

## Asst. Prof. ZEYNEL ŞAHİN

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Gebze Technical University, Institute Of Science, Turkey 2015 - 2020

Postgraduate, Inonu University, Fen Bilimleri Enstitüsü, Turkey 2011 - 2014

Undergraduate, Inonu University, Fen-Edebiyat Fakültesi, Kimya, Turkey 2007 - 2011

### Research Areas

Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Marmara University, Faculty of Technology, Metallurgical and Materials Engineering, 2021 -  
Continues

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

- I. **New silver, rhodium and iridium complexes with anthracene-functionalized N-heterocyclic carbene ligands: Crystal structures, cytotoxicity and fluorescence studies**  
BEKİ H., Özdemir N., ŞAHİN Z., MUMCU A., DAYAN S., KARATAŞ M. O.  
*Polyhedron*, vol.257, 2024 (SCI-Expanded)
- II. **Nanoencapsulation of a Far-Red Absorbing Phthalocyanine into Poly(benzylmalate) Biopolymers and Modulation of Their Photodynamic Efficiency**  
ŞAHİN Z., Önal E., Ali L. M. A., Durand D., EMAMI A., Touré M., İŞÇİ Ü., Gary-Bobo M., Cammas-Marion S., DUMOULIN F.  
*Biomacromolecules*, vol.25, no.6, pp.3261-3270, 2024 (SCI-Expanded)
- III. **Phthalocyanine vs porphyrin: Experimental and theoretical comparison of the catalytic activity of N-bridged diiron tetrapyrrolic complexes for alcohols oxidation**  
ŞAHİN Z., Yüceel Ç., Yıldız D. B., DEDE Y., DUMOULIN F., İŞÇİ Ü.  
*Molecular Catalysis*, vol.559, 2024 (SCI-Expanded)
- IV. **Amphiphilic Single-Chain Polymer Nanoparticles as Imaging and Far-Red Photokilling Agents for Photodynamic Therapy in Zebrafish Embryo Xenografts**  
Arena D., Nguyen C., Ali L. M. A., Verde-Sesto E., Iturrospe A., Arbe A., İŞÇİ Ü., ŞAHİN Z., DUMOULIN F., Gary-Bobo

M., et al.

Advanced Healthcare Materials, 2024 (SCI-Expanded)

- V. **Phthalocyanines prepared from 4,5-dihexylthiophthalonitrile, a popular building block**  
TOPKAYA TAŞKIRAN D., ŞAHİN Z., İŞÇİ Ü., DUMOULIN F.  
Turkish Journal of Chemistry, vol.47, no.5, pp.814-836, 2023 (SCI-Expanded)
- VI. **Tetra vs. octa-How it affects the photophysical, photochemical, physicochemical and biological properties of mercaptophenol-substituted Zn phthalocyanines**  
TOPKAYA TAŞKIRAN D., Aydin D., Ben Aziza H., ŞAHİN Z., İŞÇİ Ü., Durand D., TAZEBAY U. H., Gary-Bobo M., DUMOULIN F.  
JOURNAL OF PORPHYRINS AND PHTHALOCYANINES, vol.26, no.11, pp.701-707, 2022 (SCI-Expanded)
- VII. **Substituent effect on iron phthalocyanines as cyclohexene oxidation catalysts**  
Yüceel Ç., Şahin Z., İşçi Ü.  
JOURNAL OF PORPHYRINS AND PHTHALOCYANINES, vol.26, no.06N07, pp.452-457, 2022 (SCI-Expanded)
- VIII. **Peptoid-phthalocyanine architectures with different grafting positions: Synthetic strategy and photoproperties**  
Rzeigui M., Şahin Z., Roy O., Küçük T., Göler Ö., Atilla D., Khiari J., Dumoulin F., Taillefumier C.  
Dyes and Pigments, vol.189, 2021 (SCI-Expanded)
- IX. **Tuning of organic heterojunction conductivity by the substituents' electronic effects in phthalocyanines for ambipolar gas sensors**  
Sahin Z., Meunier-Prest R., DUMOULIN F., Kumar A., Isci Ü., Bouvet M.  
SENSORS AND ACTUATORS B-CHEMICAL, vol.332, 2021 (SCI-Expanded)
- X. **Alkylthio-tetrasubstituted mu-Nitrido Diiron Phthalocyanines: Spectroelectrochemistry, Electrical Properties, and Heterojunctions for Ammonia Sensing**  
Sahin Z., Meunier-Prest R., DUMOULIN F., Isci Ü., Bouvet M.  
INORGANIC CHEMISTRY, vol.59, no.2, pp.1057-1067, 2020 (SCI-Expanded)
- XI. **Cobalt phthalocyanine-TiO<sub>2</sub> nanocomposites for photocatalytic remediation of textile dyes under visible light irradiation**  
Dindas G. B., Sahin Z., Yatmaz H. C., Isci Ü.  
JOURNAL OF PORPHYRINS AND PHTHALOCYANINES, vol.23, no.4-5, pp.561-568, 2019 (SCI-Expanded)
- XII. **N-Alkylation and N,C-Dialkylation of Amines with Alcohols in the Presence of Ruthenium Catalysts with Chelating N-Heterocyclic Carbene Ligands**  
Sahin Z., GÜRBÜZ N., ÖZDEMİR İ., Sahin O., Buyukgungor O., Achard M., Bruneau C.  
ORGANOMETALLICS, vol.34, no.11, pp.2296-2304, 2015 (SCI-Expanded)

## Books & Book Chapters

- I. **METALURJİ VE MALZEME BİLİMİNE TERMODİNAMİK AÇIDAN YAKLAŞIMLAR**  
Şahin Z.  
in: Metalürji ve Malzeme Bilimi / Yeni Nesil Yaklaşımalar, Elif UZUN KART, Editor, Nobel Yayınevi, Ankara, pp.131-169, 2022
- II. **Molecular Hybrids of Cavitands and Porphyrinoids**  
İşçi Ü., Şahin Z., Dumoulin F., Ahsen V.  
in: Handbook of Porphyrin Science, Karl M Kadish, Kevin M Smith, Roger Guilard, Editor, World Scientific Publishing, Singapore, pp.165-297, 2016

## Refereed Congress / Symposium Publications in Proceedings

- I. **Towards PDT-MRI molecular theranostics: TEMPO-substituted phthalocyanines**  
Aydın D., Ben Aziza H., Şahin Z., İşçi Ü., Aygün E., Durand D., Tazebay U. H., Gary-Bobo M., Sarıtaş Çukur E. Ü.,

- Dumoulin F., et al.  
International Conference on Porphyrins and Phthalocyanines, Madrid, Spain, 10 - 15 July 2022, vol.0, no.0
- II. **Water-soluble nickel phthalocyanines as sublayers in MSDI heterojunctions for ammonia sensing**  
Şahin Z., Ek Y., Dumoulin F., Meunier-Prest R., İşçi Ü., Bouvet M.  
International Conference on Porphyrins and Phthalocyanines, Madrid, Spain, 10 - 15 July 2022
- III. **Oxidation of cyclohexene by iron phthalocyanines: Effect of electron donating or electron withdrawing substituents**  
Yüceel Ç., Şahin Z., İşçi Ü.  
International Conference on Porphyrins and Phthalocyanines, Madrid, Spain, 10 - 15 July 2022, vol.0, no.0
- IV. **Tetra vs Octa - How it affects the physicochemical, photophysical, photochemical and biological properties of mercaptophenol-substituted phthalocyanines**  
Aydın D., Şahin Z., İşçi Ü., Durand D., Ben Aziza H., Tazebay U. H., Garı-Bobo M., Dumoulin F., Topkaya Taşkıran D.  
The 5th Photodynamic Day, İstanbul, Turkey, 18 May 2021
- V. **Ruthenium(II)-N-Heterocyclic Carbene Complexes for the N-Alkylation of Amine**  
ŞAHİN Z., GÜRBÜZ N., ÖZDEMİR İ.  
International Conference on Physical Chemistry and Functional Materials (PCFM), Elazığ, Turkey, 19 - 21 June 2018
- VI. **Phthalocyanine - Resorcinarene Cavitand Hybrids: Design, Synthesis And Host-Guest Interactions With Fullerene Derivatives**  
Şahin Z., Ahsen V., Çolak S. G., Ocakoğlu M. İ., Dumoulin F., İşçi Ü.  
28. Ulusal Kimya Kongresi, Mersin, Turkey, 15 - 21 August 2016, vol.0, no.0
- VII. **Porphyrinoids-resorcinarene cavitand hybrids: a strategy to maximize interactions between phthalocyanines and fullerenes**  
ŞAHİN Z., TOPKAYA TAŞKIRAN D., ÇOLAK S. G., İNCE OCAKOĞLU M., AHSEN V., DUMOULIN F., İŞÇİ Ü.  
Eighth International Conference on Porphyrins and Phthalocyanines (ICPP-9), Nanjing, China, 3 - 08 July 2016
- VIII. **Ru-İmidazoliden Komplekslerinin Sentezi ve Özellikleri**  
Şahin Z., Gürbüz N., Özdemir İ.  
Ru-İmidazoliden Komplekslerinin Sentezi ve Özellikleri, Mersin, Turkey, 22 - 25 April 2015, vol.0, no.0
- IX. **Ru-NHC Catalyzed N and C-Aklylation of Pyrrolidine**  
Şahin Z., Gürbüz N., Özdemir İ.  
8nd Symposium on AES Metal Mediated Efficient Organic Synthesis, İzmir, Turkey, 7 - 10 September 2014
- X. **Ru-Benzimidazoliden Karben Komplekslerinin Sentezi ve Özellikleri**  
Şahin Z., Gürbüz N., Özdemir İ., Şahin O., Büyükgüngör O.  
IV. Ulusal Anorganik Kimya Kongresi, Tokat, Turkey, 30 May - 02 June 2013, vol.0, no.0

## Metrics

- Publication: 24  
Citation (WoS): 80  
Citation (Scopus): 116  
H-Index (WoS): 4  
H-Index (Scopus): 4