

Asst. Prof. Ceyhun Ekrem KIRIMLI

Personal Information

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Education Information

Post Doctorate, Lakehead University, Department of Chemistry, Canada 2014 - 2015

Doctorate, Drexel University, School of Biomedical Engineering Science and Health Systems, United States Of America
2008 - 2014

Post Graduate, Bogazici University, Institute Of Biomedical Engineering, Turkey 2005 - 2008

Under Graduate, Bogazici University, Faculty Of Arts And Sciences, Department Of Molecular Biology And Genetics,
Turkey 1999 - 2005

Foreign Languages

English, C2 Mastery

Certificates, Courses and Trainings

Data Analysis, Statistics and R for the Life Sciences, EdX/HarvardX, 2015

Other, Mastering Quantum Mechanics, EdX/MITx, 2015

Other, Matrix Algebra and Linear Models, EdX/HarvardX, 2015

Other, Embedded Systems - Shape the World, EdX/UTAustinX, 2015

Other, Electronic Interfaces, EdX/BerkeleyX, 2015

Dissertations

Doctorate, In situ detection of transrenal gene mutations without DNA isolation and amplification using Array
Piezoelectric Plate Sensor (PEPS), Drexel University, 2013

Post Graduate, Working memory performance assessment while monitoring the prefrontal cortex hemodynamics by
means of functional near infrared spectroscopy, Bogazici University, Institute Of Biomedical Engineering, 2008

Research Areas

Bioengineering and MEMS, Biomolecules, Biological Information, Biomaterial, Biosensor, Molecular Biology of Cancer

Academic Titles / Tasks

Assistant Professor, Acibadem Mehmet Ali Aydinlar University, Faculty of Engineering, Medical Engineering, 2016 -
Continues

Academic and Administrative Experience

Rectorate Commissioner, Acibadem Mehmet Ali Aydinlar University, Faculty of Engineering, Medical Engineering, 2021 - Continues

Courses

Biosensors, Under Graduate, 2018 - 2019, 2019 - 2020, 2020 - 2021
Biyomikroelektromekanik Sistemler, Under Graduate, 2020 - 2021
Senior Design, Under Graduate, 2020 - 2021
Biosensors, Under Graduate, 2018 - 2019, 2019 - 2020, 2020 - 2021
Biyosensorler, Post Graduate, 2020 - 2021
Advanced Biosensors, Doctorate, 2019 - 2020
Point of Care Technologies, Under Graduate, 2019 - 2020, 2020 - 2021
Point-of-Care Technologies, Under Graduate, 2020 - 2021
Senior Design , Under Graduate, 2020 - 2021
Biomicroelectromechanical Systems, Post Graduate, 2020 - 2021
Biosensors, Post Graduate, 2018 - 2019

Advising Theses

Kirimli C. E. , GÖK Ö., Design of DNA-Hydrogel Based Quartz Crystal Microbalance, Post Graduate, M.CANSU(Student), 2020
Kirimli C. E. , Kocatürk Ö., Proof of Concept for Mutation Detection with Quartz Crystal Microbalance Sensor based on Loop-Mediated Isothermal Amplification, Doctorate, A.BULUT(Student), 2019

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Rapid, label-free genetic detection of enteropathogens in stool without genetic isolation or amplification**
Han S., Soylu M. C. , 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 (Journal Indexed in SCI)
- II. **In situ, amplification-free double-stranded mutation detection at 60 copies/ml with thousand-fold wild type in urine**
Kirimli C. E. , Lin S., Su Y., Shih W., Shih W. Y.
BIOSENSORS & BIOELECTRONICS, vol.119, pp.221-229, 2018 (Journal Indexed in SCI)
- III. **Amplification-free in situ KRAS point mutation detection at 60 copies per mL in urine in a background of 1000-fold wild type**
Kirimli C. E. , Shih W., Shih W. Y.
ANALYST, vol.141, no.4, pp.1421-1433, 2016 (Journal Indexed in SCI)
- IV. **Specific in situ hepatitis B viral double mutation (HBVDM) detection in urine with 60 copies ml(-1) analytical sensitivity in a background of 250-fold wild type without DNA isolation and amplification**
Kirimli C. E. , Shih W., Shih W. Y.
ANALYST, vol.140, no.5, pp.1590-1598, 2015 (Journal Indexed in SCI)
- V. **DNA hybridization detection with 100 zM sensitivity using piezoelectric plate sensors with an improved noise-reduction algorithm**
Kirimli C. E. , Shih W., Shih W. Y.
ANALYST, vol.139, no.11, pp.2754-2763, 2014 (Journal Indexed in SCI)

- VI. **Real-time, in situ DNA hybridization detection with attomolar sensitivity without amplification using (pb(Mg₁/3Nb₂/3)O-3)(0.65)-(PbTiO₃)(0.35) piezoelectric plate sensors**
Wu W., Kirimli C. E. , Shih W., Shih W. Y.
BIOSENSORS & BIOELECTRONICS, vol.43, pp.391-399, 2013 (Journal Indexed in SCI)
- VII. **Temperature- and flow-enhanced detection specificity of mutated DNA against the wild type with reporter microspheres**
Kirimli C. E. , Shih W., Shih W. Y.
ANALYST, vol.138, no.20, pp.6117-6126, 2013 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Piezoelectric Plate Sensor (PEPS) for Analysis of Specific KRAS Point Mutations at Low Copy Number in Urine Without DNA Isolation or Amplification**
Kirimli C. E. , Shih W., Shih W. Y.
BIOSENSORS AND BIODETECTION: METHODS AND PROTOCOLS, VOL 2: ELECTROCHEMICAL, BIOELECTRONIC, PIEZOELECTRIC, CELLULAR AND MOLECULAR BIOSENSORS, 2ND EDITION, vol.1572, pp.327-348, 2017 (Refereed Journals of Other Institutions)

Books & Book Chapters

- I. **Piezoelectric Plate Sensor (PEPS) for Analysis of Specific KRAS Point Mutations at Low Copy Number in Urine Without DNA Isolation or Amplification**
KIRIMLI C. E. , Shih W. H. , Shih W. Y.
in: Biosensors and Biodeetection Methods and Protocols, Volume 2: Electrochemical, Bioelectronic, Piezoelectric, Cellular and Molecular Biosensors, Ben Prickril, Avraham Rasooly, Editor, Humana Press, New York, NY, New-York, pp.327-348, 2019

Refereed Congress / Symposium Publications in Proceedings

- I. **Wireless Readout System Modeling for Electrodeless QCM**
Sari A., Batur O. Z. , Kirimli C. E.
16th International Conference on Synthesis, Modeling, Analysis and Simulation Methods and Applications to Circuit Design (SMACD), Lausanne, Switzerland, 15 - 18 July 2019, pp.149-152
- II. **"Do It Yourself" Peristaltic Pump and Flowcell for QCM Biosensor**
Cetin I., Yilmaz G., Halilibrahimoglu H., Kirimli C. E.
21st National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 24 November - 26 December 2017

Patent

Kırımli C. E. , Piezoelectric Plate Sensor and Uses Thereof, Patent, CHAPTER A Human Needs, The Invention Registration Number: US2019/0120833 A1 , Initial Registration, 2019

Scientific Refereeing

TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, GEVHER MEDİKAL MÜHENDİSLİK VE ARGE DANIŞMANLIK TİCARET LİMİTED ŞİRKETİ, Turkey, April 2021

Citations

Total Citations (WOS):52

h-index (WOS):5

Invited Talks

Loop Mediated Isothermal Amplification and its Applications in Biosensors, Seminar, Orta Doğu Teknik Üniversitesi, Turkey, November 2020

Detection of trans-renal mutations by means of Piezoelectric Plate Sensor, Seminar, İstanbul Bilgi Üniversitesi, Turkey, December 2019

Early detection of Cancer by means of Piezoelectric Plate Sensor, Conference, Yıldız Teknik Üniversitesi, Turkey, November 2019

Representation and Promotion Activities

Institutional Promotion, İstanbul Atatürk Fen Lisesi, Turkey, İstanbul, 2020 - 2020