

## Res. Asst. PhD SİNEM ALTINIŞIK

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Canakkale Onsekiz Mart University, Lisansüstü Eğitim Enstitüsü, Turkey 2021 - 2025

Postgraduate, Konya Technical University, Faculty Of Engineering, Turkey 2017 - 2021

Undergraduate Double Major, Selcuk University, Faculty Of Engineering, Metalurji Ve Malzeme Mühendisliği, Turkey 2015 - 2018

Undergraduate, Selcuk University, Faculty Of Engineering, Kimya Mühendisliği, Turkey 2015 - 2017

### Foreign Languages

English, B1 Intermediate

### Certificates, Courses and Trainings

Renewable Energy Sources, Yenilenebilir Enerji ve Enerji Verimliliği, YEVEDES Projesi, 2021

Education Management and Planning, Laboratuvar Akreditasyonu, TS EN ISO / IEC 17025, 2013

### Dissertations

Doctorate, Hidrojen üretimi için viyolojen esaslı yeni tür kovalent organik kafes yapılar, Canakkale Onsekiz Mart University, Lisansüstü Eğitim Enstitüsü, 2025

Postgraduate, Betainin Şeker Pancarı İşleme Süreci Yan Ürünlerinden Tepkimeli Özütleme Yöntemi ile Geri Kazanımı, Konya Technical University, Graduate Education, Training And Research Institute, 2021

### Research Areas

Electrochemical Processes, Organic Technologies

### Academic Titles / Tasks

Research Assistant, Canakkale Onsekiz Mart University, Mühendislik Fakültesi, Kimya Mühendisliği, 2020 - Continues

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

- I. **A New Strategy for Photo-Electrochemical Reduction of Carbon Dioxide Using a Carbazole-BODIPY Based Metal-Free Catalyst**  
ÖZDEMİR M., Uluçay S., ALTINIŞIK S., Köksoy B., YALÇIN B., KOYUNCU S.  
Advanced Sustainable Systems, vol.9, no.2, 2025 (SCI-Expanded)
- II. **Carbazole–Bismaleimide Based Hyper-Cross-Linked Porous Organic Polymer for Efficient Iodine Capture**  
Altınışik S., Yayla C., Karaca N., Koyuncu S.  
LANGMUIR, vol.0, no.0, 2025 (SCI-Expanded)
- III. **Aggregation–induced red–shift emission from self-assembled planar naphthalene diimide dye: Interlayer in a Schottky-type photodiode and DFT studies**  
Karsili P., Abourajab A., Dinleyici M., ALTINIŞIK S., KOYUNCU S., Dolek G., Kus M., Icil H.  
Optical Materials, vol.155, 2024 (SCI-Expanded)
- IV. **A new water–soluble naphthalene diimide as a highly selective fluorescent chemosensor for Cu(II) ion: Synthesis, DFT calculations, photophysical and electrochemical properties**  
Abourajab A., Karsili P., Rashid R., Dinleyici M., Pasaogullari N., ALTINIŞIK S., KOYUNCU S., Icil H.  
Journal of Photochemistry and Photobiology A: Chemistry, vol.454, 2024 (SCI-Expanded)
- V. **Comparative Study of Electrochromic Supercapacitor Electrodes Based on PEDOT:PSS/ITO Fabricated via Spray and Electrospray Methods**  
Çatoğlu F., ALTINIŞIK S., KOYUNCU S.  
ACS Omega, vol.9, no.29, pp.32107-32115, 2024 (SCI-Expanded)
- VI. **Optimization of bioethanol production from sugar beet processing by-product molasses using response surface methodology**  
Altınışik S., Uğur Nigiz F., Gürdal S., Yılmaz K., Tuncel N. B., Koyuncu S.  
BIOMASS CONVERSION AND BIOREFINERY, vol.0, no.0, 2024 (SCI-Expanded)
- VII. **Black-to-Transmissive Electrochromic Switching PEDOT-co-poly(N-ethylcarbazole) via a Sustainable and Facile *In Situ* Photo(co)polymerization Method**  
Tabak T., ALTINIŞIK S., Uluçay S., KOYUNCU S., Kaya K.  
MACROMOLECULES, vol.57, no.10, pp.4769-4781, 2024 (SCI-Expanded)
- VIII. **Boosting Photocatalytic Metal-Free Hydrogen Production of Viologen-Based Covalent Organic Frameworks**  
Altınışik S., Yıldız G., Hatay Patır İ., Koyuncu S.  
ACS APPLIED ENGINEERING MATERIALS, vol.2, no.5, pp.1441-1449, 2024 (SCI-Expanded)
- IX. **Grafting of perylene and naphthalene fluorophores onto chitosan for improved thermal, optical and electrical properties**  
Temurlu S., Abureesh M. A. A., Abourajab A., Karsili P., Dinleyici M., ALTINIŞIK S., KOYUNCU S., Icil H.  
Macromolecular Research, vol.32, no.4, pp.281-297, 2024 (SCI-Expanded)
- X. **Solar light driven photochromic membranes with viologen additives in PVDF/PVP matrix**  
Tohtayeva J., ALTINIŞIK S., Akgün M., UĞUR NİGİZ F., KOYUNCU S.  
Frontiers in Materials, vol.11, 2024 (SCI-Expanded)
- XI. **From Plant Oils to High-Performance Supercapacitor Electrode: Poly(guaiazulene) via Photopolymerization**  
Ermis S., ALTINIŞIK S., Catoglu F., Yağcı Y., Sari E., Jockusch S., KOYUNCU S., Kaya K.  
Advanced Electronic Materials, 2024 (SCI-Expanded)
- XII. **Photoinduced step-growth polymerizations of thiophene-carbazole based covalent organic polymer**  
Celiker T., ALTINIŞIK S., Yağcı Y., KOYUNCU S.  
Polymer, vol.289, 2023 (SCI-Expanded)
- XIII. **Enhanced Photocatalytic Hydrogen Evolution by Star-Shaped Viologen-Sensitized TiO<sub>2</sub> Nanoparticles**  
Turgut K., ALTINIŞIK S., Yanalak G., KOYUNCU S., Hatay Patır İ.  
ACS Applied Nano Materials, vol.6, no.21, pp.20173-20182, 2023 (SCI-Expanded)

- XIV. **Synthesis, photophysical, electrochemical and morphological properties of a novel cross-linked chitosan-based fluorescent polymer: A fluorescence sensor for single-stranded DNA**  
Yucekan I, Dinleyici M, Temurlu S, Rashid R, Bodapati J. B., Al-Khateeb B., Abourajab A, Karsili P, ALTINIŞIK S, KOYUNCU S., et al.  
European Polymer Journal, vol.196, 2023 (SCI-Expanded)
- XV. **Electron-Donating and Electron-Withdrawing Subunit Effects on Coumarin-BODIPY Dyads: Optical and Electrochemical Properties and Molecular Interactions**  
Köksoy B, ÖZDEMİR M., ALTINIŞIK S, Zorlu Y, YALÇIN B., Durmuş M., KOYUNCU S.  
ChemPhotoChem, vol.7, no.8, 2023 (SCI-Expanded)
- XVI. **Viologen-Based Covalent Organic Frameworks toward Metal-Free Highly Efficient Photocatalytic Hydrogen Evolution**  
ALTINIŞIK S, Yanalak G., Hatay Patr İ., KOYUNCU S.  
ACS Applied Materials and Interfaces, vol.15, no.15, pp.18836-18844, 2023 (SCI-Expanded)
- XVII. **Reactive Extraction of Betaine from Sugarbeet Processing Byproducts**  
Altinisik S., Zeidan H., Yilmaz M. D., Marti M. E.  
ACS Omega, vol.8, no.12, pp.11029-11038, 2023 (SCI-Expanded)
- XVIII. **A Novel Viologen-Derived Covalent Organic Framework Based Metal Free Catalyst for Nitrophenol Reduction**  
ALTINIŞIK S, KOYUNCU S.  
ChemCatChem, vol.15, no.4, 2023 (SCI-Expanded)
- XIX. **PEG-functionalized carbazole-based polymers for UV-protected hydrophilic glass coatings**  
ALTINIŞIK S, Kortun A., Nazlı A., CENGİZ U., KOYUNCU S.  
Progress in Organic Coatings, vol.175, 2023 (SCI-Expanded)
- XX. **Direct Photopatterning of BODIPY-Based Small Molecules via Thiol-ene Click Chemistry**  
ÖZDEMİR M., ALTINIŞIK S., Ömeroğlu İ., Köksoy B., Durmuş M., YALÇIN B., KOYUNCU S.  
ChemNanoMat, vol.9, no.1, 2023 (SCI-Expanded)
- XXI. **Symmetrical and Asymmetrical Thiophene-Coumarin-Based Organic Semiconductors**  
ALTINIŞIK S, ÖZDEMİR M., Kortun A, Zorlu Y, YALÇIN B, Köksoy B., KOYUNCU S.  
ACS Omega, 2023 (SCI-Expanded)
- XXII. **Sequential and Simultaneous Photoinduced Radical and Step- Growth Polymerizations of Carbazole Functional Styrene**  
Celiker T., ALTINIŞIK S., Vaitusionak A., Kostjuk S. V., KOYUNCU S., Yağcı Y.  
MACROMOLECULES, 2022 (SCI-Expanded)
- XXIII. **Tetra-Carbazole based electroactive donor-acceptor dyes: Effect of the phenyl bridging unit on the electrochromic performance**  
Doyranli C., Altınışık S., Özdemir M., Koyuncu S.  
DYES AND PIGMENTS, vol.204, 2022 (SCI-Expanded)
- XXIV. **New metallophthalocyanines including benzylphenoxy groups and investigation of their organic-field effect transistor (OFET) features**  
ÖZDEMİR M., ALTINIŞIK S., Koksoy B., CANIMKURBEY B., KOYUNCU S., Durmus M., Bulut M., YALÇIN B.  
DYES AND PIGMENTS, vol.200, 2022 (SCI-Expanded)
- XXV. **Thiophene-benzimidazolium Polymer Salts: Synthesis, Characterization, Antimicrobial Activities, and Evaluation in Terms of Occupational Health**  
KANBUR S., Ates G. O., ALTINIŞIK S., ÇINAR U., BAYCAN F.  
POLYMER-KOREA, vol.45, no.6, pp.817-823, 2021 (SCI-Expanded)
- XXVI. **Fluorene-based donor-acceptor-type multifunctional polymer with bicarbazole pendant moiety for optoelectronic applications**  
Piravadili S., Doyranli C., Altinisik S., Bilgili H., Canimkurbey B., Koyuncu S.  
Journal of Polymer Science, vol.59, no.16, pp.1829-1840, 2021 (SCI-Expanded)
- XXVII. **Hollow microspherical carbazole-based conjugated polymers by photoinduced step-growth polymerization**

Celiker T., Suerkan A., ALTINIŞIK S., Akgun M., KOYUNCU S., Yağcı Y.  
POLYMER CHEMISTRY, vol.12, no.32, pp.4654-4660, 2021 (SCI-Expanded)

**XXVIII. Tuning the Electrochromic Properties of Fluorinated Benzochalcogenodiazole Based Donor-Acceptor Polymers**

ÇOLAK B., ALTINIŞIK S., BAYCAN F., Canimkurbey B., KOYUNCU S.  
CHEMISTRYSELECT, vol.5, no.42, pp.13202-13211, 2020 (SCI-Expanded)

## Books

**I. Hydrogen production: photonic methods**

Altınışik S., Yıldız G., Hatay Patır İ., Koyuncu S.

in: Comprehensive Energy Systems, 2nd edition, Ibrahim Dincer, Can Ozgur Colphan, Editor, Elsevier Science B.V., Amsterdam, 2024

## Papers Published in Refereed Scientific Meetings

**I. CARBAZOLE BASED CROSSLINKED POLYMER FILMS FOR ELECTROCHROMIC APPLICATIONS**

Altınışik S., Kortun A., Koyuncu S.

3rd International Natural Science, Engineering and Material Technologies Conference, Gazimagusa, Cyprus (Kktc), 21 - 23 September 2023, pp.10

**II. Crosslinked Viologen Thin Films for Use in The Cathodic Layer of Electrochromic Devices**

Altınışik S., Kortun A., Piravadılı S., Canimkurbey B., Moon H. C., Koyuncu S.

Asiachem – 19th Asian Chemical Congress , İstanbul, Turkey, 9 - 14 July 2023, pp.317-318

**III. Enhanced Photocatalytic Hydrogen Evolution for Viologen-based Covalent Organic Framework with Propyl Bridge**

Yanalak Yıldız G., Altınışik S., Turgut K., Koyuncu S., Hatay Patır İ.

Asiachem – 19th Asian Chemical Congress , İstanbul, Turkey, 9 - 14 July 2023, pp.95

**IV. 2,6-Distyrene Substituted Meso Phenyl/Carbazole BODIPY Derivatives: Synthesis, Characterization and Optical Features**

Köksoy B., Özdemir M., Altınışik S., Koyuncu S., Yalçın B.

Asiachem – 19th Asian Chemical Congress , İstanbul, Turkey, 9 - 14 July 2023, pp.357

**V. Synthesis and Characterization of Viologen Based Covalent Organic Framework**

Altınışik S., Koyuncu S.

2nd International Natural Science, Engineering and Material Technologies Conference, Kırklareli, Turkey, 15 - 17 September 2022, pp.30

**VI. Fluorene based crosslinkable conjugated polymers containing different length of PEG subunit**

Altınışik S., Cengiz U., Koyuncu S.

15th International Symposium on Flexible Organic Electronics, Thessaloniki, Greece, 4 - 07 July 2022, pp.157

**VII. Çapraz Bağlanabilir Viyolojen Türevlerinin Sentezi ve Karakterizasyonu**

Altınışik S., Koyuncu S.

32.Ulusal Kimya Kongresi, Eskişehir, Turkey, 17 - 19 September 2020, pp.192

## Supported Projects

KOYUNCU S., ALTINIŞIK S., Project Supported by Higher Education Institutions, Hidrojen Üretimi İçin Viyolojen Esaslı Yeni Tür Kovalent Organik Kafes Yapılar, 2023 - Continues

Koyuncu S., TÜBİTAK International Bilateral Joint Cooperation Program Project, Elektrokromik-Süperkapasitör Cihaz Uygulaması İçin Viyolojen Bazlı Çapraz Bağlanabilir Jel Elektrolit Sistemlerinin Geliştirilmesi, 2023 - 2025

Altınıřık S., Yanalak G., Koyuncu S., TUBITAK Project, Viyolojen Esaslı Kovalent Organik Kafes Yapının Fotokatalitik Hidrojen Üretim Etkinliđinin Arařtırılması, 2023 - 2024

Sanır M., Altınıřık S., TUBITAK Project, Elektroaktif tiyofen köprülü metal organik kafes yapıların sentezi, 2022 - 2024

Koyuncu S., Köksoy B., Özdemir M., Altınıřık S., Yalçın B., Project Supported by Higher Education Institutions, BODIPY Türevli Çapraz Bađlı Elektrokromik İnce Filmler ve Fotodesenleme Çalıřmaları, 2022 - 2023

Koyuncu S., Cengiz U., Kaya N., TUBITAK Project, Production of UV protected anti-fog glass using conjugated polymers, 2021 - 2023

KOYUNCU S., UđUR NİGİZ F., TUNCEL N. B., ALTINIŐIK S., Project Supported by Higher Education Institutions, Çeltik yan ürünlerinden biyoetanol üretim potansiyelinin arařtırılması ve verim optimizasyonu, 2020 - 2022

Altınıřık S., Martı M. E., TUBITAK Project, Őeker Endüstrisi Yan Ürünlerinden Tepkimeli Özütleme Yöntemi ile Betain Geri Kazanımı, 2017 - 2020

## Metrics

Publication: 36

Citation (WoS): 44

Citation (Scopus): 84

H-Index (WoS): 5

H-Index (Scopus): 6