# Ilaha R. Hasanova

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## **Education:**

**PhD**, Chemistry, Queen Mary University London (supervised by Dr. Cristina Giordano), Feb. 2022present

MSc, Chemistry, University of Bristol (supervised by Dr. Simon Hall), Oct. 2014 – July 2016

BSc, Chemistry, Moscow State University (Baku branch), Sep. 2009 – June 2013

# **Employment history**

**Lecturer,** Azerbaijani-French University (UFAZ), 183 Nizami str., Baku, Azerbaijan, (<a href="https://www.ufaz.az/">https://www.ufaz.az/</a>), Sep. 2021-Jan. 2022

Petrochemistry

**Research assistant (part-time),** Research Institute of Oil, Gas, Geotechnical Problems and Chemistry, Azerbaijan State Oil and Industry University, July 2021 - Jan. 2022

**Research assistant**, Baku State University, Academic Zahid Khalilov 23 str., Baku, AZ1148, Azerbaijan (http://bsu.edu.az/en/), Sep. 2017 – Jan. 2022

Calcium hydroxide and calcium carbonate nanomaterials synthesis and application studies (2017-2021)

Sand Consolidation collaborative research project with eiLink Research and Development center (2019-2021) (http://khazar-eilink.com/)

**Lecturer**, Sabah groups of Azerbaijan Ministry of Education, Azerbaijan State Oil and Industry University, 34 Azadliq avenue, Baku, AZ1010, Azerbaijan (<a href="http://www.asoiu.edu.az/en;">http://www.asoiu.edu.az/en;</a> <a href="http://www.sabah.edu.az/">http://www.sabah.edu.az/</a>), Jan. 2019 – June 2019

Processes and apparatuses of chemical industry

**Industrial placement**, SOCAR "Azerikimya" Production Union ethylene-polyethylene plant, 86 Samed Vurgun street, Sumgait, AZ5000, Azerbaijan (<a href="http://www.socar.az/socar/en/company/organization/azerikimya-production-union">http://www.socar.az/socar/en/company/organization/azerikimya-production-union</a>), operator of steam superheater, Aug. 2012 – Sep. 2012

# **Research Skills**

Hands-on techniques	Physical methods of study	Software	Management
Schlenk line	Powder X-Ray Diffraction	Microsoft Access, Microsoft Word, Microsoft Excel	Scientific manuscript preparation
Solvothermal synthesis	Transmission Electron Microscopy	Visual Basic, Java	Data presentation and reporting
Solution phase synthesis of nanomaterials	Selected Area Electron Diffraction	LAMMPS	Student training and guidance
Vacuum distillation	Scanning Electron Microscopy	MOPAC, ChemDraw,Origin	

Sol-gel synthesis	IR spectroscopy	ImageJ, Digital micrograph
Glovebox	UV-Vis spectroscopy	Zotero
	Thermogravimetric	
	analysis	
	Differential Thermal	
	Analysis, Calorimetry	
	Raman spectroscopy	

# **Funding and Awards**

- Scholarship for 4 years of PhD studies within "State Program for Increasing International Competitiveness of the Higher Education System of Republic of Azerbaijan in 2019-2023"
- Scholarship for a year of MSc (by research) studies within "State Program on Education of Azerbaijani Youth Abroad in 2007-2015", 2014-2015
- Participation in the training of young scientists organized by the International Innovative Center of Nanotechnology of Commonwealth of Independent States (CIS) with support from the Intergovernmental Fund of Humanitarian Collaboration of CIS member states and Joint Institute of Nuclear Research, May 2018- June 2018

### **Teaching experience**

- Demonstrating in teaching labs of School of Physical and Chemical Sciences in Queen Mary University London
- Delivery of lectures in Azerbaijani-French University
- Supervision of high school students for their scientific project in competition "Tomorrow's scientists" in Baku State University
- Delivery of lectures in the Sabah groups of Azerbaijan Ministry of Education
- Online lectures in "Physical chemistry" for Research Institute of Oil, Gas, Geotechnical Problems and Chemistry students

#### Languages

- Azerbaijani (native speaker)
- Russian (native speaker)
- English (Proficient, IELTS score 7.5, MSc in English)
- German (Level B, certified by the Embassy of Federal Republic of Germany in Baku)
- French (Advanced, certified by the French Cultural Center of Baku)

#### **Interests**

- Dancing
- Cooking
- Psychology
- Yoga

### **List of publications**

1. I. Hasanova, U. Hasanova, E. Gasimov, F. Rzayev, E. Hajiyev, G. Eyvazova, M. Shaliyev, A. Mehdiyeva, N. Aliyeva, Y. Yusifov, H. Ismayilov, H. V. Akhundzada, Z. Aghamaliyev, S. Hajiyeva, P. Huseynova, "PEG-assisted controlled precipitation of calcium hydroxide and calcium carbonate nanostructures for cement reinforcement", Materials Chemistry and Physics (Impact factor 4.09), vol. 271, 124865, 2021, https://doi.org/10.1016/j.matchemphys.2021.124865

- 2. S. Mammadyarova, M. Muradov, A. Maharramov, G. Eyvazova, Z. Aghamaliyev, O. Balayeva, I. Hasanova, "Synthesis and characterization of Ni/NiO nanochains", Materials Chemistry and Physics (Impact Factor 4.09), vol. 259, 2021, https://doi.org/10.1016/j.matchemphys.2020.124171
- 3. S. J. Mammadyarova, M. B. Muradov, A. M. Maharramov, G. M. Eyvazova, Z. A. Aghamaliyev, O. O. Balayeva, I. R. Hasanova, "The influence of stabilizing agents on structural and optical properties of cobalt oxide nanoparticles synthesized by ultrasound-assisted method", Spectroscopy letters (Impact Factor 1.179), vol.52, 2019, https://doi.org/10.1080/00387010.2019.1686396
- 4. S. Hajiyeva, U. Hasanova, Z. Gakhramanova, A. Israyilova, K. Ganbarov, E. Gasimov, F. Rzayev, G. Eyvazova, A. Huseynzada, G. Aliyeva, I. Hasanova, A. Maharramov, "The role of diazacrown ether in the enhancement of the biological activity of silver nanoparticles", Turkish Journal of Chemistry (Impact Factor 0.981), vol. 43, 2019, https://doi.org/10.3906/kim-1907-10
- 5. A. Maharramov, G. Allahverdiyeva, U. Hasanova, M. Ramazanov, Z. Gakhramanova, I. Hasanova, L. Vezirova,"The synthesis of hybrid nanostructures based on graphene oxide, zero valence iron and silver nanoparticles and their application in water purification", Chemistry and technology of heterocyclic compounds: Conference proceedings, Ufa, Russia, pp. 26-27, 2017