

## Prof. ORHAN ACAR

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAW-5955-2020

ScopusID: 56228021300

Yoksis Researcher ID: 12267

### Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Kimya (Dr), Turkey 1990 - 1996

Postgraduate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Makine Mühendisliği (YI) (Tezli), Turkey 1985 - 1988

Undergraduate, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Chemistry, Turkey 1980 - 1985

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Bizmut, indiyum, kurşun ve antimonun etasas ile tayinlerinde uygun ortam düzenleyici madde sisteminin araştırılması, Gazi University, Fen Bilimleri Enstitüsü, Kimya (Dr), 1996

Postgraduate, Determination of rare earth elements in Beylikahır thorium deposits by neutron activation analysis technique, Middle East Technical University, Analiz ve Fonksiyonlar Teorisi, Makine Mühendisliği (YI) (Tezli), 1988

### Research Areas

Atomic and Molecular Spectroscopy, Separation Methods, Food Analysis, Radiochemical Methods

### Academic Titles / Tasks

Professor, Gazi University, Fen Fakültesi, Kimya, 2013 - Continues

Professor, Gazi University, Atatürk Meslek Yüksekokulu, Kimya ve Kimyasal İşleme Teknolojileri, 2007 - 2013

Research Assistant, Dicle University, Faculty Of Science, Department Of Chemistry, 1990 - 1991

Research Assistant, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Chemistry, 1986 - 1990

## Academic and Administrative Experience

Gazi University, Fen Fakültesi, 2017 - Continues

Gazi University, Fen Fakültesi, 2016 - 2017

## Advising Theses

ACAR O., Determination Of Trace Element In Boron Minerals, Postgraduate, A.TÜRKER(Student), 2020

ACAR O., Determination Of Trace Elements In Some Medicinal Device Samples Produced From Plastic Materials And Interacting With Human Body, Postgraduate, M.ELCAN(Student), 2019

ACAR O., Determination Of Cadmium, Tin, Iron, Copper And Zinc By Electrothermal And Flame Atomic Absorption Spectrometers In Biological And Environmental Samples, Postgraduate, R.ŞANKAZAN(Student), 2019

ACAR O., Biyolojik ve çevre örneklerinde elektrotermal ve alevli atomik absorpsiyon spektrometreleri ile kadmiyum, kalay, demir, bakır ve çinko tayinleri, Postgraduate, R.ŞANKAZAN(Student), 2019

ACAR O., Elektrotermal atomik absorpsiyon spektrometresi ile farklı gıda numunelerinde Cd ve Se tayinleri, Postgraduate, T.NUR(Student), 2018

ACAR O., Determination Of Cadmium And Selenium In Various Food Samples By Electrothermal Atomic Absorption Spectrometry, Postgraduate, T.Nur(Student), 2018

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

- I. **Evaluation of radioactivity and stable element contents in dam and drinking waters from Ankara province, Türkiye**  
ACAR O., Yakupoglu O., TÜRKER A., Etioglu G.  
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.333, no.10, pp.4639-4649, 2024 (SCI-Expanded)
- II. **A realistic approach to radiation-induced treatment of micropollutants in wastewater**  
Genç A., Ergun E., Kantoğlu Ö., İnce M., ACAR O.  
Chemical Papers, vol.78, no.3, pp.1415-1434, 2024 (SCI-Expanded)
- III. **The use of chemical modifiers in electrothermal atomic absorption spectrometry**  
ACAR O.  
Applied Spectroscopy Reviews, vol.59, no.3, pp.340-354, 2024 (SCI-Expanded)
- IV. **Determination of pesticide residues in varieties of pepper sold at different periods and provinces in Turkey and investigation of their adverse effects on human health and the environment**  
Aktaş Ş., Aminzai M. T., Tegin İ., Yabalak E., ACAR O.  
International Journal of Environmental Health Research, vol.34, no.6, pp.2491-2503, 2024 (SCI-Expanded)
- V. **The chemometric study of multi-elemental composition in cultivated rhubarb from Iraq Kurdish Region and Türkiye Siirt**  
TEĞİN İ., Fattah B. M., CANPOLAT G., ACAR O.  
INTERNATIONAL JOURNAL OF ENVIRONMENTAL ANALYTICAL CHEMISTRY, 2023 (SCI-Expanded)
- VI. **Determination of Cadmium and Selenium in Food Samples by Electrothermal Atomic Absorption Spectrometry using Ni plus Pt Modifier Mixture**  
Akbaba T. N., Aacar O.  
JOURNAL OF ANALYTICAL CHEMISTRY, vol.77, no.5, pp.555-562, 2022 (SCI-Expanded)
- VII. **Adsorption isotherms, kinetic and thermodynamic studies on cadmium and lead ions from water solutions using Amberlyst 15 resin**  
TUNCELİ A., Ulaş A., ACAR O., Türker A. R.  
Turkish Journal of Chemistry, vol.46, no.1, pp.193-205, 2022 (SCI-Expanded)
- VIII. **Investigation of cadmium and lead contents of boron minerals and boron waste by electrothermal atomic absorption spectrometer**  
TÜRKER A., ACAR O.  
Journal of the Iranian Chemical Society, vol.18, pp.1607-1612, 2021 (SCI-Expanded)

- IX. **Determination of total and extractable amount of aluminum, copper, zinc, and lead in surgical suture threads by electrothermal atomic absorption spectrometry**  
Elcan M., Erdogan H., ACAR O.  
SPECTROSCOPY LETTERS, vol.54, no.2, pp.140-150, 2021 (SCI-Expanded)
- X. **Solid Phase Extraction of Cadmium and Lead from Water by Amberlyst 15 and Determination by Flame Atomic Absorption Spectrometry**  
Tunceli A., Ulas A., ACAR O., Turker A. R.  
BULLETIN OF ENVIRONMENTAL CONTAMINATION AND TOXICOLOGY, vol.102, no.2, pp.297-302, 2019 (SCI-Expanded)
- XI. **Assessment of gross alpha and beta activity levels and element concentrations in spa waters from Siirt and AA +/- rnak, Turkey**  
Tegin B., Yolbas I., ACAR O.  
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.311, no.1, pp.109-119, 2017 (SCI-Expanded)
- XII. **Comparison of Wet and Microwave Digestion Methods for the Determination of Copper, Iron and Zinc in Some Food Samples by FAAS**  
ACAR O., Tunceli A., Turker A. R.  
FOOD ANALYTICAL METHODS, vol.9, no.11, pp.3201-3208, 2016 (SCI-Expanded)
- XIII. **Development of a method for speciation of inorganic arsenic in waters using solid phase extraction and electrothermal atomic absorption spectrometry**  
Tunceli A., Ocak G., ACAR O., Turker A. R.  
INTERNATIONAL JOURNAL OF ENVIRONMENTAL ANALYTICAL CHEMISTRY, vol.95, no.14, pp.1395-1411, 2015 (SCI-Expanded)
- XIV. **Assessment of arsenic, chromium, copper and manganese determination in thermal spring waters by electrothermal atomic absorption spectrometry using various chemical modifiers**  
ACAR O., KALFA O. M., YALÇINKAYA Ö., Turker A. R.  
ANALYTICAL METHODS, vol.5, no.3, pp.748-754, 2013 (SCI-Expanded)
- XV. **Determination and evaluation of gross alpha and beta activity concentrations and metal levels in thermal waters from Ankara, Turkey**  
ACAR O., KALFA O. M., YALÇINKAYA Ö., Turker A. R.  
TURKISH JOURNAL OF CHEMISTRY, vol.37, no.5, pp.805-811, 2013 (SCI-Expanded)
- XVI. **Evaluation of cadmium, lead, copper, iron and zinc in Turkish dietary vegetable oils and olives using electrothermal and flame atomic absorption spectrometry**  
Acar O.  
GRASAS Y ACEITES, vol.63, no.4, pp.383-393, 2012 (SCI-Expanded)
- XVII. **Evaluation of Activation Energies for Cadmium Atomization on Different Atomizer Surfaces and Modifier Solutions in Electrothermal Atomic Absorption Spectrometry**  
ACAR O., KALFA O. M., YALÇINKAYA Ö., Turker A. R.  
SPECTROSCOPY LETTERS, vol.45, no.5, pp.315-323, 2012 (SCI-Expanded)
- XVIII. **Flame atomic absorption spectrometric determination of iron, magnesium, strontium and zinc in human teeth using La+K mixture**  
ACAR O., Tuerker A. R., Kilic Z.  
ACTA CHIMICA SLOVENICA, vol.55, no.2, pp.462-467, 2008 (SCI-Expanded)
- XIX. **Cadmium, lead, copper and manganese determination in human deciduous teeth by electrothermal atomic absorption spectrometry using a lanthanum, palladium and citric acid mixture as chemical modifier**  
ACAR O., Ilim M., Kilic Z., Turker R.  
INTERNATIONAL JOURNAL OF ENVIRONMENTAL ANALYTICAL CHEMISTRY, vol.88, no.12, pp.869-878, 2008 (SCI-Expanded)
- XX. **Removal of silver (I) from aqueous solutions with clinoptilolite**  
Akgül M., Karabakan A., ACAR O., Yürüm Y.  
Microporous and Mesoporous Materials, vol.94, no.1-3, pp.99-104, 2006 (SCI-Expanded)

- XXI. **Determination of cadmium, chromium, copper and lead in sediments and soil samples by electrothermal atomic absorption spectrometry using zirconium containing chemical modifiers**  
ACAR O.  
Analytical Sciences, vol.22, no.5, pp.731-735, 2006 (SCI-Expanded)
- XXII. **Determination of cadmium, copper, iron, manganese, lead and zinc in lichens and botanic samples by electrothermal and flame atomic absorption spectrometry**  
ACAR O., Özvatan S., İlim M.  
Turkish Journal of Chemistry, vol.29, no.4, pp.335-344, 2005 (SCI-Expanded)
- XXIII. **Determination of cadmium, copper and lead in soils, sediments and sea water samples by ETAAS using a Sc + Pd + NH<sub>4</sub>NO<sub>3</sub> chemical modifier**  
ACAR O.  
Talanta, vol.65, no.3, pp.672-677, 2005 (SCI-Expanded)
- XXIV. **Determination of lead, copper, manganese and zinc in botanic and other biological samples by electrothermal atomic absorption spectrometry using scandium-containing chemical modifiers**  
ACAR O.  
Analytica Chimica Acta, vol.526, no.1, pp.103-109, 2004 (SCI-Expanded)
- XXV. **Determination of <sup>90</sup>Sr accumulation in human teeth**  
Acar R., ACAR O.  
Turkish Journal of Chemistry, vol.28, no.1, pp.67-74, 2004 (SCI-Expanded)
- XXVI. **Establishment of a quality system for nuclear analytical laboratories**  
Arikan P., ACAR O., Acar R., Aycik G., Cetiner M., Demirel H., Efe N., Golge T., Gurellier R., Kirmaz R., et al.  
Journal of Radioanalytical and Nuclear Chemistry, vol.259, no.3, pp.391-394, 2004 (SCI-Expanded)
- XXVII. **Determination of lead and copper in chewing gum samples by electrothermal-flame atomic absorption spectrometry using various chemical modifiers and arsenic by hydride generation**  
Kilic Z., Kenduzler E., Acar O.  
FOOD CHEMISTRY, vol.77, no.1, pp.85-92, 2002 (SCI-Expanded)
- XXVIII. **Determination of lead, copper, zinc, magnesium, calcium and iron in fresh eggs by atomic absorption spectrometry**  
Kilic Z., Acar O., Ulasan M., İlim M.  
FOOD CHEMISTRY, vol.76, no.1, pp.107-116, 2002 (SCI-Expanded)
- XXIX. **Determination of heavy metal contents in human colostrum samples by electrothermal atomic absorption spectrophotometry**  
Turan S., Saygi S., Kilic O.  
JOURNAL OF TROPICAL PEDIATRICS, vol.47, no.2, pp.81-85, 2001 (SCI-Expanded)
- XXX. **Determination of bismuth, indium and lead in spiked sea water by electrothermal atomic absorption spectrometry using tungsten containing chemical modifiers**  
Acar O., Turker A., Kilic Z.  
SPECTROCHIMICA ACTA PART B-ATOMIC SPECTROSCOPY, vol.55, no.10, pp.1635-1641, 2000 (SCI-Expanded)
- XXXI. **Determination of lead in cookies by electrothermal atomic absorption spectrometry with various chemical modifiers**  
Acar O., Kilic Z., Turker A.  
FOOD CHEMISTRY, vol.71, no.1, pp.117-122, 2000 (SCI-Expanded)
- XXXII. **Direct determination of bismuth, indium and lead in sea water by Zeeman ETAAS using molybdenum containing chemical modifiers**  
Acar O., Turker A., Kilic Z.  
TALANTA, vol.49, no.1, pp.135-142, 1999 (SCI-Expanded)
- XXXIII. **Determination of bismuth, indium and lead in geological and sea-water samples by electrothermal atomic absorption spectrometry with nickel-containing chemical modifiers**  
Acar O., Kilic Z., Turker A.  
ANALYTICA CHIMICA ACTA, vol.382, no.3, pp.329-338, 1999 (SCI-Expanded)
- XXXIV. **Determination of bismuth, indium and lead in geological samples by electrothermal AAS Part 2.**

### **Comparative study of palladium and molybdenum containing chemical modifiers**

Acar O., Turker A., Kilic Z.

FRESENIUS JOURNAL OF ANALYTICAL CHEMISTRY, vol.360, no.6, pp.645-649, 1998 (SCI-Expanded)

XXXV. **Determination of bismuth and lead in geological samples by electrothermal AAS .1. Comparative study of tungsten containing chemical modifiers**

Acar O., Turker A., Kilic Z.

FRESENIUS JOURNAL OF ANALYTICAL CHEMISTRY, vol.357, no.6, pp.656-660, 1997 (SCI-Expanded)

### **Articles Published in Other Journals**

- I. **Preconcentration and determination of Cu(II) and Cd(II) ions from wastewaters by using hazelnut shell biosorbent immobilized on Amberlite XAD-4 resin**  
Acar O., Teğın İ., Erol K., Alacabey İ., Akdeniz S.  
Manas Journal of Engineering, vol.11, no.2, pp.177-189, 2023 (Peer-Reviewed Journal)
- II. **MİTRAL KAPAK KALSİYUM DÜZEYİNİN DOKU KAREKTERİZASYON YÖNTEMİ İLE DEĞERLENDİRİLMESİ**  
Kocatürk H., Gürlertop H. Y., Acar O., Ceviz M.  
Atatürk Üniversitesi Tıp Fakültesi Cerrahi Tıp Bilimleri Dergisi, vol.2, no.1, pp.13-21, 2023 (Peer-Reviewed Journal)
- III. **Determinations of Cadmium, Tin, Copper, Iron, and Zinc in Food Samples by Electrothermal and Flame Atomic Absorption Spectrometries**  
ACAR O., Sankazan Dokumaci R., YALÇINKAYA Ö.  
Gazi University Journal of Science, vol.36, no.1, pp.96-106, 2023 (Scopus)
- IV. **Determination of Zinc, Copper, Iron, Nickel, Chromium, Cadmium and Lead in Milk Samples by Flame and Electrothermal Atomic Absorption Spectrometers**  
Türker A., Acar O.  
Records of Agricultural and Food Chemistry, vol.2, no.2, pp.94-102, 2022 (Peer-Reviewed Journal)
- V. **Kolemanit, tinkal, üleksit ve bor atığında atomik absorpsiyon spektroskopisi yöntemi ile Fe, Ni, Co ve Zn eser elementlerinin tayini**  
Türker A., Acar O.  
BOR DERGİSİ, vol.5, no.4, pp.176-182, 2020 (Peer-Reviewed Journal)
- VI. **Determination of radioactivity and element levels of saline waters from Siirt region, Turkey**  
ACAR O., TEĞİN İ.  
Turkish Journal of Nuclear Science, vol.31, no.2, pp.118-132, 2019 (Peer-Reviewed Journal)
- VII. **Determination and assessment of metal levels in thermal waters**  
ACAR O., KALFA O. M., YALÇINKAYA Ö., TÜRKER A. R.  
Gazi University Journal of Science, vol.27, no.2, pp.785-794, 2014 (Scopus)
- VIII. **Determination of lead, copper, iron and zinc levels in fruit jams, nectars, juices and beverages by electrothermal and flame atomic absorption spectrometry**  
ACAR O.  
Eurasian Journal of Analytical Chemistry, vol.6, no.2, pp.114-128, 2011 (Scopus)
- IX. **Calcium magnesium iron zinc cadmium lead copper and chromium determinations in brown meagre Sciaena Umbra bone stone by flame and electrothermal atomic absorption spectrometry**  
ACAR O., KALFA O. M., YALÇINKAYA Ö., TÜRKER A. R.  
Gazi University Journal of Science, vol.23, no.1, pp.41-48, 2010 (Scopus)

### **Books & Book Chapters**

- I. **Occupational Health and Safety for the 21st Century**  
Türker A., İnam M. G., İlhan M. N., İnam O., Acar O., Yalçinkaya Ö., Çetintepe S. P., Türker A. R. (Editor)

Palme, Ankara, 2020

**II. ASİTLER VE BAZLAR**

ACAR O.

in: Öğrenciler için Problem Çözümleri Genel Kimya, RECAİ İNAM, SERPİL AKSOY, Editor, PALME YAYINCILIK, Ankara, pp.401-437, 2015

**III. NOTLAR VE KAYNAKLAR**

ACAR O.

in: Nicel Kimyasal Analiz, Ali Rehber Türker, Editor, Palme Yayıncılık, Ankara, pp.821-844, 2015

**IV. ANA BAŞLIKLAR VE İÇİNDEKİLER**

ACAR O.

in: Nicel Kimyasal Analiz, Ali Rehber TÜRKER, Editor, PALME YAYINCILIK, Ankara, pp.1-11, 2015

**V. Ç1, YA1**

ŞENDİL O., Tunçeli A., KENAR A., ÖZCAN A., UYANIK A., SOLAK A. O., DEMİR C., ARPA ŞAHİN Ç., KENDÜZLER E., AYRANCI E., et al.

in: Nicel Kimyasal Analiz, Ali Rehber Türker, Editor, PALME, Ankara, pp.1-31, 2015

**VI. Ekler**

Tümtürk H., Menzek A., Tunçeli A., Aktan E., Sevin Düz F., Ünal H. İ., Yekeler H., Kıran İ., Aksu M. L., Pulat M., et al.

in: Genel Kimya Öğrenciler İçin Problem Çözümleri, Recai İnam, Serpil Aksoy, Editor, Palme Yayıncılık, Ankara, pp.300-320, 2015

## **Refereed Congress / Symposium Publications in Proceedings**

**I. Atomik Absorpsiyon Spektroskopisi ile Bor Minerallerinde ve Bor Atığında Eser Element Tayini**

ACAR O., TÜRKER A.

XVI. Ulusal Spektroskopi Kongresi, Turkey, 7 - 08 November 2019

**II. Emilebilir ve Emilemeyen Türdeki Cerrahi İpliklerde Bazı Metal Türlerinin Tayini İçin Yöntem Geliştirilmesi**

ELCAN M., ERDOĞAN H., ACAR O.

International Euroasian Conference on Biological and Chemical Sciences, Ankara, Turkey, 26 - 27 April 2018

**III. CHARACTERIZATION AND IMMOBILIZED OF COPPER AND CADMIUM MIXTURE FORMED WITH NUTSHELL AND AMBERLITE XAD-4**

ACAR O., TEĞİN İ., ALACABEY I., AAKDENİZ S.

INTERNATIONAL CONGRESS OF HEALTH AND ENVIRONMENT (ICOHE 2017), Adana, Turkey, 23 - 25 October 2017

**IV. Determination of Cadmium and Selenium in Food Samples by Electrothermal Atomic Absorption Spectrometry**

ACAR O., TÜRKER A. R., AKBABA T. N.

International Congress of Chemistry and Materials Science (ANCON 2017), Ankara, Turkey, 5 - 07 October 2017

**V. Kadmiyum ve kurşunun katı faz özütlemesi ile zenginleştirilmesi ve alevli atomik absorpsiyon spektroskopisi ile tayini**

TUNÇELİ A., ULAŞ A., ACAR O., TÜRKER A. R.

XIV. Spektroskopi Kongresi, ELAZIĞ, Elazığ, Turkey, 28 - 31 May 2015, vol.1

**VI. KADMİYUM VE KURŞUNUN AMBERLYST 15 İLE ADSORPSİYONU ADSORPSİYON İZOTERMLERİ ADSORPSİYON KİNETİĞİ VE TERMODİNAMİK ÖZELLİKLER**

TUNÇELİ A., ULAŞ A., ACAR O., TÜRKER A. R.

XIV. SPEKTROSKOPİ KONGRESİ, ELAZIĞ, Elazığ, Turkey, 28 - 31 May 2015, vol.1, pp.65

## **Supported Projects**

ACAR O., Project Supported by Higher Education Institutions, Grafit fırınlı atomik absorpsiyon spektrometresi ile ortam düzenleyici varlığında kadmiyum, kurşun, krom, çınko, bakır ve mangan elementlerinin aktivasyon enerjilerinin ve tepkime derecelerinin belirlenmesi, 2009 - 2012

ACAR O., Project Supported by Higher Education Institutions, Alevli ve Elektrotermal Atomik Absorpsiyon Spektrometre (AAS) İle Ankara Çevresi Kaplıca Sularında Kadmiyum, Kurşun, Arsenik, Civa, Krom, Bakır ve Mangan Tayinleri, 2008 - 2011

## **Metrics**

Publication: 59

Citation (WoS): 398

Citation (Scopus): 700

H-Index (WoS): 12

H-Index (Scopus): 15

## **Non Academic Experience**

Türkiye Atom Enerjisi Kurumu

DİCLE ÜNİVERSİTESİ

ORTA DOĞU TEKNİK ÜNİVERSİTESİ