

## Assoc. Prof. Esma ÖZEROL

### Personal Information

Web: <https://avesis.yildiz.edu.tr/eahlatci>

### International Researcher IDs

ScholarID: KpvoItcAAAAJ

ORCID: 0000-0002-9202-4821

Yoksis Researcher ID: 53102

### Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Turkey 2010 - 2015

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Polymer Science And Technology, Turkey 2007 - 2010

Undergraduate, Istanbul University, Fen Edebiyat Fakultesi, Fizik, Turkey 2002 - 2006

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Synthesis of conducting polymers and investigation of their electrical properties, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Polymer Science And Technology, 2015

Postgraduate, Synthesis of new organic semiconductors based on poly(2-anilinoethanol) doped different acids and investigation of their electro-optical properties , İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Polymer Science And Technology, 2010

### Research Areas

Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Yildiz Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Bioengineering, 2016 - Continues

Other, Technische Universitaet Berlin, Institut Für Festkörperphysik, Festkörperphysik, 2008 - 2008

### Academic and Administrative Experience

Yıldız Teknik Üniversitesi, Technical Vocational School of Higher Education, Department of Handicrafts, 2014 - 2016

## Courses

Biyoenstrümental Teknikler, Undergraduate, 2017 - 2018, 2016 - 2017  
Vocational English in Bioengineering I, Undergraduate, 2016 - 2017, 2015 - 2016  
Biothermodynamics, Undergraduate, 2016 - 2017  
Biyomedikal Elektronik, Undergraduate, 2016 - 2017  
Biomedical Electronics, Undergraduate, 2016 - 2017

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

- I. **Carbon based materials in conducting tissue engineering**  
Sancar E., Oktay B., Özerol E.  
MATERIALS RESEARCH EXPRESS, vol.11, no.12, pp.122001, 2024 (SCI-Expanded)
- II. **Preparation and characterization of graphene oxide quantum dots/silver nanoparticles and investigation of their antibacterial effects**  
Oktay B., ERARSLAN A., ÜSTÜNDAĞ C. B., Ahlatcıoğlu Özerol E.  
Materials Research Express, vol.11, no.1, 2024 (SCI-Expanded)
- III. **Recent Advances in Biosensors Based on Conducting Polymers for Biomedical Applications**  
Acar T., Nur Çimen K., Özalp E., Ilıca Ö., Ahlatcıoğlu Özerol E.  
ChemistrySelect, vol.8, no.30, 2023 (SCI-Expanded)
- IV. **Production and Characterization of PLA/HA/GO Nanocomposite Scaffold**  
Oktay B., ÖZEROL E., ŞAHİN A., GÜNDÜZ O., ÜSTÜNDAĞ C. B.  
CHEMISTRYSELECT, vol.7, no.30, 2022 (SCI-Expanded)
- V. **The synthesis and investigation of mesomorphic, dielectric, and electro-optic behavior of novel chiral imine-based rod-like liquid crystal**  
CEYLAN ERDOĞAN D., Ahlatcıoğlu Özerol E., OCAK H., BİLGİN ERAN B.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.32, no.24, pp.28870-28881, 2021 (SCI-Expanded)
- VI. **Conductivity mechanism and dielectric properties of poly (2-aminophenol) with boron nitride and graphite composites**  
Çoğalmış F. T., Ahlatcıoğlu Özerol E., Okutan M., Şenkal B. F.  
Chemical Papers, vol.75, no.9, pp.4719-4727, 2021 (SCI-Expanded)
- VII. **Impedance spectroscopy of polyaniline coated hydrogel**  
Okutan M., Yavuz E., Ahlatcıoğlu Özerol E., Şenkal B. F., Yalçın O., Yıldız A.  
Polymer Bulletin, vol.78, no.8, pp.4473-4486, 2021 (SCI-Expanded)
- VIII. **The synthesis and dielectric properties of a new phenylbenzoate-based calamitic liquid crystal**  
Ahlatcıoğlu Özerol E., OCAK H., BİLGİN ERAN B., Karavelioğlu S.  
Journal of the Iranian Chemical Society, vol.18, no.1, pp.225-232, 2021 (SCI-Expanded)
- IX. **The synthesis, mesomorphic and dielectric investigation of new unsymmetrical bent-core mesogens derived from 3-hydroxybenzoic acid**  
Ocak H., Ahlatcıoğlu Özerol E., Çelikel F. Ç., Okutan M., Bilgin Eran B.  
Chemical Papers, vol.74, no.11, pp.3899-3911, 2020 (SCI-Expanded)
- X. **Electro-optical properties of poly(N-vinyl carbazole) nanoclay composites**  
Özerol E.  
Polymer Bulletin, vol.76, pp.5301-5311, 2019 (SCI-Expanded)
- XI. **Dielectric Parameters of a Benzoate-Based Chiral Rod-Like Liquid Crystal**  
Özerol E., Ocak H.  
CHEMISTRYSELECT, vol.4, no.31, pp.9006-9010, 2019 (SCI-Expanded)
- XII. **The impedance and dielectric properties of a chiral biphenylcarboxylic acid liquid crystal**  
Ozerol E., Ocak H.  
MATERIALS RESEARCH EXPRESS, vol.6, 2019 (SCI-Expanded)

- XIII. **The synthesis and dielectric characterization of liquid crystalline hydrogen bonded complex of 3-(4-(dimethyl amino) phenyl)-1-(4-hydroxyphenyl) prop-2-en-1-one with 8-(4-cyanobiphenyl-4'-oxy) octan-1-ol**  
Korkmaz B., Ozerol E., Gürsel Y., Şenkal B. F., Okutan M.  
Journal of Molecular Liquids, vol.266, pp.132-138, 2018 (SCI-Expanded)
- XIV. **Synthesis and characterization of a new hydrogen bonded side chain liquid crystal block copolymer and investigation of electrical properties**  
Korkmaz B., Ozerol E., Bozdogan A., Okutan M., Şenkal B. F., Gursel Y. H.  
Pure and Applied Chemistry, vol.89, no.1, pp.19-28, 2017 (SCI-Expanded)
- XV. **The effect on the impedance characteristics of the metal oxides (Al<sub>2</sub>O<sub>3</sub> and ZnO) doping into polyaniline**  
Özerol E., Bozdogan A., Şenkal B. F., Okutan M.  
Materials Science in Semiconductor Processing, vol.56, pp.357-361, 2016 (SCI-Expanded)
- XVI. **Preparation and characterization of graphite composites of polyaniline**  
Ozerol E., Şenkal B. F., Okutan M.  
MICROELECTRONIC ENGINEERING, vol.146, pp.76-80, 2015 (SCI-Expanded)
- XVII. **Preparation and Electrical Characterization of Poly(Aniline) NanoClay Composites**  
Ahlatcioglu E., Şenkal B. F., Okutan M.  
High Temperature Materials and Processes, vol.34, no.4, pp.341-346, 2015 (SCI-Expanded)
- XVIII. **Addition of single-wall carbon nanotubes to a liquid crystal material: Impact on dielectric properties**  
Gürsel Y., Şenkal B. F., Canlı N., Ozdemir Z., Ahlatcioglu E., Yilmaz O., Okutan M.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.34, pp.182-188, 2015 (SCI-Expanded)
- XIX. **Preparation of poly (N-vinylcarbazole)-co-poly(2-(dimethylamino)ethyl methacrylate) based hydrogen bonded side-chain liquid crystal copolymer**  
Ahlatcioglu E., Gürsel Y., Okutan M., Şenkal B. F.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.28, pp.144-150, 2014 (SCI-Expanded)
- XX. **Preparation and polymerization of chalcone substituted aniline and investigation of impedance properties**  
Ahlatcioglu E., Şenkal B. F., Okutan M., Gürsel Y.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.28, pp.103-107, 2014 (SCI-Expanded)
- XXI. **Synthesis of new organic semiconductors based on poly(2-anilinoethanol) doped with different acids and investigation of their electro-optical properties**  
Ahlatcioglu E., Şenkal B. F., Yakuphanoglu F., Mansour S. A.  
POLYMER ENGINEERING AND SCIENCE, vol.53, no.2, pp.251-256, 2013 (SCI-Expanded)
- XXII. **Pyrolysis of Low Rank Lignites**  
KOYUN A., Yoruc A. B. H., Erdogan D. C., Ahlatcioglu E.  
ACTA PHYSICA POLONICA A, vol.123, no.2, pp.396-397, 2013 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Graphene-based materials for bone tissue engineering**  
Oktay B., Özerol E., Üstündağ C. B.  
Sigma Journal of Engineering and Natural Sciences, vol.41, no.3, pp.1-21, 2022 (ESCI)
- II. **Preparation and Electro-optical Characterization of Poly (N-Vinyl Carbazole) Magnetite Composites**  
Özerol E.  
İğdir Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.9, no.1, pp.187-194, 2019 (Peer-Reviewed Journal)
- III. **Preparation of Propiolic Acid Doped Polyaniline and Investigation of Opto electronic Properties**  
Özerol E., Okutan M., Şenkal B. F.  
Key Engineering Materials, vol.605, pp.531-535, 2014 (Scopus)

## Books & Book Chapters

- I. **Latex-Based Carbon Nanotube Composites**  
Özerol E., Üstündağ C. B., Dikici B., Bozlar M.  
in: Handbook of Carbon Nanotubes, Jiji Abraham, Sabu Thomas, Nandakumar Kalarikkal, Editor, Springer, London/Berlin, London, pp.1-24, 2021
- II. **Biofunctional Inks for 3D Printing in Skin Tissue Engineering**  
Ilhan E., Özerol E., Alpdağtaş S., Üstündağ C. B., Şengör M., Gündüz O.  
in: 3D printable Gel-inks for Tissue Engineering, Anuj Kumar, Stefan Ioan Voicu, Vijay Kumar Thakur, Editor, Springer, London/Berlin, London, pp.229-259, 2021
- III. **Solid Waste Materials for Energy Storage Applications**  
Zaman A. C., Özerol E., Üstündağ C. B.  
in: Encyclopedia of Smart Materials, Abdul Ghani Olabi, Editor, Elsevier Science, Oxford/Amsterdam, Amsterdam, pp.1-13, 2020
- IV. **Biosensors and Their Principles**  
Koyun A., Özerol E., İpek Y.  
in: A Roadmap of Biomedical Engineers and Milestones, Sadik Kara, Editor, INTECH, London, pp.115-142, 2012

## Refereed Congress / Symposium Publications in Proceedings

- I. **SYNTHESIS AND INVESTIGATION OF A NEW HYDROGEN BONDED CHALCONE BASED THERMOTROPIC LIQUID CRYSTALLINE COMPOUND**  
KORKMAZ B., ŞENKAL B. F., GÜRSEL Y., ÖZEROL E., OKUTAN M.  
47th IUPAC WORLD CHEMISTRY CONGRESS, 7 - 12 July 2019
- II. **N-(4-Asetilfenil)-4-metilbensensülfonamid'in Dielektrik Özelliklerinin İncelenmesi (PSASF)**  
MÜFTÜOĞLU S., KORKMAZ B., ÖZEROL E., OKUTAN M., ŞENKAL B. F.  
VIII. Yoğun Madde Fiziği İzmir Toplantısı, Turkey, 19 April 2019, pp.39
- III. **Dielectric Parameters and AC Conductivity Mechanism of Poly(N-vinyl carbazole) Boron Nitride Composites at High Frequency**  
ÖZEROL E.  
MSNG2018, 4 - 06 October 2018
- IV. **Preparation chalcone based hydrogen bonded liquid crystalline compound and Investigation of Its Electro-optical Properties**  
KORKMAZ B., ÖZEROL E., GÜRSEL Y., OKUTAN M., ŞENKAL B. F.  
msng2018, 4 - 06 October 2018
- V. **CHEMICAL SYNTHESIS, DIELECTRIC AND OPTOELECTRONIC CHARACTERIZATION OF POLY(2-ANILINOETHANOL) DOPED WITH ORGANIC ACIDS**  
ÖZEROL E.  
OEMT 2018, Kırklareli, Turkey, 20 September 2018, pp.104
- VI. **Preparation and Characterization of Poly 2 Aminophenol Barium Titanate Composites**  
Çoğalmış T., ÖZEROL E., ÇELİK BOZDOĞAN A., ŞENKAL B. F., OKUTAN M.  
Nanong 2016, 20 - 22 October 2016
- VII. **Preparation And Characterization of Poly 2 Aminophenol Boron Nitride Composites**  
Özerol E., Çelik Bozdoğan A., Çoğalmış T., Şenkal B. F., Okutan M.  
NANONG 2016, Antalya, Turkey, 20 - 23 October 2016
- VIII. **Preparation And Characterization Of Poly 2 Aminophenol Nanoclay Composites**  
Çelik Bozdoğan A., Çoğalmış T., Özerol E., Okutan M., Şenkal B. F.  
nanong2016, 20 - 22 October 2016
- IX. **Preparation and Characterization of Poly 2 Anilinoethanol Barium Titanate Composites**  
ÖZEROL E., ŞENKAL B. F., OKUTAN M., ÇELİK BOZDOĞAN A., Kaya Y.

OEMT 2016, 17 - 19 May 2016

- X. **Preparation and Polymerization of 2 hydroxy aniline and Investigation of Electro optical Properties**  
Çoğalmış F. T., Korkmaz B., Okutan M., Senkal B. F., Özerol E.  
oemt2016, Çanakkale, Turkey, 17 - 19 May 2016
- XI. **Preparation and Characterization of Poly 2 anilino ethanol Barium titanate Composites**  
ÖZEROL E., ŞENKAL B. F., OKUTAN M., ÇELİK BOZDOĞAN A., kaya y.  
oemt 2016, 17 - 19 May 2016
- XII. **Preparation And Characterization Of Poly N Vinyl Carbazole Boron Nitride Composites**  
AHLATCIOĞLU E., ŞENKAL B. F., OKUTAN M., ÇELİK BOZDOĞAN A.  
NANONG2015, 29 - 31 October 2015
- XIII. **Preparation and Characterization of Poly N vinyl carbazole Nanoclay Composites**  
AHLATCIOĞLU E., OKUTAN M., YAKUPHANOĞLU F., ŞENKAL B. F., ÇELİK BOZDOĞAN A., DERE A.  
NANONG2015, 29 - 31 October 2015
- XIV. **Preparation And Characterization Of Poly N Vinyl Carbazole Magnetite Composites**  
Ahlaticioğlu E., Çelik Bozdoğan A., Şenkal B. F., Okutan M.  
NANONG2015, Antalya, Turkey, 29 - 31 October 2015
- XV. **Poli 2 Anilinoetanol Organik Yarıiletken Polimerin Sentezi Ve Elektro Optik Özelliklerinin İncelenmesi**  
ÖZEROL E., SENKAL B. F., YAKUPHANOGLU F.  
3.Ulusal Polimer Bilim ve Teknolojisi Kongre ve Sergisi, Kocaeli, Turkey, 12 May 2010, pp.1
- XVI. **PREPARATION AND CHARACTERIZATION OF POLY Thiophene modified NANOCCLAY COMPOSITES**  
AHLATCIOĞLU E., ŞENKAL B. F., OKUTAN M., ÇELİK BOZDOĞAN A.  
OEMT 2015, 25 - 28 March 2015
- XVII. **Preparation of poly N vinyl carbazole co poly 2 Dimethylamino ethyl methacrylate based hydrogen bonded side chain liquid crystal copolymer.**  
ÖZEROL E., BARIM G., GURSEL Y., OKUTAN M., SENKAL B. F.  
1st International Semiconductor Science and Technology Conference, İstanbul, Turkey, 13 January 2015, pp.1
- XVIII. **Preparation and Characterization of graphite composites of Poly Thiophene and Poly aniline.**  
Özerol E., Senkal B. F., Okutan M.  
NANONG 2014, Elazığ, Turkey, 20 August 2014, pp.1
- XIX. **PREPARATION AND CHARACTERIZATION OF POLY THIOPHENE BORON NITRIDE COMPOSITES**  
AHLATCIOĞLU E., ŞENKAL B. F., YAKUPHANOĞLU F., OKUTAN M.  
International Nanoscience and Nanotechnology for Next Generation (NaNONG) 2014, 20 - 22 August 2014
- XX. **Preparation and Polymerization of Chalcone Substituted Aniline and Investigation of Electro optical Properties**  
AHLATCIOĞLU E., ŞENKAL B. F., OKUTAN M., GÜRSEL Y.  
1 st International Semiconductor Science and Technology Conference, 13 - 15 January 2014
- XXI. **Preparation of Propiolic Acid Doped Polyaniline and Investigation of Opto-electronic Properties**  
Ahlaticioğlu E., Okutan M., SENKAL B. F.  
3rd International Conference on Materials and Applications for Sensors and Transducers (IC-MAST), Prague, Czech Republic, 13 - 17 September 2013, vol.605, pp.531-535
- XXII. **Pyrolysis of Low Rank Lignites**  
Koyun A., Hazar A. B., Ceylan Erdoğan D., Ahlatcioğlu E.  
2nd International Advances in Applied Physics and Materials Science Congress-APMAS 2012, Antalya, Turkey, 26 April - 29 September 2012
- XXIII. **PREPARATION OF POLYANILINE IN THE PRESENCE OF CARBOXYLIC ACID CONTAINING CELLULOSE AND USING IT FOR REMOVAL OF DYES.**  
TORUNOĞLU TURAN G., ÖZEROL E., SENKAL B. F.  
Proceedings of the Second International Conference on Water, Energy and the Environment, Antalya, Turkey, 21 September 2013, pp.1
- XXIV. **Preparation of Propiolic Acid Doped Polyaniline and Investigation of Opto Electronic Properties**  
AHLATCIOĞLU E., OKUTAN M., ŞENKAL B. F.

3rd International Conference on Materials and Applications for Sensors and Transducers., 13 - 17 September 2013

- XXV. **Preparation and Characterization of Poly Aniline Nanoclay Composites**  
ÖZEROL E., SENKAL B. F., OKUTAN M.  
NANOTR9, Erzurum, Turkey, 24 June 2013, pp.1
- XXVI. **Poli Akrilik Asit İle Modifiye Kilin Hazırlanması Ve Modifiye Kil Ortamında Polianilin Sentezi ve Karakterizasyonu**  
AHLATCIOĞLU E., YAKUPHANOĞLU F., ŞENKAL B. F.  
4. Ulusal Polimer Bilim ve Teknolojisi Kongresi, Turkey, 5 - 07 September 2012
- XXVII. **A Comparison of Two Production Methods of Wood Polymer Composites.**  
KOYUN A., CEYLAN ERDOĞAN D., ÖZEROL E.  
anque icce 2012, Sevilla, Spain, 24 June 2012, pp.1
- XXVIII. **A COMPARISON OF TWO PRODUCTION METHODS OF WOOD POLYMER COMPOSITES**  
KOYUN A., HAZAR A. B., AYDINOĞLU A., ÖZEROL E., CEYLAN ERDOĞAN D.  
International Congress of Chemical Engineering, Spain, 24 June 2012
- XXIX. **A Simulation Software Approach for the Pyrolysis of Low Rank Lignites.**  
KOYUN A., CEYLAN ERDOĞAN D., ÖZEROL E.  
anque icce 2012, Sevilla, Spain, 24 June 2012, pp.1
- XXX. **2nd International Advances in Applied Physics and Materials Science Congress**  
KOYUN A., HAZAR A. B., CEYLAN ERDOĞAN D., ÖZEROL E.  
APMAS 2012, Antalya, Turkey, 26 April 2012, pp.1
- XXXI. **The DMA, TG/DTA and FT-IR Characteristics of Wood Polymer Composites**  
Koyun A., Ahlatcioglu E., Erdogan D., Ipek Y. K.  
14th International Conference on Advances in Materials and Processing Technologies (AMPT), İstanbul, Turkey, 13 - 16 July 2011, vol.445, pp.219-224
- XXXII. **Statistical Evaluation Tensile Properties of High-Density Polyethylenes**  
KOYUN A., KOKSAL B., AHLATCIOGLU E., Yoruc A. B.  
14th International Conference on Advances in Materials and Processing Technologies (AMPT), İstanbul, Turkey, 13 - 16 July 2011, vol.445, pp.213-214
- XXXIII. **The DMA Characteristics of Wood Polymer Composite.**  
KOYUN A., CEYLAN ERDOĞAN D., ÖZEROL E., KOCA İPEK Y.  
14th International Conference on Advances in Materials and Processing Technology Congress, İstanbul, Turkey, 13 July 2011, pp.1
- XXXIV. **Organic Semiconductors Based On Poly 2 Anilinoethanol Doped Citric Acid**  
ÖZEROL E., ŞENKAL B. F., YAKUPHANOGLU F.  
Advances in Applied Physics and Materials Science Congress 2011, Antalya, Turkey, 12 May 2011, pp.1
- XXXV. **Preparation fluorescein doped poly (2-hydroxy aniline) and Investigation of Electro-optical Properties**  
ÇOĞALMIŞ F. T., ÖZEROL E., OKUTAN M., ŞENKAL B. F.  
MSG2018, 04 October 2018 - 06 October 2018

## Scientific Refereeing

synthetic metals, SCI Journal, May 2017

Journal of Thermal Analysis and Calorimetry, SCI Journal, June 2012

## Metrics

Publication: 66

Citation (WoS): 86

Citation (Scopus): 128

H-Index (WoS): 5

H-Index (Scopus): 6

## **Congress and Symposium Activities**

OEMT2016, Attendee, Çanakkale, Turkey, 2016

NANONG016, Attendee, Antalya, Turkey, 2016

NANONG2015, Attendee, Antalya, Turkey, 2015

OEMT2015, Attendee, Elazığ, Turkey, 2015

NANONG2014, Attendee, Elazığ, Turkey, 2014

1 st International Semiconductor Science and Technology Conference, Attendee, İstanbul, Turkey, 2014

Proceedings of the Second International Conference on Water, Energy and the Environment, Attendee, Antalya, Turkey, 2013

3rd International Conference on Materials and Applications for Sensors and Transducers, Attendee, Praha, Czech Republic, 2013

NanoTR- 9, Attendee, Erzurum, Turkey, 2013

4. Ulusal Polimer Bilim ve Teknolojisi Kongresi, Attendee, Çanakkale, Turkey, 2012

ANQUE ICCE, Attendee, Sevilla, Spain, 2012

14th International Conference on Advances in Materials and Processing Technology Congress, Attendee, İstanbul, Turkey, 2012

apmas 2012, Attendee, İstanbul, Turkey, 2012

APMAS 2012, Attendee, Antalya, Turkey, 2012

Polymer Advanced Technologies 2011, Attendee, Poland, 2011

3. Ulusal Polimer Bilim ve Teknolojisi Kongre ve Sergisi, Attendee, Kocaeli, Turkey, 2010

## **Non Academic Experience**

BERLİN TEKNİK ÜNİVERSİTESİ KATIHAL FİZİĞİ ENSTİTÜSÜ (Institut für Festkörperphysik)