

Dr. Öğr. Üyesi ŞENİZ UÇAR

Kişisel Bilgiler

İş Telefonu: [+90 312 210 2537](tel:+903122102537)

E-posta: senizu@metu.edu.tr

Web: <https://avesis.metu.edu.tr/senizu>

Uluslararası Araştırmacı ID'leri

ScholarID: 41EXg58AAAAJ

ORCID: 0000-0002-5549-6061

Publons / Web Of Science ResearcherID: AAR-8334-2021

ScopusID: 56946552200

Yoksis Araştırmacı ID: 183122

Eğitim Bilgileri

Doktora, Norwegian University of Science and Technology, Natural Science Faculty, Department of Chemical Engineering, Norveç 2013 - 2017

Yüksek Lisans, Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Kimya Bölümü, Türkiye 2009 - 2012

Lisans, Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Kimya Bölümü, Türkiye 2005 - 2009

Araştırma Alanları

Malzeme Bilimi ve Mühendisliği, Kompozitler, Biyomalzemeler, Nanomalzemeler, Fizikokimya

Akademik Unvanlar / Görevler

Dr. Öğr. Üyesi, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Metalurji ve Malzeme Mühendisliği Bölümü, 2023 - Devam Ediyor

Verdiği Dersler

Research Methods and Ethics in Metallurgical and Materials Engineering, Yüksek Lisans, 2023 - 2024

THERMODYNAMICS OF MATERIALS I, Lisans, 2023 - 2024

FUNDAMENTALS OF MATERIALS SCIENCE AND ENGINEERING, Lisans, 2022 - 2023

MATERIALS ENGINEERING DESIGN II, Lisans, 2022 - 2023

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- Exploiting Saturation Regimes and Surface Effects to Tune Composite Design: Single Platelet Nanocomposites of Peptoid Nanosheets and CaCO₃**
UÇAR Ş., Nielsen A. R., Mojsoska B., Dideriksen K., Andreassen J., Zuckermann R. N., Sand K. K.
ACS Applied Materials and Interfaces, cilt.16, sa.15, ss.19496-19506, 2024 (SCI-Expanded)
- Predicting Silica Deposition from Superheated, Pressurized Steam Using Numerical Modeling of**

Nucleation, Agglomeration and Deposition

Bordvik S., van Erp T. S., UÇAR Ş., Næss E.

Energies, cilt.16, sa.19, 2023 (SCI-Expanded)

- III. **Investigation of magnetite particle characteristics in relation to crystallization pathways**
Kristiansen A. B., Church N., Ucar Ş.
POWDER TECHNOLOGY, cilt.415, 2023 (SCI-Expanded)
- IV. **The Effect of Reaction Conditions and Presence of Magnesium on the Crystallization of Nickel Sulfate**
Jenssen I. B., Bockman O., Andreassen J., Ucar Ş.
CRYSTALS, cilt.11, sa.12, 2021 (SCI-Expanded)
- V. **Investigating the effects of process parameters on the filtration performance of ferric hydroxide in a continuous MSMR reactor**
Jenssen I. B., Ucar Ş., Dotterud O. M., Bockman O., Andreassen J.
HYDROMETALLURGY, cilt.202, 2021 (SCI-Expanded)
- VI. **Crystallization kinetics and growth of struvite crystals by seawater versus magnesium chloride as magnesium source: towards enhancing sustainability and economics of struvite crystallization**
Shaddel S., Grini T., Andreassen J., Osterhus S. W., Ucar Ş.
CHEMOSPHERE, cilt.256, 2020 (SCI-Expanded)
- VII. **Struvite crystallization by using raw seawater: Improving economics and environmental footprint while maintaining phosphorus recovery and product quality**
Shaddel S., Grini T., Ucar Ş., Azrague K., Andreassen J., Osterhus S. W.
WATER RESEARCH, cilt.173, 2020 (SCI-Expanded)
- VIII. **Precipitation of silver particles with controlled morphologies from aqueous solutions**
Wang L., Andreassen J., Ucar Ş.
CRYSTENGCOMM, cilt.22, sa.3, ss.478-486, 2020 (SCI-Expanded)
- IX. **Formation of Hydroxyapatite via Transformation of Amorphous Calcium Phosphate in the Presence of Alginate Additives**
Ucar Ş., Bjornoy S. H., Bassett D. C., Strand B. L., Sikorski P., Andreassen J.
CRYSTAL GROWTH & DESIGN, cilt.19, sa.12, ss.7077-7087, 2019 (SCI-Expanded)
- X. **Enhancing efficiency and economics of phosphorus recovery process by customizing the product based on sidestream characteristics - an alternative phosphorus recovery strategy**
Shaddel S., Ucar Ş., Andreassen J., Osterhus S. W.
WATER SCIENCE AND TECHNOLOGY, cilt.79, sa.9, ss.1777-1789, 2019 (SCI-Expanded)
- XI. **Engineering of struvite crystals by regulating supersaturation - Correlation with phosphorus recovery, crystal morphology and process efficiency**
Shaddel S., Ucar Ş., Andreassen J., Osterhus S. W.
JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING, cilt.7, sa.1, 2019 (SCI-Expanded)
- XII. **Transformation of brushite to hydroxyapatite and effects of alginate additives**
Ucar Ş., Bjornoy S. H., Bassett D. C., Strand B. L., Sikorski P., Andreassen J.
JOURNAL OF CRYSTAL GROWTH, cilt.468, ss.774-780, 2017 (SCI-Expanded)
- XIII. **Letter to the Editor re "Characterization of alginate-brushite in-situ hydrogel composites"**
Bjornoy S. H., Bassett D. C., Ucar Ş., Andreassen J., Sikorski P.
MATERIALS SCIENCE AND ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, cilt.70, ss.930-931, 2017 (SCI-Expanded)
- XIV. **A correlative spatiotemporal microscale study of calcium phosphate formation and transformation within an alginate hydrogel matrix**
Bjornoy S. H., Bassett D. C., Ucar Ş., Strand B. L., Andreassen J., Sikorski P.
ACTA BIOMATERIALIA, cilt.44, ss.254-266, 2016 (SCI-Expanded)
- XV. **Gelling kinetics and in situ mineralization of alginate hydrogels: A correlative spatiotemporal characterization toolbox**
Bjornoy S. H., Mandaric S., Bassett D. C., Aslund A. K. O., Ucar Ş., Andreassen J., Strand B. L., Sikorski P.
ACTA BIOMATERIALIA, cilt.44, ss.243-253, 2016 (SCI-Expanded)

- XVI. **Modified chitosan scaffolds: Proliferative, cytotoxic, apoptotic, and necrotic effects on Saos-2 cells and antimicrobial effect on Escherichia coli**
Ucar Ş., ERMİŞ ŞEN M., Hasirci N.
JOURNAL OF BIOACTIVE AND COMPATIBLE POLYMERS, cilt.31, sa.3, ss.304-319, 2016 (SCI-Expanded)
- XVII. **Corrosion and degradation in MEA based post-combustion CO2 capture**
Fytianos G., Ucar Ş., Grimstvedt A., Hyldbakk A., Svendsen H. F., Knuutila H. K.
INTERNATIONAL JOURNAL OF GREENHOUSE GAS CONTROL, cilt.46, ss.48-56, 2016 (SCI-Expanded)
- XVIII. **Controlled mineralisation and recrystallisation of brushite within alginate hydrogels**
Bjornoy S. H., Bassett D. C., Ucar Ş., Andreassen J., Sikorski P.
BIOMEDICAL MATERIALS, cilt.11, sa.1, 2016 (SCI-Expanded)
- XIX. **Nucleation and Growth of Brushite in the Presence of Alginate**
Ucar Ş., Bjornoy S. H., Bassett D. C., Strand B. L., Sikorski P., Andreassen J.
CRYSTAL GROWTH & DESIGN, cilt.15, sa.11, ss.5397-5405, 2015 (SCI-Expanded)
- XX. **Chitosan-based wet-spun scaffolds for bioactive agent delivery**
Ucar Ş., Yilgor P., Hasirci V., Hasirci N.
JOURNAL OF APPLIED POLYMER SCIENCE, cilt.130, sa.5, ss.3759-3769, 2013 (SCI-Expanded)

Diğer Dergilerde Yayınlanan Makaleler

- I. **Formation of Calcium Phosphate Minerals in the Presence of Fetuin-A**
Ucar S.
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, cilt.18, sa.3, ss.233-238, 2022 (Hakemli Dergi)

Kitap & Kitap Bölümleri

- I. **Fabrication and Application of Nanomaterials**
Uçar Ş., Andreassen J.
Fabrication and Application of Nanomaterials, Sulalit Bandyopadhyay, Editör, McGraw Hill Higher Education , New York, ss.13-30, 2019
- II. **Crystal Growth**
Uçar Ş., Andreassen J.
Fabrication and Application of Nanomaterials, Sulalit Bandyopadhyay, Editör, McGraw Hill Higher Education , New York, ss.31-48, 2019

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **Impurity Uptake During Cooling Crystallization of Nickel Sulfate**
Jenssen I. B., Ucar Ş., Bockman O., Dotterud O. M., Andreassen J.
Symposium on Rare Metal Extraction and Processing held during the 149th TMS Annual Meeting and Exhibition / Magnesium Technology Symposium held during the 149th TMS Annual Meeting and Exhibition, California, Amerika Birleşik Devletleri, 23 - 27 Şubat 2020, ss.191-199
- II. **Corrosion evaluation of MEA solutions by SEM-EDS, ICP-MS and XRD**
Fytianos G., Ucar Ş., Grimstvedt A., Svendsen H. F., Knuutila H.
8th Trondheim Conference on CO2 Capture, Transport and Storage (TCCS), Trondheim, Norveç, 16 - 18 Haziran 2015, cilt.86, ss.197-204

Desteklenen Projeler

UÇAR Ş., TÜBİTAK Projesi, MINPROTECT: Understanding Role of Mineral Host in Protein Protection, Storage and Delivery in Biohybrids, 2023 - 2026

Bilimsel Hakemlikler

ACTA BIOMATERIALIA, SCI Kapsamındaki Dergi, Kasım 2023

JOURNAL OF CLEANER PRODUCTION, SCI Kapsamındaki Dergi, Ağustos 2023

MATERIALS LETTERS, Hakemli Bilimsel Dergi, Haziran 2023

Kongre ve Sempozyum Katılımı Faaliyetleri

BIWIC – International Workshop on Industrial Crystallization, Davetli Konuşmacı, Stockholm, İsveç, 2023