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### International Researcher IDs

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### Education Information

Postgraduate, Yildiz Technical University, Kimya Metalürji Fakültesi, Biyomühendislik, Turkey 2013 - 2016

### Foreign Languages

English, C1 Advanced

### Dissertations

Postgraduate, Bitki Hastalıklarının Tespiti İçin Kalsiyum Seçici Sensörlerin Kullanılabilirliğinin Araştırılması, Yıldız Teknik Üniversitesi, Kimya Metalürji Fakültesi, Biyomühendislik, 2016

### Research Areas

Sensors, Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Research Assistant, Yildiz Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Bioengineering, 2014 - Continues

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

- I. **Development and comparison of various rod-shaped mini-RE compositions based on Ag/AgCl for potentiometric applications**  
Nigde M., Ağır İ., Yıldırım R., Işıldak İ.  
The Analyst, vol.147, pp.516-526, 2022 (SCI-Expanded)
- II. **Internet of Things Implementation of Nitrate and Ammonium Sensors for Online Water Monitoring**

- AĞIR İ., YILDIRIM R., NİĞDE M., İŞILDAK İ.  
ANALYTICAL SCIENCES, vol.37, no.7, pp.971-976, 2021 (SCI-Expanded)
- III. **Influence of 4,4,4-Trifluoro-1-phenyl-1,3-butanedione on Selectivity of All-Solid-State Lithium Ion Electrode Prepared by Using 6,6-Dibenzyl-1,4,8-11-tetraoxacyclotetradecane as Ionophore and Its Application in Human Serum Analysis**  
YILDIRIM R., AĞIR İ., NİĞDE M., İŞILDAK İ.  
INTERNATIONAL JOURNAL OF ELECTROCHEMICAL SCIENCE, vol.15, no.11, pp.11468-11478, 2020 (SCI-Expanded)
- IV. **Coated Copper Wire Calcium Selective Microelectrode for Applications in Dental Medicine**  
Totu E. E., İşildak İ., Tavukcuoglu O., Ağır İ., Yıldırım R., Niğde M., Nechifor A. C., Cristache C. M.  
REVISTA DE CHIMIE, vol.69, pp.4113-4117, 2018 (SCI-Expanded)
- V. **Preliminary Studies on Citotoxicity and Genotoxicity Assessment of the PMMA-TiO<sub>2</sub> Nanocomposites for Stereolithographic Complete Dentures Manufacturing**  
TOTU E. E., CRISTACHE C. M., İŞILDAK İ., YILDIRIM R., BURLIBASA M., NİĞDE M., BURLIBASA L.  
REVISTA DE CHIMIE, vol.69, no.5, pp.1160-1165, 2018 (SCI-Expanded)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Assessment of the Dynamic Parameters of an Ion Selective Microsensor**  
Eftimie Totu E., İŞILDAK İ., Petre D. C., İşildak S., NİĞDE M., TAVUKÇUOĞLU Ö., YILDIRIM R., Totu T., AĞIR İ.  
Virtual Eurachem Workshop 2020—"Quality Assurance for Analytical Laboratories in the University Curriculum", Romania, 14 July 2020, no.13
- II. **Calcium Selective Microelectrode and Handy Measuring Device for Dental Applications**  
Tavukcuoglu Ö., Niğde M., Yıldırım R., Ağır İ., İşildak İ.  
1st International Conference on Preventive Medicine (1st ICPM), Antalya, Turkey, 12 - 14 November 2019, pp.104-109
- III. **Development of a Potentiometric Calcium Ion-Selective Microelectrode for Applications in Dental Medicine**  
İŞILDAK İ., Tavukcuoğlu Ö., NİĞDE M., YILDIRIM R., AĞIR İ.  
1st INTERNATIONAL CONGRESS on ANALYTICAL and BIOANALYTICAL CHEMISTRY, Antalya, Turkey, 27 March 2019, pp.243
- IV. **A portable proactive healthcare device employing disposable strip type Li-selective selective electrode and implementing internet of things**  
AĞIR İ., YILDIRIM R., NİĞDE M., İŞILDAK İ.  
1ST INTERNATIONAL CONFERENCE ON INNOVATIONS IN NATURAL SCIENCE AND ENGINEERING, Cyprus (Kktc), 3 - 06 January 2018
- V. **A DISPOSABLE STRIP TYPE LI-SELECTIVE SELECTIVE ELECTRODE AND PORTABLE PROACTIVE HEALTHCARE DEVICE IMPLEMENTING INTERNET OF THINGS**  
AĞIR İ., YILDIRIM R., NİĞDE M., İŞILDAK İ.  
6th INTERNATIONAL MOLECULAR BIOLOGY and BIOTECHNOLOGY CONGRESS(MOLBIOTECH), 22 - 25 December 2017, pp.85
- VI. **Simple and Fast 3D Printing Method for Fabrication of Ion Selective Sensor Arrays**  
YILDIRIM R., İŞILDAK İ., AĞIR İ., NİĞDE M.  
25th Annual International Conference on Composites and Nano Engineering, Roma, Italy, 16 July 2017, pp.254
- VII. **Development of a Micro Sized Salicylate Selective Electrode for Application in Plant Disease Management Early Detection of Pathogenic Infections in Tomato Plant**  
İŞILDAK İ., NİĞDE M., ÖZER T.  
2nd INTERNATIONAL TURKIC WORLD CONFERENCE ON CHEMICAL SCIENCES AND TECHNOLOGIES(2nd ITWCST), 26 - 30 October 2016
- VIII. **Development of Potentiometric Follow Up Device for Uremia and Phosphatemia**  
TAVUKÇUOĞLU Ö., YILDIRIM R., NİĞDE M., AĞIR İ., İŞILDAK İ.

2ndINTERNATIONAL TURKIC WORLDCONFERENCE ON CHEMICAL SCIENCES ANDTECHNOLOGIES(2ndITWCCST),  
26 - 30 October 2016

- IX. **Web of Things for Precision Hydroponic Agriculture Application of EC pH Nitrate Sensors**  
AĞIR İ., YILDIRIM R., TAVUKÇUOĞLU Ö., NİĞDE M., İŞILDAK İ.  
2ndINTERNATIONAL TURKIC WORLDCONFERENCE ON CHEMICAL SCIENCES ANDTECHNOLOGIES(2ndITWCCST),  
26 - 30 October 2016
- X. **Development of a potentiometric follow-up device for uremia and phosphatemia**  
TAVUKÇUOĞLU Ö., YILDIRIM R., NİĞDE M., AĞIR İ., İŞILDAK İ.  
International Turkic World Conference on Chemical Sciences and Technologies (ITWCCST 2016), Üsküp,  
Macedonia, 03 October 2016, pp.229
- XI. **Early detection and monitoring of abiotic plant stress by micro sized calcium selective electrode**  
NİĞDE M., AĞIR İ., YILDIRIM R., TAVUKÇUOĞLU Ö., İŞILDAK İ.  
International Turkic World Conference on Chemical Sciences and Technologies (ITWCCST 2016), Üsküp,  
Macedonia, 03 October 2016, pp.231
- XII. **Preparation of a novel micro sized lithium selective sensor and its application in biological samples**  
NİĞDE M., İŞILDAK İ., AĞIR İ., TAVUKÇUOĞLU Ö., YILDIRIM R.  
International Turkic World Conference on Chemical Sciences and Technologies (ITWCCST 2016), Üsküp,  
Macedonia, 03 October 2016, pp.227
- XIII. **Development of a micro sized salicylate selective electrode for application in plant disease management: Early detection of pathogenic infections in tomato plant**  
İŞILDAK İ., NİĞDE M., ÖZER T.  
International Turkic World Conference on Chemical Sciences and Technologies (ITWCCST 2016), Üsküp,  
Macedonia, 03 October 2016, pp.232
- XIV. **Mikroçipe Entegre Potansiyometrik Mikro Sensörler Kullanılarak Yaygın Anyon ve Katyonların FIA Sistemde Eşzamanlı Tayini**  
AĞIR İ., YILDIRIM R., NİĞDE M., TAVUKÇUOĞLU Ö., İŞILDAK İ.  
10. Ulusal Afinite Teknikleri Kongresi, Balıkesir, Turkey, 22 August 2016, pp.24-25
- XV. **Damar Görüntüleme Sprayi**  
İŞILDAK İ., ERCİ V., AĞIR İ., YILDIRIM R., Tavukçuoğlu Ö., NİĞDE M., CEMEK M.  
YTÜ Teknoloji Transfer Ofisi 'İlk Işım Girişim' Endüstriyel Rekabetçilik Proje Pazarı, Turkey, 28 - 30 May 2015
- XVI. **A novel pH detector for the determination of anions in suppressed ion chromatography**  
ERCİ F., NİĞDE M., YILDIRIM R., ATTAR A., AĞIR İ., Tavukçuoğlu Ö., İŞILDAK İ.  
Bioeng'14 International Bioengineering Conference, 30 November - 02 December 2014
- XVII. **Solid-state membrane phosphate sensors for selective detection of phosphate in soil extractants**  
TAVUKÇUOĞLU Ö., YILDIRIM R., NİĞDE M., ERCİ F., İŞILDAK İ.  
International Bioengineering Conference (BIOENG'14), İstanbul, Turkey, 01 November 2014, pp.349
- XVIII. **A novel all solid-contact PVC membrane Cu(II)-selective sensor based on 4-benzylpiperidine dithiocarbamate**  
ÖZER T., YILDIRIM R., NİĞDE M., JAHAN I., İŞILDAK İ.  
International Bioengineering Conference (BIOENG'14), İstanbul, Turkey, 01 November 2014, pp.351
- XIX. **A micro-sized Ca<sup>2+</sup>-selective sensor embeded into plant body for screening of calcium levels under unfavorable conditions**  
AĞIR İ., YILDIRIM R., JAHAN I., NİĞDE M., İŞILDAK İ.  
International Bioengineering Conference (BIOENG'14), İstanbul, Turkey, 01 November 2014, pp.347
- XX. **Novel Anode and Cathode Electrodes with Improved Properties for MFC**  
AĞIR İ., YILDIRIM R., NİĞDE M., İŞILDAK İ.  
International Symposium On Sustainable Development (ISSD), Saraybosna, Bosnia And Herzegovina, 15 May 2014,  
pp.134
- XXI. **A Novel Micro-Sized Lithium-Selective Sensor with Quite Improved Selectivity and Its Direct Use in Biological Samples.**  
ALTIKATOĞLU YAPAÖZ M., ATTAR A., NİĞDE M., AĞIR İ., İŞILDAK İ.

## Supported Projects

Işıldak İ., Özçimen D., Yıldırım R., Niğde M., Özer T., Ağır İ., Çakır Koç R., TAGEM Tarımsal Araştırmalar ve Politikalar Genel Müdürlüğü Projesi, Tarımsal Uygulamalarda Makro Besin Elementleri Okuma Sistemi, 2019 - 2022

Işıldak İ., Yıldırım R., Niğde M., Ağır İ., TUBITAK Project, Innovative Technology For Assessing The Periodontal Disease And New Periodontitis Treatment Based On Hyaluronic Acid And Melatonin, 2018 - 2020

Işıldak İ., Niğde M., Yıldırım R., Ağır İ., TUBITAK Project, Fosfatemi Ve Üremi Takip Cihazının Son Tasarımı, Mass Üretim Yönteminin Geliştirilmesi, Standart Ve Gerçek Örneklerde Kalibrasyonu Ve Validasyonu Testleri, 2017 - 2020

Işıldak İ., Yıldırım R., Niğde M., Ağır İ., TUBITAK Project, Stereolithographic Technique For Complete Denture Fabrication, 2016 - 2018

Işıldak İ., Niğde M., Ağır İ., Tavukçuoğlu Ö., TUBITAK Project, DİYALİZ HASTALARI İÇİN TAŞINABİLİR FOSFAT ÜRE VE PH ÖLÇÜM SİSTEMİNİN ÜRETİLMESİ, 2014 - 2016

Yıldırım R., Niğde M., Işıldak İ., Özer T., TAGEM Tarımsal Araştırmalar ve Politikalar Genel Müdürlüğü Projesi, Seralarda Bitki Hastalıklarının Erken Tespiti için Kalsiyum ve Salisilik Asit Seçici Sensörlerin Geliştirilmesi ve Uygulanması, 2014 - 2016

Özçimen D., Bilgili M. S., Yıldırım R., Işıldak İ., Niğde M., Development Agency, Farklı Atık Su Kaynakları Kullanılarak Yeni ve Etkin Mikroalg Yetiştirme Sistemi Tasarımı ve Biyoyakıt Üretimi (İSTKA), 2014 - 2015

## Patent

Işıldak İ., Tavukçuoğlu Ö., Niğde M., Yıldırım R., Ağır İ., A UREA, PHOSPHATE AND PH MEASURING DEVICE, Patent, CHAPTER A Human Needs, The Invention Registration Number: EP3346907 , Standard Registration, 2020

Yıldırım R., Niğde M., BİR ÜRE, FOSFAT VE PH ÖLÇÜM CİHAZI, Patent, CHAPTER A Human Needs, The Invention Recourse Number: 2015/11075 , Standard Registration, 2015

## Metrics

Publication: 26

Citation (WoS): 17

Citation (Scopus): 24

H-Index (WoS): 2

H-Index (Scopus): 2

## Awards

Işıldak İ., Niğde M., Yıldırım R., Ağır İ., Tavukçuoğlu Ö., Taşınabilir Üremi ve Fosfatemi Takip Cihazı, Yıldız Teknik Üniversitesi Teknoloji Transfer Ofisi, May 2015