

## Asst. Prof. Nilüfer DUYGULU

### Personal Information

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34210 Esenler / İstanbul

### International Researcher IDs

ScholarID: 45960896500

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Publons / Web Of Science ResearcherID: KZH-2488-2024

ScopusID: 45960896500

Yoksis Researcher ID: 174508

### Education Information

Doctorate, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Turkey 2008 - 2013

Postgraduate, Yıldız Technical University, Metalürji Ve Malzeme Mühendisliği, Metalürji Ve Malzeme Mühendisliği /Üretim  
, Turkey 2005 - 2008

Undergraduate, Anadolu University, Faculty Of Engineering, Department Of Materials Science And Engineering, Turkey  
2000 - 2005

### Dissertations

Doctorate, ZINC OXIDE BASED TRANSPARENT CONDUCTIVE OXIDE THIN FILMS DEPOSITED BY R.F. MAGNETRON  
SPUTTERING FOR PHOTOVOLTAIC APPLICATIONS, Yıldız Technical University, FACULTY OF CHEMICAL AND  
METALLURGICAL ENGINEERING, Department of Metallurgical and Materials Engineering, 2013

Postgraduate, Emaye Üretiminde Kaplama ve Özelliklerinin Araştırılması, Yıldız Technical University, Graduate School of  
Natural and Applied Sciences, 2007

### Research Areas

Metallurgical and Materials Engineering, Production Metallurgy, Non-Ferrous Alloy Production, Engineering and  
Technology

### Academic Titles / Tasks

Assistant Professor, Yıldız Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of  
Metallurgical And Materials Engineering, 2021 - Continues

### Courses

ÇÖZELTİ TERMODİNAMİĞİ, Undergraduate, 2018 - 2019

ÖLÇME VE KALİBRASYON, Undergraduate, 2019 - 2020  
DEMİRDIŞI METALLER METALURJİSİ, Undergraduate, 2019 - 2020  
KALİTE YÖNETİMİ, Undergraduate, 2018 - 2019  
MALZEME TERMODİNAMİĞİ, Undergraduate, 2019 - 2020  
NON-FERROUS METALS METALLURGY, Undergraduate, 2018 - 2019  
KALİTE GÜVENÇE SİSTEMLERİ, Undergraduate, 2017 - 2018  
METALURJİ LABORATUARI, Undergraduate, 2017 - 2018

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

- I. **Production and comprehensive characterization of PVA/chitosan transdermal composite mats loaded with bioactive curcumin; evaluation of its release kinetics, antioxidant, antimicrobial, and biocompatibility features**  
Ciftci F., Özarslan A. C., Evcimen Duygulu N.  
Journal of Applied Polymer Science, vol.141, no.34, 2024 (SCI-Expanded)
- II. **Functionalization of PLA nanofibers with PCL blending and TiO<sub>2</sub> nanoparticle addition**  
Evcimen Duygulu N.  
Materials Research Express, vol.11, no.7, 2024 (SCI-Expanded)
- III. **Fabrication and characterization of Graphene oxide/Fuoidan/Chitosan reinforced Poly(vinyl alcohol) nanocomposites**  
Özdemir D. G., Evcimen Duygulu N., Özarslan A. C., Ciftci F.  
Journal of Molecular Structure, vol.1301, 2024 (SCI-Expanded)
- IV. **Antibacterial and cellular behavior of PLA-based bacitracin and zataria multiflora nanofibers produced by electrospinning method**  
Ciftci F., DUYGULU N., Yilmazer Y., GÜNDÜZ O., ÜSTÜNDAĞ C. B.  
INTERNATIONAL JOURNAL OF POLYMERIC MATERIALS AND POLYMERIC BIOMATERIALS, vol.72, no.4, pp.319-334, 2023 (SCI-Expanded)
- V. **Selenium and clarithromycin loaded PLA-GO composite wound dressings by electrospinning method**  
Ciftci F., Ayan S., Duygulu N., Yilmazer Y., Karavelioglu Z., Vehapi M., Koc R., Şengör M., Yilmazer H., Özçimen D., et al.  
INTERNATIONAL JOURNAL OF POLYMERIC MATERIALS AND POLYMERIC BIOMATERIALS, vol.71, no.12, pp.898-909, 2022 (SCI-Expanded)
- VI. **Electrospun drug blended poly(lactic acid) (PLA) nanofibers and their antimicrobial activities**  
Duygulu N., Ciftci F., ÜSTÜNDAĞ C. B.  
JOURNAL OF POLYMER RESEARCH, vol.27, no.8, 2020 (SCI-Expanded)
- VII. **Etching behavior of ZnO:Ga thin films**  
Duygulu N., MUSTAFAOĞLU U., KODOLBAŞ A. O., KARAASLAN A.  
MATERIALS TESTING, vol.60, no.11, pp.1097-1103, 2018 (SCI-Expanded)
- VIII. **Investigation of D-TS effect on r.f. magnetron sputtered ZnO thin films**  
Duygulu N., Kodolbaş A. O.  
CRYSTAL RESEARCH AND TECHNOLOGY, vol.51, pp.189-196, 2016 (SCI-Expanded)
- IX. **Effect of r.f. power variation on gallium doped zinc oxide thin films**  
Duygulu N.  
VACUUM, vol.120, pp.19-27, 2015 (SCI-Expanded)
- X. **Study of the a-Si:H/c-Si Heterointerface by Ex-Situ Spectroscopic Ellipsometry, Infrared Spectroscopy, and Solar Cell Modeling**  
PEHLİVAN Ö., KARATAŞ S., YILMAZ O., KODOLBAŞ A. O., DUYGULU Ö., DUYGULU N., Iskender I., TOMAK M.  
CHINESE JOURNAL OF PHYSICS, vol.53, no.3, 2015 (SCI-Expanded)
- XI. **Effects of argon pressure and r.f. power on magnetron sputtered aluminum doped ZnO thin films**  
Duygulu N., Kodolbaş A. O., Ekerim A.  
JOURNAL OF CRYSTAL GROWTH, vol.394, pp.116-125, 2014 (SCI-Expanded)

- XII. **Influence of r.f power on structural properties of ZnO thin films**  
Duygulu N., Kodolbas A. O., Ekerim A.  
JOURNAL OF CRYSTAL GROWTH, vol.381, pp.51-56, 2013 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Elektro Eğirme Yöntemiyle Nano Boyutlu TiO<sub>2</sub> Parçacık katkılı PLA Nanofiber Üretimi**  
Duygulu N.  
Karaelmas Fen ve Mühendislik Dergisi, vol.10, no.1, pp.7-18, 2020 (Peer-Reviewed Journal)
- II. **Isıl İşlemin Emaye Özellikleri Üzerine Etkisinin İncelenmesi**  
DUYGULU N., BEKEM A.  
Türkiye Seramik Federasyonu Dergisi, vol.20, pp.140-149, 2013 (Non Peer-Reviewed Journal)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Effect of Fly Ash Filler on Mechanical Performance of E-glass/Polyester Composites**  
Bekem A., Birol B., Duygulu N.  
19th International Metallurgy and Materials Congress (IMMC2018), İstanbul, Turkey, 25 - 27 October 2018, pp.700-702
- II. **Fabrication of Hydroxyapatite/PMMA Composite Nanofibers By Electrospinning**  
Önder B., ORUÇ M. E., ÜSTÜNDAĞ C. B., DUYGULU N.  
INTERNATIONAL CONFERENCE ON TECHNOLOGY, ENGINEERING AND SCIENCE (IConTES049), 26 October 2018
- III. **EFFECT OF ADDITION FILLER TO PA 12 COATING**  
Bekem A., Duygulu N., Birol B.  
4TH INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES (ICENS 2018), Kyiv, Ukraine, 2 - 06 May 2018, pp.192
- IV. **The Development of ZnO:Ga as TCO's for Thin Film Silicon Solar Cells**  
YILMAZ O., MUSTAFAOĞLU Ü., ERGÜNHAN B. H., DUYGULU N., TUNA Ö., KODOLBAŞ A. O.  
2017 ICG ANNUAL MEETING 32nd ŞİŞECAM GLASS SYMPOSIUM, 22 - 25 October 2017
- V. **Influence of Doping Elements on Zinc Oxide Thin Films Deposited by Sputtering**  
DUYGULU N., MUSTAFAOĞLU Ü., ERGÜNHAN B. H., YILMAZ O., KODOLBAŞ A. O., KARAASLAN A.  
2017 ICG ANNUAL MEETING 32nd ŞİŞECAM GLASS SYMPOSIUM, 22 - 25 October 2017
- VI. **Investigation the Influence of Doping Elements on Etched Zinc Oxide Thin Films Deposited By Sputtering Technique**  
KODOLBAŞ A. O., MUSTAFAOĞLU Ü., ERGÜNHAN B. H., DUYGULU N., YILMAZ O., TUNA Ö., TÜRKÜZ S., KARAASLAN A.  
2017 ICG ANNUAL MEETING 32nd ŞİŞECAM GLASS SYMPOSIUM, 22 - 25 October 2017
- VII. **Etched Zinc Oxide Thin Films Deposited by Sputtering Technique**  
DUYGULU N., MUSTAFAOĞLU Ü., ERGÜNHAN B. H., KODOLBAŞ A. O., KARAASLAN A.  
2017 ICG ANNUAL MEETING 32nd ŞİŞECAM GLASS SYMPOSIUM, 22 - 25 October 2017
- VIII. **Effect of Sputtering Power and Post Annealing Process on Properties of ZnO:Ga Thin Film**  
ERGÜNHAN B. H., TUNA Ö., DUYGULU N., TÜRKÜZ S.  
2017 ICG ANNUAL MEETING 32nd ŞİŞECAM GLASS SYMPOSIUM, 22 - 25 October 2017
- IX. **Influence of Solvent Treatment Parameters on Performance of Perovskite Solar Cells**  
Menda D., ONGÜL F., Gürşen A., DUYGULU N., KALELİ M., GÜNEŞ S.  
Turkish Physical Society 33rd International Physics Conference, 6 - 10 October 2017
- X. **Influence of Solvent Treatment Parameters on Performance of Perovskite Solar Cell**  
MENDA U. D., Ongül F., Gürşen A., DUYGULU N., KALELİ M., GÜNEŞ S.  
Turkish Physical Society 33rd International Physics Congress, 6 September - 10 October 2017

- XI. **Influence of Solvent Parameters on Performance of Perovskite Solar Cells**  
MENDA U. D., Ongül F., Gürşen A., DUYGULU N., KALELİ M., GÜNEŞ S.  
TFD 33. Uluslararası Kongresi, 5 - 09 September 2017
- XII. **Optimization of Process Pressure Wet Chemical Etch Texturing Behaviour of ZnO Ga Thin Films**  
DUYGULU N., MUSTAFAOĞLU Ü., TOP S.  
European Materials Research Society (E-MRS), Lille, France, 02 May 2016, pp.12
- XIII. **Effect of R F Power Variation On Gallium Doped Zinc Oxide Thin Films**  
DUYGULU N., YILMAZ O., PEHLİVAN Ö., KODOLBAŞ A. O., EKERİM A.  
Science & Applications of Thin Films, Conference & Exhibition, 15 - 19 October 2014
- XIV. **Influence of deposition parameters on ZnO and ZnO:Al thin films**  
Duygulu N., KODOLBAŞ A. O., Ekerim A.  
Fall Meeting Symposium on Novel Materials for Electronic, Optoelectronic, Photovoltaic and Energy Saving Applications (E-MRS), Warszawa, Poland, 16 - 20 September 2013, vol.11, pp.1460-1463
- XV. **Structural Optical and Electrical Properties of Zinc Oxide and Aluminum Doped Zinc Oxide for Photovoltaic Applications**  
DUYGULU N., KODOLBAŞ A. O., DUYGULU O., EKERİM A.  
Solar TR2 2012, Antalya, Turkey, 7 - 09 November 2012
- XVI. **INVESTIGATION OF 5 MOL% YSZ ELECTROLYTE FOR SOFC**  
Duygulu N., EKERİM A.  
TMS 140th Annual Meeting and Exhibition, California, United States Of America, 27 February - 03 March 2011, pp.457-464
- XVII. **Toplam Verimli Bakımın Ekonomik Analizi**  
EKERİM A., DUYGULU N.  
15.Uluslararası Metalurji ve Malzeme Kongresi, İstanbul, Turkey, 11 - 13 November 2010
- XVIII. **APPLICATION OF ECAP ON COMMERCIAL PURITY ALUMINUM**  
Evcimen N., BAYRAK Y., EKERİM A.  
TMS 2010 Annual Meeting Supplemental Proceedings on Materials Processing and Properties, Washington, United States Of America, 14 - 18 February 2010, pp.83-88
- XIX. **Alüminyumun Plastik Deformasyonla Tane Küçülmesi Ve Tarama Elektron Mikroskobu İncelemesi**  
DUYGULU N., EKERİM A.  
19. Ulusal Elektron Mikroskopi Kongresi, Trabzon, Turkey, 22 - 25 June 2009
- XX. **High Purity Pig Iron Production by Using Steel Scrap and Comparison with Sorelmatel**  
DUYGULU N.  
5. Uluslararası İleri Teknolojiler Sempozyumu, Karabük, Turkey, 13 - 15 May 2009
- XXI. **Effect of Composition and Heat Treatment to Mechanical Properties on Cast Steels**  
DUYGULU N.  
14.Uluslararası Metalurji ve Malzeme Kongresi, İstanbul, Turkey, 16 - 18 October 2008
- XXII. **Elektro Cüruf Ergitme Prosesi ve Prosesin Modellenmesi**  
DUYGULU N.  
IMSP 2008,12 th International Materials Symposium, Denizli, Turkey, 15 - 17 October 2008

## Supported Projects

DUYGULU N., Ocaktan M., Project Supported by Higher Education Institutions, Nanoparçacık Katkılı Polivinil Alkol PVA Nanofiber Üretimi ve Karakterizasyonu, 2022 - Continues

ALTINBAY A., DUYGULU N., Project Supported by Higher Education Institutions, Yüksek Performanslı Termoplastik Üretim Artıklarından Preslenebilir Yeni Ürün Geliştirilmesi, 2022 - 2024

DUYGULU N., ÇİFTÇİ F., BEKEM A., Project Supported by Higher Education Institutions, Nano Parçacık Katkılı BiyoBozonur Polimer Membran Üretimi, 2021 - 2024

DUYGULU N., EKERİM A., KARAASLAN A., TUBITAK Project, Sıçratma Yöntemiyle Üretilen, Pürüzlendirilmiş Çinko Oksit

Cam Kaplamalara Katkı Elementlerinin Etkisinin İncelenmesi ve Fotovoltaik Uygulamalarının Geliştirilmesi, 2017 - 2017  
DUYGULU N., Project Supported by Higher Education Institutions, a Si H c Si HETEROEKLEM GÜNES PİLLERİ İÇİN  
SAYDAM İLETKEN OKSİT TABAKALARININ BÜYÜTÜLMESİ VE TERMODİNAMİK ANALİZİ, 2011 - 2013

## Scientific Refereeing

VACUUM, SCI Journal, April 2016

CRYSTAL RESEARCH AND TECHNOLOGY, SCI Journal, January 2015

## Metrics

Publication: 38

Citation (WoS): 72

Citation (Scopus): 145

H-Index (WoS): 5

H-Index (Scopus): 6

## Congress and Symposium Activities

Optimization of Process Pressure Wet Chemical Etch Texturing Behaviour of ZnO Ga Thin Films, Attendee, Lille, France, 2016

Effect of R F Power Variation On Gallium Doped Zinc Oxide Thin Films, Attendee, Turkey, 2014

Influence of Deposition Parameters on ZnO and ZnO Al Thin Films, Attendee, Warszawa, Poland, 2013

Structural Optical and Electrical Properties of Zinc Oxide and Aluminum Doped Zinc Oxide for Photovoltaic Applications, Attendee, --Seçiniz--, Turkey, 2012

Investigation of 5 MOL YSZ Electrolyte for SOFC, Attendee, California, United States Of America, 2011

Toplam Verimli Bakımın Ekonomik Analizi, Attendee, Turkey, 2010

Application of ECAP on Commercial Purity Aluminum, Attendee, --Seçiniz--, United States Of America, 2010

Alüminyumun Plastik Deformasyonla Tane Küçülmesi Ve Tarama Elektron Mikroskobu İncelemesi, Attendee, Turkey, 2009

High Purity Pig Iron Production by Using Steel Scrap and Comparison with Sorelmatel, Attendee, Turkey, 2009

Effect of Composition and Heat Treatment to Mechanical Properties on Cast Steels, Attendee, Turkey, 2008

Elektro Cüruf Ergitme Prosesi ve Prosesin Modellenmesi, Attendee, Turkey, 2008

## Non Academic Experience

Yıldız Teknik Üniversitesi