



Omid Moghaddam

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Gender: Male **Date of birth:** 19 Jul 1992 **Nationality:** Iranian

ABOUT ME

I am a master's graduate in Polymer Engineering from Iran Polymer and Petrochemical Institute (IPPI) the third top Iranian research center, having +3 years of research & academic experience as a Senior R&D Specialist, Nanomaterial researcher, and Research assistant. My experience highlights my passion and strength in different areas such as (1) synthesis of functional materials using controlled Polymerization reactions like ATRP, NMP, and RAFT, (2) Polymer characterization, (3) Elastomer chemistry, (4) Rubber processing, (5) Emulsion Polymerization, (6) Adhesives, and (7) Modeling polymerization reactions. During these years, I gained a deep knowledge of different analysis via spectroscopic, microscopic, mechanical, and thermal instruments. Also, I truly enjoy working in an international multidisciplinary environment as a member of a team as well as the ability to work independently and systematically. I am friendly, multi-tasking, creative, and good at motivating people and leadership.

EDUCATION AND TRAINING

[Aug 2015 – Jan 2018]

M.Sc. in Polymer Engineering

Iran Polymer and Petrochemical Institute en.ippi.ac.ir

City: Tehran

Country: Iran

Field(s) of study: Polymer Engineering

Final grade: 15.23 out of 20

Thesis: Synthesis of Carboxylated Acrylonitrile Butadiene Rubber through Emulsion Polymerization

My master's thesis was about Emulsion terpolymerization of Carboxylated Nitrile rubber. The process was done through redox polymerization system in a 5.5 L pressure reactor and the monomer addition process was carried out carefully with respect to models prepared beforehand. This polymer (XNBR) was synthesized by me during my thesis work for the first time in Iran and resulted in one national patent, an international conference paper (oral presentation) and an ISI paper in preparation.

I have also won a scholarship during master's which consisted of tuition fee waiver and a monthly stipend.

[Aug 2011 – Sep 2015]

B.Sc. in Polymer Engineering

Golestan University <https://gu.ac.ir/en/DefaultPage>

City: Gorgan

Country: Iran

During my bachelor studies, I was awarded full tuition fee waiver because of my rank in the National Entrance Exam for Iranian Universities (Konkur).

I did research on novel self-stratifying coatings in which different layers of the coating are applied once and they will spontaneously stratify into desired layers, as my final research project.

Also, I was the chair of the Polymer Engineering student organization and achieved the title of best student organization in the university.

WORK EXPERIENCE

[Apr 2023 – Current]

Researcher

Polymer Institute, Slovak Academy of Science

City: Bratislava

Country: Slovakia

Working on simulation of biomaterials for biomedical applications.

[May 2020 – Mar 2023]

Senior R&D Specialist

Hekmat Sanat Pishro co.

At HSP family, I am an effective member of the R&D department and I contribute to design and production of new products as well as research on enhancement of the quality of the existing products. These products include one-component moisture-cure polyurethane adhesive, Butyl rubber pressure sensitive adhesive, flock adhesive, to name a few.

[Aug 2017 – Feb 2020]

Nanotechnology Researcher

Iran Nano Product

As a researcher in the certification unit, it was my task to research on the products in the wait list (such as PE film, polyurethane anticorrosion coating) and carefully study their synthesis process. Afterwards, it was my duty to visit the production line in the factories and take samples in order to characterize using methods like DLS, XRD, XRF, FT-IR, UV-vis, DRS, Tensile strength.

During this job position I successfully participated in compilation of a national standard as a member of technical committee.

[Feb 2018 – Jun 2018]

Research Assistant

Iran Polymer and Petrochemical Institute

After graduation from master's, following the job offer by my supervisor, I decided to stay at Iran Polymer and Petrochemical Institute as a research assistant and continue to work on the synthesis of carboxylated nitrile rubber but this time using non-ionic emulsifiers.

[Aug 2014 – Feb 2015]

Teacher Assistant

Golestan University

As a TA, it was my duty to help sophomores with their tasks and assignments in the course 'Polymer synthesis and Chemistry' as well as teaching them and holding regular exams.

[Mar 2010 – Dec 2014]

English Tutor

Freelancing

I have worked for several Language institutes as a freelance English teacher for intermediate level students.

CONFERENCES AND SEMINARS

[26 Jun 2023 – 30 Jun 2023]

9th Bratislava Young Polymer Scientists Conference (BYPoS) 2023

Banská Štiavnica, Slovakia

Terpolymerization of Carboxylated Nitrile Rubber, An approach to a more efficient synthesis process

[Jul 2020] **International Seminar on Polymer Science and Technology (ISPST) 2020**

Tehran, Iran

Conference Oral Presentation Title: A mathematical approach to investigate monomer ratio in terpolymerization of carboxylated Acrylonitrile Butadiene rubber

[Jul 2020] **International Seminar on Polymer Science and Technology (ISPST) 2020**

Tehran, Iran

Conference Oral Presentation Title: Sag resistance improvement of water borne Polyurethane resin by Nano fumed silica for coating application

PUBLICATIONS

Investigation of effects of carboxylic acid content on XNBR polymerization process and final product properties

In preparation

COURSES AND CERTIFICATES

[19 Aug 2020] **IELTS - Band score 7**

Listening: 7

Reading: 7

Writing: 6.5

Speaking: 7

[Feb 2020] **Introduction to Molecular Spectroscopy – The University of Manchester**

[May 2017]

Introduction to characterization techniques – Iran Polymer and Petrochemical Institute

LANGUAGE SKILLS

Mother tongue(s): Azerbaijani , Persian

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Turkish

LISTENING B2 READING B1 WRITING A2

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

German

LISTENING B1 READING B1 WRITING B1

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Microsoft Office | Good familiarity with MATLAB, Simulink | ASPEN ONE

Professional Skills

RAFT polymerization | Emulsion Polymerization | Rubber Compounding | Rubber Chemistry | Thermo-mechanical Analysis (DMTA) | Material Characterization | ATRP | FTIR, UV-VIS, TGA-DTG, DLS, XRD

COMMUNICATION AND INTERPERSONAL SKILLS

▲🏆 **Excellent Team Work abilities**

▲🏆 **Great communication and Networking skills**

▲ Self-driven and flexible

RECOMMENDATIONS

Supervisor

Name: Azizollah Nodehi

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Could be contacted by either Email or phone.

Co-Supervisor

Name: Mohammad Atai

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