

## Res. Asst. PhD ILGİM GÖKTÜRK BAŞAL

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### International Researcher IDs

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### Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp, Turkey 2011 - 2016

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp, Turkey 2008 - 2011

Undergraduate, Hacettepe University, Fen Fakültesi, Biyoloji, Turkey 2004 - 2008

### Dissertations

Doctorate, Bakteriyel selüloz nanofiberler ile protein uzaklaştırılması, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp Anabilim Dalı (Disiplinlerarası), 2016

### Research Areas

Chemistry, Natural Sciences

### Academic Titles / Tasks

Research Assistant, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 2016 - Continues

Research Assistant, Hacettepe University, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp Anabilim Dalı (Disiplinlerarası), 2009 - 2016

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

- Plasmonic sensing platform for C-reactive protein recognition via synthetic receptors decorated on graphene oxide and gold nanoparticles**  
Ovezova M., YILMAZ F., GÖKTÜRK BAŞAL I., DENİZLİ A.  
MICROCHEMICAL JOURNAL, 2024 (SCI-Expanded)
- Development of Molecularly Imprinted Magnetic Amino Acid-Based Nanoparticles for Voltammetric Analysis of Lead Ions in Honey**  
Karagozlu M., Asir S., Abu Shama N., GÖKTÜRK BAŞAL I., YILMAZ F., TÜRKMEN D., DENİZLİ A., Ozgoren M.  
POLYMERS, no.13, 2024 (SCI-Expanded)
- Phenylalanine functionalized cryogels for selective cholesterol removal from milk**

GÖKTÜRK BAŞAL I, SAYLAN İNCİ Y., Yılmaz F., KARTAL ERSOY F., DENİZLİ A.  
Chemical Papers, 2024 (SCI-Expanded)

- IV. **Electrochemical Detection of Cortisol by Silver Nanoparticle-Modified Molecularly Imprinted Polymer-Coated Pencil Graphite Electrodes**  
Shama N. A., Aşır S., GÖKTÜRK BAŞAL I., Yılmaz F., TÜRKMEN D., DENİZLİ A.  
ACS Omega, vol.8, no.32, pp.29202-29212, 2023 (SCI-Expanded)
- V. **Aptamer-Based Point-of-Care Devices: Emerging Technologies and Integration of Computational Methods**  
Aslan Y., Atabay M., Chowdhury H. K., Göktürk I., Saylan Y., İnci F.  
Biosensors, vol.13, no.5, 2023 (SCI-Expanded)
- VI. **A surface plasmon resonance sensor with synthetic receptors decorated on graphene oxide for selective detection of benzylpenicillin**  
Çelik O., Saylan Y., Göktürk I., Yılmaz F., DENİZLİ A.  
Talanta, vol.253, 2023 (SCI-Expanded)
- VII. **SPR Signal Enhancement With Silver Nanoparticle-Assisted Plasmonic Sensor for Selective Adenosine Detection**  
GÖKTÜRK BAŞAL I., Bakhshpour M., ÇİMEN D., YILMAZ F., BERELİ N., DENİZLİ A.  
IEEE SENSORS JOURNAL, vol.22, no.15, pp.14862-14869, 2022 (SCI-Expanded)
- VIII. **Selective Amplification of Plasmonic Sensor Signal for Cortisol Detection Using Gold Nanoparticles**  
Yılmaz G. E., SAYLAN İNCİ Y., GÖKTÜRK BAŞAL I., YILMAZ F., DENİZLİ A.  
BIOSENSORS-BASEL, vol.12, no.7, 2022 (SCI-Expanded)
- IX. **Gold-Modified Molecularly Imprinted N-Methacryloyl-(1)-phenylalanine-containing Electrodes for Electrochemical Detection of Dopamine**  
Abu Shama N., Asir S., Ozsoz M., GÖKTÜRK BAŞAL I., TÜRKMEN D., YILMAZ F., DENİZLİ A.  
BIOENGINEERING-BASEL, vol.9, no.3, 2022 (SCI-Expanded)
- X. **S-citalopram imprinted monolithic columns for capillary electrochromatography enantioseparations**  
Derazshamshir A., GÖKTÜRK BAŞAL I., YILMAZ F., DENİZLİ A.  
ELECTROPHORESIS, vol.42, no.24, pp.2672-2682, 2021 (SCI-Expanded)
- XI. **Sensitive and selective detection of amitrole based on molecularly imprinted nanosensor**  
ÇAKIR O., Bakhshpour M., GÖKTÜRK BAŞAL I., YILMAZ F., BAYSAL Z.  
JOURNAL OF MOLECULAR RECOGNITION, vol.34, no.11, 2021 (SCI-Expanded)
- XII. **Development of Molecularly Imprinted Polymer-Based Optical Sensor for the Sensitive Penicillin G Detection in Milk**  
Safran V., GÖKTÜRK BAŞAL I., Bakhshpour M., YILMAZ F., DENİZLİ A.  
CHEMISTRYSELECT, vol.6, no.43, pp.11865-11875, 2021 (SCI-Expanded)
- XIII. **Selective dopamine detection by SPR sensor signal amplification using gold nanoparticles**  
TÜRKMEN D., Bakhshpour M., GÖKTÜRK BAŞAL I., Asir S., YILMAZ F., DENİZLİ A.  
NEW JOURNAL OF CHEMISTRY, vol.45, pp.18296-18306, 2021 (SCI-Expanded)
- XIV. **Quartz Crystal Microbalance (QCM) Based Biosensor Functionalized by HER2/neu Antibody for Breast Cancer Cell Detection**  
YILMAZ M., Bakhshpour M., GÖKTÜRK BAŞAL I., Piskin A. K., DENİZLİ A.  
CHEMOSENSORS, vol.9, no.4, 2021 (SCI-Expanded)
- XV. **Selective recognition of nucleosides by boronate affinity organic-inorganic hybrid monolithic column**  
Ektirici S., GÖKTÜRK BAŞAL I., YILMAZ F., DENİZLİ A.  
JOURNAL OF CHROMATOGRAPHY B-ANALYTICAL TECHNOLOGIES IN THE BIOMEDICAL AND LIFE SCIENCES, vol.1162, 2021 (SCI-Expanded)
- XVI. **Magnetic bacterial cellulose nanofibers for nucleoside recognition**  
SAYLAN Y., GÖKTÜRK BAŞAL I., Pospiskova K., Safarik I., DENİZLİ A.  
CELLULOSE, vol.27, no.16, pp.9479-9492, 2020 (SCI-Expanded)
- XVII. **Molecularly imprinted cryogel cartridges for the selective recognition of tyrosine**

- Bakhshpour M., GÖKTÜRK BAŞAL I., BERELİ N., DENİZLİ A.  
BIOTECHNOLOGY PROGRESS, vol.36, no.5, 2020 (SCI-Expanded)
- XVIII. **Electrochromatographic separation of hydrophobic amino acid enantiomers by molecularly imprinted capillary columns**  
Sarkaya K., Asir S., GÖKTÜRK BAŞAL I., YILMAZ F., Yavuz H., DENİZLİ A.  
PROCESS BIOCHEMISTRY, vol.92, pp.69-77, 2020 (SCI-Expanded)
- XIX. **A dye-affinity cryogel membrane for malate dehydrogenase purification from *Saccharomyces cerevisiae***  
Hamade K., Gokturk I., BERELİ N., TÜRKMEN D., Elkak A., DENİZLİ A.  
JOURNAL OF BIOMATERIALS SCIENCE-POLYMER EDITION, vol.31, pp.38-52, 2020 (SCI-Expanded)
- XX. **Polymethacryloyl-L-Phenylalanine [PMAPA]-Based Monolithic Column for Capillary Electrochromatography**  
Derazshamshir A., Asir S., GÖKTÜRK BAŞAL I., Ektirici S., YILMAZ F., DENİZLİ A.  
JOURNAL OF CHROMATOGRAPHIC SCIENCE, vol.57, no.8, pp.758-765, 2019 (SCI-Expanded)
- XXI. **Rapid sensing of Cu<sup>+2</sup> in water and biological samples by sensitive molecularly imprinted based plasmonic biosensor**  
SAFRAN V., Gokturk I., Derazshamshir A., YILMAZ F., SAĞLAM N., DENİZLİ A.  
MICROCHEMICAL JOURNAL, vol.148, pp.141-150, 2019 (SCI-Expanded)
- XXII. **Phenol removal from wastewater by surface imprinted bacterial cellulose nanofibres**  
Derazshamshir A., Gokturk I., Tamahkar E., YILMAZ F., SAĞLAM N., DENİZLİ A.  
ENVIRONMENTAL TECHNOLOGY, 2019 (SCI-Expanded)
- XXIII. **Protein depletion with bacterial cellulose nanofibers**  
Gokturk I., Tamahkar E., Yilmaz F., DENİZLİ A.  
JOURNAL OF CHROMATOGRAPHY B-ANALYTICAL TECHNOLOGIES IN THE BIOMEDICAL AND LIFE SCIENCES, vol.1099, pp.1-9, 2018 (SCI-Expanded)
- XXIV. **Poly(vinyl alcohol)/polyethyleneimine (PVA/PEI) blended monolithic cryogel columns for the depletion of haemoglobin from human blood**  
Göktürk I., Derazshamshir A., Yılmaz F., DENİZLİ A.  
Separation Science and Technology (Philadelphia), vol.51, no.11, pp.1787-1797, 2016 (SCI-Expanded)
- XXV. **Removal of iron by chelation with molecularly imprinted supermacroporous cryogel.**  
ÇİMEN D., Göktürk I., YILMAZ F.  
Artificial cells, nanomedicine, and biotechnology, vol.44, pp.1158-66, 2016 (SCI-Expanded)
- XXVI. **Synthesis of a specific monolithic column with artificial recognition sites for L-glutamic acid via cryo-crosslinking of imprinted nanoparticles**  
GOKTURK I., ÜZEK R., UZUN L., DENİZLİ A.  
ARTIFICIAL CELLS NANOMEDICINE AND BIOTECHNOLOGY, vol.44, no.4, pp.1133-1140, 2016 (SCI-Expanded)
- XXVII. **Catalase purification from rat liver with iron-chelated poly(hydroxyethyl methacrylate-N-methacryloyl-(L)-glutamic acid) cryogel discs**  
Gokturk I., Percin I., DENİZLİ A.  
PREPARATIVE BIOCHEMISTRY & BIOTECHNOLOGY, vol.46, no.6, pp.602-609, 2016 (SCI-Expanded)
- XXVIII. **Characterization and cellular interaction of fluorescent-labeled PHEMA nanoparticles**  
Gokturk I., Karakoc V., ONUR M. A., DENİZLİ A.  
ARTIFICIAL CELLS NANOMEDICINE AND BIOTECHNOLOGY, vol.41, no.2, pp.78-84, 2013 (SCI-Expanded)

## Articles Published in Other Journals

### I. Nanoscale separations: Recent achievements

Aydoğan C., Beltekin B., Aslan H., Yılmaz F., Göktürk I., DENİZLİ A., El-Rassi Z.  
Journal of Chromatography Open, vol.2, 2022 (Scopus)

### II. Molecular Imprinting Technology for Biomimetic Assemblies

BERELİ N., AKGÖNÜLLÜ S., ASLIYÜCE ÇOBAN S., ÇİMEN D., GÖKTÜRK BAŞAL I., TÜRKMEN D., YAVUZ ALAGÖZ H., DENİZLİ A.

Hacettepe Journal of Biology and Chemistry, vol.48, no.5, pp.575-601, 2020 (Peer-Reviewed Journal)

III. **Separation of histidine enantiomers by capillary electrochromatography with molecularly imprinted monolithic columns**

Sarkaya K., Asir S., GÖKTÜRK BAŞAL I., Ektirici S., YILMAZ F., Yavuz H., DENİZLİ A.

SEPARATION SCIENCE PLUS, vol.3, no.6, pp.235-245, 2020 (ESCI)

IV. **Separation of D,L-Ampicillin by ligand exchange-micellar electrokinetic chromatography**

Sarı D., DERAZSHAMSHIR A., AŞIR S., GÖKTÜRK BAŞAL I., YILMAZ F., DENİZLİ A.

BIOINTERFACE RESEARCH IN APPLIED CHEMISTRY, vol.9, no.6, pp.4522-4533, 2019 (ESCI)

## Books & Book Chapters

I. **Ultrasensitive Sensors Based on Plasmonic Nanoparticles**

Denizli F., GÖKTÜRK BAŞAL I., ÖZGÜR E., YILMAZ F.

in: Plasmonic Sensors and Their Applications, , Editor, WILEY-VCH GmbH, pp.171-188, 2022

II. **Utility of nanobiosensors in agriculture**

ÇALIŞIR M., GÖKTÜRK BAŞAL I., TÜRKMEN D., YILMAZ F., DENİZLİ A.

in: Bionanomaterials for Environmental and Agricultural Applications, Ravindra Pratap Singh, Kshitij RB Singh, Editor, Institute of Physics Publishing, Londrina, pp.4-31, 2021

III. **Cryogels for protein purification and depletion**

GÖKTÜRK BAŞAL I., Bakhshpour M., YILMAZ F., KARTAL ERSOY F., BERELİ N., DENİZLİ A.

in: Cryogels and Monoliths, Bo Mattiasson, Adil Denizli, Editor, Hacettepe Üniversitesi, Ankara, pp.95-118, 2018

## Refereed Congress / Symposium Publications in Proceedings

I. **KAPILER ELEKTROKROMATOĞRAFI İÇİN POLİMETAKRİLOİL-LFENİLALANIN [PMPA]-TABANLI MONOLİTİK KOLON**

DERAZSHAMSHIR A., AŞIR S., GÖKTÜRK BAŞAL I., EKTİRİCİ S., YILMAZ F., DENİZLİ A.

13.ULUSAL AFİNİTE TEKNİKLERİ KONGRESİ, Turkey, 4 - 06 September 2019

II. **SÜPERMAKROGÖZENEKLI KRIYOJELLER İLE KOLESTEROL UZAKLAŞTIRILMASI,**

GÖKTÜRK BAŞAL I., SAYLAN Y., ÖZSEVGİÇ M., YILMAZ F., YAVUZ ALAGÖZ H., DENİZLİ A.

13.ULUSAL AFİNİTE TEKNİKLERİ KONGRESİ, Turkey, 4 - 06 September 2019

III. **Separation of D,L-ampicillin by Ligand Exchange-Micellar Electrokinetic Chromatography**

AŞIR S., GÖKTÜRK BAŞAL I., derazshamshir A., Sarı D., Ektirici S., TOPÇU A. A., DENİZLİ A.

18. Uluslararası Katılımlı Kromatografi Kongresi, İstanbul, Turkey, 15 - 18 November 2018

IV. **Bakteriyel Selüloz Nanofiberler ile Protein Uzaklaştırılması**

GÖKTÜRK BAŞAL I., TAMAHKAR IRMAK E., YILMAZ F., DENİZLİ A.

17. Kromatografi Kongresi, Turkey, 20 - 22 September 2017

V. **Development of Molecularly Imprinted Surface Plasmon Resonance Sensor for Albumin Detection**

SAYLAN Y., GÖKTÜRK BAŞAL I., YILMAZ F., DENİZLİ A.

BIOMED 2017, 12 - 14 May 2017

VI. **Poly vinyl alcohol polyethyleneimine PVA PEI blended monolithic cryogel columns for the depletion of haemoglobin from human blood**

PERÇİN DEMİRÇELİK I., GÖKTÜRK BAŞAL I., DENİZLİ A.

10. Ulusal Afinite Teknikleri Kongresi, Turkey, 26 May 2016

VII. **BOYA LİGAND AFİNİTE KRIYOJELLER İLE SACCHAROMYCES CEREVISIAE DEN MALAT DEHİDROGENAZ ENZİMİNİN SAFLAŞTIRILMASI**

PERÇİN DEMİRÇELİK I., GÖKTÜRK BAŞAL I., DENİZLİ A.

10. Ulusal afinite teknikleri kongresi, Turkey, 26 May 2016

**VIII. Determination of Bupivacaine on Quartz Crystal Microbalance Based Nanosensors**

TAN G., SAYLAN Y., GÖKTÜRK BAŞAL I., YILMAZ F., DENİZLİ A.

2. Uluslararası Biyosensör kongresi, İzmir, 10 - 12 June 2015

**IX. Dondurarak Çapraz Bağlama ile Moleküler Baskılanmış Nanopartiküllerin Kriyo şekillendirilmesi**

GÖKTÜRK BAŞAL I., ÜZEK R., UZUN L., DENİZLİ A.

15. Ulusal kromatografi Kongresi, Uşak, Turkey, 8 - 10 April 2015

## Supported Projects

GÖKTÜRK BAŞAL I., SAYLAN Y., YILMAZ F., Project Supported by Higher Education Institutions, Kriyojeller ile Gıda Örneklerinden Seçici Olarak Kolesterol Uzaklaştırılması, 2018 - 2021

SAYLAN İNCİ Y., GÖKTÜRK BAŞAL I., Project Supported by Higher Education Institutions, Moleküler Baskılanmış Manyetik Bakteriyel Selüloz Nanofiberler ile Nükleozid Saflaştırılması, 2018 - 2019

PERÇİN DEMİRÇELİK I., BAYDEMİR PEŞİNT G., GÖKTÜRK BAŞAL I., Project Supported by Higher Education Institutions, Katalaz Enzimine Afinite Gösteren Kriyojel Disklerin Hazırlanması, 2015 - 2015

## Metrics

Publication: 44

Citation (WoS): 61

Citation (Scopus): 61

H-Index (WoS): 6

H-Index (Scopus): 4

## Non Academic Experience

Linköping Üniversitesi Fizik, Kimya ve Biyoloji Bölümü