

MEHMET AĐRI SOYLU

ASSOC. PROF.

Email : mcsoylu@erciyes.edu.tr

Office Phone : [+90 352 207 6666](tel:+903522076666) Extension: 32988

Fax Phone : [+90 352 437 5784](tel:+903524375784)

Address : Erciyes Üniversitesi Mühendislik Fakültesi,
Biyomedikal MühendisliĐi, 3. Kat. Merkez Kampüs Posta Kodu:
39 039 KAYSERİ/TÜRKİYE

International Researcher IDs

ScholarID: VMnzQOcAAAAJ

ORCID: 0000-0001-5213-2679

Publons / Web Of Science ResearcherID: L-4047-2015

ScopusID: 55601685000

Yoksis Researcher ID: 197095



Learning Knowledge

Postgraduate 2008 - 2013	Drexel University, School Of Biomedical Engineering, Science And Health Sytems, Biomedical Engineering, United States Of America
Doctorate 2008 - 2013	Drexel University, School Of Biomedical Engineering, Science And Health Sytems, Biomedical Engineering, United States Of America
Undergraduate 2003 - 2007	Anadolu University, Faculty Of Economics And Administrative Sciences, Kamu Yönetimi, Turkey
Undergraduate 2002 - 2006	NiĐde Üniversitesi, Mühendislik Mimarlık Fakültesi, Elektrik Elektronik MühendisliĐi, Turkey

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Piezoelectric Plate Sensor for in situ Genetic Detection of Hepatitis B Virus in Serum without DNA Isolation and Amplification, Drexel University, School Of Biomedical Engineering, Science And Health Systems, Biomedical Engineering, 2013

Academic Titles / Tasks

Associate Professor 2022 - Continues	Erciyes University, Mühendislik Fakültesi, Biyomedikal MühendisliĐi
---	---

Assistant Professor
2018 - Continues

Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği

Assistant Professor
2014 - 2018

Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği

Lecturer PhD
2013 - 2014

Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği

Supported Projects

1. SOYLU M. Ç., CANIKARA Z., Project Supported by Higher Education Institutions, QCM Tespit Sistemlerinin Genetik Tespit Yönünden Kıyaslanması, 2017 - 2023
2. SOYLU M. Ç., Project Supported by Higher Education Institutions, Escherichia Coli bakterisi K12 suşunun DNA İzolasyonu Saflaştırması ve Amplifikasyonu Olmadan QCM Sensör ile Model Tükürük İçerisinde Serolojik ve Genetik Tespiti, 2016 - 2023
3. SOYLU M. Ç., YÜKSEL M. E., ATALAY M. A., TUBITAK Project, Clostridium Difficile Patojeninin DNA İzolasyonu, Saflaştırması ve Amplifikasyonu Olmadan QCM Sensör ile İnsan Dışkı İçerisinde Genetik ve Toksikolojik Tespiti, 2018 - 2020
4. AYYILDIZ E., ÇETİN H., SOYLU M. Ç., GÜNERİ E., AKKAYA A., Project Supported by Higher Education Institutions, RF Saçırma Yöntemi ile polikristal Si İnce Filmlerin Üretimi, Yapısal Elektriksel ve Optiksel Özelliklerinin İncelenmesi, 2017 - 2020
5. GÜNERİ ÖZDEMİR E., SAATÇI B., BİLLUR C., SOYLU M. Ç., ŞAHİN G., Project Supported by Higher Education Institutions, Inkjet Printing Yöntemiyle Elde Edilen Katkısız ve Cu, Ag Katkılı SnO₂ İnce Filmlerin Yapısal Elektriksel ve Optiksel Özelliklerinin İncelenmesi, 2016 - 2018

Scholarships

Yurt Dışı Lisansüstü Öğrenci Bursu, Ministry of Education, 2008 - 2013

TÜBİTAK BİDEB 2211 Yurt İçi Yüksek Lisans Burs Programı, TUBITAK, 2006 - 2008

Jury Memberships

Post Graduate, Post Graduate, Niğde Ömer Halisdemir Üniversitesi, June, 2019

Post Graduate, Yüksek Lisans Tez Savunma Jürisi, Erciyes Üniversitesi Fen Bilimleri Enstitüsü Biyomedikal Mühendisliği Ana Bilim Dalı, April, 2017

Post Graduate, Yüksek Lisans Tez Savunma Jürisi, Erciyes Üniversitesi Fen Bilimleri Enstitüsü Biyomedikal Mühendisliği Ana Bilim Dalı, March, 2017

Published journal articles indexed by SCI, SSCI, and AHCI

1. **Detection of Phenylarsine Oxide in Drinking Water Using an Impedimetric Electrochemical Sensor with Gelatin-Based Solid Electrolyte Enriched with Mercaptoethanol: A Novel Prospective Green Biosensor Methodology**
Keser K., SOYLU M. Ç.

- ACS Omega, vol.7, no.47, pp.43111-43121, 2022 (SCI-Expanded)
- Sensitive Multi-Detection of Escherichia coli by Quartz Crystal Microbalance with a Novel Surface Controllable Sensing Method in Liquid Organic Fertilizer Produced by Sewage Sludge**
Soylu M. Ç., Azgın Ş. T.
CHEMISTRYSELECT, vol.6, no.48, pp.13955-13963, 2021 (SCI-Expanded)
 - The Effect of (3-Mercaptopropyl)trimethoxysilane (MPS) Coating on the Genetic Detection Performance of Quartz Crystal Microbalance-Dissipation (QCM-D) Biosensor: Novel Intact Double-Layered Surface Modification on QCM-D**
Soysaldi F., SOYLU M. Ç.
CHEMISTRYSELECT, vol.6, no.24, pp.6056-6062, 2021 (SCI-Expanded)
 - The effect of films thickness on structural and optical properties of amorphous Sn2O thin films deposited by ink jet printing method**
Billur C. A., Şahin G., GÜNERİ E., SAATÇI B., SOYLU M. Ç.
Journal of Molecular Structure, vol.1219, 2020 (SCI-Expanded)
 - Simple, Rapid and Sensitive Detection of Phenylarsine Oxide in Drinking Water Using Quartz Crystal Microbalance: A Novel Surface Functionalization Technique**
Keser K., MIHÇIÖKUR H., SOYLU M. Ç.
CHEMISTRYSELECT, vol.5, no.6, pp.2057-2062, 2020 (SCI-Expanded)
 - Rapid, label-free genetic detection of enteropathogens in stool without genetic isolation or amplification**
Han S., Soyly M. Ç., Kirimli C. E., Wu W., Sen B., Joshi S. G., Emery C. L., Au G., Niu X., Hamilton R., et al.
BIOSENSORS & BIOELECTRONICS, vol.130, pp.73-80, 2019 (SCI-Expanded)
 - Quartz-crystal Microbalance Measurements of CD19 Antibody Immobilization on Gold Surface and Capturing B Lymphoblast Cells: Effect of Surface Functionalization**
İçöz K., Soyly M. Ç., Canıkara Z., Ünal E.
ELECTROANALYSIS, vol.30, pp.834-841, 2018 (SCI-Expanded)
 - Insulation by Solution 3-Mercaptopropyltrimethoxysilane (MPS) Coating: Effect of pH, Water, and MPS Content**
Soyly M. Ç., Shih W., Shih W. Y.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.52, pp.2590-2597, 2013 (SCI-Expanded)

Articles Published in Other Journals

- Easy detection of chloroform in drinking water by quartz crystal microbalance sensor**
Soyly M. Ç.
Niğde Ömer Halisdemir University Journal of Engineering Sciences, vol.10, no.1, pp.79-83, 2021 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- Bunsen beki dibine ışık verir mi?**
Altop S. Ö., Atalay M. A., Soyly M. Ç., Sağiroğlu P., Baysan M., Ölçü M.
13. Uluslararası Sterilizasyon Dezenfeksiyon Kongresi, 2023, Muğla, Turkey, 23 - 26 November 2023, pp.65-66
- Tokmak M., Soyly M. Ç., Ülgen A.**
International Eurasian Conference on Biotechnology and Biochemistry (BioTechBioChem 2020), Ankara, Turkey, 16 - 18 December 2020, pp.124
- Gıdada Kalite Analizi için Elektro-Optik Sensör Uygulamaları**
Yiğiter H., Tokmak M., Soyly M. Ç.
4. International Conference on Material Science and Technology, Ankara, Turkey, 18 - 20 October 2019, pp.911

4. **THE ROLE OF DEPOSITION LAYER ON OPTICAL PROPERTIES OF AMORPHOUS Sn2O THIN FILMS DEPOSITED BY INK JET PRINTING METHOD**
ALPER BİLLUR C., SAHİN G., GÜNERİ E., SAATÇI B., SOYLU M. Ç.
Middle East International Conference on Multidisciplinary Studies, 9 - 12 May 2019
5. **The Effect of RF Power and Sputtering Background Pressure on Structural Properties of a:Si**
AYYILDIZ E., AKKAYA A., GÜNERİ E., SOYLU M. Ç., ÇETİN H.
2nd International Congress on Semiconductor Materials and Devices (ICSMD2018), Ardahan, Turkey, 28 August 2018 - 30 January 2019, pp.57
6. **Kuvars kristal mikroterazi ile genetik tespitte yüzey kaplama etkisi**
SOYLU M. Ç., KESKİN M., KESER K., CERAN K., KÖŞKER F. B.
International Eurasian Conference on Science, Engineering and Technology, Ankara, Turkey, 22 - 23 November 2018, pp.2
7. **Basit bir biyosensör tasarımı piezo disk element**
SOYLU M. Ç., KESKİN M., KESER K., CERAN K., AKYOL M., AKAR A. S., ŞAHİN H., KÖŞKER F. B.
International Eurasian Conference on Science, Engineering and Technology, Ankara, Turkey, 22 - 23 November 2018, pp.1
8. **Biyosensör Uygulamaları için 3-Mercaptopropyltrimethoxysilane Tabanlı Kaplama Yöntemlerinin İncelenmesi**
SOYLU M. Ç., KÖŞKER F. B., KESKİN M., KESER K., CERAN K.
Tıp Teknolojileri Ulusal Kongresi, Lefkoşa, Turkey, 8 - 10 November 2018, pp.253-256
9. **Effect of RF Power and Sputtering Background Pressure on Structural Properties of a:Si**
AKKAYA A., GÜNERİ E., SOYLU M. Ç., ÇETİN H., AYYILDIZ E.
2nd International Congress on Semiconductor Materials and Devices (ICSMD 2018), Ardahan, Turkey, 28 - 31 August 2018
10. **The Impact of Protein G Layer on 11-Mercaptoundecanoic Acid Coated Gold Surface for Antibody Immobilization**
İÇÖZ K., SOYLU M. Ç.
International Congress on Engineering and Life Science, Kastamonu, Turkey, 26 - 29 April 2018, pp.416
11. **Investigation of 3-Mercaptopropylmethoxysilane Based Coating Methods for Biosensor Applications**
SOYLU M. Ç., KOSKER F. B., KESKİN M., KESER K., CERAN K.
Medical Technologies National Congress (TIPTEKNO), Magusa, CYPRUS, 8 - 10 November 2018
12. **Genetic Detection in Simulated-Saliva using MPS coated QCM sensor without DNA Isolation and Amplification**
SOYLU M. Ç., SOYSALDI F.
2nd International Mediterranean Science and Engineering Congress (IMSEC 2017), Adana, Turkey, 25 October - 27 December 2017, pp.195
13. **Easy and Rapid Analysis of Arsenic by Using QCM Biosensor**
MIHÇİOKUR H., SOYLU M. Ç.
5th Annual European Congress on Clinical & Translational Sciences (EUSTM-2017), Berlin, Germany, 20 - 22 October 2017, vol.4, pp.48-98
14. **Salivary Calcium Detection for Early Diagnosis and Screening Diseases by Using QCM Biosensor**
SOYLU M. Ç., MIHÇİOKUR H.
5th Annual European Congress on Clinical & Translational Sciences (EUSTM-2017), Berlin, Germany, 20 - 22 October 2017, vol.4, pp.48-98
15. **Investigation of Heat Effect on DNA Detection using QCM Biosensor**
SOYLU M. Ç., SOYSALDI F.
Tıp Teknolojileri Kongresi 2017, Trabzon, Turkey, 12 - 14 October 2017, pp.301-303
16. **Escherichia coli'nin Gümüş ve Bakır Yüzeylerde Tutunumunun İncelenmesi**
SOYLU M. Ç., KESMEN Z., KÖŞKER F. B., ÖZBEKAR E., ERSOY F., ŞİMŞEK R.
Tıp Teknolojileri Kongresi (TıpTekno'16), Antalya, Turkey, 27 - 29 October 2016, pp.1-4
17. **Detection of Escherichia coli using Quartz Crystal Microbalance Sensor - A Study Design**

SOYLU M. Ç., KÖŞKER F. B., Canıkara K.

3rd International Congress on Biosensors, Ankara, Turkey, 5 - 07 October 2016, pp.1

18. **Rapid Detection and quantification of E Coli O157:H7 from stool samples using novel piezoelectric plate sensor system**
SOYLU M. Ç.
The 2013 International Symposium on Molecular Medicine and Infectious Disease, Philadelphia / Pa, United States Of America, 17 - 21 June 2013, pp.71
19. **Rapid, Direct Hepatitis B Viral Count Quantification with 30 Copies/ml Sensitivity using Piezoelectric Plate Sensor (PEPS) in Serum-like Medium**
SOYLU M. Ç.
Research Day 2013, Philadelphia / Pa, United States Of America, 18 April 2013, pp.125
20. **Rapid, Direct Hepatitis B Viral Count Quantification with 30 copies/ml Sensitivity using Piezoelectric Plate Sensor (PEPS)**
SOYLU M. Ç.
Research Day 2012, Philadelphia / Pa, United States Of America, 19 April 2012, pp.114
21. **Investigation of 3-mercaptopropyltrimethoxysilane Insulation Coating at Various pH and Water Contents for Electrical Sensing Applications in Liquid**
SOYLU M. Ç.
Research Day 2011, Philadelphia / Pa, United States Of America, 08 April 2011, pp.104

Other Publications

1. **Investigation of 3-Mercaptopropylmethoxysilane Based Coating Methods for Biosensor Applications**
SOYLU M. Ç., KÖŞKER F. B.
Other, pp.1-4, 2018

Courses

Biyosensörler, Undergraduate, 2017 - 2018, 2016 - 2017
Olasılık Teorisi ve İstatistik, Undergraduate, 2017 - 2018, 2015 - 2016
Bilgisayar Programlama II, Undergraduate, 2017 - 2018, 2015 - 2016
Seminer, Postgraduate, 2016 - 2017
Biyosensör Teknolojileri ve Uygulamaları, Postgraduate, 2016 - 2017
Biyomedikal Mühendisliğinde Seçme Konular, Undergraduate, 2017 - 2018, 2013 - 2014
Biyo-Algılama, Postgraduate, 2017 - 2018
Uzmanlık Alan Dersi, Postgraduate, 2016 - 2017
Bilgisayar Programlama I, Undergraduate, 2017 - 2018, 2016 - 2017
Biyoteknoloji, Undergraduate, 2017 - 2018, 2015 - 2016
Tez Çalışması, Postgraduate, 2016 - 2017
Seminer, Doctorate, 2015 - 2016
Doku Mühendisliği, Postgraduate, 2015 - 2016
Endüstriyel Elektronik, Undergraduate, 2015 - 2016
İstatistik, Undergraduate, 2014 - 2015

Advising Theses

Mihçioğur H., Soylu M. Ç., DETECTION OF ARSENIC IN DRINKING WATER WITH QUARTZ CRYSTAL MICROBALANCE SENSOR, Postgraduate, K.KESER(Student), 2019

Soylu M. Ç., COMPARISON OF QCM DETECTION SYSTEMS FROM GENETIC INSPECTION, Postgraduate, Z.GÜNAYDIN(Student), 2018

Soylu M. Ç., MODEL TÜKÜRÜKTE QCM SENSÖR İLE SENTETİK GENETİK MATERYAL TESPİTİ, Postgraduate, F.Soysaldı(Student), 2017

Patent

Tokmak M., Soylu M. Ç., Yiğiter H., Ülgen A., Ekmekçioğlu O., Peker M., BİR SPEKTROFOTOMETRE, Patent, CHAPTER A Human Needs, The Invention Registration Number: TR 2021 018491 B , Standard Registration, 2041

SOYLU M. Ç., PIEZOELECTRIC PLATE SENSOR AND USES THEREOF, Patent, CHAPTER A Human Needs, Standard Registration, 2016

Scientific Refereeing

The European Research Journal, National Scientific Refreed Journal, October 2017

The European Research Journal, National Scientific Refreed Journal, June 2017

The European Research Journal, Other journals, December 2016

TUBITAK Project, May 2016

TUBITAK Project, April 2016

Project Supported by Higher Education Institutions, November 2015

TUBITAK Project, May 2015

TUBITAK Project, November 2014

TUBITAK Project, June 2014

Scientific Consultations

AI-SOLT, Scientific Consultancy, Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, Turkey, 2018 - 2019

Metrics

Publication: 31

Citation (WoS): 37

Citation (Scopus): 45

H-Index (WoS): 4

H-Index (Scopus): 4

Congress and Symposium Activities

IMSEC 2017, Attendee, Adana, Turkey, 2017

EUSTM 2017, Attendee, Berlin, Germany, 2017

TIPTEKNO 2017, Attendee, Trabzon, Turkey, 2017

Tıp TEKNO 2016, Attendee, Antalya, Turkey, 2016

Research Areas

Biomedical Engineering, Engineering and Technology