

## Prof. Dr. ADİL ELİK

### Kişisel Bilgiler

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Yoksis Araştırmacı ID: 53992

### Eğitim Bilgileri

Doktora, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Kimya Bölümü, Türkiye 1990 - 1995

Yüksek Lisans, Sivas Cumhuriyet Üniversitesi, Fen-Edebiyat Fakültesi, Kimya Pr., Türkiye 1987 - 1990

Lisans, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Kimya Bölümü, Türkiye 1982 - 1986

### Yaptığı Tezler

Doktora, Çevresel ağır metal kirliliğinin izlenmesinde yeni bir örnek hazırlama yaklaşımı: Ultrasonik leaching, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Kimya Bölümü, 1995

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### Araştırma Alanları

Tarımsal Bilimler, Temel Bilimler

### Akademik Unvanlar / Görevler

Prof. Dr., Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Kimya Bölümü, 2023 - Devam Ediyor

Doç. Dr., Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Kimya Bölümü, 2019 - 2023

Dr. Öğr. Üyesi, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Kimya Bölümü, 1997 - 2019

Araştırma Görevlisi, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Kimya Bölümü, 1987 - 1997

### Akademik İdari Deneyim

Üniversite Yönetim Kurulu Üyesi, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Kimya Bölümü, 2024 - Devam Ediyor

Anabilim Dalı Akademik Kurul Üyesi, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Kimya Bölümü, 2020 - Devam Ediyor

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Rektörlüğe Bağlı Birim Başkanı, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Kimya Bölümü, 2017 - Devam Ediyor

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BAP Bilimsel Komisyon Üyesi, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Kimya Bölümü, 2017 - 2019

## Verdiği Dersler

Elemental Analiz için Atomik Spektroskopi-I, Doktora, 2018 - 2019  
Gerçek Numunelerin Analizi, Yüksek Lisans, 2019 - 2020  
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## Yönetilen Tezler

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## SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **A deep eutectic solvent-based microextraction method for the extraction of Erythrosine from complex samples: statistical approach**  
FESLİYAN S., ELİK A.  
Journal of Food Composition and Analysis, cilt.135, 2024 (SCI-Expanded)
- II. **Optimization of vortex-assisted supramolecular solvent-based liquid liquid microextraction for the determination of mercury in real water and food samples**  
Lanjwani M. F., ELİK A., Altunay A. Ö., Tuzen M., Haq H. U., Boczkaj G.  
Journal of Food Composition and Analysis, cilt.134, 2024 (SCI-Expanded)
- III. **Investigation of ternary hydrophobic magnetic deep eutectic solvents for the selective extraction of acrylamide from processed food samples: Ultrasonic-assisted dispersive liquid-liquid microextraction and chemometric optimization**  
ELİK A., Ul Haq H., FESLİYAN S., ALTUNAY N.

Journal of Molecular Liquids, cilt.411, 2024 (SCI-Expanded)

- IV. **Development of an orbital shaker-assisted fatty acid-based switchable solvent microextraction procedure for rapid and green extraction of amoxicillin from complex matrices: Central composite design**  
ELİK A., Demirkol Y., Ul Haq H., Boczkaj G., Sanaullah S., ALTUNAY N.  
Food Chemistry, cilt.454, 2024 (SCI-Expanded)
- V. **Investigation of use of hydrophilic/hydrophobic NADESs for selective extraction of As(III) and Sb(III) ions in vegetable samples: Air assisted liquid phase microextraction and chemometric optimization**  
ELİK A., Doğan B., DEMİRBAŞ A., Haq H. U., Sanaullah S., ALTUNAY N.  
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- VI. **Optimization of deep eutectic solvent based ultrasonic assisted microextraction for determination of zearalenone residues in foods**  
ELİK A., ALTUNAY N.  
Journal of Food Composition and Analysis, cilt.132, 2024 (SCI-Expanded)
- VII. **Development of a vortex-assisted switchable-hydrophilicity solvent-based liquid phase microextraction for fast and reliable extraction of Zn (II), Fe (II), Pb (II), and Cd (II) from various baby food products**  
Ul Haq H., ELİK A., Isci G., Ekici M., GÜR SOY N., Boczkaj G., ALTUNAY N.  
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- VIII. **Rapid and safe determination of vitamin B1 in dairy products, fruits, nuts and vitamin tablets: Combination of natural deep eutectic solvents, experimental design and artificial intelligence**  
YÜKSEK A. G., ELİK A., ALTUNAY N.  
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- IX. **Preparation and investigation of green and cheap deep eutectic solvents for determination of essential and toxic metal ions at trace levels in different coffee products**  
ELİK A., ALTUNAY N.  
Sustainable Chemistry and Pharmacy, cilt.39, 2024 (SCI-Expanded)
- X. **Sensitive method for determination of benzoic acid in beverages and food samples using air-assisted hydrophobic deep eutectic solvent-based dispersive liquid-liquid microextraction**  
ALTUNAY N., Lanjwani M. F., Haq H. U., Tuzen M., ELİK A.  
Sustainable Chemistry and Pharmacy, cilt.38, 2024 (SCI-Expanded)
- XI. **Sustainable vortex assisted liquid phase microextraction based on fatty acid switchable solvent for selective and accurate analysis of manganese in food samples**  
ELİK A., GÜR SOY N., ALTUNAY N.  
Chemical Papers, cilt.78, sa.5, ss.3261-3272, 2024 (SCI-Expanded)
- XII. **Magnetic hydrophobic deep eutectic solvents for orbital shaker-assisted dispersive liquid-liquid microextraction (MAGDES-OS-DLLME) - Determination of nickel and copper in food and water samples by FAAS**  
ELİK A., Haq H. U., Boczkaj G., FESLİYAN S., Ablak Ö., ALTUNAY N.  
Journal of Food Composition and Analysis, cilt.125, 2024 (SCI-Expanded)
- XIII. **Combination of homogeneous liquid-liquid extraction and vortex assisted dispersive liquid-liquid microextraction for the extraction and analysis of ochratoxin A in dried fruit samples: Central composite design optimization**  
ELİK A., Ablak Ö., Haq H. U., Boczkaj G., ALTUNAY N.  
Journal of Food Composition and Analysis, cilt.124, 2023 (SCI-Expanded)
- XIV. **Application of chemometric modeling for ionic liquid-based ultrasonic-assisted dispersive liquid-liquid microextraction: Analysis of fosetyl-aluminum in fruit and vegetable samples**  
Haq H. U., ELİK A., DURUKAN H., SARAÇ H., DEMİRBAŞ A., Boczkaj G., GÜR SOY N., ALTUNAY N.  
Journal of Food Composition and Analysis, cilt.124, 2023 (SCI-Expanded)
- XV. **An air-assisted dispersive liquid phase microextraction method based on a hydrophobic magnetic**

**deep eutectic solvent for the extraction and preconcentration of melamine from milk and milk-based products**

ELİK A., FESLİYAN S., GÜRSOY N., Haq H. U., Castro-Muñoz R., ALTUNAY N.

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- XVI. **Ultrasound-assisted dispersive liquid-liquid microextraction based on solidification of floating organic drop for analysis of propineb in water and food samples: Experimental modeling**  
ELİK A., ALTUNAY N.  
Sustainable Chemistry and Pharmacy, cilt.35, 2023 (SCI-Expanded)
- XVII. **A new ultrasound-assisted liquid-liquid microextraction method utilizing a switchable hydrophilicity solvent for spectrophotometric determination of nitrite in food samples**  
ELİK A., Altunay A. Ö., Lanjwani M. F., Tuzen M.  
Journal of Food Composition and Analysis, cilt.119, 2023 (SCI-Expanded)
- XVIII. **Optimization of vortex-assisted switchable hydrophilicity solvent liquid phase microextraction for the selective extraction of vanillin in different matrices prior to spectrophotometric analysis**  
ELİK A., ALTUNAY N.  
Food Chemistry, cilt.399, 2023 (SCI-Expanded)
- XIX. **Determination and extraction of acrylamide in processed food samples using alkanol-based supramolecular solvent-assisted dispersive liquid-liquid microextraction coupled with spectrophotometer: Optimization using factorial design**  
ALTUNAY N., ELİK A., Tuzen M., Lanjwani M. F., Mogaddam M. R. A.  
Journal of Food Composition and Analysis, cilt.115, 2023 (SCI-Expanded)
- XX. **Application of levulinic acid-based natural deep eutectic solvents for extraction and determination of deltamethrin in food samples**  
ELİK A., DURUKAN H., SARAÇ H., DEMİRBAŞ A., ALTUNAY N.  
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- XXI. **Investigation of the applicability of fatty acid-based deep eutectic solvent based air assisted liquid liquid microextraction for the rapid determination and extraction of butylparaben in cosmetic products**  
Altunay A. Ö., ELİK A.  
Sustainable Chemistry and Pharmacy, cilt.30, 2022 (SCI-Expanded)
- XXII. **Synthesized of poly(vinyl benzyl dithiocarbonate-dimethyl amino ethyl methacrylate) block copolymer as adsorbent for the vortex-assisted dispersive solid phase microextraction of patulin from apple products and dried fruits**  
TÜZEN M., Hazer B., ELİK A., ALTUNAY N.  
FOOD CHEMISTRY, cilt.395, 2022 (SCI-Expanded)
- XXIII. **Synthesized of a novel xanthate functionalized polypropylene as adsorbent for dispersive solid phase microextraction of caffeine using orbital shaker in mixed beverage matrices**  
Altunay N., Tuzen M., Hazer B., Elik A.  
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- XXIV. **Application of a new dithizone grafted polymeric adsorbent for solid phase microextraction of manganese and copper prior to FAAS in fortified vegetables and barbecue samples**  
Ulusoy S., Demirbaş A., Elik A., Altunay N., Sarp G., Yilmaz E., Ulusoy H. İ.  
CHEMICAL PAPERS, cilt.76, sa.10, ss.6153-6165, 2022 (SCI-Expanded)
- XXV. **Vortex assisted magnetic ionic liquid based dispersive liquid-liquid microextraction approach for determination of metribuzin in some plant samples with UV-Vis spectrophotometer**  
ELİK A., SARAÇ H., DURUKAN H., DEMİRBAŞ A., ALTUNAY N.  
MICROCHEMICAL JOURNAL, cilt.181, 2022 (SCI-Expanded)
- XXVI. **A novel sonication assisted dispersive liquid-liquid microextraction method for methylparaben in cosmetic samples using deep eutectic solvent**  
Altunay A. O., ELİK A.  
SUSTAINABLE CHEMISTRY AND PHARMACY, cilt.29, 2022 (SCI-Expanded)

- XXVII. **Application of central composite design in parameters optimization of nano-structured supramolecular solvent based on liquid-liquid microextraction for determination of total lead in food, vegetables, grilled meat products, and water samples**  
ELİK A.  
SUSTAINABLE CHEMISTRY AND PHARMACY, cilt.29, 2022 (SCI-Expanded)
- XXVIII. **Chemometric approach for the spectrophotometric determination of chloramphenicol in various food matrices: Using natural deep eutectic solvents**  
Elik A., Altunay N.  
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- XXIX. **Assessment of arsenic in water, rice and honey samples using new and green vortex-assisted liquid phase microextraction procedure based on deep eutectic solvent: Multivariate study**  
ALTUNAY N., ELİK A., Farooque Lanjwani M., Tuzen M.  
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- XXX. **Optimization of magnetic ionic based dispersive liquid-liquid microextraction of cadmium in water and food samples using experimental design prior to flame atomic absorption spectrophotometry**  
Elik A., Altunay N.  
Sustainable Chemistry and Pharmacy, cilt.27, 2022 (SCI-Expanded)
- XXXI. **Synthesis, characterization, and application of polyacrylamide/carmine polymer nanomaterial as an effective solid-phase material for ultrasonic-assisted solid-phase microextraction of aluminum and chromium in vegetable samples**  
Ulusoy S., Elik A., Ulusoy H. İ., Şimşek S., Altunay N.  
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- XXXII. **Experimental design of ligandless sonication-assisted liquid- phases microextraction based on hydrophobic deep eutectic solvents for accurate determination of Pb(II) and Cd(II) from waters and food samples at trace levels**  
ELİK A., DEMİRBAŞ A., ALTUNAY N.  
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- XXXIII. **Optimization and application of ultrasound-assisted sugar based deep eutectic solvent dispersive liquid-liquid microextraction for the determination and extraction of aflatoxin M1 in milk samples**  
GÜRSOY N., Sırtbaşı B., ŞİMŞEK S., ELİK A., ALTUNAY N.  
Microchemical Journal, cilt.172, 2022 (SCI-Expanded)
- XXXIV. **Tergitol@SiO<sub>2</sub>@Fe<sub>3</sub>O<sub>4</sub> magnetic nano-material and experimental design methodology: An effective and selective adsorbent for solid phase microextraction and flame atomic absorption spectrometric analysis of lead in different matrixes**  
ALTUNAY N., ELİK A., SARP G., YILMAZ E., ULUSOY H. İ.  
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- XXXV. **Ionic hydrophobic deep eutectic solvents in developing air-assisted liquid-phase microextraction based on experimental design: Application to flame atomic absorption spectrometry determination of cobalt in liquid and solid samples**  
ELİK A., BİNGÖL D., ALTUNAY N.  
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- XXXVI. **Investigations of Hg(II) analysis in real samples via computational chemistry, experimental design, and green microextraction approach**  
Altunay N., Elik A., Demirbaş A., Kaya S., Maslov M.  
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- XXXVII. **Experimental and theoretical investigation for the spectrophotometric determination of thiabendazole in fruit samples**  
Tüzen M., Altunay N., Elik A., Afshar Mogaddam M. R., Katin K.  
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- XXXVIII. **Ultrasound-assisted alkanol-based nanostructured supramolecular solvent for extraction and determination of cadmium in food and environmental samples: Experimental design methodology**

- ALTUNAY N., ELİK A.  
MICROCHEMICAL JOURNAL, cilt.164, 2021 (SCI-Expanded)
- XXXIX. **Ultrasound-assisted supramolecular solvent dispersive liquid-liquid microextraction for preconcentration and determination of Cr(VI) in waters and total chromium in beverages and vegetables**  
Tuzen M., ELİK A., ALTUNAY N.  
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- XL. **Response surface methodology based on central composite design for optimizing temperature-controlled ionic liquid-based microextraction for the determination of histamine residual in canned fish products**  
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- XLII. **Optimization of an ultrasound-assisted alcohol-based deep eutectic solvent dispersive liquid-phase microextraction for separation and preconcentration of quercetin in wine and food samples with response surface methodology**  
ALTUNAY N., ELİK A., ÜNAL Y., KAYA S.  
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- XLIII. **A new analytical approach for preconcentration, separation and determination of Pb(II) and Cd(II) in real samples using a new adsorbent: Synthesis, characterization and application**  
Altunay N., Hazer B., Tüzen M., Elik A.  
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- XLIII. **Optimization of green and rapid analytical procedure for the extraction of patulin in fruit juice and dried fruit samples by air-assisted natural deep eutectic solvent-based solidified homogeneous liquid phase microextraction using experimental design and computational chemistry approach**  
Taşpınar H., Elik A., Kaya S., Altunay N.  
FOOD CHEMISTRY, cilt.358, ss.129817, 2021 (SCI-Expanded)
- XLIV. **Optimization of vortex-assisted ionic liquid dispersive liquid-liquid microextraction by experimental design prior to hydride generation atomic absorption spectrometry for determination of selenium species in food, beverage and water samples**  
Altunay N., Elik A., Katin K.  
JOURNAL OF FOOD COMPOSITION AND ANALYSIS, cilt.99, ss.103871, 2021 (SCI-Expanded)
- XLV. **Development of sensitive and accurate solid-phase microextraction procedure for preconcentration of As(III) ions in real samples**  
Elik A., Tüzen M., Hazer B., Kaya S., Katina K., Altunay N.  
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- XLVI. **Feasibility of supramolecular nanosized solvent based microsyringe-assisted liquid-phase microextraction for preconcentration and separation of Vitamin B12 from infant formula, food supplement, and dairy products: Spectrophotometric analysis and chemometric optimization**  
Altunay N., Elik A., Aydın D.  
MICROCHEMICAL JOURNAL, cilt.165, sa.165, ss.106105, 2021 (SCI-Expanded)
- XLVII. **Ultrasonic-assisted cloud point microextraction and spectrophotometric determination of Ponceau 4R in various beverage samples using nonionic surfactant PONPE 7.5**  
Meral S., Elik A.  
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- XLVIII. **Flame atomic absorption spectrometric determination of total chromium and cadmium in bean samples after ultrasonic-assisted microextraction using ionic liquid Aliquat-336**  
Elik A., Karaköy T., Çilesiz Y., Altunay N.  
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- XLIX. **Poly(styrene)-co-2-vinylpyridine copolymer as a novel solid-phase adsorbent for determination of manganese and zinc in foods and vegetables by FAAS**

Tuzen M., ELİK A., Hazer B., ŞİMŞEK S., ALTUNAY N.

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- L. **Theoretical and experimental studies aimed at the development of vortex-assisted supramolecular solvent microextraction for determination of nickel in plant samples by FAAS**  
Maslov M. M., ELİK A., DEMİRBAŞ A., Katin K. P., ALTUNAY N.  
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- LI. **Spectrophotometric determination of aflatoxin B1 in food sample: Chemometric optimization and theoretical supports for reaction mechanisms and binding regions**  
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- LII. **A green and efficient vortex-assisted liquid-phase microextraction based on supramolecular solvent for UV-VIS determination of nitrite in processed meat and chicken products**  
ALTUNAY N., ELİK A.  
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- LIII. **A simple and quick ionic liquid-based ultrasonic-assisted microextraction for determination of melamine residues in dairy products: Theoretical and experimental approaches**  
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