

# HAKAN USTA

## PROF. DR.

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Publons / Web Of Science ResearcherID: L-6636-2013

ScopusID: 14042943100

Yoksis Araştırmacı ID: 57064



### Öğrenim Bilgisi

Doktora 2004 - 2008	Northwestern University, Weinberg College Of Arts And Sciences, Department of Chemistry and Materials Research Center, Amerika Birleşik Devletleri
Lisans 2000 - 2004	İhsan Doğramacı Bilkent Üniversitesi, Fen Fakültesi, Kimya Bölümü, Türkiye

### Yabancı Diller

İngilizce, C1 İleri

### Yaptığı Tezler

Doktora, Solution-Processable Molecular and Polymeric Semiconductors for Ambient-Stable Organic Field-Effect Transistors, Northwestern University, Weinberg School Of Science And Arts, Kimya Bölümü, 2008

### Akademik Unvanlar / Görevler

Prof.Dr. 2019 - Devam Ediyor	Abdullah Gül Üniversitesi, Mühendislik Fakültesi, Nanoteknoloji Mühendisliği
Doç.Dr. 2014 - 2019	Abdullah Gül Üniversitesi, Mühendislik Fakültesi, Nanoteknoloji Mühendisliği
Yrd.Doç.Dr. 2013 - 2014	Abdullah Gül Üniversitesi, Mühendislik Fakültesi, Nanoteknoloji Mühendisliği
Araştırma Görevlisi 2004 - 2008	Northwestern University, Weinberg School Of Science And Arts, Chemistry

## Desteklenen Projeler

1. Usta H., TÜBİTAK Projesi, Yüksek performanslı OFETler için sıradışı bir moleküler mühendislik yaklaşımı: Yeşil çözücülerden işlenebilir yüksek çözünürlüklü organik yarı-iletkenlerin gram mertebesinde geliştirilmesi , 2022 - 2025
2. Alan I., Mutlugün E., Usta H., Gencer Akçok E. B., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Merkezi Araştırma Laboratuvarı Projesi, 2014 - 2022
3. Usta H., TÜBİTAK Projesi, Mezo-Heteroaromatik Bodipy-Temelli Düşük Bant Aralıklı Donör-Akseptör (D-A) Polimerler Geliştirilmesi Ve Yüksek Performanslı Yığın Heteroeklem Organik Fotovoltaik (Bhj-Opv) Uygulamaları, 2019 - 2021
4. USTA H., Deneme İ., Yükseköğretim Kurumları Destekli Proje, Tiyazol Temelli Donör-Akseptör Yapısında Özgün Yarı-İletkenlerin Geliştirilmesi, 2018 - 2019
5. USTA H., Özdemir M., Yükseköğretim Kurumları Destekli Proje, DESIGN, SYNTHESIS, AND CHARACTERIZATION OF FUNCTIONAL ORGANIC MATERIALS FOR OPTOELECTRONIC APPLICATIONS, 2017 - 2019
6. MUTLUGÜN E., USTA H., ŞEN Ü., Yükseköğretim Kurumları Destekli Proje, Malzeme Bilimi ve Nanoteknoloji Araştırma Laboratuvarı Kurulumu, 2016 - 2017
7. USTA H., ÖZDEMİR R., Yükseköğretim Kurumları Destekli Proje, Organik İnce-Film Transistör OTFT Uygulamaları için İndenoflorendiketon Temelli Moleküler Yarı-İletken Geliştirilmesi, 2016 - 2017
8. Usta H., TÜBİTAK Projesi, Organik Güneş Pili (OPV) ve İnce Film Transistörler (OTFT) için Yüksek Performanslı Yarı-İletken Polimer Geliştirilmesi, 2013 - 2015

## Ödüller

1. Usta H., Tübitak Teşvik Ödülü (2020), Tübitak, Şubat 2020
2. USTA H., Üstün Başarılı Genç Bilim İnsanı Ödülü (GEBİP-2015), Türkiye Bilimler Akademisi (TÜBA), Mayıs 2015
3. USTA H., Üstün Başarılı Genç Bilim Adamı Ödülü (BAGEP-2014), Bilim Akademisi, Mart 2014
4. USTA H., Flexi R&D Award, FlexTech Alliance, USA, 2011, FlexTech Alliance, USA, Ocak 2011
5. USTA H., US National Institute of Standards and Technology (NIST) Innovation Award, USA, 2010, US National Institute of Standards and Technology (NIST), Mayıs 2010
6. USTA H., IDTechEx Printed Electronics Europe Award, Germany, 2010, IDTechEx, Mart 2010
7. USTA H., Allen S. Hussey Award, 2006, Northwestern University, Chemistry Department, Ekim 2006
8. USTA H., Bölüm Birinciliği (Mezuniyet), Bilkent Üniversitesi, Haziran 2004

## Burslar

TÜBİTAK-Bideb 2232-Yurda Dönüş Araştırma Bursu, 2013, TÜBİTAK, 2013 - Devam Ediyor

Conference Travel Grant, 2007-2008, Üniversite, 2007 - Devam Ediyor

Graduate School Full Scholarship (Stipend + Tuition), Üniversite, 2004 - Devam Ediyor

NSF-REU Scholarship, 2002, Üniversite, 2002 - Devam Ediyor

Distinguished Scholarship for Undergraduate Education, 2000 - 2004, TÜBİTAK, 2000 - Devam Ediyor

Full (Tuition+Housing+Stipend) Undergraduate Scholarship, 2000 - 2004, Üniversite, 2000 - Devam Ediyor

## SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- 1. Solution-Processable Indenofluorenes on Polymer Brush Interlayer: Remarkable N-Channel Field-Effect Transistor Characteristics under Ambient Conditions**  
Can A., DENEME İ., DEMİREL G., USTA H.  
ACS Applied Materials and Interfaces, cilt.15, sa.35, ss.41666-41679, 2023 (SCI-Expanded)
- 2. Dynamic Tuning of Plasmonic Hot-Spot Generation through Cilia-Inspired Magnetic Actuators**  
LİMAN G., Ergene E., Yildiz E., ÖZKAN HÜKÜM K., YILGÖR HURİ P., Cetin A. E., USTA H., DEMİREL G.  
Advanced Intelligent Systems, cilt.5, sa.6, 2023 (SCI-Expanded)
- 3. Revisiting the Role of Charge Transfer in the Emission Properties of Carborane-Fluorophore Systems: A TDDFT Investigation**  
TAHAOĞLU D., USTA H., ALKAN F.  
JOURNAL OF PHYSICAL CHEMISTRY A, cilt.126, sa.26, ss.4199-4210, 2022 (SCI-Expanded)
- 4. A dopant-free 2,7-dioctyl[1]benzothieno[3,2-b][1]benzothiophene (C8-BTBT)-based hole transporting layer for highly stable perovskite solar cells with efficiency over 22%**  
Kaya I. C., ÖZDEMİR R., USTA H., SÖNMEZOĞLU S.  
JOURNAL OF MATERIALS CHEMISTRY A, cilt.10, ss.12464-12472, 2022 (SCI-Expanded)
- 5. Indenofluorenes for organic optoelectronics: the dance of fused five- and six-membered rings enabling structural versatility**  
CAN A., Facchetti A., USTA H.  
JOURNAL OF MATERIALS CHEMISTRY C, cilt.10, sa.22, ss.8496-8535, 2022 (SCI-Expanded)
- 6. Organic Light-Emitting Physically Unclonable Functions**  
Kayaci N., ÖZDEMİR R., Kalay M., KİREMİTLER N. B., USTA H., ÖNSES M. S.  
ADVANCED FUNCTIONAL MATERIALS, cilt.32, 2022 (SCI-Expanded)
- 7. Meso- $\pi$ -Extended/Deficient BODIPYs and Low-Band-Gap Donor-Acceptor Copolymers for Organic Optoelectronics**  
CAN A., Choi G., ÖZDEMİR R., Park S., Park J. S., Lee Y., DENEME İ., MUTLUGÜN E., Kim C., Kim B. J., et al.  
ACS APPLIED POLYMER MATERIALS, cilt.4, sa.3, ss.1991-2005, 2022 (SCI-Expanded)
- 8. Interplay between Charge Injection, Electron Transport, and Quantum Efficiency in Ambipolar Trilayer Organic Light-Emitting Transistors**  
Moschetto S., Benvenuti E., USTA H., ÖZDEMİR R., Facchetti A., Muccini M., Prosa M., Toffanin S.  
ADVANCED MATERIALS INTERFACES, cilt.9, sa.5, 2022 (SCI-Expanded)
- 9. Enabling three-dimensional porous architectures via carbonyl functionalization and molecular-specific organic-SERS platforms**  
DENEME İ., LİMAN G., CAN A., DEMİREL G., USTA H.  
NATURE COMMUNICATIONS, cilt.12, sa.1, 2021 (SCI-Expanded)
- 10. Understanding and Tailoring Excited State Properties in Solution-Processable Oligo(p-phenyleneethynylene)s: Highly Fluorescent Hybridized Local and Charge Transfer Character via Experiment and Theory**  
USTA H., ÇOŞUT B., ALKAN F.  
JOURNAL OF PHYSICAL CHEMISTRY B, cilt.125, sa.42, ss.11717-11731, 2021 (SCI-Expanded)
- 11. Engineering functionalized low LUMO [1]benzothieno[3,2-b][1]benzothiophenes (BTBTs): unusual molecular and charge transport properties**  
ÖZDEMİR R., Ahn K., Deneme İ., ZORLU Y., Kim D., Kim M., USTA H.  
JOURNAL OF MATERIALS CHEMISTRY C, cilt.8, sa.43, ss.15253-15267, 2020 (SCI-Expanded)
- 12. Microstructural modulation of organic passivation layers for metal oxide semiconductors to achieve high bias stability**  
Ho D., Jeong H., Minh Nhut Le M. N. L., USTA H., Kwon H., Kim M., Kim C.  
JOURNAL OF MATERIALS CHEMISTRY C, cilt.8, sa.32, ss.11209-11222, 2020 (SCI-Expanded)
- 13. A hybridized local and charge transfer excited state for solution-processed non-doped green electroluminescence based on oligo(p-phenyleneethynylene)**  
USTA H., Alimli D., ÖZDEMİR R., Tekin E., ALKAN F., Kacar R., Altas A. G., Dabak S., Gurek A. G., MUTLUGÜN E., et al.  
JOURNAL OF MATERIALS CHEMISTRY C, cilt.8, sa.24, ss.8047-8060, 2020 (SCI-Expanded)

14. **Molecular engineering of organic semiconductors enables noble metal-comparable SERS enhancement and sensitivity**  
Demirel G., Giesecking R. L. M., Ozdemir R., Kahmann S., Loi M. A., Schatz G. C., Facchetti A., USTA H.  
NATURE COMMUNICATIONS, cilt.10, 2019 (SCI-Expanded)
15. **Highly Efficient Deep-Blue Electroluminescence Based on a Solution-Processable A-pi-D-pi-A Oligo(p-phenyleneethynylene) Small Molecule**  
USTA H., Alimli D., ÖZDEMİR R., Dabak S., Zorlu Y., ALKAN F., Tekin E., CAN A.  
ACS APPLIED MATERIALS & INTERFACES, cilt.11, sa.47, ss.44474-44486, 2019 (SCI-Expanded)
16. **A Solution-Processable meso-Phenyl-BODIPY-Based n-Channel Semiconductor with Enhanced Fluorescence Emission**  
Ozcan E., Ozdemir M., Ho D., Zorlu Y., ÖZDEMİR R., Kim C., USTA H., Cosut B.  
CHEMPLUSCHEM, cilt.84, sa.9, ss.1423-1431, 2019 (SCI-Expanded)
17. **Electrochemical polymerization of ambipolar carbonyl-functionalized indenofluorene with memristive properties**  
Figa V., USTA H., Macaluso R., Salzner U., Ozdemir M., Kulyk B., Krupka O., Bruno M.  
OPTICAL MATERIALS, cilt.94, ss.187-195, 2019 (SCI-Expanded)
18. **High Electron Mobility in [1]Benzothieno[3,2-b][1]benzothiophene-Based Field-Effect Transistors: Toward n-Type BTBTs**  
USTA H., Kim D., ÖZDEMİR R., Zorlu Y., Kim S., Ruiz Delgado M. C., Harbuzaru A., Kim S., Demirel G., Hong J., et al.  
CHEMISTRY OF MATERIALS, cilt.31, sa.14, ss.5254-5263, 2019 (SCI-Expanded)
19. **Ultrahigh Vacuum Self-Assembly of Rotationally Commensurate C8-BTBT/MoS2/Graphene Mixed-Dimensional Heterostructures**  
Liu X., Balla I., Sangwan V. K., USTA H., Facchetti A., Marks T. J., Hersam M. C.  
CHEMISTRY OF MATERIALS, cilt.31, sa.5, ss.1761-1766, 2019 (SCI-Expanded)
20. **BODIPY-Based Semiconducting Materials for Organic Bulk Heterojunction Photovoltaics and Thin-Film Transistors**  
Ho D., ÖZDEMİR R., Kim H., Earmme T., USTA H., Kim C.  
CHEMPLUSCHEM, cilt.84, sa.1, ss.18-37, 2019 (SCI-Expanded)
21. **Triisopropylsilylethynyl-substituted indenofluorenes: carbonyl versus dicyanovinylene functionalization in one-dimensional molecular crystals and solution-processed n-channel OFETs**  
ÖZDEMİR R., PARK S., DENEME İ., PARK Y., Zorlu Y., ALIDAGI H. A., Harmandar K., Kim C., USTA H.  
ORGANIC CHEMISTRY FRONTIERS, cilt.5, sa.20, 2018 (SCI-Expanded)
22. **Semiconducting Copolymers Based on meso-Substituted BODIPY for Inverted Organic Solar Cells and Field-Effect Transistors**  
Ozdemir M., Kim S. W., Kim H., Kim M., Kim B. J., Kim C., USTA H.  
ADVANCED ELECTRONIC MATERIALS, cilt.4, sa.10, 2018 (SCI-Expanded)
23. **The design and fabrication of supramolecular semiconductor nanowires formed by benzothienobenzothiophene (BTBT)-conjugated peptides**  
Khalily M. A., USTA H., Ozdemir M., Bakan G., Dikecoglu F. B., Edwards-Gayle C., Hutchinson J. A., Hamley I. W., DANA A., Guler M. O.  
NANOSCALE, cilt.10, sa.21, ss.9987-9995, 2018 (SCI-Expanded)
24. **Surface-enhanced Raman spectroscopy (SERS): an adventure from plasmonic metals to organic semiconductors as SERS platforms**  
DEMİREL G., USTA H., YILMAZ M., Celik M., Alidagi H. A., BÜYÜKSERİN F.  
JOURNAL OF MATERIALS CHEMISTRY C, cilt.6, sa.20, ss.5314-5335, 2018 (SCI-Expanded)
25. **Optimized Activation of Solution-Processed Amorphous Oxide Semiconductors for Flexible Transparent Conductive Electrodes**  
Choi B. D., Park J., Baeg K., Kang M., Heo J. S., Kim S., Won J., Yu S., Ahn K., Lee T. H., et al.  
ADVANCED ELECTRONIC MATERIALS, cilt.4, sa.1, 2018 (SCI-Expanded)
26. **Nanostructured organic semiconductor films for molecular detection with surface-enhanced Raman spectroscopy**

- Yilmaz M., Babur E., OZDEMİR M., Gieseck R. L., Dede Y., Tamer U., Schatz G. C., Facchetti A., USTA H., Demirel G. NATURE MATERIALS, cilt.16, sa.9, ss.918-925, 2017 (SCI-Expanded)
27. **Frequency and electric field controllable photodevice: FYTRONIX device**  
Tataroğlu A., Al-Sehemi A. G., ÖZDEMİR M., ÖZDEMİR R., USTA H., AL-GHAMDI A. A., FAROOQ W., Yakuphanoglu F. Physica B: Condensed Matter, cilt.519, ss.53-58, 2017 (SCI-Expanded)
28. **A new rod-shaped BODIPY-acetylene molecule for solution-processed semiconducting microribbons in n-channel organic field-effect transistors**  
Ozdemir M., Choi D., ZORLU Y., ÇOŞUT B., Kim H., Kim C., USTA H. NEW JOURNAL OF CHEMISTRY, cilt.41, sa.14, ss.6232-6240, 2017 (SCI-Expanded)
29. **Three-Dimensional Au-Coated Electrospayed Nanostructured BODIPY Films on Aluminum Foil as Surface-Enhanced Raman Scattering Platforms and Their Catalytic Applications**  
YILMAZ M., ERKARTAL M., Ozdemir M., ŞEN Ü., USTA H., DEMİREL G. ACS APPLIED MATERIALS & INTERFACES, cilt.9, sa.21, ss.18199-18206, 2017 (SCI-Expanded)
30. **Insights Into Interface Treatments in p-Channel Organic Thin-Film Transistors Based on a Novel Molecular Semiconductor**  
Liguori R., USTA H., Fusco S., Facchetti A., Licciardo G. D., Di Benedetto L., Rubino A. IEEE TRANSACTIONS ON ELECTRON DEVICES, cilt.64, sa.5, ss.2338-2344, 2017 (SCI-Expanded)
31. **A Solution-Processable Liquid-Crystalline Semiconductor for Low-Temperature-Annealed Air-Stable N-Channel Field-Effect Transistors**  
ÖZDEMİR R., CHOI D., OZDEMİR M., KIM H., Kostakoglu S. T., ERKARTAL M., KIM H., Kim C., USTA H. CHEMPHYSICHEM, cilt.18, sa.7, ss.850-861, 2017 (SCI-Expanded)
32. **Ultralow bandgap molecular semiconductors for ambient-stable and solution-processable ambipolar organic field-effect transistors and inverters**  
ÖZDEMİR R., CHOI D., ÖZDEMİR M., KWON G., KIM H., SEN U., KIM C., USTA H. JOURNAL OF MATERIALS CHEMISTRY C, cilt.5, sa.9, ss.2368-2379, 2017 (SCI-Expanded)
33. **Enhanced mass transfer rate and solubility of methane via addition of alcohols for Methylosporium OB3b fermentation**  
Kim K., Kim Y., Yang J., Ha K., USTA H., Lee J., Kim C. JOURNAL OF INDUSTRIAL AND ENGINEERING CHEMISTRY, cilt.46, ss.350-355, 2017 (SCI-Expanded)
34. **From 2-methylimidazole to 1,2,3-triazole: a topological transformation of ZIF-8 and ZIF-67 by post-synthetic modification**  
ERKARTAL M., ERKILIC U., TAM B., USTA H., YAZAYDIN O., HUPP J. T., Farha O. K., Sen U. Chemical Communications, cilt.53, sa.12, ss.2028-2031, 2017 (SCI-Expanded)
35. **Ambipolar small molecular semiconductor-based heterojunction diode**  
OCAYA R., ÖZDEMİR M., ÖZDEMİR R., AL-GHAMDI A., USTA H., FAROOQ W., Yakuphanoglu F. Synthetic Metals, cilt.221, ss.48-54, 2016 (SCI-Expanded)
36. **pi-Conjugated donor-acceptor small molecule thin-films on gold electrodes for reducing the metal work-function**  
Azum N., Taib L. A., Al Angari Y. M., Asiri A. M., Denti M., Zhao W., USTA H., Facchetti A. THIN SOLID FILMS, cilt.616, ss.320-327, 2016 (SCI-Expanded)
37. **Anhydrous proton conducting poly(vinyl alcohol) (PVA)/poly(2-acrylamido-2-methylpropane sulfonic acid) (PAMPS)/1,2,4-triazole composite membrane**  
ERKARTAL M., Asian A., ERKILIC U., DADI Ş., Yazaydin O., USTA H., SEN U. INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, cilt.41, sa.26, ss.11321-11330, 2016 (SCI-Expanded)
38. **Solution-Processable BODIPY-Based Small Molecules for Semiconducting Microfibers in Organic Thin-Film Transistors**  
Ozdemir M., Choi D., Kwon G., ZORLU Y., ÇOŞUT B., Kim H., Facchetti A., Kim C., USTA H. ACS APPLIED MATERIALS & INTERFACES, cilt.8, sa.22, ss.14077-14087, 2016 (SCI-Expanded)
39. **Design and development of functional organic small molecules and polymers for optoelectronics**  
USTA H., DEMİREL G., Facchetti A., Muccini M. ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, cilt.251, 2016 (SCI-Expanded)

40. **Novel method based on photothermal cleavage of thermolabile molecules on Au nanoparticles for controlled release**  
Goren E., ÇAVUŞOĞLU H., Yavuz E., USTA H., ÇITIR M., YAVUZ M. S.  
ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, cilt.251, 2016 (SCI-Expanded)
41. **Naphthalene diimide-based polymeric semiconductors. Effect of chlorine incorporation and n-channel transistors operating in water**  
Ryu G., Chen Z., USTA H., Noh Y., Facchetti A.  
MRS COMMUNICATIONS, cilt.6, sa.1, ss.47-60, 2016 (SCI-Expanded)
42. **Proton conducting poly(vinyl alcohol) (PVA)/poly (2-acrylamido-2-methylpropane sulfonic acid) (PAMPS)/zeolitic imidazolate framework (ZIF) ternary composite membrane**  
ERKARTAL M., USTA H., Citir M., Sen U.  
JOURNAL OF MEMBRANE SCIENCE, cilt.499, ss.156-163, 2016 (SCI-Expanded)
43. **Design, synthesis, and characterization of alpha,omega-disubstituted indeno[1,2-b]fluorene-6,12-dione-thiophene molecular semiconductors. Enhancement of ambipolar charge transport through synthetic tailoring of alkyl substituents**  
OZDEMİR M., CHOI D., KWON G., Zorlu Y., KIM H., KIM M., SEO S., Sen U., Citir M., KIM C., et al.  
RSC ADVANCES, cilt.6, sa.1, ss.212-226, 2016 (SCI-Expanded)
44. **Logarithmic organic photodetectors**  
Elgazzar E., OZDEMİR M., USTA H., AL-GHAMDI A. A., Dere A., EL-TANTAWY F., YAKUPHANOĞLU F.  
SYNTHETIC METALS, cilt.210, ss.288-296, 2015 (SCI-Expanded)
45. **Trans-cis isomerization assisted synthesis of solution-processable yellow fluorescent maleic anhydrides for white-light generation**  
Özdemir M., GENÇ S., ÖZDEMİR R., ALTINTAS Y., Citir M., Sen U., MUTLUGÜN E., USTA H.  
SYNTHETIC METALS, cilt.210, ss.192-200, 2015 (SCI-Expanded)
46. **Development of highly transparent Pd-coated Ag nanowire electrode for display and catalysis applications**  
Canlier A., UCAK U. V., USTA H., CHO C., LEE J., Sen U., Citir M.  
APPLIED SURFACE SCIENCE, cilt.350, ss.79-86, 2015 (SCI-Expanded)
47. **Micro-/Nanostructured Highly Crystalline Organic Semiconductor Films for Surface-Enhanced Raman Spectroscopy Applications**  
Yilmaz M., OZDEMİR M., Erdogan H., Tamer U., SEN U., Facchetti A., USTA H., Demirel G.  
ADVANCED FUNCTIONAL MATERIALS, cilt.25, sa.35, ss.5669-5676, 2015 (SCI-Expanded)
48. **Photophysical properties of self-assembled supramolecular peptide nanofiber organic semiconductors**  
Khalily M. A., USTA H., GÜLER M. Ö.  
ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, cilt.250, 2015 (SCI-Expanded)
49. **Novel photothermal-based release mechanism for controlled release on Au nanoparticles through light**  
Goren E., ÇAVUŞOĞLU H., Yavuz E., USTA H., YAVUZ M. S.  
ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, cilt.250, 2015 (SCI-Expanded)
50. **Photosensing Properties of Pentacene OFETs Based on a Novel PMMA Copolymer Gate Dielectric**  
Loffredo F., Grimaldi I. A., Miscioscia R., Nenna G., Villani F., Minarini C., Petrosino M., Rubino A., Usta H., Facchetti A.  
JOURNAL OF DISPLAY TECHNOLOGY, cilt.11, sa.6, ss.533-540, 2015 (SCI-Expanded)
51. **Enhancement of Anhydrous Proton Conductivity of Poly(vinylphosphonic acid)-Poly(2,5-benzimidazole) Membranes via In Situ Polymerization**  
Sen U., USTA H., Acar O., Citir M., Canlier A., Bozkurt A., Ata A.  
MACROMOLECULAR CHEMISTRY AND PHYSICS, cilt.216, sa.1, ss.106-112, 2015 (SCI-Expanded)
52. **Symmetric naphthalenediimidequaterthiophenes for electropolymerized electrochromic thin films**  
FIGA V., CHIAPPARA C., FERRANTE F., CASALETTO M. P., PRINCIPATO F., CATALDO S., CHEN Z., USTA H., FACCHETTI A., PIGNATARO B.  
JOURNAL OF MATERIALS CHEMISTRY C, cilt.3, sa.23, ss.5985-5994, 2015 (SCI-Expanded)

53. **Selective Remanent Ambipolar Charge Transport in Polymeric Field-Effect Transistors For High-Performance Logic Circuits Fabricated in Ambient**  
Fabiano S., Usta H., Forchheimer R., Crispin X., Facchetti A., Berggren M.  
ADVANCED MATERIALS, cilt.26, sa.44, ss.7438-7443, 2014 (SCI-Expanded)
54. **Perfluoroalkyl-Functionalized Thiazole Thiophene Oligomers as N-Channel Semiconductors in Organic Field-Effect and Light-Emitting Transistors**  
USTA H., Sheets W. C., Denti M., Generali G., Capelli R., Lu S., Yu X., Muccini M., Facchetti A.  
CHEMISTRY OF MATERIALS, cilt.26, sa.22, ss.6542-6556, 2014 (SCI-Expanded)
55. **BODIPY-Thiophene Copolymers as p-Channel Semiconductors for Organic Thin-Film Transistors**  
Usta H., Yilmaz M. D., Avestro A., Boudinet D., Denti M., Zhao W., Stoddart J. F., Facchetti A.  
ADVANCED MATERIALS, cilt.25, sa.31, ss.4327-4334, 2013 (SCI-Expanded)
56. **Size-controlled conformal nanofabrication of biotemplated three-dimensional TiO<sub>2</sub> and ZnO nanonetworks**  
Ceylan H., Ozgit-Akgun C., Erkal T. S., Donmez I., Garifullin R., Tekinay A. B., Usta H., Biyikli N., Guler M. O.  
SCIENTIFIC REPORTS, cilt.3, 2013 (SCI-Expanded)
57. **3,6-Dithiophen-2-yl-diketopyrrolo[3,2-b]pyrrole (isoDPPT) as an Acceptor Building Block for Organic Opto-Electronics**  
Lu S., Drees M., Yao Y., Boudinet D., Yan H., Pan H., Wang J., Li Y., Usta H., Facchetti A.  
MACROMOLECULES, cilt.46, sa.10, ss.3895-3906, 2013 (SCI-Expanded)
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Transparent Optical Networks (ICTON), 2013 15th International Conference on, Cartegana, İspanya, 3 - 06 Haziran 2013, cilt.1, ss.1

## Akademik İdari Deneyim

2020 - 2022	<b>Senato Üyesi</b>	Abdullah Gül Üniversitesi, Rektörlük
2020 - 2022	<b>Enstitü Müdürü</b>	Abdullah Gül Üniversitesi, Fen Bilimleri Enstitüsü
2019 - 2022	<b>Uygulama ve Araştırma Merkezi Müdür Yardımcısı</b>	Abdullah Gül Üniversitesi, Rektörlük, Merkezi Araştırma Laboratuvarı
2014 - 2020	<b>Enstitü Müdür Yardımcısı</b>	Abdullah Gül Üniversitesi, Fen Bilimleri Enstitüsü

## Verdiği Dersler

Moleküler Fotokimya, Doktora, 2022 - 2023

Moleküler Mühendislik ve Yumuşak Nanomalzemeler, Yüksek Lisans, 2021 - 2022

Organik Elektronik, Yüksek Lisans, 2022 - 2023

Makromoleküler Kimya ve Fizik, Doktora, 2017 - 2018

## Bilimsel Kuruluşlardaki Üyelikler / Görevler

Materials Research Society (MRS), Üye, 2006 - Devam Ediyor

Royal Society of Chemistry (RSC), Üye, 2005 - Devam Ediyor

American Chemical Society (ACS), Üye, 2004 - Devam Ediyor

## Bilimsel Hakemlikler

Journal of Materials Chemistry A, SCI Kapsamındaki Dergi, Ekim 2014

Polymers , SCI Kapsamındaki Dergi, Eylül 2014

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RSC Advances, SCI Kapsamındaki Dergi, Haziran 2014

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Energy and Environmental Science, SCI Kapsamındaki Dergi, Nisan 2014

New Journal of Chemistry, SCI Kapsamındaki Dergi, Mart 2014

Chemical Communications, SCI Kapsamındaki Dergi, Mart 2014

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## Metrikler

Yayın: 102

Atıf (WoS): 3591

Atıf (Scopus): 3585

H-İndeks (WoS): 26

H-İndeks (Scopus): 25

## Kongre ve Sempozyum Katılımı Faaliyetleri

International NanoNG-2014 (Nanoscience and Nanotechnology for Next Generation) Conference, Katılımcı, Elazığ, Türkiye, 2014

International Workshop on Flexible Bio- and Organic Printed Electronics, Katılımcı, Konya, Türkiye, 2014

15th International Conference on Transparent Optical Networks (ICTON), Katılımcı, Cartagena, İspanya, 2013

7th COPE-SOLVAY Symposium on Organic Electronics, Katılımcı, Bordeaux, Fransa, 2013

SPIE Optics and Photonics, Organic Photovoltaics XIII, Katılımcı, San Diego, CA, Amerika Birleşik Devletleri, 2012

Active-Matrix Flatpanel Displays and Devices (AM-FPD), Katılımcı, Kyoto, Japonya, 2012

Materials Research Society (MRS) Fall Meeting, Katılımcı, Boston, MA, Amerika Birleşik Devletleri, 2010

International Institute for Nanosymposium, Katılımcı, Evanston, IL, Amerika Birleşik Devletleri, 2010

Gordon Research Conferences, Katılımcı, South Hadley, MA, Amerika Birleşik Devletleri, 2008

Materials Research Society (MRS) Spring Meeting, Katılımcı, March 2008, San Francisco, CA., Amerika Birleşik Devletleri, 2008

Northwestern University Fall BIP Lectures, Katılımcı, Northwestern University, Evanston, IL., Amerika Birleşik Devletleri, 2007

233rd American Chemical Society (ACS) Meeting, Katılımcı, Chicago, IL, Amerika Birleşik Devletleri, 2007

Industrial Associates Meeting, Katılımcı, Evanston, IL, Amerika Birleşik Devletleri, 2007

38th Central Regional Meeting of the American Chemical Society (ACS), Katılımcı, Frankenmuth, MI, Türkiye, 2006

NSF-Research Experience for Undergraduates Final Seminar, Katılımcı, Texas A&M University, College Station, TX, Amerika Birleşik Devletleri, 2002

## Araştırma Alanları

Metalurji ve Malzeme Mühendisliği, Malzeme Bilimi ve Mühendisliği, Yarıiletken ve Süperiletken Malzemeler, Optik Özellikler, Polimerik Malzemeler, Nanomalzemeler, Yapı-Özellik İlişkisi, Kimya, Organik Kimya, Aromatik Bileşikler Kimyası, Temel Bilimler, Mühendislik ve Teknoloji

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