

## Prof. FAZLI SÖZMEN

### Personal Information

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### International Researcher IDs

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Yoksis Researcher ID: 128021



### Research Areas

Natural Sciences

### Academic Titles / Tasks

Professor, Sivas Cumhuriyet University, Mühendislik Fakültesi, Nanoteknoloji Mühendisliği, 2021 - Continues

Associate Professor, Sivas Cumhuriyet University, Mühendislik Fakültesi, Nanoteknoloji Mühendisliği, 2015 - 2021

Assistant Professor, Sivas Cumhuriyet University, Mühendislik Fakültesi, Nanoteknoloji Mühendisliği, 2015 - 2015

Lecturer PhD, Ihsan Dogramaci Bilkent University, Institute Of Material Science And Nanotechnology, 2012 - 2015

Research Assistant, Akdeniz University, Faculty Of Science, Department Of Chemistry, 2006 - 2012

### Academic and Administrative Experience

Head of Department, Sivas Cumhuriyet University, Mühendislik Fakültesi, Nanoteknoloji Mühendisliği, 2018 - Continues

Head of Department, Sivas Cumhuriyet University, Mühendislik Fakültesi, Nanoteknoloji Mühendisliği, 2018 - Continues

### Courses

Seminer Dersi, Postgraduate, 2019 - 2020

Nanomalzemeler İçin Spektroskopik Teknikler, Postgraduate, 2019 - 2020

Nanomalzemelerin Üretim Yöntemleri - I, Undergraduate, 2019 - 2020

Nanomalzemeler - II (İngilizce), Undergraduate, 2019 - 2020

Uzmanlık Alan Dersi, Postgraduate, 2019 - 2020

Nanomalzemelerin Karakterizasyonu Laboratuvarı-II, Undergraduate, 2018 - 2019

Nanotapta Kullanılan Nanopatiküller ve Sentez Uygulamaları, Postgraduate, 2019 - 2020

Nanomalzemelerin Karakterizasyonu Laboratuvarı - I, Undergraduate, 2019 - 2020

Nanomalzeme Üretim Laboratuvarı, Undergraduate, 2018 - 2019

Organik Kimya, Undergraduate, 2018 - 2019

Nanomalzemelerin Optik Karakterizasyonu, Undergraduate, 2019 - 2020

Nanomalzemeler - I(İngilizce), Undergraduate, 2018 - 2019

Nanomalzeme Sentez Teknikleri, Postgraduate, 2018 - 2019

Malzeme Bilimi (İngilizce), Undergraduate, 2019 - 2020

Nanoteknoloji Mühendisliği İçin Teknik İngilizce, Undergraduate, 2018 - 2019

Nanobilim ve Nanoteknolojiye Giriş (İngilizce), Undergraduate, 2018 - 2019  
Mühendisler için Termodinamik - II(İngilizce), Undergraduate, 2017 - 2018  
Mühendisler için Termodinamik - I (İngilizce), Undergraduate, 2017 - 2018

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

- I. **All-in-One Nanohybrids Combining Sonodynamic Photodynamic and Photothermal Therapies**  
Taydas D., Özler M. E., ERGÜL M., ŞAHİN İNAN Z. D., SÖZMEN F.  
ACS Applied Materials and Interfaces, vol.16, no.33, pp.43387-43399, 2024 (SCI-Expanded)
- II. **Two-Photon Absorption Response of Functionalized BODIPY Dyes in Near-IR Region by Tuning Conjugation Length and Meso-Substituents**  
YILDIZ E., ÜNLÜ B. A., KARATAY A., Bozkurt Y., Özler M. E., SÖZMEN F., YABAŞ E., BOYACIOĞLU B., ÜNVER H., ELMALI A.  
ACS Omega, vol.8, no.34, pp.30939-30948, 2023 (SCI-Expanded)
- III. **The synthesis and anti-cancer efficacy of endoperoxide modified copper sulfide-ferritin nanocages as PDT and PTT agents**  
Kucukoflaz M., Ulusoy S., Korkmaz B., Öztürk S. C., Akyol M., Hayta S. B., Göze Ö. F., Esendağlı G., Sözmen F.  
Journal of Nanoparticle Research, vol.25, no.4, 2023 (SCI-Expanded)
- IV. **Effects of Heavy Iodine Atoms and  $\pi$ -Expanded Conjugation on Charge Transfer Dynamics in Carboxylic Acid BODIPY Derivatives as Triplet Photosensitizers**  
Akhuseyin Yildiz E., Yabaş E., Sözmen F., Bozkurt Y., Karatay A., Boyacıoğlu B., Ünver H., Elmalı A.  
ChemPhysChem, vol.24, no.5, 2023 (SCI-Expanded)
- V. **Synthesis of Multifunctional Organic Nanoparticles Combining Photodynamic Therapy and Chemotherapeutic Drug Release**  
SÖZMEN F., Kucukoflaz M., ERGÜL M., ŞAHİN İNAN Z. D., Bozkurt Y., Taydas D.  
MACROMOLECULAR RESEARCH, vol.30, no.1, pp.61-69, 2022 (SCI-Expanded)
- VI. **Nanoparticles with PDT and PTT synergistic properties working with dual NIR-light source simultaneously**  
SÖZMEN F., Kucukoflaz M., ERGÜL M., ŞAHİN İNAN Z. D.  
RSC ADVANCES, vol.11, no.4, pp.2383-2389, 2021 (SCI-Expanded)
- VII. **Determination of inhibitory activities of enzymes, related to Alzheimer's disease and diabetes mellitus of plane tree (Platanus orientalis L.) extracts and their antioxidant, antimicrobial and anticancer activities**  
Ucar E., ERUYGUR N., ATAŞ M., ERGÜL M., ERGÜL M., SÖZMEN F.  
CELLULAR AND MOLECULAR BIOLOGY, vol.64, no.11, pp.13-19, 2018 (SCI-Expanded)
- VIII. **Self immolative dioxetane based chemiluminescent probe for H<sub>2</sub>O<sub>2</sub> detection**  
Seven O., SÖZMEN F., Turan I. S.  
SENSORS AND ACTUATORS B-CHEMICAL, vol.239, pp.1318-1324, 2017 (SCI-Expanded)
- IX. **Orthogonal Bodipy Trimers as Photosensitizers for Photodynamic Action**  
Ozdemir T., Bila J. L., SÖZMEN F., YILDIRIM L., AKKAYA E. U.  
ORGANIC LETTERS, vol.18, no.19, pp.4821-4823, 2016 (SCI-Expanded)
- X. **BODIPY based self-healing fluorescent gel formation via acylhydrazone linkage**  
Ozdemir T., SÖZMEN F.  
RSC ADVANCES, vol.6, no.13, pp.10601-10605, 2016 (SCI-Expanded)
- XI. **A chromogenic dioxetane chemosensor for hydrogen sulfide and pH dependent off-on chemiluminescence property**  
Turan I. S., Sozmen F.  
SENSORS AND ACTUATORS B-CHEMICAL, vol.201, pp.13-18, 2014 (SCI-Expanded)
- XII. **Highly selective fluoride sensing via chromogenic aggregation of a silyloxy-functionalized tetraphenylethylene (TPE) derivative**

- Turan I. S., Cakmak F. P., Sozmen F.  
TETRAHEDRON LETTERS, vol.55, no.2, pp.456-459, 2014 (SCI-Expanded)
- XIII. **Fast responding and selective near-IR Bodipy dye for hydrogen sulfide sensing**  
Ozdemir T., Sozmen F., Mamur S., Tekinay T., Akkaya E. U.  
CHEMICAL COMMUNICATIONS, vol.50, no.41, pp.5455-5457, 2014 (SCI-Expanded)
- XIV. **Designing BODIPY-based probes for fluorescence imaging of beta-amyloid plaques**  
Sozmen F., Kolemen S., Kumada H., Ono M., Saji H., Akkaya E. U.  
RSC ADVANCES, vol.4, no.92, pp.51032-51037, 2014 (SCI-Expanded)
- XV. **Heteroleptic Metallosupramolecular Complexes of Bodipy Dyes as Energy Transfer Cassettes**  
Sozmen F., Oksal B. S., BOZDEMİR Ö. A., Buyukcakir O., Akkaya E. U.  
ORGANIC LETTERS, vol.14, no.20, pp.5286-5289, 2012 (SCI-Expanded)
- XVI. **Extraction of the Essential Oil from Endemic Origanum bilgeri P.H.Davis with Two Different Methods: Comparison of the Oil Composition and Antibacterial Activity**  
Sozmen F., Uysal B., Kose E. O., Aktas O., ÇİNBİLGEL İ., Oksal B. S.  
CHEMISTRY & BIODIVERSITY, vol.9, no.7, pp.1356-1363, 2012 (SCI-Expanded)
- XVII. **Essential oil composition and antibacterial activity of the grapefruit (Citrus Paradisi. L) peel essential oils obtained by solvent-free microwave extraction: comparison with hydrodistillation**  
Uysal B., Sozmen F., Aktas O., Oksal B. S., Kose E. O.  
INTERNATIONAL JOURNAL OF FOOD SCIENCE AND TECHNOLOGY, vol.46, no.7, pp.1455-1461, 2011 (SCI-Expanded)
- XVIII. **Chemical Composition and Antibacterial Activity of Origanum saccatum PH Davis Essential Oil Obtained by Solvent-Free Microwave Extraction: Comparison with Hydrodistillation**  
Sozmen F., Uysal B., Oksal B. S., Kose E. O., DENİZ İ. G.  
JOURNAL OF AOAC INTERNATIONAL, vol.94, no.1, pp.243-250, 2011 (SCI-Expanded)
- XIX. **Reaction-Based Sensing of Fluoride Ions Using Built-in Triggers for Intramolecular Charge Transfer and Photoinduced Electron Transfer**  
Bozdemir O. A., Sozmen F., Buyukcakir O., Guliyev R., Cakmak Y., Akkaya E. U.  
ORGANIC LETTERS, vol.12, no.7, pp.1400-1403, 2010 (SCI-Expanded)
- XX. **Solvent-free microwave extraction and hydrodistillation of essential oils from endemic Origanum husnucanbaseri H. Duman, Aytac A. Duran: comparison of antibacterial activity and contents**  
Uysal B., Sozmen F., Kose E. O., DENİZ İ. G., Oksal B. S.  
NATURAL PRODUCT RESEARCH, vol.24, no.17, pp.1654-1663, 2010 (SCI-Expanded)
- XXI. **Synthesis of Symmetrical Multichromophoric Bodipy Dyes and Their Facile Transformation into Energy Transfer Cassettes**  
Bozdemir O. A., Cakmak Y., Sozmen F., Ozdemir T., Siemiarczuk A., Akkaya E. U.  
CHEMISTRY-A EUROPEAN JOURNAL, vol.16, no.21, pp.6346-6351, 2010 (SCI-Expanded)
- XXII. **Solvent-free Microwave Extraction of Essential Oils from Laurus nobilis and Melissa officinalis: Comparison with Conventional Hydro-distillation and Ultrasound Extraction**  
Uysal B., Sozmen F., Buyuktas B. S.  
NATURAL PRODUCT COMMUNICATIONS, vol.5, no.1, pp.111-114, 2010 (SCI-Expanded)
- XXIII. **Cyanide sensing via metal ion removal from a fluorogenic BODIPY complex**  
Guliyev R., Buyukcakir O., Sozmen F., Bozdemir O. A.  
TETRAHEDRON LETTERS, vol.50, no.36, pp.5139-5141, 2009 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Determination of biological activity of Tragopogon porrifolius and Polygonum cognatum consumed intensively by people in Sivas**  
Erüyğür N., Ucar E., ATAŞ M., ERGÜL M., ERGÜL M., SÖZMEN F.  
Toxicology Reports, vol.7, pp.59-66, 2020 (ESCI)

## II. Evaluation of Various Biological Activities of Endemic *Sideritis libanotica* Extracts

ATAŞ M., ERUYGUR N., SÖZMEN F., ERGÜL M., ERGÜL M., AKPULAT H. A., UÇAR SÖZMEN E.

Notulae Scientia Biologicae, vol.11, no.2, pp.210-217, 2019 (Peer-Reviewed Journal)

### Supported Projects

Sözmen F., Yabaş E., Ünver N., TUBITAK Project, TUBİTAK 1001 PROJESİ, Proje no: 121Z810, Lipozomal Bodipyzom Taşıyıcı Nanoveziküllerin Sentezi, Karakterizasyonu ve Kanser Üzerine Etkilerinin in vivo Araştırılması, 2021 - 2024  
Sözmen F., ERGÜL M., TUBITAK Project, Yeni Nesil PDT ve PTT Etkisine Sahip Nanopartiküllerin Tasarımı, Sentezi ve in-vitro Antikanser Özelliklerinin Belirlenmesi, 2019 - 2020

Sözmen F., TUBITAK Project, TUBİTAK 1001 PROJESİ, Proje no: 217Z027, Fototermal ve endoperoksit terapilerinin sinerjistik anti-kanser etkisine sahip protein-kafes yapılı nanopartiküllerinin sentezi ve melanom deri kanserine karşı etkilerinin in-vivo incelenmesi, 2018 - 2020

Sözmen F., Kul M., Şimşir M., Demir İ., Altuntaş İ., Öztürk O., Project Supported by Higher Education Institutions, Nanoteknoloji Mühendisliği Öğrencilerinin Nanoölçekli Malzemelerin Üretim ve Karakterizasyonu Alanlarında Aktif Çalışmalarının Akademik Gelişimlerine Etkisi RGD-017, 2018 - 2019

Sözmen F., Project Supported by Higher Education Institutions, Bodipy Bazlı Floresan Karbonhidrat Sensör Sentezi, 2015 - 2017

Sözmen F., TUBITAK Project, Kendiliğinden İyileşen BODIPY Bazlı Floresan Jel Sentezi ve Jelde Enerji Transferi Proje No 113T062, 2013 - 2014

### Metrics

Publication: 37

Citation (WoS): 775

Citation (Scopus): 822

H-Index (WoS): 14

H-Index (Scopus): 15