

## Asst. Prof. HASRET TOLGA ŞİRİN

### Personal Information

**Email:** [tolga.sirin@hbv.edu.tr](mailto:tolga.sirin@hbv.edu.tr)

**Web:** <https://avesis.hacibayram.edu.tr/tolga.sirin>

### International Researcher IDs

ORCID: 0000-0002-5850-3052

Publons / Web Of Science ResearcherID: AAI-1811-2019

Yoksis Researcher ID: 312783

### Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Biyomühendislik (Dr), Turkey 2004 - 2011

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Biyomühendislik (YI) (Tezli), Turkey 1999 - 2004

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, Turkey 1992 - 1999

### Dissertations

Doctorate, Biyoaktif metalik implantların üretimi, Hacettepe University, Fen Bilimleri Enstitüsü, Biyomühendislik A.B.D., 2011

Postgraduate, Sert doku onarımı için poli (DL-Laktat/E-caprolactone)-TCP kompozitleri hazırlanması, Hacettepe University, Fen Bilimleri Enstitüsü, Biyomühendislik A.B.D., 2004

### Research Areas

Biomolecules, Biomaterial, Protein Chemistry

### Academic Titles / Tasks

Assistant Professor, Ankara Hacı Bayram Veli University, Polatlı Faculty of Arts and Sciences, Department of Chemistry, 2019 - Continues

Research Assistant, Hacettepe University, Fen Bilimleri Enstitüsü, Biyomühendislik A.B.D., 2001 - 2010

### Academic and Administrative Experience

Ankara Hacı Bayram Veli University, 2020 - Continues

### Courses

Endüstriyel Kimya, Undergraduate

İş Sağlığı ve Güvenliği, Undergraduate, 2020 - 2021

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

- I. **Adsorption behavior of serum proteins on anodized titanium is driven by surface nanomorphology**  
Akdoğan E., Şirin H. T., Öztatlı H., Kılıçarslan B., Bayram C., Garıpcan B.  
BIOINTERPHASES, vol.18, no.6, pp.1-11, 2023 (SCI-Expanded)
- II. **Plasma surface modification strategies for the preparation of antibacterial biomaterials: A review of the recent literature**  
Akdoğan E., Şirin H. T.  
Materials Science and Engineering C, vol.131, 2021 (SCI-Expanded)
- III. **A study on bone tissue engineering: Injectable chitosan-g-stearic acid putty**  
Yalman V., Celik E., Arslan O., Alkan F., TÜRKÖĞLU N., ŞİRİN H. T., Arslan A. K., DEMİRBILEK M.  
TECHNOLOGY AND HEALTH CARE, vol.28, no.3, pp.227-239, 2020 (SCI-Expanded)
- IV. **In vitro and in vivo bacterial antifouling properties of phosphite of plasma-treated- silicone**  
AKDOĞAN E., DEMİRBILEK M., Sen Y., ONUR M. A., AZAP Ö., Sonmez E., ŞİRİN H. T., Mutlu M.  
SURFACE INNOVATIONS, vol.7, no.2, pp.122-132, 2019 (SCI-Expanded)
- V. **Ti implants with nanostructured and HA-coated surfaces for improved osseointegration**  
Şirin H. T., VARGEL İ., Kutsal T., KORKUSUZ P., Piskin E.  
Artificial Cells, Nanomedicine and Biotechnology, vol.44, no.3, pp.1023-1030, 2016 (SCI-Expanded)
- VI. **Superadhesion: Attachment of nanobacteria to tissues - Model simulation**  
Sommer A. P., Cehreli M., AKÇA K., Şirin T., Piskin E.  
Crystal Growth and Design, vol.5, no.1, pp.21-23, 2005 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Accelerating the environmental biodegradation of poly-3-hydroxybutyrate (PHB) via plasma surface treatment**  
Akdoğan E., Şirin H. T., ŞAHAL G., Deniz Z., Kaya A., Serdaroglu D. Ç.  
Bioresource Technology Reports, vol.25, 2024 (Scopus)
- II. **The Effect of Nanostructured Titanium Surface on Protein Adsorption**  
Şirin H. T., Akdoğan E.  
Gazi University Journal of Science Part A: Engineering and Innovation, vol.9, no.3, pp.225-232, 2022 (Peer-Reviewed Journal)
- III. **Preparation of Poly(DL-Lactide/ $\epsilon$ -Caprolactone)- $\beta$ -TCP Composites for Bone Tissue Repair**  
ŞİRİN H. T., AKDOĞAN E., Piskin E.  
Hacettepe journal of Biology and Chemistry, vol.47, no.1, pp.133-141, 2019 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Protein Adsorption Behavior on Laser Patterned Titanium Surfaces**  
Soykan Ş., Turgut Ç., Yavaş S., ŞİRİN H. T., GARİPCAN B., AKDOĞAN E.  
5. Eurasia Biochemical Approaches & Technologies Congress (5. EBAT Congress), Antalya, Turkey, 02 November 2023
- II. **Enhancing the Natural Lifecycle of Bioplastics: Plasma Technology as an Eco-Friendly Solution**  
AKDOĞAN E., ŞİRİN H. T., ŞAHAL G., Deniz Z., Kaya A., ÇÖKELİLER SERDAROĞLU D.  
5. Eurasia Biochemical Approaches & Technologies Congress (5. EBAT Congress), Antalya, Turkey, 04 November 2023
- III. **Nanostructures on Titanium Significantly Affects the Conformation of Surface Adsorbed Protein**  
AKDOĞAN E., ŞİRİN H. T.  
16th NANOSCIENCE & NANOTECHNOLOGY CONFERENCE, Ankara, Turkey, 05 September 2022
- IV. **Preparation of Poly(DL-Lactide/ $\epsilon$ -Caprolactone)- $\beta$ -TCP Composites for Bone Tissue Repair**  
ŞİRİN H. T., AKDOĞAN E., Piskin E.

24th Interntional biomedical science and technology symposium, 17 - 20 October 2019

**V. Biyoaktif Metalik İmplantların Üretimi**

ŞİRİN H. T., Piskin E., Kutsal T.

10. Ulusal Kimya Mühendisliği Kongresi, Turkey, 3 - 06 September 2012

**VI. Investigation of the effects of  $\beta$ -TCP/p(L-lactide) composite on therapy of bone defects**

GÜRPINAR Ö. A., TUZLAKOĞLU K., ONUR M. A., ŞİRİN H. T., Piskin E.

8th Biomedical Science and Technology Symposium, 5 - 08 September 2001, vol.10, pp.245-279

## **Metrics**

Publication: 15

Citation (WoS): 8

Citation (Scopus): 62

H-Index (WoS): 1

H-Index (Scopus): 4