

## Prof. YASEMİN UDUM

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Kimya (Dr), Turkey 1999 - 2004

Postgraduate, Mersin University, Institute Of Science, Kimya (YI) (Tezli), Turkey 1996 - 1998

Undergraduate, Gazi University, Gazi Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, Turkey 1990 - 1994

### Dissertations

Doctorate, Electrochemical synthesis and characterization of sulfonated polythiophenes and aniline-thiophene copolymers, Hacettepe University, Fen Bilimleri Enstitüsü, Kimya (Dr), 2004

Postgraduate, Polipirol, politiyofen, poliindol ve alaşımlarının elektrokimyasal sentezi ve karakterizasyonu, Mersin University, Fen Bilimleri Enstitüsü, Kimya (YI) (Tezli), 1998

### Research Areas

Chemistry

### Academic Titles / Tasks

Professor, Gazi University, Teknik Bilimler Meslek Yüksekokulu, Kimya ve Kimyasal İşleme Teknolojileri Bölümü, 2018 - Continues

Associate Professor, Gazi University, Fen Bilimleri Enstitüsü, -, 2010 - 2018

Assistant Professor, Gazi University, Fen Bilimleri Enstitüsü, -, 2008 - 2009

Assistant Professor, Mersin University, Faculty Of Arts And Sciences, Department Of Chemistry, 2004 - 2008

Research Assistant, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 1999 - 2004

Research Assistant, Mersin University, Faculty Of Arts And Sciences, Department Of Chemistry, 1995 - 1998

### Academic and Administrative Experience

Deputy Head of Department, Gazi University, Fen Bilimleri Enstitüsü, İleri Teknolojiler Anabilim Dalı (Disiplinlerarası), 2015 - 2022

## Advising Theses

UDUM Y., Electrochromic And Amperometric Biosensor Applications Of Multifunctional Conductive Polymer, Postgraduate, M.AKTAŞ(Student), 2019

UDUM Y., Syntheses of benzotriazole based conjugated polymers for organic light emitting diode and organic solar cell, Postgraduate, İ.ÖNK(Student), 2016

UDUM Y., Copolymers comprising benzodithiophene and benzotriazole derivatives for organic solar cells, Postgraduate, D.GÜLEŞ(Student), 2016

UDUM Y., Synthesis, electrochromic and optic properties of donor-acceptor type conductive polymers containing thiophene and thienothiophene, Postgraduate, E.RUSTAMLI(Student), 2014

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

- I. **Determination of the relative sensitivity of polyaniline inks and films to deprotonation by ammonia using UV-Vis spectroscopy**  
UDUM Y., Killard A. J., Wagner M.  
European Polymer Journal, vol.205, 2024 (SCI-Expanded)
- II. **The effect of 10 weeks of karate training on the development of motor skills in children who are new to karate**  
Udum Y., Yavaşoğlu B., Beykümü A., Pekel A. Ö., Suveren C., Karabulut E. O., Ayyıldız Durhan T., Çakır V. O., Sariakçalı N., Küçük H., et al.  
Frontiers in Physiology, vol.15, 2024 (SCI-Expanded)
- III. **Building Block Engineering toward Realizing High-Performance Electrochromic Materials and Glucose Biosensing Platform**  
Karabag A., Soyler D., UDUM Y., TOPPARE L. K., GÜNBAŞ E. G., Soylemez S.  
Biosensors, vol.13, no.7, 2023 (SCI-Expanded)
- IV. **Electrochemical detection of Oxaliplatin induced DNA damage in G-quadruplex structures**  
Osmanoğulları S. C., FOROUGH M., PERSİL ÇETİNKOL Ö., UDUM Y., Toppare L.  
Analytical Biochemistry, vol.671, 2023 (SCI-Expanded)
- V. **D-A-D type functional conducting polymer: Development of its electrochromic properties and laccase biosensor**  
UDUM Y., Aktas Gemci M., Cevher D., Soylemez S., ÇIRPAN A., Toppare L.  
Journal of Applied Polymer Science, vol.140, no.11, 2023 (SCI-Expanded)
- VI. **Effect of 6-week karate (kihon) and basic movement exercise on balance performance in visually impaired individuals**  
PEKEL A. Ö., Suveren C., UDUM Y., Yavasoglu B., Beykumul A., Durhan T. A., Ceylan L.  
FRONTIERS IN PHYSIOLOGY, vol.14, 2023 (SCI-Expanded)
- VII. **Examination of basic motor skills in children and adolescents**  
Karadeniz S., Suveren C., UDUM Y., AYYILDIZ DURHAN T., Ceylan T., Albay F., Küçük H., Ceylan L.  
FRONTIERS IN PHYSIOLOGY, vol.14, 2023 (SCI-Expanded)
- VIII. **Effect of random copolymerization on the optical properties of selenophene and thieno[3,4-c]pyrrole-4,6-dione conjugated polymers**  
Yasa M., UDUM Y., TOPPARE L. K.  
MICROCHEMICAL JOURNAL, vol.178, 2022 (SCI-Expanded)
- IX. **Investigation the effect of  $\pi$  bridge and side chain on photovoltaic properties of benzodithiophene and quinoxaline based conjugated polymers**  
Taskaya Aslan S., Alemdar Yılmaz E., Hacıfendioğlu T., UDUM Y., TOPPARE L. K., YILDIRIM E., ÇIRPAN A.  
European Polymer Journal, vol.169, 2022 (SCI-Expanded)
- X. **Multipurpose acetic acid functionalized carbazole derivatives: Synthesis, electrochemical properties and electrochromic device applications**  
Hacıoğlu S. O., YİĞİT D., Akbey T. E., UDUM Y., GÜLLÜ M., DEPCİ T., TOPPARE L. K.

JOURNAL OF ELECTROANALYTICAL CHEMISTRY, vol.908, 2022 (SCI-Expanded)

- XI. **Light induced step-growth polymerization of Donor-Acceptor-Donor (DAD) type monomers based on thiophene - [1,2,5] Chalcogenazolo[3,4-f]-benzo [1,2,3] triazole - Thiophene**  
Kaya K., Alkan E. A., Yasa M., Suerkan A., UDUM Y., TOPPARE L. K., Yağcı Y.  
EUROPEAN POLYMER JOURNAL, vol.161, 2021 (SCI-Expanded)
- XII. **Synthesis of selenophene substituted benzodithiophene and fluorinated benzothiadiazole based conjugated polymers for organic solar cell applications**  
Aslan S. T., Cevher D., Bolayir E., HIZALAN ÖZSOY G., UDUM Y., YILDIRIM E., TOPPARE L. K., ÇIRPAN A.  
ELECTROCHIMICA ACTA, vol.398, 2021 (SCI-Expanded)
- XIII. **Multichromic Vanadium Pentoxide Thin Films Through Ultrasonic Spray Deposition**  
TUTEL Y., DURUKAN M. B., Koc S., KOYLAN S., Cakmak H., Kocak Y., Hekmat F., ÖZENSOY E., ÖZBAY E., UDUM Y., et al.  
JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol.168, no.10, 2021 (SCI-Expanded)
- XIV. **Highly conjugated visible and near-infrared light photoinitiating systems for radical and cationic polymerizations**  
Suerkan A., Alkan E. A., Kaya K., UDUM Y., TOPPARE L. K., Yağcı Y.  
PROGRESS IN ORGANIC COATINGS, vol.154, 2021 (SCI-Expanded)
- XV. **ProTOT: Synthesis of the missing member of the 3,4-chalcogen substituted bridged thiophenes and its utilization in donor-acceptor polymers**  
Yaylali F. V., Ozel H., UDUM Y., TOPPARE L. K., SÖYLEMEZ S., GÜNBAŞ E. G.  
POLYMER, vol.212, 2021 (SCI-Expanded)
- XVI. **Indenoquinoxalinone based conjugated polymer substrate for laccase biosensor**  
Cevher S. C., Bekmezci S. A., SaniyeSoylemez S., UDUM Y., TOPPARE L. K., ÇIRPAN A.  
MATERIALS CHEMISTRY AND PHYSICS, vol.257, 2021 (SCI-Expanded)
- XVII. **Construction of amperometric biosensor modified with conducting polymer/carbon dots for the analysis of catechol**  
Yasa M., Deniz A., Forough M., YILDIRIM E., PERSİL ÇETİNKOL Ö., UDUM Y., TOPPARE L. K.  
JOURNAL OF POLYMER SCIENCE, vol.58, no.23, pp.3336-3348, 2020 (SCI-Expanded)
- XVIII. **A comprehensive study: Theoretical and experimental investigation of heteroatom and substituent effects on frontier orbitals and polymer solar cell performances**  
Cevher S. C., Hizalan G., ALEMDAR E., Cevher D., Udum Arslan Y., TOPPARE L. K., YILDIRIM E., ÇIRPAN A.  
JOURNAL OF POLYMER SCIENCE, vol.58, no.19, pp.2792-2806, 2020 (SCI-Expanded)
- XIX. **Narrow band gap benzodithiophene and quinoxaline bearing conjugated polymers for organic photovoltaic applications**  
Caliskan M., ERER M. C., Aslan S. T., UDUM Y., TOPPARE L. K., ÇIRPAN A.  
DYES AND PIGMENTS, vol.180, 2020 (SCI-Expanded)
- XX. **Synthesis and characterization of optical, electrochemical and photovoltaic properties of selenophene bearing benzodithiophene based alternating polymers**  
Ati G. O., ALEMDAR E., Aslan S. T., UDUM Y., TOPPARE L. K., ÇIRPAN A.  
JOURNAL OF ELECTROANALYTICAL CHEMISTRY, vol.862, 2020 (SCI-Expanded)
- XXI. **The impact of [1,2,5]chalcogenazolo[3,4-f]-benzo[1,2,3]triazole structure on the optoelectronic properties of conjugated polymers**  
Alkan E. A., Goker S., Sarigul H., YILDIRIM E., UDUM Y., TOPPARE L. K.  
JOURNAL OF POLYMER SCIENCE, vol.58, no.7, pp.956-968, 2020 (SCI-Expanded)
- XXII. **Electrosynthesis and characterizations of electrochromic and soluble polymer films based on N-substituted carbazole derivates**  
Elkhidr H. E., ERTEKİN Z., UDUM Y., PEKMEZ K.  
SYNTHETIC METALS, vol.260, 2020 (SCI-Expanded)
- XXIII. **A new ethanol biosensor based on polyfluorene-g-poly(ethylene glycol) and multiwalled carbon nanotubes**  
Bekmezci S. A., SÖYLEMEZ S., Yilmaz G., UDUM Y., Yağcı Y., TOPPARE L. K.  
EUROPEAN POLYMER JOURNAL, vol.122, 2020 (SCI-Expanded)

- XXIV. **Syntheses and Characterization of Benzotriazole, Thienopyrroledione, and Benzodithiophene Containing Conjugated Random Terpolymers for Organic Solar Cells**  
Goksu K., Hizalan G., UDUM Y., Hacıoglu S. O., Cevher S. C., Akrema A., TOPPARE L. K., ÇIRPAN A.  
JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol.166, no.15, 2019 (SCI-Expanded)
- XXV. **A thiazolothiazole containing multichromic polymer for glucose detection**  
Soylemez S., Kaya H. Z., Udum Y., TOPPARE L. K.  
EXPRESS POLYMER LETTERS, vol.13, no.10, pp.845-857, 2019 (SCI-Expanded)
- XXVI. **Tuning molecular energy levels and band gap of two-dimensional benzo[1,2-b:4,5-b'] dithiophene and quinoxaline bearing polymers**  
Yasa M., Goker S., UDUM Y., TOPPARE L. K.  
JOURNAL OF ELECTROANALYTICAL CHEMISTRY, vol.847, 2019 (SCI-Expanded)
- XXVII. **A multipurpose conjugated polymer: Electrochromic device and biosensor construction for glucose detection**  
Soylemez S., Kaya H. Z., UDUM Y., TOPPARE L. K.  
ORGANIC ELECTRONICS, vol.65, pp.327-333, 2019 (SCI-Expanded)
- XXVIII. **Application of an Efficient Amperometric Glucose Sensing Electrode Based on a Bilayer Polymer Film Platform**  
Kaya H. Z., SÖYLEMEZ S., UDUM Y., TOPPARE L. K.  
JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol.165, no.16, 2018 (SCI-Expanded)
- XXIX. **Fabrication of a promising immobilization platform based on electrochemical synthesis of a conjugated polymer**  
Buber E., SÖYLEMEZ S., UDUM Y., TOPPARE L. K.  
COLLOIDS AND SURFACES B-BIOINTERFACES, vol.167, pp.392-396, 2018 (SCI-Expanded)
- XXX. **Polymerization and biosensor application of water soluble peptide-SNS type monomer conjugates**  
Soylemez S., Yilmaz T., Buber E., UDUM Y., ÖZÇUBUKÇU S., TOPPARE L. K.  
JOURNAL OF MATERIALS CHEMISTRY B, vol.5, no.35, pp.7384-7392, 2017 (SCI-Expanded)
- XXXI. **Effect of substituent groups on quinoxaline-based random copolymers on the optoelectronic and photovoltaic properties**  
Cevher S. C., Hizalan G., Temiz C., UDUM Y., TOPPARE L. K., ÇIRPAN A.  
POLYMER, vol.101, pp.208-216, 2016 (SCI-Expanded)
- XXXII. **Incorporation of Different Conjugated Linkers into Low Band Gap Polymers Based on 5,6-Bis(octyloxy)-2,1,3 benzooxadiazole for Tuning Optoelectronic Properties**  
Goker S., Hizalan G., Kutkan S., UDUM Y., ÇIRPAN A., TOPPARE L. K.  
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.54, no.16, pp.2459-2467, 2016 (SCI-Expanded)
- XXXIII. **Incorporation of different conjugated linkers into low band gap polymers based on 5,6-bis(octyloxy)-2,1,3 benzooxadiazole for tuning efficiency of organic photovoltaics**  
Goker S., Hizalan G., UDUM Y., TOPPARE L. K.  
ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, vol.251, 2016 (SCI-Expanded)
- XXXIV. **Synthesis and characterization of conducting polymers containing polypeptide and ferrocene side chains as ethanol biosensors**  
Kesik M., Akbulut H., Soylemez S., Cevher S. C., Hizalan G., UDUM Y., Endo T., Yamada S., ÇIRPAN A., Yağcı Y., et al.  
ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, vol.251, 2016 (SCI-Expanded)
- XXXV. **Electrosynthesis and characterization of an electrochromic material containing biscarbazole-oxadiazole units and its application in an electrochromic device**  
UDUM Y., HIZLIATEŞ C. G., Ergun Y., TOPPARE L. K.  
THIN SOLID FILMS, vol.595, pp.61-67, 2015 (SCI-Expanded)
- XXXVI. **Electrochemical and optical properties of a conducting polymer and its use in a novel biosensor for the detection of cholesterol**  
Soylemez S., UDUM Y., Kesik M., HIZLIATEŞ C. G., Ergun Y., TOPPARE L. K.  
SENSORS AND ACTUATORS B-CHEMICAL, vol.212, pp.425-433, 2015 (SCI-Expanded)

- XXXVII. **Multichromic and soluble conjugated polymers containing thiazolothiazole unit for electrochromic applications**  
Akpinar H. Z., UDUM Y., TOPPARE L. K.  
EUROPEAN POLYMER JOURNAL, vol.63, pp.255-261, 2015 (SCI-Expanded)
- XXXVIII. **Synthesis of a benzotriazole bearing alternating copolymer for organic photovoltaic applications**  
Istanbulluoglu C., Goker S., Hizalan G., Hacıoglu S. O., UDUM Y., Yildiz E. D., ÇIRPAN A., TOPPARE L. K.  
NEW JOURNAL OF CHEMISTRY, vol.39, no.8, pp.6623-6630, 2015 (SCI-Expanded)
- XXXIX. **Electrochemical Properties of Perylene Diimide (PDI) and Benzotriazole (Btz) Bearing Conjugated Polymers to Investigate the Effect of pi-Bridge on Electrochemical Properties**  
Baysec S., Unlu N. A., Hacıoglu S. O., UDUM Y., ÇIRPAN A., TOPPARE L. K.  
JOURNAL OF MACROMOLECULAR SCIENCE PART A-PURE AND APPLIED CHEMISTRY, vol.52, no.1, pp.1-9, 2015 (SCI-Expanded)
- XL. **Synthesis and Characterization of Thiophene and Thieno[3,2-b]thiophene Containing Conjugated Polymers**  
Rustamh E., Goker S., Tarkuc S., UDUM Y., TOPPARE L. K.  
JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol.162, no.9, 2015 (SCI-Expanded)
- XLII. **Electrochemical and spectroelectrochemical studies of poly(2,5-di-2,3-dihydrothieno[3,4-b][1,4]dioxin-5-ylthienyl) derivatives bearing azobenzene, coumarine and fluorescein dyes: Effect of chromophore groups on electrochromic properties**  
Yigit D., UDUM Y., GÜLLÜ M., TOPPARE L. K.  
ELECTROCHIMICA ACTA, vol.147, pp.669-677, 2014 (SCI-Expanded)
- XLIII. **Synthesis and Spectroelectrochemistry of Dithieno(3,2-b:2',3'-d)pyrrole Derivatives**  
UDUM Y., Yildiz H. B., AZAK H., Sahin E., TALAZ O., ÇIRPAN A., TOPPARE L. K.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.131, no.17, 2014 (SCI-Expanded)
- XLIV. **Electrochromic properties of multicolored novel polymer synthesized via combination of benzotriazole and N-functionalized 2,5-di(2-thienyl)-1H-pyrrole units**  
Rende E., Kilic C. E., UDUM Y., Toffoli D., TOPPARE L. K.  
ELECTROCHIMICA ACTA, vol.138, pp.454-463, 2014 (SCI-Expanded)
- XLV. **Inverted bulk-heterojunction solar cell with cross-linked hole-blocking layer**  
Udum Y., Denk P., Adam G., Apaydin D. H., Nevsad A., Teichert C., White M. S., Sariciftci N. S., Scharber M. C.  
ORGANIC ELECTRONICS, vol.15, no.5, pp.997-1001, 2014 (SCI-Expanded)
- XLVI. **Electrochemical and optical properties of 5,6-bis(octyloxy)-2,1,3 benzooxadiazole containing low band gap polymers**  
Goker S., Hizalan G., UDUM Y., TOPPARE L. K.  
SYNTHETIC METALS, vol.191, pp.19-27, 2014 (SCI-Expanded)
- XLVII. **A novel conducting polymer based platform for ethanol sensing**  
Kekec N. C., Kanik F. E., UDUM Y., HIZLIATEŞ C. G., Ergun Y., TOPPARE L. K.  
SENSORS AND ACTUATORS B-CHEMICAL, vol.193, pp.306-314, 2014 (SCI-Expanded)
- XLVIII. **Electrochemical and optical properties of novel terthienyl based azobenzene, coumarine and fluorescein containing polymers: Multicolored electrochromic polymers**  
Yigit D., UDUM Y., GÜLLÜ M., TOPPARE L. K.  
JOURNAL OF ELECTROANALYTICAL CHEMISTRY, vol.712, pp.215-222, 2014 (SCI-Expanded)
- XLIX. **Synthesis and characterization of conducting polymers containing polypeptide and ferrocene side chains as ethanol biosensors**  
Kesik M., Akbulut H., Soylemez S., Cevher S. C., Hizalan G., UDUM Y., Endo T., Yamada S., ÇIRPAN A., Yağcı Y., et al.  
POLYMER CHEMISTRY, vol.5, no.21, pp.6295-6306, 2014 (SCI-Expanded)
- L. **A sepiolite modified conducting polymer based biosensor**  
Soylemez S., Kanik F. E., Tarkuc S., UDUM Y., TOPPARE L. K.  
COLLOIDS AND SURFACES B-BIOINTERFACES, vol.111, pp.549-555, 2013 (SCI-Expanded)
- L. **Synthesis and electrochemical characterization of fluorene and benzimidazole containing novel conjugated polymers: Effect of alkyl chain length on electrochemical properties**

Namal I., Ozeltaglayan A. C., UDUM Y., TOPPARE L. K.

EUROPEAN POLYMER JOURNAL, vol.49, no.10, pp.3181-3187, 2013 (SCI-Expanded)

- LI. Spray-processable thiazolothiazole-based copolymers with altered donor groups and their electrochromic properties**  
Akpınar H. Z., UDUM Y., TOPPARE L. K.  
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.51, no.18, pp.3901-3906, 2013 (SCI-Expanded)
- LII. Effective and Functional Surface Design for Biosensing Applications Based on a Novel Conducting Polymer and PMMA/Clay Nanocomposite**  
Kesik M., Kocer O., Kanik F. E., Unlu N. A., Rende E., Aslan-Gurel E., Rossi R. M., UDUM Y., TOPPARE L. K.  
ELECTROANALYSIS, vol.25, no.8, pp.1995-2006, 2013 (SCI-Expanded)
- LIII. Fused structures in the polymer backbone to investigate the photovoltaic and electrochromic properties of donor-acceptor-type conjugated polymers**  
Cevher S. C., Unlu N. A., Ozeltaglayan A. C., Apaydin D. H., UDUM Y., TOPPARE L. K., ÇIRPAN A.  
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.51, no.9, pp.1933-1941, 2013 (SCI-Expanded)
- LIV. Synthesis of aromatic poly(pyridinium salt)s and their electrochromic properties**  
Keshtov M. L., Udum Y., TOPPARE L. K., Kochurov V. S., Khokhlov A. R.  
MATERIALS CHEMISTRY AND PHYSICS, vol.139, pp.936-943, 2013 (SCI-Expanded)
- LV. Quinoxaline derivatives as long wavelength photosensitizers in photoinitiated cationic polymerization of diaryliodonium salts**  
Bulut U., Kolay M., Tarkuc S., UDUM Y., TOPPARE L. K.  
PROGRESS IN ORGANIC COATINGS, vol.73, pp.215-218, 2012 (SCI-Expanded)
- LVI. Tailoring the optoelectronic properties of donor-acceptor-donor type pi-conjugated polymers via incorporating different electron-acceptor moieties**  
Tarkuc S., UDUM Y., TOPPARE L. K.  
THIN SOLID FILMS, vol.520, no.7, pp.2960-2965, 2012 (SCI-Expanded)
- LVII. Near infrared electrochromic polymers based on phenazine moieties**  
Esmer E. N., Tarkuc S., UDUM Y., TOPPARE L. K.  
MATERIALS CHEMISTRY AND PHYSICS, vol.131, pp.519-524, 2011 (SCI-Expanded)
- LVIII. The effect of the donor unit on the optical properties of polymers**  
Unver E. K., Tarkuc S., UDUM Y., TANYELİ C., TOPPARE L. K.  
ORGANIC ELECTRONICS, vol.12, no.10, pp.1625-1631, 2011 (SCI-Expanded)
- LIX. Synthesis and optical properties of fused aromatic thienopyrazine based pi-conjugated polymers**  
Kolay M., Tarkuc S., UDUM Y., TOPPARE L. K.  
SMART MATERIALS & STRUCTURES, vol.20, no.7, 2011 (SCI-Expanded)
- LX. Multi-colored electrochromic polymer with enhanced optical contrast**  
Tarkuc S., Unver E. K., UDUM Y., TOPPARE L. K.  
EUROPEAN POLYMER JOURNAL, vol.46, no.11, pp.2199-2205, 2010 (SCI-Expanded)
- LXI. The effect of changes in pi-conjugated terthienyl systems using thienyl and ethylenedioxybenzene functionalized thieno[3,4-b]pyrazine precursors: Multicolored low band gap polymers**  
Tarkuc S., Unver E. K., UDUM Y., TANYELİ C., TOPPARE L. K.  
ELECTROCHIMICA ACTA, vol.55, no.24, pp.7254-7258, 2010 (SCI-Expanded)
- LXII. Improving electrochromic properties via copolymerization**  
Taskin A. T., Balan A., UDUM Y., TOPPARE L. K.  
SMART MATERIALS AND STRUCTURES, vol.19, no.6, 2010 (SCI-Expanded)
- LXIII. Molecular architecture: Another plausible pathway toward a low band gap polymer**  
Tarkuc S., UDUM Y., TOPPARE L. K.  
JOURNAL OF ELECTROANALYTICAL CHEMISTRY, vol.643, pp.89-93, 2010 (SCI-Expanded)
- LXIV. Effect of Conjugated Core Building Block Dibenzo[a,c]phenazine Unit on pi-Conjugated Electrochromic Polymers: Red-Shifted Absorption**  
Unver E. K., Tarkuc S., UDUM Y., TANYELİ C., TOPPARE L. K.

- JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.48, no.8, pp.1714-1720, 2010 (SCI-Expanded)
- LXV. **A novel quinoxaline bearing electroactive monomer: Pyrrole as the donor moiety**  
Taskin A. T., Balan A., Epik B., Yildiz E., UDUM Y., TOPPARE L. K.  
ELECTROCHIMICA ACTA, vol.54, no.23, pp.5449-5453, 2009 (SCI-Expanded)
- LXVI. **Tuning of the neutral state color of the pi-conjugated donor-acceptor-donor type polymer from blue to green via changing the donor strength on the polymer**  
Tarkuc S., UDUM Y., TOPPARE L. K.  
POLYMER, vol.50, no.15, pp.3458-3464, 2009 (SCI-Expanded)
- LXVII. **Electrochemical synthesis and characterization of a new soluble conducting polymer**  
UDUM Y., Ergun Y., ŞAHİN Y., PEKMEZ K., Yildiz A.  
JOURNAL OF MATERIALS SCIENCE, vol.44, no.12, pp.3148-3155, 2009 (SCI-Expanded)
- LXVIII. **A bis-selenophene substituted alkoxy benzene derivative as a highly stable novel electrochromic polymer**  
Udum Y., Tarkuc S., TOPPARE L. K.  
SYNTHETIC METALS, vol.159, pp.361-365, 2009 (SCI-Expanded)
- LXIX. **Electrodeposition of Poly(4-methyl carbazole-3-carboxylic acid) on Steel Surfaces and Corrosion Protection of Steel**  
Dueduekcue M., Udum Y., Erguen Y., Koeleli F.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.111, no.3, pp.1496-1500, 2009 (SCI-Expanded)
- LXX. **Both p- and n-type dopable polymer toward electrochromic applications**  
Udum Y., Durmus A., GÜNBAŞ E. G., TOPPARE L. K.  
ORGANIC ELECTRONICS, vol.9, no.4, pp.501-506, 2008 (SCI-Expanded)
- LXXI. **A new donor-acceptor type polymeric material from a thiophene derivative and its electrochromic properties**  
Udum Y., Yildiz E., GÜNBAŞ E. G., TOPPARE L. K.  
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.46, no.11, pp.3723-3731, 2008 (SCI-Expanded)
- LXXII. **Electrochemical polymerization and spectroscopic investigation of 2-methylindole**  
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### Refereed Congress / Symposium Publications in Proceedings

- I. **A Novel 5,6-bis(octyloxy)-2,1,3 Benzooxadiazole Based Donor-Acceptor Random Copolymer for Efficient Organic Photovoltaic Devices**  
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- II. **Novel Bifunctional Polymer as High Performance Electrochromic Material**  
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253rd American Chemical Society National Meeting Exposition, 2 - 06 April 2017
- III. **Synthesis, Electrochemical and Spectroelectrochemical Characterization of Quinoxaline-Based Conjugated Polymers for Organic Photovoltaics**



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- IV. **Syntheses, electrochemical and spectroelectrochemical characterizations of quinoxaline-based conjugated polymers for organic photovoltaics**  
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- XVI. **Synthesis and Electrochemical Characterization of Benzoxadiazole Derivative**  
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12th National Chem. Symp, Turkey, 7 - 11 November 1998

## Supported Projects

UDUM Y., Project Supported by Higher Education Institutions, DONÖR-AKSEPTÖR TİPİ TİYOFEN VE TİYENOTİYOFEN İÇEREN İLETKEN POLİMERLERİN SENTEZİ, ELEKTROKROMİK VE OPTİK ÖZELLİKLERİNİN İNCELENMESİ, 2014 - 2016

UDUM Y., Project Supported by Higher Education Institutions, Donör-Akseptör-Donör Tipi İletken Polimerlerin

Elektronik ve Optik Özelliklerine Donör Grupların Etkisi, 2011 - 2012

UDUM Y., Project Supported by Higher Education Institutions, YENİ BİR İLETKEN POLİMERİN SENTEZİ,

KARAKTERİZASYONU VE ELEKTROKROMİK ÖZELLİKLERİ, 2010 - 2012

## Metrics

Publication: 132

Citation (WoS): 1436

Citation (Scopus): 1538

H-Index (WoS): 21

H-Index (Scopus): 23

## Scholarships

Optimization of Manufacturing Process of Polyaniline-Dodecyl Benzenesulfonic Acid Films for Organic Electronic Applications, TUBITAK, 2021 - 2023

Inverted Bulk-Heterojunction Solar Cells, YOK, 2014 - 2014

Binalarda ve Taşıtlarda Renk Değişimi ile Isı ve Işık Kontrolü Sağlayan Akıllı Camların Üretimi, TUBITAK, 2007 - 2008

## Non Academic Experience

University, University of the West of England, Applied Sciences, England

University, Johannes Kepler Üniversitesi, Institute of Physical Chemistry and Linz Institute for Organic Solar Cells, Austria

University, Orta Dogu teknik Üniversitesi, Kimya Bölümü