

## **Asst. Prof. FERHAT BOZDUMAN**

### **Personal Information**

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**Address:** Karabük Üniversitesi Tıp Fakültesi 3.Kat Oda No:18 KARABÜK/MERKEZ 78100

### **Education Information**

Doctorate, Suleyman Demirel University, Turkey 2014 - 2019

Post Graduate, Suleyman Demirel University, Turkey 2011 - 2012

Under Graduate, Suleyman Demirel University, Turkey 2005 - 2009

### **Foreign Languages**

English, B2 Upper Intermediate

### **Dissertations**

Doctorate, İlerleyen Dalga Tüpleri Kullanılarak Yüksek Frekanslı Mikrodalgaların Oluşturulması, Suleyman Demirel University, 2019

Post Graduate, Atmosferik Basınç Mikrodalga Plazmasının Karakteristiği, Suleyman Demirel University, 2012

### **Research Areas**

Biophysics, Electrical and Magnetic Properties, Thermal Treatment, Plating, Nanomaterials, Surface Finishing Processes, Electronic and magnetic devices, microelectronics, Electronics, radio and microwave technologies, Materials Science, Gases, Plasmas and Electrical Discharges Physics, Physical Properties of Gases, Physics of Plasmas

### **Academic Titles / Tasks**

Assistant Professor, Karabuk University, Tıp Fakültesi, Temel Tıp Bilimleri, 2020 - Continues

### **Professional Experience**

Head of Department, Karabuk University, Tıp Fakültesi, Temel Tıp Bilimleri, 2020 - Continues

### **Courses**

Master's Specialization Area, Post Graduate, 2020 - 2021

Seminar, Post Graduate, 2020 - 2021

Popular Science, Under Graduate, 2020 - 2021

Biophysics, Under Graduate, 2020 - 2021

## Advising Theses

Bozduman F., FILTERING OF ENVIRONMENTALLY HAZARDOUS WASTE GASES BY USING ATMOSPHERIC PRESSURE PLASMA, Post Graduate, A.DWAIKAT(Student), Continues

Bozduman F., AIR STERILIZATION OF INDOOR ENVIRONMENTS USING COLD PLASMA SUPPORT, Post Graduate, N.MUSALAT(Student), Continues

## Designed Lessons

Bozduman F., ADVANCED MEASUREMENT TECHNIQUES IN PLASMA, Doctorate, 2019 - 2020

Bozduman F., PLASMA PHYSICS AND APPLICATION AREAS, Post Graduate, 2019 - 2020

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Biosensing applications of titanium dioxide coated graphene modified disposable electrodes**  
Kuralay F., Tunç S., Bozduman F., ÖKSÜZ L., Oksuz A. U.  
Talanta, vol.160, pp.325-331, 2016 (Journal Indexed in SCI Expanded)
- II. **Atmospheric pressure plasma treatment of wool fabric structures**  
EREN E., ÖKSÜZ L., Komur A. I., Bozduman F., Maslakci N. N., Oksuz A. U.  
Journal of Electrostatics, vol.77, pp.69-75, 2015 (Journal Indexed in SCI Expanded)
- III. **A comparison study of microwave and Radio frequency plasma polymerized PEDOT thin films**  
Kiristi M., Bozduman F., Oksuz A. U., Hala A., ÖKSÜZ L.  
Journal of Macromolecular Science, Part A: Pure and Applied Chemistry, vol.52, pp.124-129, 2015 (Journal Indexed in SCI Expanded)
- IV. **Atmospheric Pressure 2.45-GHz Microwave Helium Plasma**  
Gulec A., Bozduman F., Hala A. M.  
IEEE Transactions on Plasma Science, vol.43, pp.786-790, 2015 (Journal Indexed in SCI Expanded)
- V. **Radio frequency-H<sub>2</sub>O plasma treatment on indium tin oxide films produced by electron beam and radio frequency magnetron sputtering methods**  
Kiristi M., Gulec A., Bozduman F., ÖKSÜZ L., Oksuz A. U., Hala A.  
Thin Solid Films, vol.567, pp.32-37, 2014 (Journal Indexed in SCI Expanded)
- VI. **Complementary all solid state electrochromic devices using carboxymethyl cellulose based electrolytes**  
Kiristi M., Bozduman F., Gulec A., Teke E., ÖKSÜZ L., Oksuz A. U., Deligöz H.  
Journal of Macromolecular Science, Part A: Pure and Applied Chemistry, vol.51, pp.481-487, 2014 (Journal Indexed in SCI Expanded)
- VII. **Efficacy of endodontic applications of ozone and low-temperature atmospheric pressure plasma on root canals infected with Enterococcus faecalis**  
ÜREYEN KAYA B., KEÇECİ A. D., Gültaş H., Çetin E., Öztürk T., ÖKSÜZ L., Bozduman F.  
Letters in Applied Microbiology, vol.58, pp.8-15, 2014 (Journal Indexed in SCI Expanded)
- VIII. **Solid state electrochromic devices of plasma modified WO<sub>3</sub> hybrids**  
Kiristi M., Bozduman F., Uygun Oksuz A., ÖKSÜZ L., Hala A.  
Industrial and Engineering Chemistry Research, vol.53, pp.15917-15922, 2014 (Journal Indexed in SCI Expanded)

## Articles Published in Other Journals

- I. **Platinum-free counter electrodes of plasma-modified hybrid nanomaterials for dye-sensitised solar cells**  
Erten-Ela S., Kiristi M., Varlec A., Bozduman F., Remskar M., ÖKSÜZ L., Oksuz A. U.  
International Journal of Sustainable Energy, vol.37, pp.640-653, 2018 (Journal Indexed in ESCI)
- II. **Surface properties of radio frequency plasma treated wool and denim fabrics**  
Hala A., Karaca G. Y. , EREN E., ÖKSÜZ L., Bozduman F., Kiristi M., Komur A. I. , Gulec A., Oksuz A. U.  
Research Journal of Textile and Apparel, vol.21, pp.101-110, 2017 (Journal Indexed in ESCI)

## Refereed Congress / Symposium Publications in Proceedings

- I. **AN ALTERNATIVE STUDY FOR REDUCING SILICOSIS DISEASE BY PERFORMING DENIM BLEACHING WITH ATMOSPHERIC PRESSURE PLASMA METHOD**  
Bozduman F.  
International Conference on Plasma Science 2020, 6 - 10 December 2020
- II. **TREATMENT OF SKIN CANCER BY USING ATMOSPHERIC PRESSURE COLD PLASMA METHOD**  
Bozduman F., Asan O. N. , Özkaptan E. B. , Öksüz L., Aydın M. A.  
International Conference on Plasma Science 2020, Singapore, Singapore, 6 - 10 December 2020
- III. **EXAMINATION OF STABILITY AGAINST BEAM PARAMETERS IN A KU BAND HELIX TWT**  
HAYTURAL N., BOZDUMAN F., ÖKSÜZ L.  
Pulsed Power Plasma Science 2019, 22 - 28 June 2019
- IV. **DENIM BLEACHING BY CNC CONTROLLED PLASMA JET METHOD**  
Uygun E., BOZDUMAN F., YURDABAK G., ÖKSÜZ A., ÖKSÜZ L.  
ICOPS 2017, Atlantic City, United States Of America, 21 - 25 May 2017
- V. **INVESTIGATING A LOWER LIMIT FOR THE MAGNETIC FIELD IN A TWT**  
Haytural N., ÖKSÜZ L., GÜLEÇ A., BOZDUMAN F., Yeşiltepe H.  
The 44th International Conference on Plasma Science ICOPS 2017, Atlantic City, United States Of America, 21 - 25 May 2017
- VI. **TEMPORAL AND SPATIAL ANALYSIS OF INDUCTIVELY COUPLED ATMOSPHERIC PRESSURE PLASMA**  
GÜLEÇ A., BOZDUMAN F., ÖKSÜZ L., HALA A.  
2017 IEEE INTERNATIONAL CONFERENCE ON PLASMA SCIENCE (ICOPS), Atlantic City, 21 - 25 May 2017
- VII. **TWT Support Road Coating by MPCVD**  
BOZDUMAN F., HAYTURAL N., GÜLEÇ A., ASAN O. N. , ÖKSÜZ L.  
2017 IEEE INTERNATIONAL CONFERENCE ON PLASMA SCIENCE (ICOPS), Atlantic City, United States Of America, 21 - 25 May 2017
- VIII. **Atmospheric Pressure Plasma Pen for Surgical Purposes**  
Güleç A., Öksüz L., Aydın M. A. , Altuntaş S. H. , Yeşiltepe H., Koç Ü., Bozduman F.  
2016 20TH NATIONAL BIOMEDICAL ENGINEERING MEETING (BIYOMUT), İzmir, Turkey, 3 - 05 November 2016
- IX. **Atmospheric pressure plasma pen for surgical purposes Cerrahi Amaçlı Atmosferik Basınç Plazma Kalem**  
Gulec A., ÖKSÜZ L., AYDIN M., ALTUNTAŞ S. H. , Yesiltepe H., Koc U., Bozduman F.  
20th National Biomedical Engineering Meeting, BIYOMUT 2016, İzmir, Turkey, 3 - 05 December 2016
- X. **Investigation of the effects of electron plasma frequency on the operation of a helix TWT**  
ÖKSÜZ L., HAYTURAL N., UYGUN E., BOZDUMAN F., YEŞİLTEPE H., GÜLEÇ A.  
58th Annual Meeting of the APS Division of Plasma Physics, United States Of America, 31 October - 04 November 2016
- XI. **Biyomedikal Uygulamalar İçin Katalitik Mikromotorlar**  
ÖKSÜZ A., KURALAY F., ÖKSÜZ L., YURDABAK G., KOÇ Ü., UYGUN E., BOZDUMAN F.  
VI. Ulusal Polimer Bilim ve Teknolojisi Kongresi, Turkey, 4 - 07 September 2016

- XII. **Optical Measurements of Hybrid ECR and Helicon discharges**  
ÖKSÜZ L., GÜLEÇ A., HALA A., BOZDUMAN F., TEKE E., KIRIŞTI M., ÖKSÜZ A.  
55th Annual Meeting of the APS Division of Plasma Physics, United States Of America, 11 - 15 November 2013
- XIII. **Plasma treatment for the inactivation of Escherichia coli in water**  
İSMAEL M., BOZDUMAN F., GÜLEÇ A., NORE S., Al Mamoori M., DURMAZ Y., KOÇ Ü., ULUSOY S.  
2015 IEEE International Conference on Plasma Sciences (ICOPS), Antalya, Turkey, 24 - 28 May 2015
- XIV. **MODIFICATION OF CARBON NANOTUBE WITH POLY(3,4-ETHYLENEDIOXYTHIOPHENE) BY USING RF ROTATING PLASMA**  
ÇOĞAL S., BOZDUMAN F., YURDABAK G., ÖKSÜZ A.  
2015 42ND IEEE INTERNATIONAL CONFERENCE ON PLASMA SCIENCES (ICOPS), Belek, Turkey, 24 - 28 May 2015
- XV. **INDUCTIVELY COUPLED PLASMA FOR GRAPHENE PRODUCTION**  
DURMAZ Y., BOZDUMAN F., KOÇ Ü., İSMAEL M., NORE S., GÜLEÇ A., ÖKSÜZ L.  
2015 42ND IEEE INTERNATIONAL CONFERENCE ON PLASMA SCIENCES (ICOPS), Belek, Turkey, 24 - 28 May 2015
- XVI. **IMPROVING PHOTOVOLTAIC EFFICIENCY BY RF ROTATING PLASMA MODIFIED NANOTUBES**  
ERTEN ELA Ş., VARLEK A., BOZDUMAN F., KIRIŞTI M., REMSKAR M., ÖKSÜZ L., ÖKSÜZ A.  
2015 42ND IEEE INTERNATIONAL CONFERENCE ON PLASMA SCIENCES (ICOPS), Belek, Turkey, 24 - 28 May 2015
- XVII. **Plasma help preparation of electrospun carbon nanofibers**  
Uygun E., BOZDUMAN F., NOHUT MAŞLAKCI N., ÖKSÜZ A., ÖKSÜZ L.  
2015 IEEE International Conference on Plasma Sciences (ICOPS), Antalya, Turkey, 24 - 28 May 2015
- XVIII. **RF-titanium dioxide plasma modified graphene coated electrodes for protein sensing**  
KURALAY F., Tunç S., BOZDUMAN F., ÖKSÜZ L., ÖKSÜZ A.  
2015 IEEE International Conference on Plasma Sciences (ICOPS), Antalya, Turkey, 24 - 28 May 2015
- XIX. **Plasma polymerized electrospun PEDOT-S nanofibers obtained by in-situ radio frequency plasma treatment**  
DÜLGERBAKİ Ç., KIRIŞTI M., ÖKSÜZ A., BOZDUMAN F., ÖKSÜZ L., Ahmad S.  
2015 IEEE International Conference on Plasma Sciences (ICOPS), Antalya, Turkey, 24 - 28 May 2015
- XX. **SENSOR PROPERTIES OF RF-TITANIUM DIOXIDE PLASMA MODIFIED GRAPHENE**  
KURALAY F., TUNÇ S., BOZDUMAN F., ÖKSÜZ L., ÖKSÜZ A.  
2015 42ND IEEE INTERNATIONAL CONFERENCE ON PLASMA SCIENCES (ICOPS), Belek, Turkey, 24 - 28 May 2015
- XXI. **A STUDY ON CHARACTERIZATION OF POLYMER-COATED WOOL FABRICS USING PLASMA POLYMERIZATION**  
EREN E., ÖKSÜZ L., KÖMÜR A. İ. , BOZDUMAN F., NOHUT MAŞLAKCI N., ÖKSÜZ A.  
2015 42ND IEEE INTERNATIONAL CONFERENCE ON PLASMA SCIENCES (ICOPS), Belek, Turkey, 24 - 28 May 2015
- XXII. **Atmospheric Pen Plasma Sterilizing Help Paper Surface**  
BOZDUMAN F., KÖMÜR A. İ. , ULUSOY S., ÖKSÜZ L., KIRIŞTI M., ÖKSÜZ A.  
2015 42ND IEEE INTERNATIONAL CONFERENCE ON PLASMA SCIENCES (ICOPS), Belek, Turkey, 24 - 28 May 2015
- XXIII. **Graphene synthesis by PECVD**  
NORE S., BOZDUMAN F., KOÇ Ü., GÜLEÇ A., İSMAEL M., DURMAZ Y., ÖKSÜZ L.  
2015 IEEE International Conference on Plasma Sciences (ICOPS), Antalya, Turkey, 24 - 28 May 2015
- XXIV. **Structural, thermal and morphological properties of plasma polymerized MnO<sub>2</sub>/PPy composite**  
ŞEN GÜRSOY S., Çelik Çoğal G., ÇOĞAL S., BOZDUMAN F.  
2015 IEEE International Conference on Plasma Sciences (ICOPS), Antalya, Turkey, 24 - 28 May 2015
- XXV. **ELECTROSPUN FIBERS COATED ONTO PLASMA MODIFIED AND NONMODIFIED WOOLS**  
NOHUT MAŞLAKCI N., ÖKSÜZ A., ÖKSÜZ L., BOZDUMAN F., EREN E.  
2015 42ND IEEE INTERNATIONAL CONFERENCE ON PLASMA SCIENCES (ICOPS), Belek, Turkey, 24 - 28 May 2015
- XXVI. **Corrosion resistance of SiO<sub>2</sub> thin film coated biomedical Ti-13Nb-13Zr titanium alloy by E-Beam**  
Özaltın K., BOZDUMAN F., Zwolinska M., Kulczyk M., ÖKSÜZ A., ÖKSÜZ L., Lewandowska M.  
2015 IEEE International Conference on Plasma Sciences (ICOPS), Antalya, Turkey, 24 - 28 May 2015
- XXVII. **Miknatis Saçtırma Tekniği ile Elastik Elektrokromik Sistemlerin Hazırlanması**  
ÖKSÜZ A., EREN E., YURDABAK G., ÖKSÜZ L., BOZDUMAN F., KOÇ Ü.  
5. Fiziksel Kimya Kongresi, Turkey, 16 - 19 May 2015

- XXVIII. **Tungsten Trioksit (WO<sub>3</sub>) Dayalı Elektrokromik Tekstil Üretimi ve Özelliklerinin İncelenmesi**  
EREN E., YURDABAK G., BOZDUMAN F., ÖKSÜZ A., KOÇ Ü.  
5. Fiziksel Kimya Kongresi, Turkey, 16 - 19 May 2015
- XXIX. **Esnek Tungsten Trioksit (WO<sub>3</sub>) Film Üretimi ve Elektrokromik Özelliklerinin İncelenmesi**  
YURDABAK G., EREN E., BOZDUMAN F., ÖKSÜZ A., KOÇ Ü.  
5. Fiziksel Kimya Kongresi, Turkey, 16 - 19 May 2015
- XXX. **RF plasma nanocoating of PEDOT onto chitosan powders for nanofiber applications**  
Kirsti M., Bozduman F., Teke E., Uygun Oksuz A., ÖKSÜZ L.  
41st IEEE International Conference on Plasma Science, ICOPS 2014 and the 20th IEEE International Conference on High-Power Particle Beams, BEAMS 2014, Washington, United States Of America, 25 - 29 May 2014
- XXXI. **RF Magnetron Sputtering Deposited W/Ti and V2O5 Thin Films For Complementary All-Solid-State Electrochromic Device Application**  
KIRIŞTI M., BOZDUMAN F., DELİGÖZ H., ÖKSÜZ A., ÖKSÜZ L.  
Science and Applications of Thin Films, Conference Exhibition (SATF 2014), İzmir, Turkey, 15 September 2014 - 19 August 2020
- XXXII. **W/Ti Thin Film With Tantanium Oxide Prepared by Reactive RF Magnetron Sputtering Deposition For All-Solid-State Electrochromic Device**  
KIRIŞTI M., Teke E., BOZDUMAN F., ÖKSÜZ L., ÖKSÜZ A., GÜLEÇ A.  
31st ICPiG, Granada, Nicaragua, 14 - 19 July 2013
- XXXIII. **Synthesis of poly(3,4-ethylene dioxythiophene) PEDOT thin film by microwave plasma and its electrochromic properties**  
KIRIŞTI M., BOZDUMAN F., Teke E., GÜLEÇ A., ÖKSÜZ A., ÖKSÜZ L.  
NanoTR-9, Erzurum, Turkey, 24 - 28 June 2013
- XXXIV. **Rf Rotating plasma modified WO<sub>3</sub>/PEDOT hybrid and investigation of its electrochromic properties**  
KIRIŞTI M., BOZDUMAN F., Teke E., GÜLEÇ A., ÖKSÜZ A., ÖKSÜZ L.  
NanoTR-9, Erzurum, Turkey, 24 - 28 June 2013
- XXXV. **V2O5 and MoO<sub>2</sub> thin film sensor for human breath**  
BOZDUMAN F., Teke E., KIRIŞTI M., GÜLEÇ A., ÖKSÜZ L.  
NanoTR-9, Erzurum, Turkey, 24 - 28 June 2013
- XXXVI. **RF Rotating Plasma Modified Tungsten Oxide and Investigation Their Electrochromic Properties**  
KIRIŞTI M., BOZDUMAN F., Teke E., GÜLEÇ A., ÖKSÜZ A., ÖKSÜZ L.  
IEEE Pulsed Power Plasma Science Conference-PPPS 2013 ICOPS, San-Francisco, Costa Rica, 16 - 21 June 2013
- XXXVII. **Spektrofotometrik Yöntemle Elektrokromik Cihaz Karakterizasyonu**  
KIRIŞTI M., Teke E., BOZDUMAN F., ÖKSÜZ L., ÖKSÜZ A.  
XIII. ULUSAL SPEKTROSKOPİ KONGRESİ, Burdur, Turkey, 15 - 18 May 2013
- XXXVIII. **Atmospheric Pressure Plasma Electron Density Measurments by Magnetohydrodynamic Generator (MHDG) Method**  
GÜLEÇ A., BOZDUMAN F., TEKE E., ÖKSÜZ L.  
65th Annual Gaseous Electronics Conference, 22 - 26 October 2012

## Supported Projects

- Bozduman F., Öksüz L., TUBITAK Project, Biyosensör Amaçlı Nanomotorlar, 2015 - 2018
- Bozduman F., Öksüz L., TUBITAK Project, Vakum Elektronik Sistemler, 2015 - 2018
- Bozduman F., Öksüz L., TUBITAK Project, Cerrahi Amaçlı Atmosferik Basınç Plazma Sistemlerinin Geliştirilmesi ve Kurulması, 2014 - 2018
- Bozduman F., Öksüz L., TUBITAK Project, Elektrokromik Vakumlu Camlar, 2014 - 2016
- Bozduman F., Öksüz L., TUBITAK Project, Atmosferik Basınç Plazma Ortamında Çok Fonksiyonlu Tekstil Uygulamaları, 2011 - 2015
- Bozduman F., Öksüz L., TUBITAK Project, Çok Fonsiyonlu Elektrokromik Akıllı Filmlerin Kaplama Sistemlerinin Kurulumu,

2010 - 2014

### **Memberships / Tasks in Scientific Organizations**

Turkish Physical Society, Member, 2021 - Continues, Turkey

Türk Biyofizik Derneği, Member, 2020 - Continues, Turkey

Biophysical Society, Member, 2020 - Continues, United States Of America

IEEE (Institute of Electrical and Electronics Engineers), Member, 2015 - Continues, United States Of America

### **Scientific Refereeing**

Research Journal of Biomedical and Biotechnology, Other Journals, November 2020

### **Tasks In Event Organizations**

Bozduman F., The 42nd IEEE International Conference on Plasma Science (ICOPS 2015), Scientific Congress, Antalya, Turkey, Mayıs 2015

Bozduman F., International Middle East Plasma Science (IMEPS 2014), Scientific Congress, Antalya, Turkey, Nisan 2014