AZİME ARIKAYA
Chemical Engineer

PERSONAL DETAILS

Date of birth: 08/29/1992
Nationality: Turkish
email: azimearikaya@gmail.com
phone: +90 538 725 3303
İzmir Institute of Technology
Department of Chemical Engineering
Office No:118
35430, Urla, İzmir/TÜRKİYE

LANGUAGES

Turkish: Native speaker
English: Professional working proficiency
Korean: Intermediate proficiency
German: Beginner proficiency

RESEARCH FIELDS

- Solid catalysts development
- Microbial enzyme production
- Enzymatic/catalytic reactions (esterification, transesterification, ring opening reactions)
- Biochemical reactions kinetic
- Synthesis of fine chemicals
- Biomass conversion
- Green solvents/green chemistry

IT PROFICIENCY

- MS Office
- MacOS, Windows and Ubuntu
- Autocad
- Matlab&Simulink
- Chemcad
- Aspen/Hysys
- Mathcad
- Origin
- Python
- SQL
- React.js

SKILLS

- Working in a team and independently
- Self-motivated
- Willingness to learn
- Problem solving
- Curiosity and creativity
- Studying and researching
- Thinking analytical and practical

EDUCATION

2018 - ongoing — **Izmir Institute of Technology (English)**
PhD. - Department of Chemical Engineering
GPA: 4.00/4.00 (ongoing)
Thesis: Development of solid acid catalysts for alcoholysis of epoxidized soybean Oil

2016 - 2018 — **Ankara University (Turkish)**
MSc. - Department of Chemical Engineering
GPA: 4.00/4.00
Thesis: Investigation of bioprocess parameters for the lipase catalysed production of ethyl lactate

2011 – 2015 — **Ankara University (30% English)**
B.Sc. - Department of Chemical Engineering
GPA: 3.40/4.00 (2nd place)
Thesis: Production of microbial antioxidant enzymes

2012 – 2014 — **Ankara University (30% English)**
B.Sc. - Department of Computer Engineering
Graduation Degree: Not Graduated

2010 – 2011 — **Ankara University**
Preparatory Class
GPA: 76/100

2006 – 2010 — **Kılıçarslan Anatolion High School**
Physical Sciences
GPA: 81/100

WORK EXPERIENCE

2018 – ongoing — **Research Assistant**
İzmir Institute of Technology
Department of Chemical Engineering

Oct, 2017 – May, 2018 — **MSc Student /TUBITAK Project Assistant**
Ankara University
Department of Chemical Engineering

Jan, 2016 – July, 2016 — **MSc Student /Student Assistant**
Ankara University
Department of Chemical Engineering

Jun, 2014 – Sept, 2014 — **Internship Student**
Mechanical and Chemical Industry Company
Small Arms Ammunition Factory
Gazi/Ankara, TÜRKİYE

PROJECTS INVOLVED

2017– 2018	**Project No:** 117M884 TUBITAK (The Scientific and Technological Research Council of Türkiye) (2017– 2018) **Project Title:** Production Ethyl Lactate By a Novel and Environmentally Friendly Extractive Reaction Process
2019 –2021	**Project No:** Scientific Research Projects 272-2019 IZTECH (Izmir Institute of Technology) **Project Title:** Development of Different Solid Acid Catalysts for Alcoholysis of Epoxidized Soybean Oil Methyl Ester and Epoxidized Soybean Oil
2023-ongoing	**Project No:** 2022İYTE-3-0026 (Research Universities Support Program by YÖK) **Project Title:** Synthesis of soy-based bio-polyol in the presence of heterogeneous catalyst and investigation its application in polyurethane synthesis for paint coating

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.

INTERNATIONAL SYMPOSIUMS, CONGRESSES, CONFERENCES

- Poster presentation- **A. Arıkaya,** A.E. Ünlü, S. Takaç. The Effect of Deep Eutectic Solvents on The Lipase Catalyzed Esterification of Lactic Acid. International Congress on Chemistry and Material Science (ANCON), October 5-7, 2017, Ankara/TÜRKİYE
- 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 - 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
- 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/TÜRKİYE.
- Oral presentation – **A. Arıkaya**. Polyol synthesis from epoxidized soybean oil over sulfated TiO_2-SiO_2 and metal-incorporated SBA-15. Catalysis – A Key to Sustainability. September 12-14, 2022. İzmir/TÜRKİYE.
- 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/TÜRKİYE.
- Poster presentation – **A. Arıkaya**, S. Yılmaz. Bio-Polyol Synthesis by Methanolysis Reaction over Sn-SBA-15 and Sn-SBA-15-SO3H. 15th Green Chemistry Summer School. July 2-7, 2023, Venice/ITALY

NATIONAL SYMPOSIUMS, CONGRESSES, CONFERENCES

- Poster presentation – **A. Arıkaya,** D. Değirmenbaşı, S. Takaç. Production of Microbial Antioxidant Enzymes. Ankara Chemical Engineering Departments Association (AKMBB). 2015, Ankara/TÜRKİYE
- 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/TÜRKİYE
- 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/TÜRKİYE (held online)

ACADEMIC SCHOOL ASSEMBLY

- General participant – **A. Arıkaya**. ASC-5. 5th Anatolian School of Catalysis. September 8-11, 2019. Seferihisar, İzmir/TÜRKİYE

LECTURES ASSISTED (2018-2022)

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

WEBINARS JOINED

- Designing Bio-Sourced Polymers that Enable Recycling, July 1, 2021. ACS Webinars. Webinar ID: 162-719-259
- Working Together to Design Safer Laboratories, July 8, 2021. ACS Webinars. Webinar ID: 987-486-627
- Heterocyclic & Synthesis Group Postdoc Symposium (Sessions 1 & 2), July 8-9, 2021. RCS Interest Group Webinars. Webinar ID: 715-111-795
- High-Pressure TGA as Novel Analytical Method Enabling Closed Material Cycles Through Chemical Recycling of Polymers, August 9, 2022. Waters Corporation Webinars.

CERTIFICATES

- AI Summer Camp 2022. Global AI Hub. August 2022. Project: *Developing an end-to-end data science application using the given dataset and estimating the approximate cost of a person's health insurance based on the given variables*.
- Introduction to Python. AI Business School. August 2022.
- Introduction to Machine Learning. AI Business School. August 2022.
- Python for Machine Learning. AI Business School. August 2022.
- Entrepreneurship. Aston American University. July 2022.

PERSONAL INTERESTS

- Playing guitar
- Playing games
- Subtitle translator in English, Turkish, Korean
- Watching series