



Research Assist. BURCU ORHAN

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EDUCATIONAL INFORMATION

Degree	University	Department	Year(s)
Doctoral Degree	Istanbul Technical University	Chemistry	2021
Master's Degree	Istanbul Technical University	Chemistry	2018 - 2021
Bachelor's Degree	Istanbul Technical University	Chemistry	2014 - 2018

RESEARCH AREAS

Biopolymers

ACADEMIC DUTIES

Duty	University	Area	Year(s)
Research Assistant	Altınbaş University	Basic Sciences	2019 -

ADMINISTRATIVE DUTIES

Duty	University	Year(s)
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ACADEMIC AND PROFESSIONAL MEMBERSHIPS

Organisation	Membership	Year(s)
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NON-UNIVERSITY EXPERIENCE

Country	Organisation	Duty	Year(s)
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BOOKS

ARTICLES

Sustainable alginate-carboxymethyl cellulose superabsorbents prepared by a novel quasi-cryogelation method

ORHAN BURCU, KAYGUSUZ HAKAN, BERKER FATMA BEDİA

Journal of Polymer Research, 2022

[International](#) DOI: 10.1007/s10965-022-03185-1

Foam-based antibacterial hydrogel composed of carboxymethyl cellulose/polyvinyl alcohol/cerium oxide nanoparticles for potential wound dressing

Burcu Orhan, Duygu Karadeniz, Zeynep Kalaycıoğlu, Hakan Kaygusuz, Emrah Torlak, F Bedia Erim

International Journal of Biological Macromolecules, 2025

[International](#) DOI: <https://doi.org/10.1016/j.ijbiomac.2024.138924>

PROCEEDINGS

Preparation and Investigation of PVA-CMC-Cerium Oxide Gel Foams as a Wound Dressing

ORHAN BURCU, KARADENİZ DUYGU, KALAYCIOĞLU ZEYNEP, KAYGUSUZ HAKAN, TORLAK EMRAH, BERKER FATMA BEDİA

12th AGEAN ANALYTICAL CHEMISTRY DAYS, 2023

[International](#)

PROCEEDINGS

Preparation of Copper Crosslinked Alginate Quasi-Cryogel Beads and Investigation of Their Swelling Characteristics

Belhi Ali Taissir, ORHAN BURCU, KAYGUSUZ HAKAN

4th International virtual Conference on Physical Chemistry & Functional Materials, 2021

International

SYNTHESIS, SWELLING AND DYE REMOVAL STUDIES OF BIOPOLYMER-BASED ALG/CMC SUPERABSORBENT BEADS

ORHAN BURCU, KAYGUSUZ HAKAN, BERKER FATMA BEDİA

2021 Global Nanobiotechnology Consortium (GNC) E-conference, 2021

International

Aljinat-Karboksümetil Selüloz Biyopolimer Kompozitlerinin Fiziksel Özelliklerinin İncelenmesi

ORHAN BURCU, KAYGUSUZ HAKAN, BERKER FATMA BEDİA

9. ULUSAL MOLEKÜLER BİYOLOJİ VE BİYOTEKNOLOJİ KONGRESİ, 2020

National

PROJECTS

Metal Oksit Nanoparçacıklarının Aljinat Yöntemiyle Sentezi ve Karakterizasyonu (Researcher)

Scientific research project supported by Higher Education Institutions, 21.01.2021 - 05.10.2022

National Completed

Yarı-Kriyojelasyon Yöntemiyle Hazırlanmış Biyopolimer Kompozitleri Aracılığıyla Sulardan Antidepresan İlaç Giderimi (Advisor)

TÜBİTAK Project, 22.03.2024 -

National Continues

Antibakteriyel Karboksümetil Selüloz Bazlı Kompozit Yara Kapayıcı Malzeme Geliştirilmesi (Researcher)

BAP, 28.06.2022 - 28.06.2024

National Completed

THESIS SUPERVISION

COURSES

Course Type	Course Code	Course Name
Bachelor's Degree	CHEM123 LAB	General Chemistry Laboratory
Bachelor's Degree	PHYS101 LAB	Physics I Laboratory
Bachelor's Degree	PHYS102 LAB	Physics II Laboratory

PERSONAL INFORMATION

CONTACT INFORMATION

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