

## Assoc. Prof. Sakip ÖNDER

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü / Moleküler Biyoloji-Genetik & Biyoteknoloji, İleri Teknolojiler A.B.D., Turkey 2009 - 2014

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü / Moleküler Biyoloji-Genetik & Biyoteknoloji, İleri Teknolojiler A.B.D., Turkey 2007 - 2009

Undergraduate Minor, Isik University, Mühendislik Fakültesi / Elektronik Mühendisliği, Turkey 2005 - 2007

Undergraduate, Isik University, Fen Edebiyat Fakültesi / Fizik, Turkey 2002 - 2007

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, The growth of magnesium substituted hydroxyapatite on (Ti,Mg)N thin films and investigation of their potential as hard tissue implant material, Istanbul Technical University, Fen Bilimleri Enstitüsü, 2013

Postgraduate, Immobilization of hirudin on surface of PTFE to increase its blood compatibility, Istanbul Technical University, Fen Bilimleri Enstitüsü, 2009

### Research Areas

Biomaterials, Biotechnology, Biosensor

### Academic Titles / Tasks

Associate Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Biomedical Engineering, 2021 - Continues

Assistant Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Biomedical Engineering, 2017 - 2022

Assistant Professor, Isik University, Biyomedikal Mühendisliği Bölümü, 2015 - 2017

## Advising Theses

- Karataş A., Önder S., Alteration of titanium surfaces using hyaluronic acid coated mesoporous silica nanoparticles for local drug release, Postgraduate, Y.ERŞAN(Student), 2021
- Kök F. N. , Önder S., Surface modification of titanium substrates with nano hydroxyapatite coated chitosan microspheres, Postgraduate, B.DOYMUŞ(Student), 2020
- Köse G., Önder S., Determination of osseointegration properties of magnesium doped TiN coatings in vivo, Postgraduate, K.SABOUNI(Student), 2019

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

- I. **Assessment of bone healing using (Ti,Mg)N thin film coated plates and screws: Rabbit femur model**  
Sabouni K., Öztürk Y., Kaçar E., Mutlu H. S. , Solakoğlu S., Kose G. T. , Kök F. N. , Kazmanlı M. K. , Urgen K. M. , Önder S.  
JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART B-APPLIED BIOMATERIALS, vol.109, no.2, pp.227-237, 2021 (Journal Indexed in SCI)
- II. **A functional coating to enhance antibacterial and bioactivity properties of titanium implants and its performance in vitro**  
Doymus B., Kerem G., Yazgan Karatas A., Kok F. N. , Önder S.  
Journal of Biomaterials Applications, vol.35, no.6, pp.655-669, 2021 (Journal Indexed in SCI)
- III. **Magnesium doping on TiN coatings affects mesenchymal stem cell differentiation and proliferation positively in a dose-dependent manner**  
ÖNDER S., Calikoglu-Koyuncu A. C. , Kazmanli K., Urgen M., Kök F. N. , Torun-Kose G.  
BIO-MEDICAL MATERIALS AND ENGINEERING, vol.29, no.4, pp.427-438, 2018 (Peer-Reviewed Journal)
- IV. **Effect of Magnesium and Osteoblast Cell Presence on Hydroxyapatite Formation on (Ti,Mg)N Thin Film Coatings**  
Onder S., Calikoglu-Koyuncu A. C. , Kose G. T. , Kazmanli K., Kök F. N. , Urgen M.  
JOM, vol.69, pp.1195-1205, 2017 (Journal Indexed in SCI)
- V. **Surface Modification of Titanium Using BSA-Loaded Chitosan and Chitosan/Gelatin Polymers**  
Onder S.  
JOURNAL OF MEDICAL AND BIOLOGICAL ENGINEERING, vol.36, pp.661-667, 2016 (Journal Indexed in SCI)
- VI. **Behavior of mammalian cells on magnesium substituted bare and hydroxyapatite deposited Ti Mg N coatings**  
ÖNDER S., Calikoglu Koyuncu a. c. , KAZMANLI M. K. , ÜRGEN M. K. , KÖSE G., KÖK F. N.  
New Biotechnology, vol.32, pp.747-755, 2015 (Journal Indexed in SCI Expanded)
- VII. **Design and fabrication of a new nonwoven textile based platform for biosensor construction**  
Baysal G., Önder S., Göcek İ., Trabzon L., Kızıl H., Kök F. N. , Karagüzel Kayaoğlu B.  
Sensors And Actuators B-Chemical, vol.208, pp.475-484, 2015 (Journal Indexed in SCI Expanded)
- VIII. **Microfluidic device on a nonwoven fabric: A potential biosensor for lactate detection**  
Baysal G., Onder S., Göcek İ., Trabzon L., Kızıl H., Kök F. N. , Kayaoglu B. K.  
TEXTILE RESEARCH JOURNAL, vol.84, no.16, pp.1729-1741, 2014 (Journal Indexed in SCI)
- IX. **Magnesium substituted hydroxyapatite formation on Ti Mg N coatings produced by cathodic arc PVD technique**  
ÖNDER S., KÖK F. N. , KAZMANLI M. K. , ÜRGEN M. K.  
Materials Science & Engineering C-Materials For Biological Applications, vol.33, pp.4337-4342, 2013 (Journal Indexed in SCI Expanded)
- X. **Immobilization of laccase on polymer grafted polytetrafluoroethylene membranes for biosensor construction**  
taştan e., ÖNDER S., KÖK F. N.  
Talanta, vol.84, pp.524-530, 2011 (Journal Indexed in SCI Expanded)
- XI. **Alteration of PTFE Surface to Increase Its Blood Compatibility**

Onder S., Kazmanli K., Kök F. N.

JOURNAL OF BIOMATERIALS SCIENCE-POLYMER EDITION, vol.22, no.11, pp.1443-1457, 2011 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **Kitosan Esaslı İlaç Taşıyıcı Sistem Üretimi ve In vitro Performansının Belirlenmesi**  
Erşan Y., Önder S.  
Avrupa Bilim ve Teknoloji Dergisi, no.20, pp.270-279, 2020 (National Refreed University Journal)
- II. **Hastane Enfeksiyonlarına Karşı İmplant Yüzeylerinden Kontrollü İlaç Salımı**  
Önder S.  
Gazi Üniversitesi Fen Bilimleri Dergisi Part: C Tasarım ve Teknoloji, vol.4, pp.127-134, 2016 (National Refreed University Journal)

## Books & Book Chapters

- I. **Paper and Textile-Based Point of Care Tests**  
Önder S., Kök F. N.  
in: Emerging Technologies in Biophysical Sciences: A World Scientific Reference, Utkan Demirci (Stanford University,USA),Rami El Assal (Stanford University,Pu Chen (Wuhan University,China),Waseem Asghar (Florida Atlantic University,Fatih Inci (Bilkent University-UNAM,Turkey & Stanford University,USA) and ShuQi Wang, Editor, World Scientific Publishing , New Jersey, pp.1-20, 2021

## Refereed Congress / Symposium Publications in Proceedings

- I. **Antimikrobiyal Özellikli Biyoaktif Kaplamalar İle Titanyum İmplantların Performanslarının İyileştirilmesi**  
Doymuş B., Kök F. N. , Önder S.  
25. ULUSAL BİYOMEDİKAL BİLİM VE TEKNOLOJİ SEMPOZYUMU, 18 - 19 December 2021, pp.70-71
- II. **Magnezyum Katkılı TiN İnce Filmlerin Kemik Hasarlarının Onarımına Etkisinin In Vivo Modellerde İncelenmesi**  
Sabouni K., Öztürk Y., Kaçar E., Mutlu H. S. , Solakoğlu S., Köse G., Kök F. N. , Kazmanlı M. K. , Ürgen M. K. , Önder S.  
(25. ULUSAL BİYOMEDİKAL BİLİM VE TEKNOLOJİ SEMPOZYUMU, Ankara, Turkey, 18 - 19 December 2021, pp.60-61
- III. **Modification of Titanium Surfaces with Micro/Nanospheres for Local Antibiotic Release**  
doymus B., KÖK F. N. , ÖNDER S.  
ICBNAA 2019 : 21st International Conference on Biomaterials Nanoarchitectonics for Advanced Applications, 4 - 05 November 2019
- IV. **Preparation and Characterization of FUnctional Magnetic Nanoparticles for Targeted Cancer Therapy**  
ZENGİN E., ÖNDER S., KÖK F. N. , ALVEROĞLU DURUCU E.  
24th International Biomedical Science Technology Symposium, 17 - 20 October 2019
- V. **MODification of Titanium Surface for Bone Implant Applications**  
doymus B., KÖK F. N. , ÖNDER S.  
24th International Biomedical Science Technology Symposium, 17 - 20 October 2019
- VI. **Effectiveness of Controlled MDM2 Inhibitor Release on Brain Tumor Cells in vitro**  
ZENGİN E., calis s., AVŞAR T., ÖNDER S.  
Tıp Tekno19, Turkey, 3 - 05 October 2019

- VII. **Magnesium Modified TiN Coatings in Hard Tissue Repair**  
ÖNDER S., KAZMANLI M. K. , KÖSE G., KÖK F. N. , ÜRGEN M. K.  
The 2nd International Conference on Bioinformatics, Biotechnology, and Biomedical Engineering, 12 - 13 September 2019
- VIII. **Anti Mikrobiyal Özelliklerinin Geliştirmek Üzere Titanyum Yüzeylerin Değiştirilmesi**  
DOYMUS B., ERSAN Y., KÖK F. N. , ÖNDER S.  
23. Biyomedikal Bilim ve Teknoloji Sempozyumu, Turkey, 15 - 16 December 2018
- IX. **Bölgesel Protein ve Antibiyotik Salımına Yönelik Titanyum Yüzeylerin Hazırlanması ve in vitro Çalışmaları**  
ÖNDER S.  
23. Biyomedikal Bilim ve Teknoloji Sempozyumu (BİOMED2018-TR), Turkey, 15 - 16 December 2018
- X. **Fonksiyonel Nanoparçacıkların Geliştirilmesi**  
ZENGİN E., ÖNDER S., KÖK F. N. , ALVEROĞLU DURUCU E.  
23. Biyomedikal Bilim ve Teknoloji Sempozyumu, Turkey, 15 - 16 December 2018
- XI. **Modification of TiN coatings to increase the osteointegration of hard tissue implants**  
ÖNDER S., Çalikoğlu Koyuncu A. C. , KÖSE G., KAZMANLI M. K. , ÜRGEN M. K. , KÖK F. N.  
The East-West Asia Biomaterials Symposium, Taoyuan, TAYVAN, 23 - 26 August 2017
- XII. **Magnesium Doping in Titanium Nitride Coatings to increase the Osteointegration of Hard Tissue Implants**  
ÖNDER S., Koyuncu A. C. , KAZMANLI M. K. , ÜRGEN M. K. , KÖK F. N. , KÖSE G.  
Biomed 2015, 22 - 24 October 2015
- XIII. **Modification of Magnesium Coated Titanium Surfaces to Control its Corrosion Rate**  
MAZMANOĞLU O., ÖNDER S., KÖK F. N. , KAZMANLI M. K. , ÜRGEN M. K.  
26th Annual Conference, European Society for Biomaterials, 31 August - 03 September 2014
- XIV. **Terden Laktat Analizi İçin Tekstil Tabanlı Biyosensör Tasarımı**  
Baysal G., ÖNDER S., KÖK F. N. , TRABZON L., KIZIL H., GÖCEK İ., KARAGÜZEL KAYAOĞLU B.  
1. Ulusal Biyosensör Kongresi, Turkey, 22 - 26 June 2014
- XV. **Analyte Detection on a Nonwoven Substrate Through Enzyme immobilization**  
Baysal G., ÖNDER S., GÖCEK İ., KÖK F. N. , TRABZON L., KIZIL H., KARAGÜZEL KAYAOĞLU B.  
Autex 14th World Textile Conference, 26 - 28 May 2014
- XVI. **Fabrication of a Textile-Based Platform for Rapid Analyte Detection**  
Önder S., Kök F. N. , Trabzon L., Kızıl H., Kayaoglu B. K. , Göcek İ.  
2nd International Conference on Mechanical Design and Power Engineering (ICMDPE 2013), Beijing, China, 29 - 30 November 2013, pp.1611-1612
- XVII. **Characterization of Ti Mg N Thin Film Coatings Produced via Physical Vapor Deposition**  
ÖNDER S., KÖSE G., KÖK F. N. , KAZMANLI M. K. , ÜRGEN M. K.  
TMS 2013 142nd Annual Meeting & Exhibition, Biological Materials Science Symposium, 3 - 07 March 2013
- XVIII. **Construction of Ti Mg thin film coatings via physical vapor deposition technique and their properties**  
ÖNDER S., KÖK F. N. , ÜRGEN M. K. , KAZMANLI M. K.  
4th International Symposium: Interface Biology of Implants, 9 - 11 May 2012
- XIX. **Construction of a Biosensor for the Detection of Phenolic Compounds**  
TASTAN E., ÖNDER S., KAZMANLI M. K. , KÖK F. N.  
International Symposium on Biotechnology: Developments and Trends (BIOTECHMETU2009), 27 - 30 September 2009
- XX. **Alteration of PTFE Surface to Increase its Blood Compatibility**  
ÖNDER S., KAZMANLI M. K. , KÖK F. N.  
34th FEBS Congress Life's Molecular Interactions, 4 - 09 September 2009
- XXI. **Immobilization of Hirudin on PTFE Surface to Increase its Blood Compatibility**  
ÖNDER S., KAZMANLI M. K. , KÖK F. N.  
International Conference on Nanomaterials and Nanosystems, 10 - 13 August 2009

## Supported Projects

Önder S., TUBITAK Project, Osteoentegrasyon ve Anti Mikrobiyal Özelliklerini Geliştirmek Üzere Titanyum Yüzeylerin Değiştirilmesi, 2018 - 2020

Önder S., TUBITAK Project, Magnezyum Katkılı TiN Kaplamaların in vivo Koşullarda Osteoentegrasyon Özelliklerinin Belirlenmesi, 2018 - 2019

Kök F. N. , TUBITAK Project, The Growth of Magnesium Substituted Hydroxyapatite on (Ti,Mg)N Thin Films and Investigation of their Potential as Hard Tissue Implant Material, 2012 - 2015

Karagüzel Kayaoğlu B., TUBITAK Project, Non Woven Tekstil Yüzeylerine Mikro Kanal Sistemi Entegrasyonu İle Biyosensör Tasarımı Üretimi Ve Karakterizasyonu, 2012 - 2014

## Scientific Refereeing

JOM, SCI Journal, July 2017

## Metrics

Publication: 36

Citation (WoS): 156

Citation (Scopus): 177

H-Index (WoS): 8

H-Index (Scopus): 9