

Ayda Ghary Haghghat

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ACADEMIC DETAILS

- **Ph.D.** in Condensed matter physics, nanotechnology and complex systems in Roma Tre university [2022-2025].
- **Ph.D.** in Physical Chemistry [2022] from University of Guilan, Rasht, Iran.
- **M.Sc.** in Physical Chemistry [2010] from University of Mohaghegh Ardabili, Ardabil, Iran.
- **B.Sc.** in Applied Chemistry [2007] from University of Guilan, Rasht, Iran.
- **Diploma** in science [2002] from National organization for development of exceptional talents (NODET), Rasht, Iran.

FIELDS OF INTEREST

- Electrochemistry
- Corrosion and surface science
- Physical chemistry
- Spectroscopy and dyes
- Material Science
- Nanotechnology

PUBLICATIONS AND HONORS:

- A published paper by the title of “**A comparative photophysical study of molecular association of structurally similar phenothiazine dyes in aqueous solutions of caffeine**” in the Journal of Molecular Structure (2022).
- A published paper by the title of “**Formation of rare earth-permanganate conversion coating on AZ61 magnesium alloy and its properties**” in the Indian Journal of Chemical Technology (2013).
- An accepted poster paper by the title of “**Investigation of Self-Association phenomena of Oxazine 720 in Aqueous Fructose solutions**” in the 21st ICS Chemistry Congress, Azarbaijan Shahid Madani University, Tabriz, Iran (2020).
- A published paper by the title of “**Investigation of methylene blue dimerization constant (k_d) in aqueous solutions of GuHCl**” in 2nd International Congress on Science, Engineering & Technology in Munich, Germany (2020).
- Attendance in Scientific Webinar, Delft University, Netherlands /University of Mohaghegh Ardabili, Ardabil (2020).

- A Poster paper by the title of **“The Effect of Urea on Aggregation Properties of Methylene Violet Dye”** in the 22th Iranian Physical Chemistry Conference, Zanjan, Iran (2019).
- A poster paper by the title of **“Photo-physical behavior of Methylene Violet, a thiazine dye”** in Research and Technology Week conference, University of Guilan, Rasht, Iran (2017).
- A poster paper by the title of **“Formation of Permanganate-Cerium Conversion Coating on Mg Alloy and Its Properties”** in the 14th Iranian Physical Chemistry Conference, Kish Island, Iran (2011).
- A poster paper by the title of **“An Effective Way to Protect AZ61 Mg Alloy from Corrosion”** in the 15th Iranian Chemistry Congress, Bu Ali Sina University, Hamedan, Iran (2011).
- A poster paper by the title of **“Formation of Ce-La-Permanganate Composite Conversion Coating on Az61 Magnesium Alloy and Investigation of Its Anti-Corrosive Properties”** in the 15th Iranian Chemistry Congress, Bu Ali Sina University, Hamedan, Iran (2011).
- A poster paper by the title of **“Formation of Lanthanum Permanganate Composite Conversion Coating on Az61 Magnesium Alloy and Investigation of Its Anti-Corrosive Properties”** in the 6th Iranian Electrochemical Seminar, Kish Island, Iran (2010).

TRAINING COURSRS:

- **Training on working with VSM, XRD and TGA**, University of Genova, Italy (2022).
- **Training on working with FT-IR & Raman Spectroscopy**, University of Guilan, Iran (2019).
- **Training on working with HPLC**, University of Guilan, Iran (2018).
- **Safety Workshop of Fire Extinguishing**, University of Guilan, Iran (2016).
- **Engineering Internship** at Standard and Industrial Research Institute of Guilan Standard and Industrial Research Institute of Guilan, Iran (2011).

WORK EXPERIENCE

Organization Designation Duration

- Zarin Corian, which produces polymeric sinks and wash basins, Anzali Free Zone, Guilan, Iran (May 2019-till date).
- Research laboratory Investigating properties of materials, University of Guilan, Rasht, Iran (Sep 2017- May 2019).
- Mohafez Tire company Investigating an anti-flat tire agent, Anzali Free Zone, Guilan, Iran (Sep 2015 - Jul 2016).
- Rah-e-Danesh highschool Paid for hours, Rasht, Guilan, Iran (Oct 2014 - Jul 2015).

- Shahab Chemi company Carrying out quality control tests on the detergent products such as: dish washing liquid, bleach and so on, Fooman Industrial city, Guilan, Iran (May 2014 - Sep 2014).
- University of Payam-e-Noor, Teaching general chemistry, Rasht, Guilan, Iran (Sep 2012 - Jul 2013).
- Standard and industrial research institute of Guilan. Working at laboratories of medical engineering, oil products, detergents, prints and resins, Rasht, Guilan, Iran (Oct 2011 - Mar 2012).
- Research laboratory of university of Mohaghegh Ardabili Investigating an anti corrosion material for some Magnesium Alloys, Ardabil, Iran (Aug 2009 - Nov 2010).
- Sobhan pharmaceutical company Getting familiar and working with Pharmacopeia standards, Rasht, Guilan, Iran (Jun 2006 - Oct 2006).

Roles

- QC/QA manager
- Researcher
- Technical Assistant
- Chemistry teacher
- Laboratory expert
- Guest lecturer
- Lab Assistant
- Researcher
- Lab Assistant

PROJECT DETAILS

Title: Development of rare earth-permanganate composite conversion coating on Mg alloy and investigating its properties

Description: I have done this project as my thesis.

Duration: 1 year

Role: Researcher

Team Size: 5

SKILLS

- Ability to work with a lot of devices and equipments in chemistry lab such as VSM, XRD, TGA, FT-IR, UV-Vis Spectrophotometer, HPLC, Autolab and so on
- Origin, Z-View and FRA Software
- NAMD and Materials Studio Software
- Teaching
- Team Work
- Quality Control Management
- Research and Development
- Synthesis of organic compounds
- Microsoft PowerPoint, Word and Excel
- Professional in English

INDUSTRIAL EXPOSURE

Industrial Visit at:

- Wood and paper factory
- Paint factory

CO-CURRICULAR ACTIVITIES

- Collaboration with my supervisor at the laboratory

EXTRA CURRICULAR ACTIVITIES

- Co-working with other students
- Helping and Teaching chemistry at Shaygan Charity in Rasht, Iran

STRENGTH

- Membership in Chemistry Association of Iran
- Membership in Electrochemistry Association of Iran
- Very good team working capability
- Having extensive passion for progress
- Great ability to adapt to new environments
- Patience, perseverance and having high precision
- Being Creative and Innovative

HOBBIES

- Social activities like charity
- Mountain climbing and hiking
- Playing sports, Cinema and Theater
- Studying and writing