

Azime Arıkaya

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📍 **Work:** İzmir Institute of Technology, Chemical Engineering, No:118 Gülbahçe Street, Urla,
35430 İzmir (Türkiye)

EDUCATION

PhD

İzmir Institute of Technology (04/09/2018 - 19/08/2025)

City: İzmir | Country: Türkiye | Final grade: 4.0/4.0

MS

Ankara University (12/02/2016 - 26/07/2018)

City: Ankara | Country: Türkiye | Final grade: 4.0/4.0

BS

Ankara University (06/09/2010 - 19/06/2015)

City: Ankara | Country: Türkiye | Final grade: 3.4/4.0 (ranking 2nd in department)

WORK EXPERIENCE

İzmir Institute of Technology – İzmir, Türkiye (21/05/2018 - Current)

Research and Teaching Assistant

Lectures assisted (2018-2025):

- Numerical Methods in Engineering
- Mathematical Modeling in Engineering
- Heat and Mass Transfer
- Separation Processes
- Chemical Kinetics and Reactor Design
- Engineering Economics and Design
- Chemical Engineering Laboratory I and II

Biols Araş. Geliş. Müh. ve Dan. A.Ş. – İzmir, Türkiye (11/09/2024 - Current)

Co-founder & CEO

Ankara University – Ankara, Türkiye (2017-2018)

Project Assistant

SKILLS

Hard Skills

- MS Office Tools (Outlook, Word, Excel, PowerPoint, OneNote)
- MacOS, Windows
- Matlab & Simulink
- OriginLab
- Python
- Aspen HYSYS

Technical Skills

Hands-on experience with:

- NH₃-TPD (Ammonia-temperature programmed desorption)
- NMR (Nuclear magnetic resonance)
- FT-IR (Fourier transform infrared spectroscopy)
- BET (Brunauer–Emmett–Teller surface analysis)
- TGA (Thermogravimetric analysis)
- HPLC (High-performance liquid chromatography)
- UV-Vis (Ultraviolet-visible spectroscopy)

Familiar with data interpretation of:

- XRD (X-ray diffraction)
- GC-MS (Gas chromatography–mass spectrometry)
- DSC (Differential scanning calorimetry)

Soft Skills

- Excellent time & project management
- Self-motivated, self-discipline, responsible, problem-solver
- Analytical and practical mindset, able to spot challenges and opportunities
- Consistent follow-through to meet goals
- Clear and effective communicator
- Supportive team player with positive approach
- Able to work both independently and in teams

PROJECTS

- **Project Title:** Bio-based Polyol Production, **Project No:** 2240116 (Biools Startup & TUBITAK) (2024 – 2025)
- **Project Title:** Synthesis of soy-based bio-polyol in the presence of heterogeneous catalyst and investigation its application in polyurethane synthesis for paint coating - collaboration with Kanat Paint & Coatings from industry, **Project No:** 2022İYTE-3-0026 (Research Universities Support Program by Council of Higher Education) (2023 – 2025)
- **Project Title:** Production Ethyl Lactate By a Novel and Environmentally Friendly Extractive Reaction Process, **Project No:** 117M884 TUBITAK (The Scientific and Technological Research Council of Türkiye) (2017 – 2018)

PUBLICATIONS

- Ünlü, A., **Arıkaya, A.** Takaç, S. Use of deep eutectic solvents as catalyst: A mini-review. *Green Processing and Synthesis*, 2019, 8(1), 355-372.
- **Arıkaya, A.**, Ünlü, A. E., Takaç, S. Use of Deep Eutectic Solvents in the Enzyme Catalysed Production of Ethyl Lactate. *Process Biochemistry*. 2019, 84, 53-59.
- Ünlü, A. E., **Arıkaya, A.**, Altundağ, A., Takaç, S. Impressive effects of deep eutectic solvents on the esterification of lactic acid with ethanol over Amberlyst-15. *Korean Journal of Chemical Engineering*. 2020, 36 (1), 46-53.

SYMPOSIUMS, CONGRESSES, CONFERENCES

- Poster presentation (Scholarship Awardee) – A. Arıkaya, S. Yılmaz. Bio-Polyol Synthesis by Methanolysis. **15th Green Chemistry Summer School**. July 2-7, 2023, Venice/Italy
- Poster presentation – A. Arıkaya, S. Yılmaz. Bio-Polyol Synthesis by Methanolysis Reaction over Heterogeneous Catalysts. **Catalysis – A Key to Sustainability**. September 12-14, 2022. İzmir/Türkiye.
- Oral presentation – A. Arıkaya. Polyol synthesis from epoxidized soybean oil over sulfated TiO₂-SiO₂ and metal-incorporated SBA-15. **Catalysis – A Key to Sustainability**. September 12-14, 2022. İzmir/Türkiye.
- Organizing committee, G. Rothenberg, S. Yılmaz, B. Çağlar, A. Arıkaya, G. Dizoğlu, M. Mekkering, F. Pope. **Catalysis – A Key to Sustainability**, September 12-14, 2022. İzmir/Türkiye.
Organizing Committee Member: involved in reaching out participants; preparation of the abstract book; planning of the scientific program and invited speakers; designing symposium promotional materials (posters, roll-ups); and coordinating the design, printing, and distribution of participant documents and conference materials (bags, hats, etc.).
- Oral presentation – A. Arıkaya. Polyol Synthesis by Methanolysis of Epoxidized Soybean Oil over Ti-SBA-15 and Its Sulfated Form Catalysts. **National Catalysis Congress – NCC-8**. September 9-12, 2021. Ankara/Türkiye (held online)
- Poster presentation - N. Çabuk, A. Arıkaya, V. N. Mutlu, S. Yılmaz. Polyol Synthesis from Epoxidized Soybean Oil by Zr-SBA-15 and Ti-SBA15 Catalysts. **International Congress on Catalysis for Biorefineries (CatBior)**. September 23-27, 2019, Abo/Finland
- Poster presentation - A.E. Ünlü, A. Arıkaya, S. Takaç. The Extraction of Biophenolics From Olive Leaf Using Green Solvents. **International Congress on Enzymology and Molecular Biology (EuroSciCon)**, August 13-14, 2018, Paris/France
- Poster presentation - A. Arıkaya, A.E. Ünlü, S. Takaç. The Lipase Catalyzed Esterification of Lactic Acid. **International Congress on Chemistry and Material Science (ANCON)**, October 5-7, 2017, Ankara/Türkiye
- Poster presentation – Y. Altan, F. Bayrav, A. Arıkaya, C. Ülger, D. Değirmenbaşı, S. Takaç. Application of the Green Solvents in Chemical Engineering. **Ankara Chemical Engineering Departments Association (AKMBB)**. 2016, Ankara/Türkiye
- Poster presentation – A. Arıkaya, D. Değirmenbaşı, S. Takaç. Production of Microbial Antioxidant Enzymes. **Ankara Chemical Engineering Departments Association (AKMBB)**. 2015, Ankara/Türkiye

LANGUAGES

- **Turkish:** Native speaker
- **Turkish Sign Language**
- **English:** Listening C1, Reading C1, Writing C1, Spoken Production C1, Spoken Interaction C1
- **Korean:** Listening B2, Reading B1, Writing B1, Spoken Production B1, Spoken Interaction B1
- **German:** Listening A2, Reading A2, Writing A2, Spoken Production A2, Spoken Interaction A2
(Levels: A1 and A2: Basic user; B1 and B2: Independent users; C1 and C2 Proficient user)

HOBBIES & INTERESTS

- Playing piano and guitar
- Playing tennis and badminton
- Cooking & Baking
- Playing board games & computer games
- Translating video subtitles in Korean, English and Turkish