

# BERFIN GÜLERYÜZ

Ankara, Turkey  $\diamond$  berfin.guleryuz@bilkent.edu.tr  $\diamond$  www.linkedin.com/in/Berfin-Guleryuz

## EDUCATION

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**Ihsan Doğramacı Bilkent University**

*M.S. in Chemistry*

Overall GPA: 3.71/4

July 2024 - Present

*Ankara, Turkey*

**Ihsan Doğramacı Bilkent University**

*B.Sc in Chemistry*

Overall GPA: 3.12/4

September 2019 - June 2024

*Ankara, Turkey*

## EXPERIENCE

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**Özensoy Research Group**

*Graduate Research Assistant*

July 2024 - Present

*Ankara, Turkey*

- Project: Structure Sensitivity in DeNO<sub>x</sub> Catalysis on Cu<sub>2</sub>O Model Catalysts.
- Performed in situ FTIR spectroscopy to investigate NO<sub>x</sub> adsorption/reduction on Cu<sub>2</sub>O model catalysts.

**Özensoy Research Group**

*Undergraduate Research Assistant*

August 2023 - July 2024

*Ankara, Turkey*

- Synthesis of Cuprous oxide nano-catalysts
- Characterization of Cu<sub>2</sub>O with ATR-IR, SEM, XPS and, EDX techniques.

**MTA-General Directorate of Mineral Research and Exploration**

*Intern*

Aug-Sept 2022

*Ankara, Turkey*

- Investigated the composition of a soil sample using Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) and XRF spectroscopy to determine precious metals in it.
- Analyzed the composition and quality of a coal sample using thermogravimetric analysis.

## PUBLICATIONS

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Demiröz, E.; Kurtoğlu-Öztulum, S. F.; Ercan, K. E.; Erdivan, **B.**; **Güteryüz**, B.; Koçak, Y.; Ünal, U.; Özensoy, E.; Uzun, A. Effect of Calcination Temperature on CO<sub>2</sub> Methanation Performance of LaCoO<sub>3</sub> Perovskite Catalyst Precursors. *Ind. Eng. Chem. Res.* 2025, ASAP. DOI: 10.1021/acs.iecr.5c01750.

**Berfin Güteryüz**, Seda Karaboğa, Ayşe Dilay Erdali, Yusuf Koçak, Rukiye Babacan Tosun, Miray Tamer, Kaan Karaca, Emrah Özensoy. "Structure Sensitivity in DeNO<sub>x</sub> Catalysis on Shape-Defined Cu<sub>2</sub>O Nanocrystal Model Catalysts." Manuscript in preparation.

Kaan Karaca, Seda Karaboğa, Ayşe Dilay Erdali, Miray Tamer, Yusuf Koçak, **Berfin Güteryüz**, Rukiye Babacan Tosun, Emrah Özensoy. "Unraveling Structure-Functionality Relationships of Shape-Defined Cu<sub>2</sub>O Nanocrystal Model Catalysts for Methanol Decomposition." Manuscript in preparation.

## ACHIEVEMENTS AND CERTIFICATES

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Oral Presentation — 19th International Nanoscience and Nanotechnology Conference, August 2025, Ankara, Turkey. “Structure Sensitivity in DeNOx Catalysis on Cu<sub>2</sub>O Model Catalysts.”

Oral Presentation — 10th National Catalysis Conference (NCC), June 2025, Sivas, Turkey. “Structure Sensitivity in DeNOx Catalysis on Cu<sub>2</sub>O Model Catalysts.”

TÜBİTAK 2247-C STAR (Intern Researcher Scholarship Program), The Scientific and Technological Research Council of Turkey - Feb 2024 - July 2024

## SKILLS AND ABILITIES

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<b>Programming Languages</b>	Python (Basic)
<b>Data analysis and graphics software</b>	OriginLab
<b>Tools</b>	Orca, Gabedit, Multiwfn, Avogadro In Situ FTIR Spectroscopy X-ray Diffraction (XRD) Scanning Electron Microscopy (SEM) Nuclear Magnetic Resonance (NMR) X-ray Photoelectron Spectroscopy ATR-FTIR
<b>Languages</b>	Turkish (Native) English (Professional proficiency) German (Basic)

## TEACHING EXPERIENCE

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**Physical Chemistry I Laboratory (Bilkent University)** Sept 2025 - Present  
*Teaching Assistant* Ankara, Turkey

- Assisted in thermodynamics and kinetics-based experiments; provided technical support and graded lab work.

**General Chemistry II Laboratory (Bilkent University)** Feb 2025 - June 2025  
*Teaching Assistant* Ankara, Turkey

- Assisted in conducting undergraduate lab experiments, maintaining safety protocols, and grading lab reports.

**General Chemistry I Laboratory (Bilkent University)** Sept 2024- Jan 2025  
*Teaching Assistant* Ankara, Turkey

- Assisted in conducting undergraduate lab experiments, maintaining safety protocols, and grading lab reports.

## EXTRACURRICULAR ACTIVITIES

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**TDP - Raising Tomorrow Project** Feb 2022- Jan 2023

- Visited Ankara Sevgi Evleri Çocuk Yuvası, spent time with the children, and did activities with them.

**Bilkent University Chemistry Club** Sept 2022- June 2023  
*Member of Supervisory Board*

- Undertook the task of supervising the club's operation and the events organized.