

## Assoc. Prof. Adem Zengin

### Personal Information

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**Address:** Van Yüzüncü Yıl üniversitesi, Fen Fakültesi, Kimya Bölümü

### International Researcher IDs

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### Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Turkey 2009 - 2013

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Turkey 2007 - 2009

Undergraduate, Gazi University, Fen Fakültesi, Turkey 2003 - 2007

### Dissertations

Doctorate, Polimer Fırça-Nanoparçacık Hibrit Sistemlerin Hazırlanması ve Biyosensör Uygulamaları, Gazi University, Fen Bilimleri Enstitüsü, Kimya, 2013

Postgraduate, Kendiliğinden Düzenlenme Yöntemiyle Biyouyumlu Yüzey Tasarımı, Gazi University, Fen Bilimleri Enstitüsü, Kimya, 2009

### Research Areas

Chemistry, Analytical Chemistry, Bioanalytical Methods, Chromatographic Analysis, Sensors, Spectroscopical Methods, Physical Chemistry, Interface Chemistry, Functional Polymers, Characterization of Polymers, New Technologies in Polymer Chemistry, Polymeric Materials, Spectroscopy, Surface Chemistry, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Van Yüzüncü Yıl University, Fen Fakültesi, Kimya Bölümü, 2021 - Continues

Associate Professor, Van Yüzüncü Yıl University, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, 2019 - 2021

Assistant Professor, Van Yüzüncü Yıl University, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, 2018 - 2019

Assistant Professor, Van Yüzüncü Yıl University, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, 2015 - 2018

### Courses

Polimer Fizikokimyası, Postgraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

Polimer Karakterizasyon Yöntemleri , Postgraduate, 2019 - 2020

Yüzey Karakterizasyon Yöntemleri, Postgraduate, 2019 - 2020

Kontrollü Polimerizasyon Yöntemleri, Postgraduate, 2019 - 2020  
Laboratuvar Güvenliği, Undergraduate, 2015 - 2016  
Kimya Mühendisliğinde İnorganik Teknolojiler, Undergraduate, 2015 - 2016  
Kimya Mühendisliğinde Organik Teknolojiler, Undergraduate, 2015 - 2016  
Analitik Kimya, Undergraduate, 2015 - 2016

## Advising Theses

Zengin A., Şahan T., Polimer-Nanopartikül Hibrit Malzemelerin Sentezi, Karakterizasyonu ve Hidrojen Üretiminde Katalizör Olarak Kullanılması, Doctorate, Ü.Ecer(Student), 2022  
Zengin A., Nitrit tayini için seçici ve hassas elektrokimyasal sensör tasarımı, Postgraduate, B.TANERİ(Student), 2022  
Zengin A., İnsan papilloma virüs teşhisi için nanotel-polimer fırça hibrit sistemlerin hazırlanması, Doctorate, M.UTKU(Student), 2021  
Zengin A., Malahit yeşili'nin seçici tayini için yüzeyde zenginleştirilmiş raman spektroskopisi temelli manyetik nanoplatformların hazırlanması, Postgraduate, E.EKMEN(Student), 2019  
Zengin A., Şekil hafızalı kağıt yüzeyler ile kan örneklerinde ilaç etken madde tayini, Postgraduate, Y.AKBULUT(Student), 2018

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

- I. **Facile synthesis of molecularly-imprinted magnetic-MoS<sub>2</sub> nanosheets for selective and sensitive detection of ametryn**  
Bilici M., Zengin A.  
Chemical Physics, vol.589, 2025 (SCI-Expanded)
- II. **Pd nanoparticles supported on Fe<sub>3</sub>O<sub>4</sub> particles grafted with poly(acrylamide) gel brush for simultaneous electrochemical-sensing of dopamine and paracetamol**  
Güler M., Zengin A.  
Electroanalysis, vol.36, no.9, 2024 (SCI-Expanded)
- III. **A molecularly imprinted cotton fabric for rapid, selective and sensitive determination of carbendazim in orange juice**  
Zengin A., Toptaş Y., Bilici M., Gürsoy T.  
Journal of Food Composition and Analysis, vol.133, 2024 (SCI-Expanded)
- IV. **Preparation of surface molecularly-imprinted magnetic kaolin for selective separation and determination of thiabendazole**  
Zengin A.  
Journal of Applied Polymer Science, vol.141, no.30, 2024 (SCI-Expanded)
- V. **Simple detection of gluten in commercial gluten-containing samples with a novel nanoflower electrosensor made of molybdenum disulfide with comparison of the ELISA method**  
Salman F., Zengin A., Çelik Kazıcı H.  
Journal of Food Science, vol.89, no.5, pp.2747-2760, 2024 (SCI-Expanded)
- VI. **Pd-doped flower like magnetic MnFe<sub>2</sub>O<sub>4</sub> spinel ferrit nanoparticles: Synthesis, structural characterization and catalytic performance in the hydrazine-borane methanolysis**  
Karataş ., Zengin A., Gülcan M.  
Journal of the Energy Institute, vol.110, 2023 (SCI-Expanded)
- VII. **Fabrication of molecularly imprinted cotton fibersfor quantification of streptomycin in honey samples**  
Zengin A., Badak M. U. B., Bilici M., Aktaş N.  
JOURNAL OF APPLIED POLYMER SCIENCE, no.e54054, pp.1-12, 2023 (SCI-Expanded)
- VIII. **Fabrication of glucose bioelectrochemical sensor based on Au@Pd core-shell supported by**

**carboxylated graphene oxide**

Güler M., Zengin A., Alay M.

Analytical Biochemistry, vol.667, 2023 (SCI-Expanded)

- IX. **Fabrication and characterization of poly(tannic acid) coated magnetic clay decorated with cobalt nanoparticles for NaBH<sub>4</sub> hydrolysis: RSM-CCD based modeling and optimization**  
Ecer Ü., Zengin A., Şahan T.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.1, pp.1-13, 2023 (SCI-Expanded)
- X. **Hydrogen generation from NaBH<sub>4</sub> hydrolysis catalyzed by cobalt (0)-Deposited cross-linked polymer brushes: Optimization with an experimental design approach**  
Ecer Ü., Zengin A., Şahan T.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.1, pp.1-12, 2023 (SCI-Expanded)
- XI. **Efficient Removal of 2,4-Dichlorophenoxyacetic Acid from Aqueous Medium Using Polydopamine/Polyacrylamide Co-deposited Magnetic Sporopollenin and Optimization with Response Surface Methodology Approach**  
Yılmaz Ş., Zengin A., Şahan T., Gübbük İ. H.  
Journal of Polymers and the Environment, vol.31, no.1, pp.36-49, 2023 (SCI-Expanded)
- XII. **Preparation and characterization of amine-terminated delafossite type oxide, CuMnO<sub>2</sub>-NH<sub>2</sub>, supported Pd (0) nanoparticles for the H-2 generation from the methanolysis of ammonia-borane**  
Karataş ., Zengin A., Gülcan M.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.47, no.36, pp.16036-16046, 2022 (SCI-Expanded)
- XIII. **A capillary driven microfluidic chip for SERS based hCG detection**  
Ahi E. E., TORUL H., Zengin A., Sucularli F., YILDIRIM E., Selbes Y., Suludere Z., TAMER U.  
BIOSENSORS & BIOELECTRONICS, vol.195, 2022 (SCI-Expanded)
- XIV. **Construction of a sensitive and selective plasmonic biosensor for prostate specific antigen by combining magnetic molecularly-imprinted polymer and surface-enhanced Raman spectroscopy**  
Turan E., Zengin A., Suludere Z., Kalkan N. O., TAMER U.  
TALANTA, vol.237, 2022 (SCI-Expanded)
- XV. **Magnetic clay\zeolitic imidazole framework nanocomposite (ZIF-8@Fe<sub>3</sub>O<sub>4</sub>@BNT) for reactive orange 16 removal from liquid media**  
Ecer U., Zengin A., Şahan T.  
COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS, vol.630, 2021 (SCI-Expanded)
- XVI. **Effective utilization of Fe(III)-based metal organic framework-coated cellulose paper for highly efficient elimination from the liquid phase of paracetamol as a pharmaceutical pollutant**  
Yılmaz Ş., Zengin A., Şahan T.  
ENVIRONMENTAL TECHNOLOGY & INNOVATION, vol.24, 2021 (SCI-Expanded)
- XVII. **Synthesis and characterization of an efficient catalyst based on MoS<sub>2</sub> decorated magnetic pumice: An experimental design study for methyl orange degradation**  
Ecer U., Şahan T., Zengin A.  
JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING, vol.9, no.3, 2021 (SCI-Expanded)
- XVIII. **Bentonite grafted with poly(N-acryloylglycineamide) brush: A novel clay-polymer brush hybrid material for the effective removal of Hg(II) and As(V) from aqueous environments**  
Yılmaz Ş., Zengin A., Şahan T.  
Colloids And Surfaces A-Physicochemical And Engineering Aspects, vol.612, pp.1-12, 2021 (SCI-Expanded)
- XIX. **Selective Extraction and Determination of Citrinin in Rye Samples by a Molecularly Imprinted Polymer (MIP) Using Reversible Addition Fragmentation Chain Transfer Precipitation Polymerization (RAFTPP) with High-Performance Liquid Chromatography (HPLC) Detection**  
Meydan İ., Bilici M., Turan E., Zengin A.  
ANALYTICAL LETTERS, vol.54, no.10, pp.1697-1708, 2021 (SCI-Expanded)
- XX. **Surface molecularly-imprinted magnetic nanoparticles coupled with SERS sensing platform for selective detection of malachite green**  
Ekmen E., Bilici M., Turan E., Tamer U., Zengin A.

Sensors and Actuators, B: Chemical, vol.325, 2020 (SCI-Expanded)

- XXI. **A fluorescent artificial receptor with specific imprinted cavities to selectively detect colistin**  
Turan E., Zengin A.  
ANALYTICAL AND BIOANALYTICAL CHEMISTRY, vol.412, no.27, pp.7417-7428, 2020 (SCI-Expanded)
- XXII. **Synthesis and characterization of Fe<sub>3</sub>O<sub>4</sub>-supported metal-organic framework MIL-101(Fe) for a highly selective and sensitive hydrogen peroxide electrochemical sensor**  
Salman F., Zengin A., Çelik Kazıcı H.  
IONICS, vol.26, no.10, pp.5221-5232, 2020 (SCI-Expanded)
- XXIII. **Dual Responsive Disposable Electrode for the Enumeration of Escherichia coli in Whole Blood**  
Panhwar S., İLHAN H., Hassan S. S., Zengin A., BOYACI İ. H., TAMER U.  
ELECTROANALYSIS, vol.32, no.10, pp.2244-2252, 2020 (SCI-Expanded)
- XXIV. **A novel material poly(N-acryloyl-L-serine)-brush grafted kaolin for efficient elimination of malachite green dye from aqueous environments**  
Yılmaz Ş., Zengin A., Şahan T.  
COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS, vol.601, 2020 (SCI-Expanded)
- XXV. **A molecularly imprinted whatman paper for clinical detection of propranolol**  
Akbulut Y., Zengin A.  
SENSORS AND ACTUATORS B-CHEMICAL, vol.304, 2020 (SCI-Expanded)
- XXVI. **Immunomagnetic separation and Listeria monocytogenes detection with surface-enhanced Raman scattering**  
Akcinar H. Y., Aslim B., Torul H., Guven B., Zengin A., Suludere Z., BOYACI İ. H., Tamer U.  
TURKISH JOURNAL OF MEDICAL SCIENCES, vol.50, no.4, pp.1157-1167, 2020 (SCI-Expanded)
- XXVII. **Synthesis of magnetic halloysite nanotube-based molecularly imprinted polymers for sensitive spectrophotometric detection of metoclopramide in urine samples**  
Bilici M., Badak M. U., Zengin A., Suludere Z., Aktaş N.  
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.106, 2020 (SCI-Expanded)
- XXVIII. **Conversion from a natural mineral to a novel effective adsorbent: Utilization of pumice grafted with polymer brush for methylene blue decolorization from aqueous environments**  
Yılmaz Ş., Zengin A., Ecer U., Şahan T.  
COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS, vol.583, 2019 (SCI-Expanded)
- XXIX. **Magnetic nanoparticles coated with aminated polymer brush as a novel material for effective removal of Pb(II) ions from aqueous environments**  
Yılmaz Ş., Zengin A., Akbulut Y., Şahan T.  
ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH, vol.26, no.20, pp.20454-20468, 2019 (SCI-Expanded)
- XXX. **Preparation of molecularly imprinted PDMS elastomer for selective detection of folic acid in orange juice**  
Zengin A., Badak M. U., Bilici M., SULUDERE Z., Aktaş N.  
APPLIED SURFACE SCIENCE, vol.471, pp.168-175, 2019 (SCI-Expanded)
- XXXI. **Selective separation and determination of quercetin from red wine by molecularly imprinted nanoparticles coupled with HPLC and ultraviolet detection**  
Zengin A., Badak M. U., Aktaş N.  
JOURNAL OF SEPARATION SCIENCE, vol.41, no.17, 2018 (SCI-Expanded)
- XXXII. **Efficient and selective separation of metronidazole from human serum by using molecularly imprinted magnetic nanoparticles**  
Bilici M., Zengin A., Ekmen E., Cetin D., Aktaş N.  
JOURNAL OF SEPARATION SCIENCE, vol.41, no.14, 2018 (SCI-Expanded)
- XXXIII. **SERS detection of polyaromatic hydrocarbons on a -cyclodextrin containing polymer brush**  
Zengin A., TAMER U., ÇAYKARA T.  
JOURNAL OF RAMAN SPECTROSCOPY, vol.49, no.3, pp.452-461, 2018 (SCI-Expanded)
- XXXIV. **Rapid quantification of total protein with surface-enhanced Raman spectroscopy using o-**

## **phthalaldehyde**

Eryilmaz M., Zengin A., BOYACI İ. H., Tamer U.

JOURNAL OF RAMAN SPECTROSCOPY, vol.48, no.5, pp.653-658, 2017 (SCI-Expanded)

- XXXV. **A novel route to prepare a multilayer system via the combination of interface-mediated catalytic chain transfer polymerization and thiol-ene click chemistry**  
Zengin A., Caykara T.  
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.74, pp.103-109, 2017 (SCI-Expanded)
- XXXVI. **SERS detection of hepatitis B virus DNA in a temperature-responsive sandwich-hybridization assay**  
Zengin A., Tamer U., Caykara T.  
JOURNAL OF RAMAN SPECTROSCOPY, vol.48, no.5, pp.668-672, 2017 (SCI-Expanded)
- XXXVII. **The comparison of antioxidant capacity and cytotoxic, anticarcinogenic, and genotoxic effects of Fe@Au nanosphere magnetic nanoparticles**  
Yegenoglu H., Aslim B., Guven B., Zengin A., BOYACI İ. H., Suludere Z., Tamer U.  
TURKISH JOURNAL OF BIOLOGY, vol.41, no.2, pp.302-313, 2017 (SCI-Expanded)
- XXXVIII. **Synthesis of poly(N-(2-hydroxypropyl) methacrylamide) brushes by interface-mediated RAFT polymerization**  
Yildirim E., Cimen D., Zengin A., Caykara T.  
RSC ADVANCES, vol.6, no.51, pp.45259-45264, 2016 (SCI-Expanded)
- XXXIX. **A new plasmonic device made of gold nanoparticles and temperature responsive polymer brush on a silicon substrate**  
Zengin A., Tamer U., Caykara T.  
JOURNAL OF COLLOID AND INTERFACE SCIENCE, vol.448, pp.215-221, 2015 (SCI-Expanded)
- XL. **Fabrication of a SERS based aptasensor for detection of ricin B toxin**  
Zengin A., Tamer U., Caykara T.  
JOURNAL OF MATERIALS CHEMISTRY B, vol.3, no.2, pp.306-315, 2015 (SCI-Expanded)
- XLI. **Quantitative Characterization of Magnetic Mobility of Nanoparticle in Solution-Based Condition**  
Rodoplu D., BOYACI İ. H., Bozkurt A. G., Eksi H., Zengin A., Tamer U., AYDOĞAN N., ÖZCAN Ş., Tugcu-Demiroz F.  
CURRENT PHARMACEUTICAL DESIGN, vol.21, no.37, pp.5389-5400, 2015 (SCI-Expanded)
- XLII. **Anisotropic core-shell Fe<sub>3</sub>O<sub>4</sub>@Au magnetic nanoparticles and the effect of the immunomagnetic separation volume on the capture efficiency**  
Zengin A., Bozkurt A., BOYACI İ. H., ÖZCAN Ş., DANIEL P., LAGARDE F., GIBAUD A., Cetin D., Suludere Z., GUTTMANN P., et al.  
PURE AND APPLIED CHEMISTRY, vol.86, no.6, pp.967-978, 2014 (SCI-Expanded)
- XLIII. **Extremely sensitive sandwich assay of kanamycin using surface-enhanced Raman scattering of 2-mercaptobenzothiazole labeled gold@silver nanoparticles**  
Zengin A., Tamer U., Caykara T.  
ANALYTICA CHIMICA ACTA, vol.817, pp.33-41, 2014 (SCI-Expanded)
- XLIV. **Poly(2-(dimethylamino)ethyl methacrylate) brushes fabricated by surface-mediated RAFT polymerization and their response to pH**  
Zengin A., Karakose G., Caykara T.  
EUROPEAN POLYMER JOURNAL, vol.49, no.10, pp.3350-3358, 2013 (SCI-Expanded)
- XLV. **A SERS-Based Sandwich Assay for Ultrasensitive and Selective Detection of Alzheimer's Tau Protein**  
Zengin A., Tamer U., Caykara T.  
BIOMACROMOLECULES, vol.14, no.9, pp.3001-3009, 2013 (SCI-Expanded)
- XLVI. **Synthesis of superparamagnetic and thermoresponsive hybrid nanoparticles via surface-mediated RAFT polymerization of di(ethylene glycol) ethyl ether acrylate and (oligoethylene glycol) methyl ether acrylate**  
Zengin A., Tamer U., Caykara T.  
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.51, no.16, pp.3420-3428, 2013 (SCI-Expanded)

- XLVII. RAFT-Mediated Synthesis and Temperature-Induced Responsive Properties of Poly(2-(2-Methoxyethoxy)ethyl Methacrylate) Brushes**  
Zengin A., Yildirim E., Caykara T.  
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.51, no.4, pp.954-962, 2013 (SCI-Expanded)
- XLVIII. Molecularly imprinted superparamagnetic iron oxide nanoparticles for rapid enrichment and separation of cholesterol**  
Zengin A., Yildirim E., Tamer U., Caykara T.  
ANALYST, vol.138, no.23, pp.7238-7245, 2013 (SCI-Expanded)
- XLIX. Attomole Sensitivity of Staphylococcal Enterotoxin B Detection Using an Aptamer-Modified Surface-Enhanced Raman Scattering Probe**  
Temur E., Zengin A., BOYACI İ. H., Dudak F. C., Torul H., Tamer U.  
ANALYTICAL CHEMISTRY, vol.84, no.24, pp.10600-10606, 2012 (SCI-Expanded)
- L. RAFT-mediated synthesis of poly[(oligoethylene glycol) methyl ether acrylate] brushes for biological functions**  
Zengin A., Caykara T.  
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.50, no.21, pp.4443-4450, 2012 (SCI-Expanded)
- LI. Controlling immunoglobulin G orientation on a protein-A terminated bilayer system**  
Zengin A., Caykara T.  
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.32, no.5, pp.1107-1111, 2012 (SCI-Expanded)
- LII. Synthesis of Poly(N-isopropylacrylamide) with a Low Molecular Weight and a Low Polydispersity Index by Single-Electron Transfer Living Radical Polymerization**  
Turan E., Zengin A., Caykara T.  
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.49, no.23, pp.5116-5123, 2011 (SCI-Expanded)
- LIII. Fabrication of magnetic gold nanorod particles for immunomagnetic separation and SERS application**  
Tamer U., BOYACI İ. H., Temur E., Zengin A., Dincer I., Elerman Y.  
JOURNAL OF NANOPARTICLE RESEARCH, vol.13, no.8, pp.3167-3176, 2011 (SCI-Expanded)
- LIV. Formation and properties of surface-anchored amine-terminated poly(dimethylsiloxane) assemblies with tunable physico-chemical characteristics**  
Zengin A., Caykara T.  
THIN SOLID FILMS, vol.519, no.10, pp.3135-3140, 2011 (SCI-Expanded)
- LV. Immobilization of immunoglobulin G in a highly oriented manner on a protein-A terminated multilayer system**  
Zengin A., Caykara T.  
APPLIED SURFACE SCIENCE, vol.257, no.6, pp.2111-2117, 2011 (SCI-Expanded)

## Articles Published in Other Journals

- I. Ofis Ortamlarında Ekranlı Araçlarla Yapılan Çalışmalarda Sağlık ve Güvenlik Önlemleri**  
Yılmaz Ş., Bilici M., Zengin A.  
OHS Academy, vol.4, no.2, pp.43-48, 2021 (Peer-Reviewed Journal)
- II. Molecularly-imprinted silica nanoparticles for rapid and selective detection of atenolol in artificial urine samples**  
ZENGİN A.  
MANAS Journal of Engineering, vol.9, no.1, pp.43-48, 2021 (Peer-Reviewed Journal)
- III. Preparation of Molecular Sentinel Based SERS Sensor for Hepatitis C Virus**  
Zengin A.

Hittite Journal of Science and Engineering, vol.5, no.3, pp.225-230, 2018 (Peer-Reviewed Journal)

**IV. Preparation of Surface Imprinted Magnetic Nanoparticles for Selective Detection of Ciprofloxacin in Milk**

Zengin A.

GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.30, no.4, pp.72-85, 2017 (ESCI)

**Refereed Congress / Symposium Publications in Proceedings**

- I. **Lead(II) Adsorption from Aqueous Solutions onto Amine-Functionalized Magnetic Fe<sub>3</sub>O<sub>4</sub> Nanoparticles: Optimization of Process Parameters by Using Response Surface Methodology (RSM)**  
Yılmaz Ş., Akbulut Y., Zengin A., Şahan T.  
International Congress on Engineering and Life Science (ICELIS), Kastamonu, Turkey, 26 - 29 April 2018, pp.65
- II. **Isotherm, kinetic and thermodynamic studies of lead(II) adsorption by using amine-functionalized magnetic Fe<sub>3</sub>O<sub>4</sub> nanoparticles as an adsorbent**  
Yılmaz Ş., Akbulut Y., Zengin A., Şahan T.  
1st International Eurasian Conference on Biological and Chemical Sciences, Ankara, Turkey, 26 - 27 April 2018, pp.1191
- III. **Preparation and Characterization of Molecularly Imprinted Kaolin Samples for Triclosan Detection**  
Badak M. U., Zengin A., Ecer Ü., Şahan T., Aktaş N.  
International Congress on Engineering and Life Science (ICELIS 2018), Kastamonu, Turkey, 26 - 29 April 2018, vol.Abst. Book, pp.813
- IV. **PREPARATION OF AMINE FUNCTIONALIZED POLYMER BRUSH ON COTTON SURFACE VIA REVERSIBLE ADDITION-FRAGMENTATION CHAIN TRANSFER POLYMERIZATION FOR ENHANCED ADSORPTION OF Cu(II) AND Pb(II)**  
Zengin A., Yalçınkaya Ö.  
I. INTERNATIONAL TURKISH WORLD ENGINEERING AND SCIENCE CONGRESS, Antalya, Turkey, 7 - 10 December 2017, pp.294
- V. **Preparation of Molecular Imprinted Nanoparticles for Rapid and Selective Enrichment of Pharmaceutical Active Substance**  
Ekmen E., Bilici M., Zengin A.  
8th International Advanced Technologies Symposium, Elazığ, Turkey, 19 - 22 October 2017, pp.162
- VI. **Selective Detection of 2,4-Dichlorophenoxyacetic Acid Herbicide via Molecular Imprinted Magnetic Carbon Nanotube**  
Zengin A., Badak M. U., Aktaş N.  
8th International Advanced Technologies Symposium (IATS) 2017, Elazığ, Turkey, 19 - 22 September 2017, pp.1
- VII. **Preparation of Stimuli Responsive Cellulose Membrane for Purification of Lysozyme**  
Badak M. U., Zengin A., Aktaş N.  
8th International Advanced Technologies Symposium (IATS) 2017, Elazığ, Turkey, 19 - 22 September 2017, pp.1
- VIII. **Designing of a Thermo and pH Sensitive Cellulose Membrane for Selective Detection of Lysozyme in Human Serum**  
Badak M. U., Zengin A., Aktaş N.  
2rd International Science Symposium "Science Festival" (ISS2017), Tiflis, Georgia, 5 - 08 September 2017, pp.13
- IX. **Preparation and Characterization of Quercetin Imprinted Silica Nanoparticles**  
Badak M. U., Zengin A., Aktaş N.  
2rd International Science Symposium "Science Festival" (ISS2017), Tiflis, Georgia, 5 - 08 September 2017, pp.12
- X. **İlaç Etken Madde Tayini İçin Moleküler Baskılanmış Kağıt Yüzeylerin Hazırlanması**  
AKBULUT Y., Turan E., Zengin A.  
6.Fiziksel Kimya Kongresi, Zonguldak, Turkey, 15 - 18 May 2017, pp.62
- XI. **Biyoterör Ajanlarından Botulinum Toksini Tayini İçin SERS Tabanlı Biyosensör Dizaynı**  
Ekmen E., Zengin A., Turan E.

6.Fiziksel Kimya Kongresi, Zonguldak, Turkey, 15 - 18 May 2017, pp.59

- XII. **SERS Detection of Polyaromatic Hydrocarbons on a  $\beta$ -Cyclodextrin Containing Polymer Brush**  
Zengin A., TAMER U., Çaykara T.  
International Conference on Advances and Innovations in Engineering, Elazığ, Turkey, 10 - 12 May 2017, pp.114
- XIII. **A New Plasmonic Device Made of Gold Nanoparticles and Temperature Responsive Polymer Brush on a Silicon Substrate**  
Zengin A., Tamer U., Çaykara T.  
International Conference on Advances and Innovations in Engineering, Elazığ, Turkey, 10 - 12 May 2017, pp.115
- XIV. **Determination of Propranolol in Blood Samples via Molecular Imprinted Whatman Papers**  
Zengin A., Akbulut Y.  
International Conference on Advances and Innovations in Engineering, Elazığ, Turkey, 10 - 12 May 2017, pp.112-113
- XV. **Preparation of a Smart Surface for Determination of HIV DNA Fragment**  
Akbulut Y., Zengin A., Turan E.  
International Conference on Advances and Innovations in Engineering, Elazığ, Turkey, 10 - 12 May 2017, pp.113
- XVI. **A SERS-Based Biosensor Design for Botulinum Toxin Detection**  
Zengin A., Ekmen E.  
International Conference on Advances and Innovations in Engineering, Elazığ, Turkey, 10 - 12 May 2017, pp.1145
- XVII. **Application of Response Surface Methodology (RSM) for optimization of Hg(II) Adsorption Conditions from Aqueous Solution using Mercapto-Modified Kaolin**  
Yılmaz Ş., Şahan T., Zengin A.  
2ND INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL AND APPLIED SCIENCES, Antalya, Turkey, 18 - 21 April 2017, pp.253
- XVIII. **Preparation of Molecular Imprinted Paper Surfaces for Determination of Propranolol in Blood Samples**  
AKBULUT Y., Zengin A., TURAN E.  
2ND INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL AND APPLIED SCIENCES, Antalya, Turkey, 18 - 21 April 2017, pp.246
- XIX. **Sensitive and Selective Detection of Prostate Specific Antigen via SERS Based Immunoassay**  
Ekmen E., Zengin A., TURAN E., Şahan T., Bilici M., TAMER U.  
2ND INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL AND APPLIED SCIENCES, Antalya, Turkey, 18 April 2017, pp.247
- XX. **Sensitive and Selective Detection of HIV DNA on a Polymer Brush Grafted Silicon Surface**  
Zengin A., AKBULUT Y., Bilici M., TURAN E.  
8TH INTERNATIONAL ADVANCED TECHNOLOGIES SYMPOSIUM 19-22 October 2017 / Elazığ, Turkey, Elazığ, Turkey, 19 - 22 January 2017, pp.822

## Supported Projects

Zengin A., Karakoyun N., SHALLAL M. A., Project Supported by Higher Education Institutions, Bazı Organik Boyar Maddelerin Katalitik Bozunması İçin Manyetik Jel Polimer Fırça Metal Nanopartikül Hibrit Malzemelerin Hazırlanması, 2022 - 2023

Zengin A., Project Supported by Higher Education Institutions, Bazı Meyve Kabuklarında Tiyabendazol Tayini İçin Moleküler Baskılanmış Kompozit Malzemelerin Hazırlanması, 2021 - 2023

Şahan T., Zengin A., ECER Ü., Project Supported by Higher Education Institutions, Polimer Nanopartikül Hibrit Malzemelerin Sentezi Karakterizasyonu ve Hidrojen Üretiminde Katalizör Olarak Kullanılması, 2021 - 2022

Zengin A., Çelik Kazıcı H., TANERİ B., Project Supported by Higher Education Institutions, Nitrit Tayini İçin Seçici ve Hassas Elektrokimyasal Sensör Tasarımı, 2021 - 2022

Aktaş N., Zengin A., Badak M. U., Project Supported by Higher Education Institutions, Bal İçerisinde Antibiyotik Tayini İçin Moleküler Şekil Hafızalı Swab Örneklerin Hazırlanması, 2018 - 2021



Meydan İ., Zengin A., Bilici M., Project Supported by Higher Education Institutions, Sitrininin Hassas ve Seçici Tayini için Moleküler Baskılanmış Polimerlerin Hazırlanması, 2019 - 2020

Zengin A., Bilici M., Badak M. U., Project Supported by Higher Education Institutions, Yapay İdrar Örneklerinde Neopterin Tayini İçin Moleküler Baskılanmış Nanotellerin Hazırlanması, 2019 - 2020

Zengin A., EKME E., Project Supported by Higher Education Institutions, Malahit Yeşili'nin Seçici Tayini İçin Yüzeyde Zenginleştirilmiş Raman Spektroskopisi Temelli Manyetik Nanoplatformların Hazırlanması, 2018 - 2019

Zengin A., TUBITAK Project, Polimer FırçaNanotel Hibrit sistemlerin Hazırlanması ve İPV Teşhisinde Kullanımı, 2017 - 2019

Zengin A., TUBITAK Project, İnsan Papilloma Virüs Teşhisi İçin Nanotel-Polimer Fırça Hibrit Sistemlerin Hazırlanması, 2017 - 2019

Zengin A., Project Supported by Higher Education Institutions, hCG Hormon Tayinine Yönelik Seçici ve Hassas Yeni Bir Yöntemin Geliştirilmesi, 2018 - 2018

Demir Kıvrak H., Aktaş N., Şahan T., Zengin A., Çelik Kazıcı H., Aldemir A., Alpaslan D., Erşen Dudu T., Ulaş B., Uzun Y., et al., Project Supported by Higher Education Institutions, 13. Ulusal Kimya Mühendisliği Kongresi, 2018 - 2018

Zengin A., Project Supported by Higher Education Institutions, Farklı Gıda Maddelerinde Folik Asit Tayini İçin Moleküler Baskılanmış PDMS Elastomerlerin Hazırlanması, 2017 - 2018

Bilici M., Zengin A., EKME E., Project Supported by Higher Education Institutions, İlaç Etken Madde Tayinine Yönelik Moleküler Baskılanmış Manyetik Nanopartiküllerin Hazırlanması, 2017 - 2018

Zengin A., TURAN E., AKBULUT Y., Bilici M., Project Supported by Higher Education Institutions, Biyolojik Aktiviteye Sahip Akıllı Yüzey Tasarımı, 2017 - 2018

Alpaslan D., Şahan T., İçli Özkut M., Zengin A., Erşen Dudu T., Project Supported by Higher Education Institutions, Kimya Mühendisliği Bölümünün Altyapısının Güçlendirilmesi, 2017 - 2017

Zengin A., TUBITAK Project, Moleküler Baskılanmış Kağıt Yüzeylerin Hazırlanması ve Kan Örneklerinde İlaç Miktarının Belirlenmesinde Kullanımı, 2016 - 2017

TUBITAK Project, Toplam Protein Tayininde Nanopartikül Tabanlı Yeni Analiz Sistemlerinin Geliştirilmesi, 2014 - 2015

TUBITAK Project, Silikon Disk Yüzeyinde pH ve Sıcaklık Duyarlı, Altın Nanopartikül Esaslı Polimerik Fırçaların Hazırlanması ve Hepatit B Teşhisinde Kullanımı, 2011 - 2013

TUBITAK Project, Aptamer Tabanlı Manyetik SERS Aktif Nanopartiküllerin Geliştirilmesi ve Homojen Analiz Sistemlerinde Kullanılması, 2009 - 2011

## Metrics

Publication: 85  
Citation (WoS): 618  
Citation (Scopus): 1123  
H-Index (WoS): 13  
H-Index (Scopus): 20

## Congress and Symposium Activities

SERS based Aptasensor for sub-femtomolar toxin detection, Attendee, Illinois, United States Of America, 2015

Silisyum Yüzeyinde Poli(akriloilormofolin) Fırçaların Sentezi ve Polimerizasyon Kinetiğinin İncelenmesi, Attendee, Turkey, 2014

Polimer Fırça Esaslı SERS Aktif Yüzeylerin Hazırlanması ve Hepatit B Teşhisinde Kullanımı, Attendee, Tokat, Turkey, 2014

Controlled synthesis and properties of poly(N-acryloylmorpholine) functionalized silicon substrate, Attendee, Chiang Mai, Thailand, 2014

The high product yield of hybrid nanoparticle and rationally biomolecule immobilization for sub-femtomolar SERS detection, Attendee, İstanbul, Turkey, 2014

Functionalized Magnetic Nanoparticles for Homogeneous SERS Assay Platforms, Attendee, Illinois, United States Of

America, 2014

Generation and characterization of nanocomposite materials and nanomaterials for food analysis, Attendee, Antalya, Turkey, 2012

Katalitik Zincir Transfer Polimerizasyonu (CCTP) ve "Klık" Kimyasıyla Biyofonksiyonel Yüzey Tasarımı, Attendee, Turkey, 2012

Kolestrol Baskılanmış Manyetik Nanopartiküller, Attendee, Turkey, 2012

Yüzeyde Başlatılan RAFT Polimerizasyonu ile pH Duyarlı Polimer Fırçaların Sentez ve Karakterizasyonu, Attendee, Muğla, Turkey, 2012

Surface enhanced Raman Scattering substrates preparation using functionalized nanoparticles, Attendee, Turkey, 2012

Yüzeyde Başlatılan Tersinir Katılma-Ayrılma Zincir Transfer Yöntemi ile Silikon Yüzey Üzerinde Poli(N-2-Hidroksi propilmetakrilamid) Fırçaların Hazırlanması, Attendee, Çanakkale, Turkey, 2012

Manyetik Nanopartikül/Polimer Hibrid Sistemin Hazırlanması ve Alzheimer Bio-ışaretçi İmmobilizasyonunda Kullanımı, Attendee, Çanakkale, Turkey, 2012

Yüzeyde Başlatılan RAFT Polimerizasyonu ile Sıcaklık Duyarlı Polimerik Fırçaların Hazırlanması ve Karakterizasyonu, Attendee, Turkey, 2012

RAFT-mediated polymerization of 2-(2-methoxyethoxy)ethyl methacrylate from self-assembled monolayers on silicon substrate, Attendee, Virginia, United States Of America, 2012

Synthesis of poly(N-isopropylacrylamide) with a low molecular weight and a low polydispersity index by SET-LRP, Attendee, Turkey, 2011

Modification of magnetic nanoparticles with PEG-based thermoresponsive polymers via surface initiated RAFT polymerization, Attendee, Nevşehir, Turkey, 2011

Functionalized of gold surface with biocompatible polymer brushes via surface initiated RAFT polymerization, Attendee, Turkey, 2011

Composite nanomaterials with enhanced magnetic and/optical properties, Attendee, Lifford, Ireland, 2010

Kendiliğinden Düzenlenme Yöntemiyle Biyoaktif Yüzey Tasarımı, Attendee, Zonguldak, Turkey, 2010

Immobilization of immunoglobulin G in a highly oriented manner on a Protein A terminated multilayer system, Attendee, İzmir, Turkey, 2010

## Awards

Zengin A., Kimya Doktora Programı En iyi Tez Ödülü, Gazi Üniversitesi, Fen Bilimleri Enstitüsü, June 2013

Zengin A., En İyi Poster Yarışmasında üçüncülük Ödülü, IV. Ulusal Polimer Bilim ve Teknolojisi Kongresi, Çanakkale, September 2012

Zengin A., Gazi üniversitesi, Fen Fakültesi, Fakülte Üçüncülük Ödülü, Gazi üniversitesi, Fen Fakültesi, June 2007

Zengin A., 2007Yılı Gazi Üniversitesi Kimya Bölümü, Bölüm Birincisi, Gazi Üniversitesi, June 2007