid](#)

Computer skills

- Languages: C++, Qbasic, Familiar with PHP
- Softwares: COMSOL Multiphysics, MATLAB, ABAQUS, Material Studio, Origin, Moldflow, Aspen Plus, ChemDraw, Photoshop, AutoCAD, Familiar with Gaussian, ANSYS, Solid Works, 3D Max
- TypeSetting: Microsoft Office, Endnote, InDesign, L^AT_EX

Laboratory skills

- Rubber Laboratory: Work with Rubber Rheometer, Durometer, Tensile Machine
- Resin Laboratory: Taber Abrasion Instrument, Ford Cup Viscometer, VICAT, IR, and NMR Spectrum Analysis

Driving licence B

PUBLICATIONS

- [1] Amirhossein Yazdanbakhsh and Bardia Irajian. *Physical Chemistry of Polymers Solution Manual*. Amirkabir University of Technology Publication (Jahad), 2022.

- [2] Bardia Irajian. "Effect of Castor Oil Content on Viscosity of Castor TDI Prepolymers". In: *ISPST* (2022).
- [3] Bardia Irajian and Paria Barari Jirandehi. "Oxygen permeation rate through PBAT: a molecular dynamics simulation". In: *ISPST* (Nov. 2022).
- [4] Bardia Irajian. "Prediction of TDI-Based Polyaspartic Polyurea's Abrasion Resistance". In: *ISPST* (Nov. 2022).
- [5] Mahdi Salehi, Bardia Irajian, and Mahzad Seyfi. "Simulation of Rubber Hose Curing". In: *ISPST* (Nov. 2022).
- [6] Bardia Irajian. "Synthesis of Waterborne Epoxy Based on E6 and Diethanolamine". In: *ISPST* (Nov. 2022).
- [7] Bardia Irajian, Paria Barari Jirandehi, and Muhammad Miri. "The effect of variation in polyethylene glycol molecular mass in polyurethane coating on polyurethane interaction energy with iron". In: *5th International Conference on Technology Development in Chemical Engineering* (Mar. 2022).
- [8] Bardia Irajian and Mahzad Seyfi. "Effect of reactor retention time on the HDPE degree of polymerization in the solution process: a simulation". In: *3rd International Conference on the New Technologies in the Oil, Gas and Petrochemical Industries* (Feb. 2022).
- [9] Amirhosein Yazdanbakhsh, Mohamad Zolfaghari, and Bardia Irajian. "Mold injection simulation of plastic face shield". In: *HAMPA* (Oct. 2021).
- [10] Bardia Irajian. "A Review on nano-composite starch based hydrogels". In: *MIM Scientific Journal* 6.14 (2021), pp. 9–21. eprint: https://mimsj.ut.ac.ir/article_80369_69ea914f77a4363193c74a1c9d510732.pdf.
- [11] Bardia Irajian. "A review on polyurea systems and their applications". In: *MIM Scientific Journal* 6.18 (2021), pp. 36–45. eprint: https://mimsj.ut.ac.ir/article_84807_58dec3969cf92509590c79e5b53fc557.pdf.
- [12] Bardia Irajian and Amirhosein Abolhasani. "Polyethylene density, solubility parameter and Tg calculation with the molecular dynamics". In: *MIM Scientific Journal* 6.17 (2021), pp. 66–73. eprint: https://mimsj.ut.ac.ir/article_84020_0d27e43924991f2afec5111bee2da167.pdf.
- [13] Bardia Irajian. "Polyurethanes". In: *MIM Scientific Journal* 6.15 (2021), pp. 16–31. eprint: https://mimsj.ut.ac.ir/article_81184_bb176ed4e226e41ef5b92bafdf60c6f2.pdf.
- [14] Bardia Irajian. "Rubber Rheometer". In: *MIM Scientific Journal* 6.16 (2021), pp. 31–33. eprint: https://mimsj.ut.ac.ir/article_82873_6a3b6a555e0899f1224283dfbe417df8.pdf.