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EDUCATIONAL INFORMATION

Degree	University	Department	Year(s)
Doctoral Degree	Koç University	Chemical and Biological Engineering (Phd)	2011 - 2015
Master's Degree	Koç University	Chemical and Biological Engineering (Phd)	2009 - 2011
Bachelor's Degree	Koç University	Department of Chemistry-biology Engineering	2004 - 2009

RESEARCH AREAS

Nanotechnology, Drug Delivery Systems, Supercritical Fluid Technology

ACADEMIC DUTIES

Duty	University	Area	Year(s)
Assistant Professor	Altınbaş University	Pharmaceutical Biotechnology	2017 -
Post Doctoral student	Koç University	Chemical and Biological Engineering	2015 - 2016

ADMINISTRATIVE DUTIES

Duty	University	Year(s)

ACADEMIC AND PROFESSIONAL MEMBERSHIPS

Organisation	Membership	Year(s)

NON-UNIVERSITY EXPERIENCE

Country	Organisation	Duty	Year(s)
Germany	Technical University of Hamburg	Visiting researcher	2014 - 2014

BOOKS

Supercritical Fluid Technology for Energy and Environmental Applications - Chapter 8 Applications of Aerogels and Their Composites in Energy-Related Technologies
Zeynep Ülker , Deniz Sanli , Can Erkey
Elsevier, 978-0-444-62696-7, 2014
Scientific Book Chapter(s)

ARTICLES

Biodegradable polysaccharide aerogels based on tragacanth and alginate as novel drug delivery systems
Al Barudi Amenah, SİNANİ GENADA, ÜLKER DEMİR ZEYNEP
Journal of Sol-Gel Science and Technology, 2024
International DOI: 10.1007/s10971-024-06312-0

Alginate-cotton blended aerogel fibers: synthesis, characterization, and oil/water separation
Azam Farooq, Ahmad Faheem, Ahmad Sheraz, Zafar Muhammad Sohail, ÜLKER DEMİR ZEYNEP
International Journal of Environmental Science and Technology, 2023
International DOI: 10.1007/s13762-023-05329-2

ARTICLES

The effect of synthesis conditions and process parameters on aerogel properties
Payanda Konuk Özge, Alsuhile Ala A. A. M., YOUSEFZADEH HAMED, ÜLKER DEMİR ZEYNEP, BOZBAĞ SELMİ ERİM, García-González C. A., Smirnova Irina, ERKEY CAN
Frontiers Media SA, 2023
International DOI: 10.3389/fchem.2023.1294520

Current State of Lipid Nanoparticles (SLN and NLC) for Skin Applications
Eroğlu Cemre, SİNANİ GENADA, ÜLKER DEMİR ZEYNEP
Current Pharmaceutical Design, 2023
International DOI: 10.2174/1381612829666230803111120

Synthesis and characterization of natural fibers reinforced alginate hydrogel fibers loaded with diclofenac sodium for wound dressings
Azam Farooq, Ahmad Faheem, Ahmad Sheraz, Zafar Muhammad Sohail, ÜLKER DEMİR ZEYNEP
Elsevier BV, 2023
International DOI: 10.1016/j.ijbiomac.2023.124623

Enteric coating of drug loaded aerogel particles in a wurster fluidized bed and its effect on release behaviour
Akgün Işık, ÜLKER DEMİR ZEYNEP, Darvishi Saeid, Karaz selcan, ŞENSES ERKAN, ERKEY CAN
Elsevier BV, 2023
International DOI: 10.1016/j.jddst.2023.104279

The Role and Applications of Aerogels in Textiles
Azam Farooq, Ahmad Faheem, ÜLKER DEMİR ZEYNEP, Zafar Muhammad Sohail, Ahmad Sheraz, Rasheed Abher, Nawab Yasir, ERKEY CAN
Hindawi Limited, 2022
International DOI: 10.1155/2022/2407769

Preparation and Characterization of Alginate Hydrogel Fibers Reinforced by Cotton for Biomedical Applications
Azam Farooq, Ahmad Faheem, Ahmad Sheraz, Zafar Muhammad Sohail, ÜLKER DEMİR ZEYNEP
POLYMERS, 2022
International DOI: 10.3390/polym14214707

Synthesis and Characterization of Nonwoven Cotton-Reinforced Cellulose Hydrogel for Wound Dressings
Ahmad Faheem, Mushtaq Bushra, Butt Faaz Ahmed, Zafar Muhammad Sohail, Ahmad Sheraz, Afzal Ali, Nawab Yasir, Rasheed Abher, ÜLKER DEMİR ZEYNEP
MDPI AG, 2021
International DOI: 10.3390/polym13234098

Development and Validation of Retention Models in Supercritical Fluid Chromatography for Impregnation Process Design
Sun Miaotian,ÜLKER DEMİR ZEYNEP,Chen Zhixing,Deeptanshu Sivaraman,Johannsen Monica,ERKEY CAN,Gurikov Pavel
Applied Sciences, 2021
International DOI: 10.3390/app11157106

A novel composite of alginate aerogel with PET nonwoven with enhanced thermal resistance
Ahmad Faheem,ÜLKER DEMİR ZEYNEP,ERKEY CAN
JOURNAL OF NON-CRYSTALLINE SOLIDS, 2018
International DOI: 10.1016/j.jnoncrysol.2018.03.023

Kinetics of supercritical drying of gels
Sahin Ibrahim,ÖZBAKIR YAPRAK,Inonu Zeynep,ÜLKER DEMİR ZEYNEP,ERKEY CAN
Kinetics of supercritical drying of gels, 2017
International

An advantageous technique to load drugs into aerogels: Gas antisolvent crystallization inside the pores
ÜLKER DEMİR ZEYNEP,ERKEY CAN
JOURNAL OF SUPERCRITICAL FLUIDS, 2017
International DOI: 10.1016/j.supflu.2016.05.033

ARTICLES

Experimental and theoretical investigation of drug loading to silica alcogels
ÜLKER DEMİR ZEYNEP,ERKEY CAN
JOURNAL OF SUPERCRITICAL FLUIDS, 2015
International DOI: 10.1016/j.supflu.2015.06.025

Monolithic composites of silica aerogel with poly(methyl vinyl ether) and the effect of polymer on supercritical drying
Ozbakir Yaprak,ÜLKER DEMİR ZEYNEP,ERKEY CAN
JOURNAL OF SUPERCRITICAL FLUIDS, 2015
International DOI: 10.1016/j.supflu.2015.04.001

A novel hybrid material: an inorganic silica aerogel core encapsulated with a tunable organic alginate aerogel layer
ÜLKER DEMİR ZEYNEP,ERKEY CAN
RSC ADVANCES, 2014
International DOI: 10.1039/c4ra09089f

An emerging platform for drug delivery: Aerogel based systems
ÜLKER ZEYNEP,ERKEY CAN
JOURNAL OF CONTROLLED RELEASE, 2014
International DOI: 10.1016/j.jconrel.2013.12.033

Three-dimensional optofluidic waveguides in hydrophobic silica aerogels via supercritical fluid processing
Eriş gamze,Şanlı Deniz,ÜLKER ZEYNEP,Bozbag Selmi Erim,Jonas Alexander,KİRAZ ALPER,ERKEY CAN
JOURNAL OF SUPERCRITICAL FLUIDS, 2013
International DOI: 10.1016/j.supflu.2012.11.001

Novel nanostructured composites of silica aerogels with a metal organic framework
ÜLKER ZEYNEP,İlknur Erucar Fındıkçı,KESKİN AVCI SEDA,ERKEY CAN
MICROPOROUS AND MESOPOROUS MATERIALS, 2013
International DOI: 10.1016/j.micromeso.2012.11.040

PROCEEDINGS

Maleic Acid Crosslinked Sodium Carboxymethyl Cellulose Aerogels for Sustainable and Bio-Based Thermal Insulation Applications
Payanda Konuk Özge, ÜLKER DEMİR ZEYNEP, ERKEY CAN
European Meeting on Supercritical Fluids, 2023
International

Cellulose Ether Aerogels for Thermal Insulation
Payanda Konuk Özge, ÜLKER DEMİR ZEYNEP, ERKEY CAN
2nd International Conference on Aerogels for Biomedical and Environmental Applications, 2022
International

Tragacanth gum and alginate based composite aerogels as novel controlled drug release systems
ÜLKER DEMİR ZEYNEP, SİNANİ GENADA
International Conference on Aerogels for Biomedical and Environmental Applications, 2020
International

Novel tragacanth aerogels for drug delivery
ÜLKER DEMİR ZEYNEP
NanoTR14, 2018
International

Novel Micro- and Mesoporous Composites of Silica Aerogels with a Metal Organic Framework
ÜLKER DEMİR ZEYNEP,ERUÇAR FINDIKÇI İLKNUR,KESKİN AVCI SEDA,ERKEY CAN
IUPAC 2013, 2016
International

PROCEEDINGS

Development of Drug Delivery Devices based onNanoporous Alginate Aerogels
ÜLKER DEMİR ZEYNEP,ERKEY CAN
PPM 2015, 2015
International

A new technique to incorporate substances in poroussupports: Gas antisolvent crystallization inside of the pores
ÜLKER DEMİR ZEYNEP,ERKEY CAN
ISSF 2015, 2015
International

Nanostructured Aerogels as Drug Delivery Systems
ÜLKER DEMİR ZEYNEP,ERKEY CAN
Nanobiotechnology Days 2015, 2015
International

A Novel Layered Aerogel System forControlled Drug Delivery, International Seminar on Aerogels
ÜLKER DEMİR ZEYNEP,Özbakir Yaprak,ERKEY CAN
International Seminar on Aerogels, 2014
International

Study of Adsorption on Aerogels by Supercritical Fluid Chromatography
Gurikov Pavel,ÜLKER DEMİR ZEYNEP,ERKEY CAN,Smirnova Irina
International Seminar on Aerogels, 2014
International

Sol Jel Parametrelerinin Silika Aerojellerin Özellikleri Üzerindeki Etkileri
Karayılan Metin,ŞANLI YILDIZ DENİZ,ÜLKER DEMİR ZEYNEP,ERKEY CAN
10th National Conference on Chemical Engineering in Turkey, 2012
National

Nanoyapılı Silika Aerojel MOF Kompozitleri
ÜLKER DEMİR ZEYNEP,ERUÇAR FINDIKÇI İLKNUR,KESKİN AVCI SEDA,ERKEY CAN
10th National Conference on Chemical Engineering in Turkey, 2012
National

Nanostructured Composites of Silica Aerogel with Poly vinyl pyrrolidone
ÜLKER DEMİR ZEYNEP,ŞANLI YILDIZ DENİZ,ERKEY CAN
10th International Symposium on Supercritical Fluids, 2012
International

Nanostructured Composites of Silica Aerogels with polymers as core materials for Vacuum Insulation Panels for Buildings
ÜLKER DEMİR ZEYNEP,ŞANLI YILDIZ DENİZ,Andersonn Roland,Gullberg Leif,ERKEY CAN
NICOM4, 2012
International

PEG Hydrogel Coated Silica Aerogels A Novel Drug Delivery System
ÜLKER DEMİR ZEYNEP,ŞANLI YILDIZ DENİZ,Giray Seda,KIZILEL SEDA,ERKEY CAN
13th European Meeting on Supercritical Fluids, 2011
International

PROJECTS

Advanced Engineering and Research of aeroGels for Environment and Life Sciences (AERoGELS) (Researcher)
COST, 30.04.2019 - 29.04.2023
International Completed

Kitre Zamkı Bazlı Aerojel İlaç Salım Sistemi Hazırlanması ve Karakterizasyonu (Executive)
Scientific research project supported by Higher Education Institutions, 19.04.2019 - 19.05.2020
National Completed

THESIS SUPERVISION

Composite Hydrogels for Drug Delivery
Hidayatullah
2022 Master's Degree

COURSES

Course Type	Course Code	Course Name
Bachelor's Degree	PHAR124	PHARMACEUTICAL TERMINOLOGY
Bachelor's Degree	PHAR479	DRUG DEVELOPMENT: FROM MOLECULE TO MARKETING
Bachelor's Degree	PHAR585	GRADUATION PROJECT I
Bachelor's Degree	PHAR502	GRADUATION PROJECT II
Bachelor's Degree	PHAR494	BIOMATERIALS
Doctorate	ECZ611	BİYOFARMASÖTİKLER
Bachelor's Degree	PHAR442	PHARMACEUTICAL BIOTECHNOLOGY
Bachelor's Degree	PHAR261	INTRODUCTION TO PHARMACEUTICAL TECHNOLOGY
Bachelor's Degree	PHAR361	PHARMACEUTICAL TECHNOLOGY I
Doctorate	ECZ627	NANO İLAÇLAR VE HEDEFLENMİŞ İLAÇ TAŞIYICI SİSTEMLER

PERSONAL INFORMATION

CONTACT INFORMATION
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