

## Res. Asst. PhD CEREN ÖZCAN DİKER

### Personal Information

Office Phone: [+90 242 310 2304](tel:+902423102304)

Email: [cerenozcan@akdeniz.edu.tr](mailto:cerenozcan@akdeniz.edu.tr)

Web: <https://avesis.akdeniz.edu.tr/cerenozcan>

### International Researcher IDs

ORCID: 0000-0002-3468-5787

Publons / Web Of Science ResearcherID: AAA-3185-2022

Yoksis Researcher ID: 283461

### Education Information

Doctorate, Akdeniz University, Institute Of Science, Turkey 2019 - 2025

Postgraduate, Akdeniz University, Institute of Science, Kimya , Turkey 2016 - 2019

Undergraduate, Anadolu University, Faculty Of Business Administration, İşletme, Turkey 2013 - 2017

Undergraduate, Hacettepe University, Fen Fakültesi, Kimya , Turkey 2008 - 2013

### Dissertations

Doctorate, Halloysit Nanotüp Bazlı Süperhidrofobik Renkli Kaplamaların Hazırlanması ve Karakterizasyonu, Akdeniz University, Institute Of Science, Institute Of Science, 2025

Postgraduate, Karbon Nanotüp Bazlı Adsorbentlerin Kullanılmasıyla Sulu Çözeltiden Herbisit (Dikuat Dibromür) Giderimi, Akdeniz University, Institute of Science, Kimya, 2019

### Research Areas

Chemistry, Analytical Chemistry, Adsorption Spectroscopy, Natural Sciences

### Academic Titles / Tasks

Research Assistant PhD, Akdeniz University, Faculty Of Science, Department Of Chemistry, 2018 - Continues

### Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Fabrication of superhydrophobic sorbent material via in-situ coating of melamine sponge with halloysite nanotube and fluoroalkylsilane using supercritical CO<sub>2</sub> coating system for efficient oily water treatment**  
Duman O., Cengiz U., Özcan Diker C., Güreşir S. M., Tunç S., Cengiz C.  
SEPARATION AND PURIFICATION TECHNOLOGY, vol.360, pp.131069, 2025 (SCI-Expanded)
- II. **Development of a superhydrophobic and superoleophilic halloysite nanotube/phenyltriethoxysilane-coated melamine sponge sorbent material with high performance in supercritical CO<sub>2</sub> atmosphere for the selective and effective oil spill cleanup and oil-water**

## separation

Duman O., Cengiz C., Özcan Diker C., Cengiz U., Güreşir S. M., Tunç S.

JOURNAL OF ENVIRONMENTAL MANAGEMENT, vol.373, pp.123715, 2025 (SCI-Expanded)

- III. **Design and characterization of multicolor water-repellent coatings: Impact of alkyl chain length on surface properties**  
Özcan Diker C., Duman O., Tunç S.  
Applied Clay Science, vol.262, 2024 (SCI-Expanded)
- IV. **Effect of alkoxy silane chain length on the surface, stability, sorption and oil–water separation properties of novel superhydrophobic porous sorbent materials produced using innovative drainage technique in scCO<sub>2</sub> atmosphere**  
Duman O., Cengiz C., Özcan Diker C., Cengiz U., Güreşir S. M., Tunç S.  
Separation and Purification Technology, vol.345, 2024 (SCI-Expanded)
- V. **Fabrication of superhydrophobic melamine sponge composite sorbent in supercritical carbon dioxide atmosphere for selective and effective oil removal from water**  
Duman O., Cengiz U., Özcan Diker C., Cengiz C., Güreşir S. M., Tunç S.  
JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING, vol.11, pp.111602, 2023 (SCI-Expanded)
- VI. **Superhydrophobic melamine sponge-sorbent fabricated using WS<sub>2</sub>, halloysite nanotube, octyltriethoxysilane, tetraethoxysilane, and polydimethylsiloxane for the selective uptake of oil from water**  
Duman O., Özcan Diker C., Güreşir S. M., Cengiz U., Tunç S.  
JOURNAL OF WATER PROCESS ENGINEERING, vol.56, pp.104454, 2023 (SCI-Expanded)
- VII. **Fabrication and characterization of superhydrophobic halloysite nanotube-based colored hybrid coatings with thermal, chemical, and environmental durability and self-cleaning ability on glass substrate by spray coating technique**  
Diker C. Ö., Duman O., Tunç S.  
Applied Clay Science, vol.244, 2023 (SCI-Expanded)
- VIII. **Highly hydrophobic and superoleophilic agar/PVA aerogels for selective removal of oily substances from water**  
Duman O., Diker C., Uğurlu H., Tunç S.  
Carbohydrate Polymers, vol.286, 2022 (SCI-Expanded)
- IX. **Fabrication of highly hydrophobic or superhydrophobic electrospun PVA and agar/PVA membrane materials for efficient and selective oil/water separation**  
Duman O., Uğurlu H., Diker C., Tunç S.  
Journal of Environmental Chemical Engineering, vol.10, no.3, 2022 (SCI-Expanded)
- X. **Development of highly hydrophobic and superoleophilic fluoro organothiol-coated carbonized melamine sponge/rGO composite absorbent material for the efficient and selective absorption of oily substances from aqueous environments**  
Duman O., Diker C., Tunç S.  
JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING, vol.9, no.2, 2021 (SCI-Expanded)
- XI. **Agar/kappa-carrageenan composite hydrogel adsorbent for the removal of Methylene Blue from water**  
DUMAN O., POLAT T. G., DIKER C. O., TUNÇ S.  
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.160, pp.823-835, 2020 (SCI-Expanded)
- XII. **Carbon nanotube-based magnetic and non-magnetic adsorbents for the high-efficiency removal of diquat dibromide herbicide from water: OMWCNT, OMWCNT-Fe<sub>3</sub>O<sub>4</sub> and OMWCNT-kappa-carrageenan-Fe<sub>3</sub>O<sub>4</sub> nanocomposites**  
Duman O., Ozcan C., Polat T. G., Tunç S.  
ENVIRONMENTAL POLLUTION, vol.244, pp.723-732, 2019 (SCI-Expanded)

## Papers Published in Refereed Scientific Meetings

- I. **Superhydrophobic Composite Sorbent Prepared from Sponge, Inorganic Mineral and Alkoxysilane with Long Chain Length for Highly Selective Diesel Recovery from Diesel-Water Mixtures**  
Tunç S., Duman O., Cengiz U., Özcan Diker C., Güreşir S. M., Cengiz C.  
5. International Environmental Chemistry Congress (EnviroChem), Antalya, Turkey, 30 October - 02 November 2023, pp.94
- II. **Superhydrophobic Sponge-Based Sorbent Material for the Selective Removal of Oils from Oil-Water Mixtures**  
Özcan Diker C., Duman O., Güreşir S. M., Cengiz U., Tunç S., Cengiz C.  
5. International Environmental Chemistry Congress (EnviroChem), Antalya, Turkey, 30 October - 02 November 2023, pp.95
- III. **Superhydrophobic Sorbent Materials Fabricated under scCO<sub>2</sub> Atmosphere for the Selective Separation of Oil-Water Mixtures: Effect of Sorbent Density and Porosity on the Sorption Capacity, Separation Efficiency and Flux Values**  
Duman O., Cengiz U., Özcan Diker C., Güreşir S. M., Tunç S., Cengiz C.  
5. International Environmental Chemistry Congress (EnviroChem), Antalya, Turkey, 30 October - 02 November 2023, pp.97
- IV. **Selective Sorption of Oil and Organic Solvent Spills from Water by Inorganic-Organic Hybrid Material: Sorption Kinetics, and Stability, Durability and Reusability Studies**  
Duman O., Güreşir S. M., Özcan Diker C., Cengiz U., Tunç S., Cengiz C.  
5. International Environmental Chemistry Congress (EnviroChem), Antalya, Turkey, 30 October - 02 November 2023, pp.96
- V. **Süperkritik Karbon Dioksit Ortamında Su İtici/Yağ Çekici Kompozit Sünger Malzeme Üretimi ve Bu Malzemenin Sudaki Yağlı Kirletici Maddeyi Seçimli Şekilde Giderme Performansı**  
Cengiz U., Duman O., Özcan Diker C., Cengiz C., Güreşir S. M., Tunç S.  
15. Ulusal Kimya Mühendisliği Kongresi, Çanakkale, Turkey, 4 - 07 September 2023, pp.570-573
- VI. **Süperkritik Karbon Dioksit Ortamında Üretilen Su İtici/Yağ Çekici Kompozit Sünger Malzemelerde Üretim Formülasyonunda Kullanılan Farklı Alkil Zincir Uzunluğuna Sahip Silanların Yağlı Madde ve Organik Çözgen Sorpsiyonuna Etkisi**  
Cengiz C., Cengiz U., Duman O., Özcan Diker C., Güreşir S. M., Tunç S.  
15. Ulusal Kimya Mühendisliği Kongresi, Çanakkale, Turkey, 4 - 07 September 2023, pp.1067-1071
- VII. **Removal of Methylene Blue from Water with Halloysite Nanotube and Surface-Activated Halloysite Nanotube: Kinetic Study**  
Özcan Diker C., Duman O., Tunç S.  
4th International Environmental Chemistry Congress (EnviroChem), Antalya, Turkey, 30 October - 02 November 2022, pp.79
- VIII. **Comparison of adsorption performances of various multiwalled carbon nanotube-based adsorbent materials for the removal of diquat dibromide herbicide from water**  
Özcan Diker C., Duman O., Gürkan Polat T., Tunç S.  
4th International Environmental Chemistry Congress (EnviroChem), Antalya, Turkey, 30 October - 02 November 2022, pp.78

## Supported Projects

DUMAN O., ÖZCAN DİKER C., Project Supported by Higher Education Institutions, Halloysit Nanotüp Bazlı Süperhidrofobik Renkli Kaplamaların Hazırlanması ve Karakterizasyonu, 2021 - 2025

DUMAN O., TUNÇ S., CENGİZ U., ÖZCAN DİKER C., GÜREŞİR S. M., Project Supported by Higher Education Institutions, Florsuz Yeni Bir Kompozit Kaplama Formülasyonunun Hazırlanması ile Yüksek Derecede Hidrofobisiteye Sahip Melamin Sünger Malzemesinin Üretimi ve Suda Bulunan Petrol Ürünü Yağlı Madde Organik Çözgen Kirleticilerini Gidermede Sorbent Olarak Kullanımı, 2022 - 2024

DUMAN O., ÖZCAN C., TUNÇ S., Project Supported by Higher Education Institutions, Yağların, Petrol Ürünlerinin ve Organik Çözgenlerin Etkili Bir Şekilde Absorpsiyonu İçin Esnek, Sıkıştırılabilir, Süperhidrofobik ve Süperoleofilik Grafen Takviyeli Sünger Geliştirilmesi, 2018 - 2020

## **Metrics**

Publication: 20

Citation (WoS): 405

Citation (Scopus): 636

H-Index (WoS): 3

H-Index (Scopus): 5

## **Congress and Symposium Activities**

5th International Environmental Chemistry Congress (EnviroChem), Attendee, Antalya, Turkey, 2023

4th International Environmental Chemistry Congress (EnviroChem), Attendee, Antalya, Turkey, 2022

## **Scholarships**

2211-A Genel Yurt İçi Doktora Bursu, TÜBİTAK, 2021 - 2025