

# MEHMET ÇAĞRI SOYLU

## ASST. PROF.

Email : [mcsoylu@erciyes.edu.tr](mailto: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 Mühendisliği, 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

---

Doctorate 2008 - 2013	Drexel University, School Of Biomedical Engineering, Science And Health Sytems, Biomedical Engineering, United States Of America
Postgraduate 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	Niğde Üniversitesi, Mühendislik Mimarlık Fakültesi, Elektrik Elektronik Mühendisliği, 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

---

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 - Continues
2. 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 Toksik Tespiti, 2018 - 2020
3. AYYILDIZ E., ÇETİN H., SOYLU M. Ç. , GÜNERİ E., AKKAYA A., Project Supported by Higher Education Institutions, RF Saçtırma Yöntemi ile polikristal Si İnce Filmlerin Üretimi, Yapısal Elektriksel ve Optiksel Özelliklerinin İncelenmesi, 2017 - 2020
4. GÜNERİ 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 SnO<sub>2</sub> İnce Filmlerin Yapısal Elektriksel ve Optiksel Özelliklerinin İncelenmesi, 2016 - 2018
5. 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 - 2016

## 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. **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 (Peer-Reviewed Journal)
2. **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 (Peer-Reviewed Journal)

3. **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 (Peer-Reviewed Journal)
4. **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 (Peer-Reviewed Journal)
5. **Rapid, label-free genetic detection of enteropathogens in stool without genetic isolation or amplification**  
Han S., Soylu 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 (Peer-Reviewed Journal)
6. **Quartz-crystal Microbalance Measurements of CD19 Antibody Immobilization on Gold Surface and Capturing B Lymphoblast Cells: Effect of Surface Functionalization**  
İçöz K., Soylu M. Ç. , Canıkara Z., Ünal E.  
ELECTROANALYSIS, vol.30, pp.834-841, 2018 (Peer-Reviewed Journal)
7. **Insulation by Solution 3-Mercaptopropyltrimethoxysilane (MPS) Coating: Effect of pH, Water, and MPS Content**  
Soylu M. Ç. , Shih W., Shih W. Y.  
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.52, pp.2590-2597, 2013 (Peer-Reviewed Journal)

#### Articles Published in Other Journals

1. **Easy detection of chloroform in drinking water by quartz crystal microbalance sensor**  
Soylu 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

1. Tokmak M., Soylu M. Ç. , Ülgen A.  
International Eurasian Conference on Biotechnology and Biochemistry (BioTechBioChem 2020), Ankara, Turkey, 16 - 18 December 2020, pp.124
2. **Gıdada Kalite Analizi için Elektro-Optik Sensör Uygulamaları**  
Yiğiter H., Tokmak M., Soylu M. Ç.  
4. International Conference on Material Science and Technology, Ankara, Turkey, 18 - 20 October 2019, pp.911
3. **THE ROLE OF DEPOSITION LAYER ON OPTICAL PROPERTIES OF AMORPHOUS Sn2O THIN FILMS DEPOSITED BY INK JET PRINTING METHOD**  
ALPER BİLLUR C., SAHIN G., GÜNERİ E., SAATÇI B., SOYLU M. Ç.  
Middle East International Conference on Multidisciplinary Studies, 9 - 12 May 2019
4. **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
5. **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

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. **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
8. **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
9. **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
10. **Investigation of 3-Mercaptopropylmethoxysilane Based Coating Methods for Biosensor Applications**  
SOYLU M. Ç. , Kosker F. B. , Keskin M., Keser K., Ceran K.  
Medical Technologies National Congress (TIPTEKNO), Magusa, CYPRUS, 8 - 10 November 2018
11. **Genetic Detection in Simulated-Saliva using MPS coated QCM sensor without DNA Isolation and Amplification**  
SOYLU M. Ç. , Soysaldı F.  
2nd International Mediterranean Science and Engineering Congress (IMSEC 2017), Adana, Turkey, 25 October - 27 December 2017, pp.195
12. **Easy and Rapid Analysis of Arsenic by Using QCM Biosensor**  
MIHÇIÖKÜR 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
13. **Salivary Calcium Detection for Early Diagnosis and Screening Diseases by Using QCM Biosensor**  
SOYLU M. Ç. , MIHÇIÖKÜR H.  
5th Annual European Congress on Clinical & Translational Sciences (EUSTM-2017), Berlin, Germany, 20 - 22 October 2017, vol.4, pp.48-98
14. **Investigation of Heat Effect on DNA Detection using QCM Biosensor**  
SOYLU M. Ç. , Soysaldı F.  
Tıp Teknolojileri Kongresi 2017, Trabzon, Turkey, 12 - 14 October 2017, pp.301-303
15. **Escherichia coli'nin Gümüş ve Bakır Yüzeylerde Tutunumunun İncelenmesi**  
SOYLU M. Ç. , KESMEN Z., KÖŞKER F. B. , Özbekar E., Ersoy F., Şimşek R.  
Tıp Teknolojileri Kongresi (TıpTekno'16), Antalya, Turkey, 27 - 29 October 2016, pp.1-4
16. **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
17. **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
18. **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

19. **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
20. **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, 2016 - 2017, 2017 - 2018  
Olasılık Teorisi ve İstatistik, Undergraduate, 2015 - 2016, 2017 - 2018  
Bilgisayar Programlama II, Undergraduate, 2015 - 2016, 2017 - 2018  
Seminer, Postgraduate, 2016 - 2017  
Biyosensör Teknolojileri ve Uygulamaları, Postgraduate, 2016 - 2017  
Biyomedikal Mühendisliğinde Seçme Konular, Undergraduate, 2013 - 2014, 2017 - 2018  
Biyo-Algılama, Postgraduate, 2017 - 2018  
Uzmanlık Alan Dersi, Postgraduate, 2016 - 2017  
Bilgisayar Programlama I, Undergraduate, 2016 - 2017, 2017 - 2018  
Biyoteknoloji, Undergraduate, 2015 - 2016, 2017 - 2018  
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., Soyly M. Ç. , DETECTION OF ARSENIC IN DRINKING WATER WITH QUARTZ CRYSTAL MICROBALANCE SENSOR, Postgraduate, K.KESER(Student), 2019  
Soyly M. Ç. , COMPARISON OF QCM DETECTION SYSTEMS FROM GENETIC INSPECTION, Postgraduate, Z.GÜNAYDIN(Student), 2018  
Soyly M. Ç. , MODEL TÜKÜRÜKTE QCM SENSÖR İLE SENTETİKGENETİK MATERYAL TESPİTİ, Postgraduate, F.Soyly(Student), 2017

## Patent

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: 29

Citation (WoS): 34

Citation (Scopus): 37

H-Index (WoS): 3

H-Index (Scopus): 3

## 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