

# UFUK ABACI

## PROF.

Email : ufukabaci@kocaeli.edu.tr

Mobile Phone : [+90 532 625 5383](tel:+905326255383)

Address : Kocaeli Üniversitesi Ford Otosan İhsaniye Otomotiv  
MYO İhsaniye Merkez Mah. Seymen Cad. No 9 Gölcük-KOCAELİ

### International Researcher IDs

ScholarID: 2w4CnwoAAAAJ

ORCID: 0000-0002-7100-3714

Publons / Web Of Science ResearcherID: A-2664-2016

ScopusID: 18833305100

Yoksis Researcher ID: 23002



### Biography

1978 Hatay Samandağ doğumluyum. 1998 yılında kocaeli Üniversitesi fen Edebiyat fakültesi Fizik Bölümüne girdim ve 2002 yılında mezun oldum. Aynı bölümde 2003-2006 yılları arasında yüksek lisans, 2006-2014 yılları arasında ise doktora çalışmamı tamamladım. 2009 yılında Erasmus öğrenci değişim programı ile Avusturya Linz Johannes Kepler Üniversitesinde Organik Güneş Pili Enstitüsünde Çalışmalarda bulundum. 2015 yılında Ford Otosan İhsaniye Otomotiv MYO'ya Yardımcı Doçent olarak atandım. 2018 Mart Ayında ÜAK Doçentlik Ünvanımı aldım.

### Education

Doctorate  
2006 - 2013

Kocaeli University, Fen Bilimleri Enstitüsü, Fizik Anabilim Dalı, Turkey

Undergraduate  
1998 - 2002

Kocaeli University, Fen-Edebiyat Fakültesi, Fizik Bölümü, Turkey

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Polipirol, polianilin, polietilendioksitiyofen içeren tabakalı elektrokromik cihaz (ECD) üretimi ve özelliklerinin araştırılması, Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, Fizik Anabilim Dalı, 2013

### Academic Titles / Tasks

Professor  
2025 - Continues

Kocaeli University, Ford Otosan İhsaniye Otomotiv Meslek Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri

Associate Professor

2018 - 2025

Kocaeli University, Ford Otosan İhsaniye Otomotiv Meslek Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri

---

Assistant Professor

2018 - 2022

Kocaeli University, Ford Otosan İhsaniye Otomotiv Meslek Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri Bölümü

---

Assistant Professor

2015 - 2018

Kocaeli University, Ford Otosan İhsaniye Otomotiv Meslek Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri Bölümü

---

Research Assistant

2003 - 2014

Kocaeli University, Fen-Edebiyat Fakültesi, Fizik Bölümü

## Jury Memberships

Academic Staff Examination, Academic Staff Examination, Kocaeli Üniversitesi, December, 2023

Doctorate, Doctorate, Karabük Üniversitesi, May, 2021

Post Graduate, Post Graduate, Yalova Üniversitesi, January, 2021

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Karabük Üniversitesi, November, 2020

Doctorate, Doctorate, Kocaeli Üniversitesi, November, 2020

Post Graduate, Post Graduate, Kocaeli Üniversitesi, January, 2020

Post Graduate, Tez Savunma Jürisi, Karabük Üniversitesi, May, 2018

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

1. **Impact of polymer blending on ionic conductivity and dielectric polarization of TiO<sub>2</sub> incorporated SPEEK/PVDF electrolytes**

Yılmazoğlu M., Okkay H., ABACI U.

Colloids and Surfaces A: Physicochemical and Engineering Aspects, vol.711, 2025 (SCI-Expanded)

2. **Free volume impact on ionic conductivity of PVdF/GO/PVP solid polymer electrolytes via positron annihilation approach**

Yılmazoğlu M., Okkay H., ABACI U., Tekay E., Coban O., VEZİROĞLU S., YUMAK YAHSİ A., TAV C., YAHSİ U.

Radiation Physics and Chemistry, vol.229, 2025 (SCI-Expanded)

3. **Correlation of proton conductivity and free volume in sulfonated polyether ether ketone electrolytes: A positron annihilation lifetime spectroscopy study**

Lahmuni M., Yılmazoğlu M., ABACI U., Coban O., YUMAK YAHSİ A., TAV C., YAHSİ U.

Radiation Physics and Chemistry, vol.226, 2025 (SCI-Expanded)

4. **High-performance PVdF-HFP/PEG-IL composites: The combined effects of PEG and ionic liquid on proton conductivity and dielectric characteristics**

Yılmazoğlu M., Okkay H., ABACI U., Coban O.

Composites Communications, vol.53, 2025 (SCI-Expanded)

5. **Tailored proton conductive membranes of PVdF-co-HFP: Investigating the synergistic effects of ammonium tetrafluoroborate and phosphoric acid dopants on dielectric characteristics**

Yılmazoğlu M., ABACI U., Erdemi H., Coban O.

Process Safety and Environmental Protection, vol.191, pp.1994-2006, 2024 (SCI-Expanded)

6. **Proton conductivity and dielectric studies on chitosan/polyvinyl alcohol blend electrolytes: Synergistic improvements with ionic liquid and graphene oxide**  
Yilmazoğlu M., Okkay H., Abaci U., Coban O.  
International Journal of Biological Macromolecules, vol.279, 2024 (SCI-Expanded)
7. **Coffee grounds as sustainable filler for bio-based rubber composites**  
ÖNCEL Ş., Unugul T., ABACI U., KARAAĞAÇ B.  
POLYMER COMPOSITES, vol.45, no.14, pp.12611-12623, 2024 (SCI-Expanded)
8. **Comprehensive study on dielectric properties and proton conductivity of graphene oxide (GO) embedded PVdF/PVP membrane electrolytes**  
Okkay H., ABACI U., Yilmazoğlu M.  
Diamond and Related Materials, vol.148, 2024 (SCI-Expanded)
9. **Dielectric behavior and proton conductivity of ultrasound-assisted graphene oxide/sulfonated poly(ether ether ketone) composite electrolytes**  
Abaci U., Çoban E., Güney H. Y., Şimşiroğlu B. Ş., Hizal J., Yilmazoğlu M.  
Diamond and Related Materials, vol.140, 2023 (SCI-Expanded)
10. **Ionic liquid incorporated SPEEK/Chitosan solid polymer electrolytes: ionic conductivity and dielectric study**  
Yilmazoğlu M., Bayiroğlu F., Erdemi H., Abaci U., Güney H. Y.  
Journal of Solid State Electrochemistry, vol.27, no.5, pp.1143-1154, 2023 (SCI-Expanded)
11. **Plasticizer effect on dielectric properties of poly(methyl methacrylate)/titanium dioxide composites**  
Abaci U., Güney H. Y., Yilmazoğlu M.  
POLYMERS & POLYMER COMPOSITES, vol.29, no.9\_SUPPL, 2021 (SCI-Expanded)
12. **Dielectric properties of sulfonated poly(ether ether ketone) (SPEEK) electrolytes with 1-ethyl-3-methylimidazolium tetrafluoroborate salt: Ionic liquid-based conduction pathways**  
Yilmazoğlu M., Bayiroglu F., Erdemi H., Abaci U., Güney H. Y.  
COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS, vol.611, 2021 (SCI-Expanded)
13. **Dielectric properties of lithium-perchlorate-filled acrylonitrile-hexyl methacrylate copolymer films**  
Cicek M., Vargun E., Abaci U., Güney H. Y.  
POLYMER COMPOSITES, vol.38, no.9, pp.1792-1799, 2017 (SCI-Expanded)
14. **Mechanical, electrical, and melt flow properties of polyurethane elastomer/surface-modified carbon nanotube composites**  
Tayfun U., Kanbur Y., Abaci U., Guney H. Y., Bayramli E.  
JOURNAL OF COMPOSITE MATERIALS, vol.51, no.14, pp.1987-1996, 2017 (SCI-Expanded)
15. **Synthesis of new 2,5-di(thiophen-2-yl)furan-3-carbonitrile derivatives and investigation of the electrochromic properties of homopolymers and co-polymers with EDOT**  
Abaci U., Ustalar A., Yilmaz M., Güney H. Y.  
RSC ADVANCES, vol.6, no.33, pp.27836-27845, 2016 (SCI-Expanded)
16. **Mechanical, flow and electrical properties of thermoplastic polyurethane/fullerene composites: Effect of surface modification of fullerene**  
Tayfun U., Kanbur Y., Abaci U., Güney H. Y., Bayramli E.  
COMPOSITES PART B-ENGINEERING, vol.80, pp.101-107, 2015 (SCI-Expanded)
17. **Effects of B2O3 Addition on Structural and Dielectric Properties of PVDF**  
Kadiroğlu Ü., Abaci U., Güney H. Y.  
POLYMER ENGINEERING AND SCIENCE, vol.54, no.11, pp.2536-2543, 2014 (SCI-Expanded)
18. **Effect of LiClO<sub>4</sub> Salt on Dielectric Properties of Acrylonitrile-Methyl Methacrylate and Acrylonitrile-Isobutyl Methacrylate Copolymers**  
Vargun E., Abaci U., Sankir M., Usanmaz A., Güney H. Y.  
JOURNAL OF MACROMOLECULAR SCIENCE PART A-PURE AND APPLIED CHEMISTRY, vol.51, no.2, pp.156-164, 2014 (SCI-Expanded)
19. **Morphological and electrochemical properties of PPy, PAni bilayer films and enhanced stability of their electrochromic devices (PPy/PAni-PEDOT, PAni/PPy-PEDOT)**

- Abacı U., Güney H. Y., Kadiroglu Ü.  
 ELECTROCHIMICA ACTA, vol.96, pp.214-224, 2013 (SCI-Expanded)
20. Preparation and characterization of acrylonitrile-ethyl methacrylate copolymers and the effect of LiClO<sub>4</sub> salt on electrical properties of copolymer films  
 Vargun E., Sankir M., Usanmaz A., Kanbur Y., Abacı U., Güney H. Y.  
 JOURNAL OF APPLIED POLYMER SCIENCE, vol.124, no.1, pp.840-846, 2012 (SCI-Expanded)
21. Synthesis, characterization and dielectric behavior of (ES)-form polyaniline/cerium(III)-nitrate-hexahydrate composites  
 Özkanç E., Zor S., Özkanç H., Güney H. Y., Abacı U.  
 MATERIALS CHEMISTRY AND PHYSICS, vol.133, no.1, pp.356-362, 2012 (SCI-Expanded)
22. Electrical Properties of Polyaniline-Manganese Chloride Composites  
 Özkanç E., Zor S., Özkanç H., Abacı U.  
 POLYMER ENGINEERING AND SCIENCE, vol.51, no.4, pp.617-623, 2011 (SCI-Expanded)
23. Morphological and Dielectric Properties of Barium Chloride-Filled Poly(vinylidene fluoride) Films  
 Özkanç E., Güney H. Y., Güner S., Abacı U.  
 POLYMER COMPOSITES, vol.31, no.10, pp.1782-1789, 2010 (SCI-Expanded)
24. Evaluation of the (Allyl alcohol 1,2-butoxylate-blocke-toxylate)-b-PMMA copolymers composition by the dielectric measurements  
 Abacı U., Guney H. Y., Yildiz U.  
 JOURNAL OF MACROMOLECULAR SCIENCE PART A-PURE AND APPLIED CHEMISTRY, vol.44, pp.1121-1126, 2007 (SCI-Expanded)

#### Papers Published in Refereed Scientific Meetings

- İmalat Sanayisi Mesleki Eğitimi'ne Robotik Üretim Teknolojilerinin Entegrasyonu  
 ERGÜN R. E., ÖNCEL Ş., ABACI U., CENGİZ A.  
 ULUSLARARASI MARMARA FEN VE SOSYAL BİLİMLER KONGRESİ, Kocaeli, Turkey, 23 - 25 November 2018, vol.1, pp.1133-1138
- Oto Boya ve Karoseri Programı Mesleki Eğitiminin Sektör İhtiyaçlarına Uyumu  
 ÖNCEL Ş., ABACI U., ERGÜN R. E., CENGİZ A.  
 ULUSLARARASI MARMARA FEN VE SOSYAL BİLİMLER KONGRESİ, Kocaeli, Turkey, 23 - 25 November 2018
- Polyaniline polypyrrole bilayer electrochromic films and enhanced stability their electrochromic devices PAni PPy PEDOT PPy PAni PEDOT  
 ABACI U., GÜNEY H. Y., KADİROĞLU Ü.  
 Advanced Materials World Congress, İzmir, Turkey, 16 - 19 September 2013
- Synthesis of 4 Phenyl 2 5 Di Thiophene 2 Yı 4 5 Dihydrifuran 3 Carbonitrile and Investigation of Its Electrochromic Properties  
 ABACI U., YILMAZ M., GÜNEY H. Y.  
 44th World Chemistry Congress, İstanbul, Turkey, 11 - 16 August 2013
- Farklı Metakrilat Grupları İçeren Poliakrilonitril Kopolimerlerinin Elektriksel Özellikleri  
 VARGÜN E., SANKIR M., USANMAZ A., ABACI U., GÜNEY H. Y.  
 26. Ulusal Kimya Kongresi, Muğla, Turkey, 1 - 06 October 2012
- Poliakrilonitril metakrilatBazlı Kopolimerlerin Elektriksel Özelliklerinin İncelenmesi  
 VARGÜN E., SANKIR M., USANMAZ A., KANBUR Y., ABACI U., GÜNEY H. Y.  
 4. Ulusal Polimer Bilim ve Teknoloji Kongresi, Çanakkale, Turkey, 5 - 08 September 2012
- Electroluminescence Enhancement of Alloyed CdS<sub>x</sub>Se<sub>1-x</sub> Doped Polymer Hybrid Light Emitting Diodes PLEDs  
 TEKOĞLU S., ABACI U., KUŞ M., ÜNLÜ C., TİLKİ S., SARICIIFTÇİ N. S.  
 6th Nanoscience and Nanotechnology Conference, İzmir, Turkey, 15 - 18 July 2010
- Anthracene Containing PPE PPV Correlation Between Stacking Ability and Electroluminescence

## **Properties**

- ABACI U., SARIÇİFTÇİ N. S., EGBE D., ARICI E. Ü.  
6th Nanoscience and Nanotechnology Conference, İzmir, Turkey, 15 - 08 July 2010
9. **BaCl<sub>2</sub> katkılımanın PVDF'nin dielektrik özellikleri üzerine etkisi**  
ÖZKAZANÇ E., GÜNEY H. Y., GÜNER S., ABACI U.  
3. Ulusal Polimer Bilim ve Teknoloji Kongresi, Kocaeli, Turkey, 12 - 14 May 2010
10. **Non-reproducible electrical properties of semiconductor PVDF-HFP (hexafluoropropylenevinylidenefluoride) copolymer**  
LİKOĞLU G., GÜNEY H. Y., ABACI U.  
6th International Conference of the Balkan-Physical-Union, İstanbul, Turkey, 22 - 26 August 2006, vol.899, pp.783
11. **Depended on Temperature of the Electrical Properties of Carbon Filled PVDF HFP hexafluoropropylenevinylidenefluoride Copolymer**  
LİKOĞLU G., GÜNEY H. Y., ABACI U.  
6th International Conference of The Balkan Physic Union, İstanbul, Turkey, 22 - 26 August 2006
12. **Yarıiletken Hegzafloropropilenvinilidinflorid PVDF HFP kopolimerin elektriksel özelliklerinin sıcaklık ve elektrik alan şiddetine bağlılığı**  
LİKOĞLU G., GÜNEY H. Y., TARCAN E., ABACI U.  
1. Ulusal Polimer Bilim ve Teknoloji Kongresi ve Sergisi, Ankara, Turkey, 21 - 23 June 2006
13. **Farklı oranlarda karbon içeren Poliviniliden florit ko hekzafloropropilen PVDF HFP kopolimerin elektriksel özelliklerinin incelenmesi**  
ALMASULU H. N., GÜNEY H. Y., TARCAN E., LİKOĞLU G., ABACI U.  
1. Ulusal Polimer Bilim ve Teknoloji Kongresi ve Sergisi, Ankara, Turkey, 21 - 23 June 2006
14. **Polistiren katkılı Poli Vinil Klorürün dielektrik özelliklerinin katkı oranına ve sıcaklığa bağlı değişimi**  
ABACI U., GÜNEY H. Y., TARCAN E., GÜLBEDEN L.  
1. Ulusal Polimer Bilim ve Teknoloji Kongresi ve Sergisi, Ankara, Turkey, 21 - 23 June 2006

## **Academic and Administrative Experience**

---

2015 - Continues **Head of Department**

Kocaeli Üniversitesi, Ford Otosan İhsaniye Otomotiv Meslek  
Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri Bölümü

---

## **Courses**

### **Associate Degree**

Endüstriyel Ölçme ve Kontrol, Associate Degree, 2022 - 2023

Girişimcilik 1, Associate Degree, 2023 - 2024, 2022 - 2023

Matematik, Associate Degree, 2023 - 2024, 2022 - 2023

Girişimcilik 2, Associate Degree, 2022 - 2023

## **Peer Reviews in Scientific Publications**

JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, November 2022

JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, May 2022

JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, November 2021

CHEMICAL PAPERS, SCI Journal, October 2021

JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, September 2021

SN Applied Science, Journal Indexed in ESCI, September 2020

JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, July 2020

JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, February 2020  
POLYMERS & POLYMER COMPOSITES, SCI Journal, September 2019  
POLYMERS & POLYMER COMPOSITES, SCI Journal, April 2019  
JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, March 2019  
JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, March 2019  
JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, December 2018  
JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, November 2018  
JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, June 2018  
JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, January 2018  
Journal Of Electronic Materials, SCI Journal, January 2018  
JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, December 2017  
Electrochimica Acta, SCI Journal, July 2017  
COMPOSITES PART B-ENGINEERING, SCI Journal, April 2017  
JOURNAL OF ELECTRONIC MATERIALS, SCI Journal, April 2017  
POLYMER COMPOSITES, SCI Journal, March 2017  
ELECTROCHIMICA ACTA, SCI Journal, December 2016  
ELECTROCHIMICA ACTA, SCI Journal, October 2016  
COMPOSITES PART B-ENGINEERING, SCI Journal, October 2016  
JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, SCI Journal, December 2015

## Metrics

Publication: 38  
Citation (WoS): 283  
Citation (Scopus): 335  
H-Index (WoS): 9  
H-Index (Scopus): 9

## Research Areas

Physics, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Natural Sciences

## Non Academic Experience

Johannes Kepler University, Araştırmacı-Erasmus