

ÖZGEÇMİŞ VE ESERLER LİSTESİ

ÖZGEÇMİŞ

Adı ve Soyadı: Sinem TUNCEL KOSTAKOĞLU

Doğum Tarihi: 09/11/1981

Doğum Yeri: Kadıköy

Akademik Unvanı: Doçent Doktor (06/03/2017)

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Bildiği Yabancı Diller (Puan ve Yılı): İngilizce (YDS: 80-2015)

Uzmanlık Alanı: Anorganik kimya

Derece	Bölüm/Program	Üniversite	Yıl
Lisans	Kimya Mühendisliği	Ankara Üniversitesi	2004
Y. Lisans	Kimya	Gebze Yüksek Teknoloji Enstitüsü	2006
Doktora	Kimya	Gebze Yüksek Teknoloji Enstitüsü	2012

Yüksek Lisans Tez Başlığı ve Tez Danışmanı: Periferal okta-amino ftalosiyanın sentezi, Prof. Dr. Vefa AHSEN

Doktora Tez Başlığı ve Tez Danışmanı: Mesomorfik alkoksi ve alkiltiyü süstitüe kurşun ftalosiyaninler, Prof. Dr. Vefa AHSEN

Görevler:

Görev Unvanı	Görev Yeri	Yıl
Doç. Dr.	İstinye Üniversitesi/Mühendislik ve Doğa Bilimleri Fakültesi/ Kimya Bölümü	2021-halen
Dr. Araştırma Görevlisi	Gebze Teknik Üniversitesi/Temel Bilimler Fakültesi/Kimya Bölümü	2012-2021
Araştırma Görevlisi	Gebze Teknik Üniversitesi/Temel Bilimler Fakültesi/Kimya Bölümü	2006-2012

Yönetilen Yüksek Lisans Tezleri :

Synthesis of Barbituric Acid-Functionalized BODIPY Derivatives and Investigations of Their Self-Assembled Structures, Gebze Teknik Üniversitesi, Kimya Bölümü, İkinci Danışman

Projelerde Yaptığı Görevler:

- Karbonhidrat Süstitüe Ftalosiyaninlerin Sentezi, Fotosensitif ve Kendiliğinden Organize Olma Özelliklerinin İncelenmesi, TÜBİTAK PROJESİ (1001), Araştırmacı, 2006-2008

2. Mesomorphic Molecular Materials for Electronics: Structural Organization on The Substrate Surface, TÜBİTAK PROJESİ (Rusya-Türkiye İkili İşbirliği), Bursiyer, 2009-2011
3. Klick Kimyasıyla Karbonhidratlı Ftalosiyanın Sentezi, BAP, Araştırmacı, 2009-2010
4. Yeni Tip Sıvı Kristal Oksotitanyum Ftalosiyanın Sentezi ve Fotoiletkenlik Özelliklerinin İncelenmesi, BAP, Araştırmacı, 2006-2008
5. Ftalosiyanın Nanotellerin Üretimi, Fotofiziksel ve Fotovoltaik Özelliklerinin İncelenmesi, TÜBİTAK PROJESİ (1001), Araştırmacı, 2013-2016
6. Organik Elektronik Uygulamalar için Kendiliğinden Düzenlenen Supramoleküler Sistemler: Ftalosiyanın Rozetleri, TÜBİTAK PROJESİ (1002), Yürütücü, 2019-Halen

Bilimsel Kuruluşlara Üyelikler:

Türk Kimya Derneği

Ödüller:

TÜBİTAK Ufuk2020 Eşik Üstü Ödülü

Proje Başlığı: Multifunctional mesoporous organosilica nanoparticles for theranostics of breast and prostate cancers

Projedeki Görevi: Araştırmacı

- H2020- Marie Skłodowska-Curie actions-ITN-2017, Total score: 89.20
- H2020- Marie Skłodowska-Curie actions-ITN-2016, Total score: 85.40

Uluslararası Dergilerde Hakemlikler:

Makale Kodu: IJP-D-16-00927

Makale Adı: A pyropheophorbide a-based photosensitizer tested for in vivo targeted photodynamic therapy

International Journal of Pharmaceutics

Makale Kodu: KIM-2008-13

Makale Adı: Silicon phthalocyanine photosensitizers with pyridine anchor for dye-sensitized solar cells: preparation, photophysical, electrochemical and photovoltaic properties

Türk Kimya Dergisi

Burslar:

TÜBİTAK-BİDEB 2219, Doktora Sonrası Araştırma Bursu

Liquid Crystalline Phthalocyanine-Perylene Dyads for Charge Transfer Studies and Solar Cell Applications, 2013-2014 (University of Bayreuth, Applied Functional Polymers, Department of Macromolecular Chemistry I, Bayreuth, GERMANY, Prof. Dr. Mukundan THELAKKAT)

Yurtdışı Deneyimler:

- Ekim2012-Ocak2013 Misafir Araştırmacı, Institute of Chemistry of Clermont-Ferrand, CESMA – Design and Synthesis of Analgesic Molecules, Clermont-Ferrand, Fransa, Prof. Dr. Sylvie DUCKI
- Eylül-Ekim2010 Misafir Doktora Öğrencisi, Nikolaev Institute of Inorganic Chemistry, Laboratory for chemistry of volatile coordination and metallorganic compounds, Novosibirsk, Rusya, Dr. Tamara BASOVA
- Mayıs-Haziran2010 Misafir Doktora Öğrencisi, Nikolaev Institute of Inorganic Chemistry, Laboratory for chemistry of volatile coordination and metallorganic compounds, Novosibirsk, Rusya, Dr. Tamara BASOVA
- Aralık2009 Misafir Doktora Öğrencisi, Sheffield Hallam University, The Materials and Engineering Research Institute (MERI), Sheffield, Birleşik Krallık, Dr. Aseel HASSAN
- Ağustos-Eylül2009 Misafir Doktora Öğrencisi, Nikolaev Institute of Inorganic Chemistry, Laboratory for chemistry of volatile coordination and metallorganic compounds, Novosibirsk, Rusya, Dr. Tamara BASOVA

Son iki yılda verdiği lisans ve lisansüstü düzeydeki dersler (Açılmışsa, yaz döneminde verilen dersler de tabloya ilave edilecektir):

Akademik Yıl	Dönem	Dersin Adı	Haftalık Saati		Öğrenci Sayısı
			Teorik	Uygulama	
2017-2018	Güz	CHEM113 Chemistry Laboratory I		2	77
2019-2020	Güz	CHEM101 General Chemistry I	3		73
	Bahar	CHEM102 General Chemistry II	3		34

ESERLER

H-İndex: 12

Toplam atıf: 414 (web of science)

A. Uluslararası hakemli dergilerde yayımlanan makaleler:

A1. Yuksel F., Tuncel S., Gürek A. G., Jeanneau E., Luneau D., Ahsen V. (2007). Bis[μ -4,5-dicyano-N,N'-bis(p-tolylsulfonyl)-o-phenylenediaminato]bis[diamminecopper(II)]dihydrate. Acta Crystallographica Section E Structure Reports Online, 63(5), 1380-1382.

A2. Yuksel F., Tuncel S., Ahsen V. (2008). Synthesis and characterizations of peripheral octa-amino and octa-amidophthalocyanines. Journal of Porphyrins and Phthalocyanines, 12(2), 123-130.

A3. Tuncel S., Dumoulin F., Gailer J., Sooriyaarachchi M., Atilla D., Durmuş M., Bouchu D., Savoie H., Boyle R. W., Ahsen V. (2011). A set of highly water-soluble tetraethyleneglycol-substituted Zn(II) phthalocyanines: synthesis, photochemical and

photophysical properties, interaction with plasma proteins and in vitro phototoxicity. Dalton Transactions, 40(16), 4067-4079.

A4. Tuncel S., Basova T. V., Kiselev V. G., Gromilov S. A., Jushina I. V., Durmuş M., Gürek A. G., Ahsen V. (2011). Tetraoctylthio- and tetraoctyloxy-substituted lead phthalocyanines: Synthesis, characterization, liquid-crystalline properties, and thin film studies. Journal of Materials Research, 26(23), 2962-2973.

A5. Hassan A., Basova T., Tuncel S., Yuksel F., Gürek A. G., Ahsen V. (2011). Phthalocyanine films as active layers of optical sensors for pentachlorophenol and simazine detection. Procedia Engineering, 25, 272-275 (Tam metinli bildiri).

A6. Tuncel S., Fournier-dit-Chabert J., Albrieux F., Ahsen V., Ducki S., Dumoulin F. (2012). Towards dual photodynamic and antiangiogenic agents: design and synthesis of a phthalocyanine-chalcone conjugate. Organic & Biomolecular Chemistry, 10(6), 1154-1157.

A7. Basova T. V., Çamur M., Esenpınar A. A., Tuncel S., Hassan A., Alexeyev A., Banimuslem H., Durmuş M., Gürek A. G., Ahsen V. (2012). Effect of substituents on the orientation of octasubstituted copper(II) phthalocyanine thin films. Synthetic Metals, 162(7-8), 735-742.

A8. Tuncel S., Banimuslem H. A. J., Durmuş M., Gürek A. G., Ahsen V., Basova T. V., Hassan A. K. (2012). Liquid crystalline octasubstituted lead(II) phthalocyanines: effects of alkoxy and alkylthio substituents on film alignment and electrical properties. New Journal of Chemistry, 36(8), 1665-1672.

A9. Mthethwa T. P., Tuncel S., Durmuş M., Nyokong T. (2013). Photophysical and photochemical properties of a novel thiol terminated low symmetry zinc phthalocyanine complex and its gold nanoparticles conjugate. Dalton Transactions, 42(1), 4922-4930.

A10. Tuncel S., Trivella A., Atilla D., Bennis K., Savoie H., Albrieux F., Delort L., Billard H., Dubois V., Ahsen V., Caldefie-Chézet F., Richard C., Boyle R. W., Ducki S., Dumoulin F. (2013). Assessing the dual activity of a chalcone-phthalocyanine conjugate: design, synthesis, and antivascular and photodynamic properties. Molecular Pharmaceutics, 10(10), 3706-3716.

A11. Basova T., Esenpınar A. A., Tuncel S., Durmuş M., Gürek A. G., Ahsen V. (2013). Thin films of liquid crystalline phthalocyanines and their composites with single-walled carbon nanotubes: properties and alignment. Key Engineering Materials, 531(1), 337-341 (Tam metinli bildiri).

A12. Banimuslem H., Hassan A., Basova T., Gülmez A. D., Tuncel S., Durmuş M., Gürek A. G., Ahsen V. (2014). Copper phthalocyanine/single walled carbon nanotubes hybrid thin films for pentachlorophenol detection. Sensors and Actuators B: Chemical, 190 (1), 990-998.

A13. Tuncel S., Kaya E. N., Durmuş M., Basova T., Gürek A. G., Ahsen V., Banimuslem H., Hassan A. (2014). Distribution of single walled carbon nanotubes in pyrene containing liquid crystalline asymmetric zinc phthalocyanine matrix. Dalton Transactions, 43, 4689-4699.

A14. Banimuslem H., Hassan A., Basova T., Yushina I., Durmuş M., Tuncel S., Esenpınar A. A., Gürek A. G., Ahsen V. (2014). Copper phthalocyanine functionalized single-walled carbon nanotubes: thin film deposition and sensing properties. Key Engineering Materials, 605, 461-464 (Tam metinli bildiri).

A15. Kaya E. N., Tuncel S., Basova T. V., Banimuslem H., Hassan A., Gürek A. G., Ahsen V., Durmuş M. (2014). Effect of pyrene substitution on the formation and sensor properties of phthalocyanine-single walled carbon nanotube hybrids. *Sensors and Actuators B-Chemical*, 199, 277-283.

A16. Banimuslem H., Hassan A., Basova T., Durmuş M., Tuncel S., Esenpinar A. A., Gürek A. G., Ahsen V. (2015). Copper phthalocyanine functionalized single-walled carbon nanotubes: thin films for optical detection. *Journal of Nanoscience and Nanotechnology*, 15, 2157-2167.

A17. Banimuslem H., Hassan A., Basova T., Esenpinar A. A., Tuncel S., Durmuş M., Gürek A. G., Ahsen V. (2015). Dye-modified carbon nanotubes for the optical detection of amines vapours. *Sensors and Actuators B-Chemical*, 207, 224-234.

A18. Aribia F., Vey C., Topkaya D., Tuncel Kostakoğlu S., Fournier-dit-Chabert J., Işık Büyükeksi S., Canan Taşkın G., Alpugan S., Albrieux F., Gürek A. G., Cucca M., Bennis K., Atilla D., Ahsen V., Ducki S., Dumoulin F. (2016). Phthalocyanine-chalcone conjugates. *Journal of Porphyrins and Phthalocyanines*, 20, 497-504.

A19. Topal S. Z., Un, S. S., Bretonniere Y., Tuncel Kostakoğlu S. (2017). New designed naphthalimide-phthalocyanine pentads: Synthesis, photophysical and photochemical properties in DMSO and room temperature ionic liquids. *Journal of Photochemistry and Photobiology A-Chemistry*, 332, 562-570.

A20. Gulmez A. D., Polyakov M. S., Volchek V. V., Tuncel Kostakoğlu S., Esenpinar A. A., Basova T. V., Durmuş M., Gürek A. G., Ahsen, V., Banimuslem H. A., Hassan A. K. (2017). Tetrasubstituted copper phthalocyanines: Correlation between liquid crystalline properties, films alignment and sensing properties. *Sensors and Actuators B-Chemical*, 241, 364-375.

A21. Ozdemir R., Choi D., Ozdemir M., Kim H., Tuncel Kostakoğlu S., Erkartal M., Kim H., Kim C., Usta H. (2017). A solution-processable liquid-crystalline semiconductor for low temperature-annealed air-stable n-channel field-effect transistors, *ChemPhysChem*, 18, 7, 850-861.

A22. Heinrich C. D., Tuncel Kostakoğlu S., Thelakkat M. (2017). Densely grafted liquid crystalline copper phthalocyanine side chain polymer: synthesis and characterization. *Journal of Materials Chemistry C*, 5, 25, 6259-6268.

A23. Wilma K., Unger T., Tuncel Kostakoğlu S., Hollfelder M., Hunger C., Lang A., Gürek A. G., Thelakkat M., Kohler J., Kohler A., Gekle S., Hildner R. (2017). Excited state dynamics and conformations of a Cu(II)-phthalocyanine-perylenebisimide dyad. *Physical Chemistry Chemical Physics*, 19, 33, 22169-22176.

A24. Albakour M., Tunç G., Akyol B., Tuncel Kostakoğlu S., Berber S., Bekaroğlu Ö., Gürek A. G. (2018). Synthesis, characterization, photophysicochemical properties and theoretical study of novel zinc phthalocyanine containing four tetrathia macrocycles. *Journal of Porphyrins Phthalocyanines*, 22, 1-11.

A25. Mete E., Kabay N., Dumoulin F., Ahsen V., Tuncel Kostakoğlu S., Ergin Ç. (2020) Photodynamic inactivation of *Staphylococcus aureus* using tetraethylene glycol-substituted Zn(II) phthalocyanine. *Biotechnic & Histochemistry*. DOI: 10.1080/10520295.2020.1854855.

A26. Aykota M. R., Yilmaz S., Erbis H., Kabay N., Tuncel Kostakoğlu S., Ahsen V., Dumoulin F., Yenisey C., Kabay B. (2021) In vivo phototoxic effects of a

tetraethyleneglycol-substituted Zn phthalocyanine in tumor bearing rats at an enzymatic level. *Journal of Porphyrins and Phthalocyanines*, 125, 120-127.

A27. Tuncel Kostakoğlu S., Chumakov Y., Zorlu Y., Sadak A. E., Denizaltı S., Gürek A. G., Ayhan M. M. (2021) Elucidating the role of non-covalent interactions in unexpectedly high and selective CO₂ uptake and catalytic conversion of porphyrin-based ionic organic polymers, *Mater. Adv.*, 2, 3685-3694.

B. Uluslararası bilimsel toplantılarda sunulan ve bildiri kitaplarında (proceedings) basılan bildiriler:

B1. Dumoulin F., Tuncel S., Kumru U., Ahsen V. (2007). Carbohydrates-conjugated phthalonitriles. International Conference on Organic Chemistry (Sözlü).

B2. Yuksel F., Ahsen V., Tuncel S. (2008). Synthesis and characterizations of peripheral octa-amino and octa-amido phthalocyanines. 5th International Conference on Porphyrins and Phthalocyanines (ICPP-5) (Poster).

B3. Tuncel S., Ahsen V., Dumoulin F. (2008). Tetraethyleneglycol substituted Zn (II) phthalocyanines: A high water-solubility for potential PDT agents. 5th International Conference on Porphyrins and Phthalocyanines (ICPP-5) (Poster).

B4. Ahsen V., Tuncel S., Basova T., Kiselev V., Plyashkevich V., Gromilov S., Jushina I., Durmuş M., Gürek A. G. (2010). Synthesis and film characterization of liquid crystalline tetraalkylthio- and tetraalkyloxy- substituted lead phthalocyanines. 6th International Conference on Porphyrins and Phthalocyanines (ICPP-6) (Poster).

B5. Durmuş M., Tuncel S., Ahsen V. (2011). Near-IR absorbing phthalocyanines for photodynamic therapy. 13th JCF-Frühjahrssymposium (Poster).

B6. Atilla D., Yuksel F., Tuncel S., Durmuş M., Gürek A. G., Ahsen V. (2011). Mesomorphic alkylthiosubstituted lead phthalocyanines. 13th JCF-Frühjahrssymposium (Poster).

B7. Tuncel S., Durmuş M., Basova T., Gürek A. G., Ahsen V. (2012). Pyrene substituted asymmetric phthalocyanine-single wall carbon nanotube hybrid materials. 7th International Conference on Porphyrins and Phthalocyanines (ICPP-7) (Poster).

B8. Dumoulin F., Tuncel S., Fournier-dit-Chabert J., Ribiére L., Logan R., Bennis K., Trivella A., Atilla D., Delort L., Billard H., Savoie H., Caldefie-Chézet F., Ahsen V., Richard C., Boyle R. W., Ducki S. (2012). Phthalocyanine-chalcone conjugates: towards dual photodynamic and anti-angiogenic agents. 7th International Conference on Porphyrins and Phthalocyanines (Sözlü).

B9. Tuncel S., Zorlu Y., Chin Y., Savoie H., Fournier-dit-Chabert J., Logan R., Bennis K., Trivella A., Delort L., Billard H., Caldefie-Chézet F., Lim S. H., Richard C., Ducki S., Lee H. B., Boyle R. W., Ahsen V., Dumoulin F. (2012). PEG and glycerol substituted phthalocyanines. Playing with chalcone antivascular or heavy atom effect. The 9th International Symposium on Photodynamic Therapy and Photodiagnosis in Clinical Practice (Poster).

B10. Hassan A., Basova T., Banimuslem H., Esenpınar A. A., Tuncel S., Durmuş M., Gürek A. G., Ahsen V. (2013). Films of liquid crystalline phthalocyanines and their composites with single-walled carbon nanotubes: properties and alignment. 44th IUPAC World Chemistry Congress (Poster).

B11. Kulu İ., Kaya E. N., Tuncel S., Durmuş M., Basova T., Gürek A. G., Ahsen V. (2013). Asymmetrical phthalocyanine-single wall carbon nanotube hybrid materials: synthesis, characterizations and liquid crystalline properties. 44th IUPAC World Chemistry Congress (Poster).

B12. Tuncel S., Durmuş M., Basova T., Gürek A. G., Ahsen V. (2013). Alkyloxy and alkylthio substituted liquid crystalline lead(II) phthalocyanines. 44th IUPAC World Chemistry Congress (Poster).

B13. Topkaya Taşkiran D., Tuncel S., Önal E., Bennis K., Hirel C., Ahsen V., Ducki S., Dumoulin F. (2013). Synthetic strategies for chalcone-porphyrin conjugates. 15th Congress of the European Society for Photobiology (Poster).

B14. Tuncel S., Gürek A. G., Ahsen V., Thelakkat M. (2014). Phthalocyanine-perylene bisimide dyads: synthesis and characterization. Solar Technologies Go Hybrid 3rd International Conference (Poster).

B15. Mete E., Dumoulin F., Kabay N., Ahsen V., Tuncel S., Ergin Ç. (2014). Photodynamic inactivation of staphylococcus aureus strains by a phthalocyanine and 650 nm laser irradiation. 8th International Conference on Porphyrins and Phthalocyanines (Poster).

B16. Tuncel S., Gürek A. G., Ahsen V., Thelakkat M. (2014). Phthalocyanine-perylene bisimide dyads: synthesis and characterization. 8th International Conference on Porphyrins and Phthalocyanines (Poster).

B17. Kaya E. N., Kulu İ., Tuncel S., Basova T. V., Banimuslem H., Hassan A., Gürek A. G., Ahsen V., Durmuş M. (2014). Effect of pyrene substitution on the sensor properties of phthalocyanine-single wall carbon nanotube hybrids. 8th International Conference on Porphyrins and Phthalocyanines (Poster).

B18. Aykota M. R., Tuncel S., Kabay N., Yenisey Ç., Ahsen V., Dumoulin F., Kabay B. (2014). Phototoxic effects of a novel tetraethyleneglycolsubstituted Zn(II) phthalocyanine in tumor bearing rats. 8th International Conference on Porphyrins and Phthalocyanines (Poster).

B19. Ayhan M. M., Tuncel Kostakoğlu S., Zorlu Y., Gürek A. G. (2019). Porphyrin based materials for dye recovery from textile wastewater. 2th International Environmental Chemistry Congress (poster)

E. Ulusal bilimsel toplantılarda sunulan ve bildiri kitaplarında basılan bildiriler:

E1. Tuncel S., Yuksel F., Ahsen V. (2006). Periferal okta-aminoftalosiyanın sentezi. 20. Ulusal Kimya Kongresi (Poster).

E2. Tuncel S., Ahsen V., Dumoulin F. (2008). Suda çözünen TEG süstitüe Zn (II) ftalosiyanimler. 22. Ulusal Kimya Kongresi (Poster).

E3. Dumoulin F., Tuncel S., Ermeýdan M. A., Kumru U., Ahsen V. (2009). Karbonhidratlı amfifilik ftalosiyanimler. II. Ulusal Anorganik Kimya Kongresi (Sözlü).

E4. Topkaya Taşkiran D., Önal E., Tuncel S., Hirel C., Ducki S., Bennis K., Kandepedu N., Ahsen V., Dumoulin F. (2013). Porfirinler üzerine şalkon yapılarının bağlanması. IV. Ulusal Anorganik Kimya Kongresi (Poster).

- E5.** Göl C., Kaya E. N., Tuncel S., Basova T., Gürek A. G., Durmuş M., Ahsen V. (2013). Asimetrik sübstitüe ftalosiyanın-tek duvarlı karbon nanotüp hibrit malzemeler ve özellikleri. IV. Ulusal Anorganik Kimya Kongresi (Poster).
- E6.** Tuncel S., Trivella A., Bennis K., Atilla D., Savoie H., Delort L., Billard H., Ahsen V., Caldefie-Chézet F., Richard C., Boyle R. W., Ducki S., Dumoulin F. (2013). Şalkon konjüge ftalosiyanınler. IV. Ulusal Anorganik Kimya Kongresi (Sözlü).
- E7.** Göl C., Kaya E. N., Tuncel S., Gürek A. G., Durmuş M., Ahsen V. (2013). Değişik sayılarda piren ve polioksi etilen grupları içeren çinko ftalosiyanınlerin sentezi ve floresans özelliklerinin incelenmesi. IV. Ulusal Anorganik Kimya Kongresi (Poster).
- E8.** Topkaya Taşkiran D., Önal E., Tuncel S., Hirel C., Ducki S., Bennis K., Kandepedu N., Ahsen V., Dumoulin F. (2013). Şalkon konjüge porfirin türevleri. I. Ulusal Organik Kimya Kongresi (Poster).
- E9.** Topal S. Z., Ün Ş. Ş., Tuncel Kostakoğlu S. (2016). Naphthalimide Substituted Phthalocyanines: Synthesis, Photophysical and Photochemical Properties. 28. Ulusal Kimya Kongresi (Poster).
- E10.** Tuncel Kostakoğlu S., Zorlu Y., Sadak A. E., Denizaltı S., Gürek A. G., Ayhan M. M. (2020) Karbondioksit yakalama ve dönüşümü için porfirin temelli katyonik kovalent organik polimerler, 32. Ulusal Kimya Kongresi (Poster)