

## **Assoc. Prof. Gülsah Kanberoğlu**

### **Personal Information**

**Office Phone:** [+90 432 225 1029](tel:+904322251029) Extension: 22224

**Email:** gskanberoglu@yyu.edu.tr

**Web:** <https://avesis.yyu.edu.tr/gskanberoglu>

**Address:** Yüzüncü Yıl Üniversitesi Fen Fakültesi Kimya Bölümü VAN

### **International Researcher IDs**

ORCID: 0000-0003-4231-6217

Yoksis Researcher ID: 17077

### **Education Information**

Doctorate, Van Yüzüncü Yıl University, Fen Bilimleri Enstitüsü, Kimya (Dr), Turkey 2004 - 2011

Postgraduate, Van Yüzüncü Yıl University, Fen Bilimleri Enstitüsü, Kimya (YI) (Tezli), Turkey 2000 - 2004

Undergraduate, Ondokuz Mayıs University, Faculty Of Arts And Sciences, Department Of Chemistry, Turkey 1996 - 2000

### **Certificates, Courses and Trainings**

Education Management and Planning, Yüksek Performans Sıvı Kromatografisi, Mühendislik Fakültesi, 2001

### **Dissertations**

Doctorate, Karboksilik Asitlerin Sıvı Kromatografik Elektrokimyasal Hibrit Sistemleriyle Eş Zamanlı Analizi İçin Yöntem Geliştirilmesi ve Uygulamaları , Van Yüzüncü Yıl University, Fen Fakültesi, Kimya Bölümü, 2011

Postgraduate, Antiinflamatuvor -Analjezik İlaçlardan Asemetasin'in Akış-Enjeksiyon Analiz Yöntemi İle Miktar Tayini, Van Yüzüncü Yıl University, Fen Fakültesi, Kimya Bölümü, 2004

### **Research Areas**

Chemistry, Analytical Chemistry, Atomic and Molecular Spectroscopy, Separation Methods, Electromagnetic Methods, Pharmaceutical Analysis, Natural Sciences

### **Academic Titles / Tasks**

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

Assistant Professor, Van Yüzüncü Yıl University, Fen Fakültesi, Kimya, 2018 - 2021

Assistant Professor, Van Yüzüncü Yıl University, Fen Fakültesi, Kimya, 2012 - 2018

### **Courses**

Kimyasal Sensörler ve Uygulama Alanları, Postgraduate, 2020 - 2021

Akış Enjeksiyon Analiz Teknikleri, Postgraduate, 2015 - 2016  
Analitik Kimya, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014  
Analitik Kimya, Undergraduate, 2015 - 2016  
Analitik Kimya, Undergraduate, 2014 - 2015, 2013 - 2014  
Enstrümental Analiz-II, Undergraduate, 2013 - 2014

## Advising Theses

Kanberoğlu G. S., Potansiyometrik izoprenalin-seçici elektrot geliştirilmesi ve uygulamaları, Postgraduate, o.ozarslan(Student), 2019  
Kanberoğlu G. S., POTANSİYOMETRİK SUNSET YELLOW SEÇİCİ ELEKTROT GELİŞTİRİLMESİ VE UYGULAMALARI, Postgraduate, m.aydın(Student), 2019  
Kanberoğlu G. S., Potansiyometrik sisteamin-seçici elektrot geliştirilmesi ve farmasötik numunele rinde uygulamaları, Postgraduate, M.TÜMÜR(Student), 2017  
Kanberoğlu G. S., Beyaz hindiba (*Cichorium intybus L.*) bitkisinin kimyasal analizi ve elde edilen yağın GC-MS ile analizi ve karakterizasyonu, Postgraduate, N.KAM(Student), 2017  
Kanberoğlu G. S., POTANSİYOMETRİK MAPROTİLİN-SEÇİCİ ELEKTROT GELİŞTİRİLMESİ VE FARMASÖTİK NUMUNELERİNDE UYGULAMALARI, Postgraduate, İ.Çavuş(Student), 2015

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

- I. An electrochemical sensing platform with a molecularly imprinted polymer based on chitosan-stabilized metal@metal-organic frameworks for topotecan detection  
Mehmandoust M., TIRIS G., Pourhakkak P., ERK N., SOYLAK M., Kanberoğlu G., Zahmakiran M.  
*Mikrochimica acta*, vol.190, no.4, pp.142, 2023 (SCI-Expanded)
- II. Electrochemical Biosensors as a Novel Platform in the Identification of Listeriosis Infection  
Mehrannia L., Khalilzadeh B., Rahbarghazi R., Milani M., Saydan Kanberoglu G., Yousefi H., ERK N.  
*Biosensors*, vol.13, no.2, 2023 (SCI-Expanded)
- III. Development of MOF-based PVC membrane potentiometric sensor for determination of imipramine hydrochloride  
Subasi Y., Kanberoğlu G. S., ÇOLDUR F., Cubuk O., Zahmakiran M.  
*CHEMICAL PAPERS*, vol.76, no.8, pp.5105-5117, 2022 (SCI-Expanded)
- IV. Development of a PVC Membrane Potentiometric Sensor with Low Detection Limit and Wide Linear Range for the Determination of Maprotiline in Pharmaceutical Formulations  
Tekce S., Subasi Y., ÇOLDUR F., Kanberoğlu G. S., Zahmakiran M.  
*CHEMISTRYSELECT*, vol.7, no.2, 2022 (SCI-Expanded)
- V. Electrodeposition of Cerium Oxide Nanoparticles on the Graphenized Carbon Ceramic Electrode (GCCE) for the Sensitive Determination of Isoprenaline in Human Serum by Differential Pulse Voltammetry (DPV)  
Shafaei S., Akbari Nakhjavani S., Kanberoğlu G. S., Khalilzadeh B., Mohammad-Rezaei R.  
*ANALYTICAL LETTERS*, vol.55, pp.2418-2435, 2022 (SCI-Expanded)
- VI. Preparation of cerium oxide-MWCNTs nanocomposite bulk modified carbon ceramic electrode: a sensitive sensor for tamoxifen determination in human serum samples  
Shafaei S., Hosseinzadeh E., Kanberoğlu G. S., Khalilzadeh B., Mohammad-Rezaei R.  
*JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS*, vol.32, no.11, pp.14601-14609, 2021 (SCI-Expanded)
- VII. Inhibition effects of isoproterenol, chlorpromazine, carbamazepine, tamoxifen drugs on glutathione S-transferase, cholinesterases enzymes and molecular docking studies  
Turkan F., Calimli M. H., Kanberoğlu G. S., Karaman M.

- JOURNAL OF BIOMOLECULAR STRUCTURE & DYNAMICS, vol.39, no.9, pp.3277-3284, 2021 (SCI-Expanded)
- VIII. Ruthenium(0) nanoparticles stabilized by metal-organic framework as an efficient electrocatalyst for borohydride oxidation reaction  
Backovic G., Sljukic B., Kanberoğlu G. S., Yurderi M., Bulut A., Zahmakiran M., Santos D. M. F.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.45, pp.27056-27066, 2020 (SCI-Expanded)
- IX. Chromium based metal-organic framework MIL-101 decorated palladium nanoparticles for the methanolysis of ammonia-borane  
Caner N., Yurderi M., Bulut A., Kanberoğlu G. S., Kaya M., Zahmakiran M.  
NEW JOURNAL OF CHEMISTRY, vol.44, pp.12435-12439, 2020 (SCI-Expanded)
- X. Complete Dehydrogenation of Hydrazine Borane on Manganese Oxide Nanorod-Supported Ni@Ir Core-Shell Nanoparticles  
Yurderi M., Top T., Bulut A., Kanberoğlu G. S., Kaya M., Zahmakiran M.  
Inorganic Chemistry, vol.59, pp.9728-9738, 2020 (SCI-Expanded)
- XI. Fabrication and characterization of SiO<sub>2</sub>@Fe<sub>3</sub>O<sub>4</sub>@nanodiamonds for vortex-assisted magnetic solid-phase extraction of lead in cigarette samples prior to FAAS detection  
Saydan Kanberoglu G. S., Yilmaz E., Soylak M.  
JOURNAL OF THE IRANIAN CHEMICAL SOCIETY, vol.17, pp.1627-1634, 2020 (SCI-Expanded)
- XII. Ruthenium Nanoparticles Supported on Reduced Graphene Oxide: Efficient Catalyst for the Catalytic Reduction of Cr(VI) in the Presence of Amine-Boranes  
Yurderi M., Bulut A., Kanberoğlu G. S., Kaya M., Kanbur Y., Zahmakiran M.  
CHEMISTRYSELECT, vol.5, pp.6961-6970, 2020 (SCI-Expanded)
- XIII. Hydrotalcite framework stabilized ruthenium nanoparticles (Ru/HTaL): efficient heterogeneous catalyst for the methanolysis of ammonia-borane  
Baguc I. B., Yurderi M., Kanberoğlu G. S., Bulut A.  
TURKISH JOURNAL OF CHEMISTRY, vol.44, pp.364-379, 2020 (SCI-Expanded)
- XIV. Electrochemiluminescence methods using CdS quantum dots in aptamer-based thrombin biosensors: a comparative study  
İşıldak İ., Navaeiipour F., Afsharan H., Kanberoğlu G. S., Ağır İ., Özer T., Annabi N., Totu E. E., Khalilzadeh B.  
MICROCHIMICA ACTA, vol.187, 2020 (SCI-Expanded)
- XV. A Novel Potentiometric PVC-membrane Cysteamine-Selective Electrode Based on Cysteamine-Phosphomolybdate Ion-Pair  
Tumur M., Kanberoğlu G. S., Çoldur F.  
CURRENT PHARMACEUTICAL ANALYSIS, vol.16, pp.168-175, 2020 (SCI-Expanded)
- XVI. Development of a reliable microRNA based electrochemical genosensor for monitoring of miR-146a, as key regulatory agent of neurodegenerative disease  
Khalilzadeh B., Rashidi M., Soleimanian A., Tajalli H., Kanberoğlu G. S., Baradaran B., Rashidi M.  
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.134, pp.695-703, 2019 (SCI-Expanded)
- XVII. Development of a potentiometric maprotiline-selective electrode and its application in pharmaceutical samples  
Cavus I., Kanberoğlu G. S.  
MICROCHEMICAL JOURNAL, vol.148, pp.57-65, 2019 (SCI-Expanded)
- XVIII. Application of deep eutectic solvent in ultrasound-assisted emulsification microextraction of quercetin from some fruits and vegetables  
Kanberoğlu G. S., Yilmaz E., Soylak M.  
JOURNAL OF MOLECULAR LIQUIDS, vol.279, pp.571-577, 2019 (SCI-Expanded)
- XIX. Developing a new and simple ultrasound-assisted emulsification liquid phase microextraction method built upon deep eutectic solvents for Patent Blue V in syrup and water samples  
Kanberoğlu G. S., Yilmaz E., Soylak M.  
MICROCHEMICAL JOURNAL, vol.145, pp.813-818, 2019 (SCI-Expanded)
- XX. Usage of deep eutectic solvents for the digestion and ultrasound-assisted liquid phase microextraction of copper in liver samples

- Kanberoğlu G. S., Yilmaz E., Soylak M.  
JOURNAL OF THE IRANIAN CHEMICAL SOCIETY, vol.15, pp.2307-2314, 2018 (SCI-Expanded)
- XXI. **Advances in nanomaterial based optical biosensing and bioimaging of apoptosis via caspase-3 activity: a review**  
Khalilzadeh B., Shadjou N., Kanberoğlu G. S., Afsharan H., De La Guardia M., Charoudeh H. N., Ostadrahimi A., Rashidi M.  
MICROCHIMICA ACTA, vol.185, 2018 (SCI-Expanded)
- XXII. **Flow Injection Potentiometric Determination of Silver(I) in Photographic Film Developing Solution Samples by Polyvinylchloride Membrane Silver(I) Selective Electrode**  
Topcu C., Çoldur F., Andaç M., Çubuk O., Kanberoğlu G. S., Çağlar B., İşıldak İ.  
JOURNAL OF THE CHEMICAL SOCIETY OF PAKISTAN, vol.38, pp.882-888, 2016 (SCI-Expanded)
- XXIII. **A Novel Flow-Injection Potentiometric Detector for Determination of Tamoxifen in Anticancer Drug Formulations**  
Kanberoğlu G. S., Çoldur F., Çubuk O., Topcu C., Çağlar B.  
Sensor Letters, vol.14, pp.59-64, 2016 (SCI-Expanded)
- XXIV. **PVC-Membrane Potentiometric Sensor for the Determination of Tamoxifen in Pharmaceutical Formulations**  
Kanberoğlu G. S., Çoldur F., Topcu C., Çubuk O.  
IEEE SENSORS JOURNAL, vol.15, pp.6199-6207, 2015 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Developing a potentiometric sunset yellow selective electrode and its applications**  
Kanberoğlu G. S., Aydin M.  
Cumhuriyet Science Journal, vol.41, no.1, pp.260-268, 2020 (Peer-Reviewed Journal)
- II. **Development of Potentiometric Sensor for Determination of Isoprenaline in Pharmaceutical Drug**  
Kanberoğlu G. S., Ozarslan O.  
El-Cezerî Journal of Science and Engineering, vol.7, no.1, pp.211-222, 2020 (Scopus)
- III. **CHEMICAL ANALYSIS AND FATTY ACID COMPOSITION OF THE CHICORY PLANTS(CICHORIUM INTYBUS L.) BY GC-MS**  
Kam N., Kanberoğlu G. S.  
Journal of Engineering Technology and Applied Sciences, pp.51-62, 2019 (Peer-Reviewed Journal)
- IV. **Developing a Potentiometric Ractopamine-Selective Electrode and Its Application**  
Kanberoğlu G. S.  
AVRUPA BİLİM VE TEKNOLOJİ DERGİSİ, vol.16, pp.776-784, 2019 (Peer-Reviewed Journal)
- V. **Fonksiyonel Gıdalar**  
Kanberoğlu G. S., Meral R.  
Dicle Üniversitesi Fen Bilimleri Enstitüsü Dergisi (DUFED), vol.2, no.1, pp.28-35, 2013 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Synthesis and Identification of Graphene Oxide Supported Ruthenium Nanoparticles with Sulfonic Acid Functional and Investigation of the Catalytic Performance of Aromatic Hydrocarbons in Reduction Reactions**  
Bulut A., Karakaş K., Kanberoğlu G., Zahmakiran M.  
in: SCIENCE AND MATHEMATICS IN A GLOBALIZING WORLD, Doç. Dr. Nahide Gülsah DENİZ, Editor, Duvar Kitapevi, İzmir, pp.5-19, 2023
- II. **K-OMS-2 Destekli Gümüş Nanoparçacıklarının Geliştirilmesi Tanımlanması ve Antibakteriyel Malzeme Olarak Uygulamaları**

Özdemir S., Gonca S., Kanberoğlu G.

in: INSAC New Trends in Natural and Engineering Sciences, Doç. Dr. Metin Açıkyıldız, Editor, gece kitaplığı, Ankara, pp.137-151, 2022

## Refereed Congress / Symposium Publications in Proceedings

- I. **Development of PVC membrane potentiometric sensor based on MOF in the determination of Imipramine hydrochloride**  
Subaşı Y., Kanberoğlu G. S.  
Balkan 2. zirvesi uluslararası uygulamalı bilimler kongresi, Ankara, Turkey, 10 May 2020, pp.1
- II. **The Catalytic Performance of Metal-Organic Framework Supported Nickel Nanoclusters in the Methanolysis of Ammonia-Borane**  
Kanberoğlu G. S., Zahmakiran M.  
International Engineering and Science Symposium, Siirt, Turkey, 20 June - 22 August 2019, pp.838-849
- III. **Development, Characterization and Photocatalytic Activities of Graphene Oxide Supported ZnO Nanoclusters**  
Kanberoğlu G. S., Zahmakiran M.  
International Engineering and Science Symposium, Siirt, Turkey, 20 - 22 June 2019, pp.568-580
- IV. **Some applications of deep eutectic solvents for the microextraction of trace inorganic and organic species**  
Kanberoğlu G. S., Yılmaz E., soylak m.  
1st International Conference on Innovation in Natural Science and Engineering, Famagusta, Cyprus (Kktc), 3 - 06 January 2018, pp.88
- V. **GAMMA SHIELDING PROPERTIES OF TAMOXIFEN DRUG**  
Kanberoğlu G. S., Oto B., Erden Gülebağlan S.  
32nd International Physics Congress of Turkish-Physical-Society (TPS), Bodrum, Turkey, 6 - 09 September 2016, vol.1815
- VI. **Spectrophotometric Detection of Quercetin after Preconcentration by Deep Eutectic Solvent Based Liquid Phase Microextraction**  
Kanberoğlu G. S., YILMAZ E., SOYLUK M.  
The 7 th International Conference on Optical Spectroscopy, Laser and their Applications, Kahire, Egypt, 18 - 20 October 2016, pp.88
- VII. **DEEP EUTECTIC SOLVENTS A GREEN SOLVENT SYSTEM FOR DIGESTION ANDULTRASOUND ASSISTED LIQUID PHASE MICROEXTRACTION OF COPPER IN LIVER SAMPLES**  
Kanberoğlu G. S., YILMAZ E., SOYLUK M.  
1st INTERNATIONAL BLACK SEA CONGRESS ON ENVIRONMENTAL SCIENCES(IBCCESS), Giresun, Turkey, 31 August - 03 September 2016, pp.243
- VIII. **NANO Fe<sub>3</sub>O<sub>4</sub>/NANODIAMOND/SiO<sub>2</sub> NANOKOMPOZİTİNİN SENTEZİ, KARAKTERİZASYONU VE Pb(II) İYONLARININ MANYETİK KATI FAZ EKSTRAKSİYONUNDA KULLANIMI**  
Kanberoğlu G. S., YILMAZ E., SOYLUK M.  
IV. Eser Analiz Kongresi, Sakarya, Turkey, 19 - 22 May 2016, pp.75
- IX. **Antioxidant Activity and Total Phenolic Contents of Teucrium orientale L. var puberulens**  
Kanberoğlu G. S., Meral R.  
3nd International Symposium on 'Traditional Foods from Adriatic to Caucasus', Saraybosna, Bosnia And Herzegovina, 1 - 05 October 2015, pp.240
- X. **Karboksilik Asitlerin Sıvı Kromatografik Elektrokimyasal Hibrit Sistemleriyle Eş Zamanlı Analizi**  
Kanberoğlu G. S., Dumanlı R., Işıldak İ.  
Kimya Kongresi, Sivas, Turkey, 16 - 20 June 2009, pp.39

## **Supported Projects**

Kanberoğlu G., KAYA N., Project Supported by Higher Education Institutions, Rodamin B Tayini İçin MOF Temelli Potansiyometrik Sensör Geliştirilmesi, 2023 - 2023

Kanberoğlu G., BULUT A., Project Supported by Higher Education Institutions, Sulfonik Asit Fonksiyonelli Grafen Oksit Destekli Rutenyum Nanoparçacıklarının Sentezi Tanımlanması ve Aromatik Hidrokarbonların İndirgenme Tepkimelerinde Katalitik Performanslarının İncelenmesi, 2020 - 2022

Kanberoğlu G., Project Supported by Higher Education Institutions, Potansiyometrik İmipramin Hidroklorür Seçici Sensör Geliştirilmesi ve Uygulamaları, 2020 - 2021

Kanberoğlu G., ÖZDEMİR S., Project Supported by Higher Education Institutions, KOMS2 Destekli Gümüş Nanoparçacıklarının Geliştirilmesi Tanımlanması ve Antibakteriyel Malzeme Olarak Uygulamaları, 2019 - 2020

Zahmakıran M., Kanberoğlu G. S., YURDERİ M., BULUT A., Çelebi M., Rakap M., BAĞUÇ İ. B., Project Supported by Higher Education Institutions, Amin-Boranların Katalitik Dehidrogenetlenme Tepkimeleri; Yakıt Hücresi Uygulamaları ve Yüksek Moleküler Ağırlıklı [BNHx]y Endüstriyel Polimerlerin Geliştirilmesi, 2019 - 2020

Kanberoğlu G., AYDIN M., Project Supported by Higher Education Institutions, Potansiyometrik Sunset Yellow-Seçici Elektrot Geliştirilmesi ve Uygulamaları, 2018 - 2019

Kanberoğlu G., Project Supported by Higher Education Institutions, Potansiyometrik Raktopamin Seçici Elektrot Geliştirilmesi ve Uygulamaları, 2018 - 2019

Kanberoğlu G., OZARSLAN O., Project Supported by Higher Education Institutions, Potansiyometrik İzoprenalin-Seçici Elektrot Geliştirilmesi ve Uygulamaları, 2018 - 2019

Kanberoğlu G., SOYLAK M., YILMAZ E., Project Supported by Higher Education Institutions, Spectrophotometric Detection of Quercetin after Preconcentration By Deep Eutectic Solvent Based Liquid Phase Microextraction, 2016 - 2017

Kanberoğlu G., Project Supported by Higher Education Institutions, 2-İzopropil-5- Metilfenoksi Ftalosianının Bileşiklerinin Potansiyometrik Kimyasal Sensörlerde Aktif Bileşen Olarak Kullanımının Araştırılması, 2015 - 2017

Kanberoğlu G., TÜMÜR M., Project Supported by Higher Education Institutions, Potansiyometrik Sisteamin-Seçici Elektrot Geliştirilmesi ve Farmasötik Numunelerinde Uygulanmaları, 2015 - 2017

Kanberoğlu G., Project Supported by Higher Education Institutions, Potansiyometrik Maprotillin-Seçici Elektrot Geliştirilmesi ve Farmasötik Numunelerinde Uygulanmaları, 2015 - 2015

Kanberoğlu G., Project Supported by Higher Education Institutions, Potansiyometrik Tamoksifen-Seçici Elektrot Geliştirilmesi ve Farmasötik Numunelerinde Uygulanmaları, 2013 - 2015

## **Scientific Refereeing**

International journal of hydrogen energy, SCI Journal, May 2019

Turkish Journal of Chemistry, SCI Journal, July 2016

## **Metrics**

Publication: 49

Citation (WoS): 75

Citation (Scopus): 362

H-Index (WoS): 6

H-Index (Scopus): 9

## **Awards**

Kanberoğlu G. S., Nano Fe3O4 /Nanodiamond/SiO<sub>2</sub> Nanokompozitinin Sentezi, Karakterizasyonu ve Pb(II) İyonlarının Manyetik Katı Faz Ekstraksiyonunda Kullanımı", Esan -2016 Iv. Eser Analiz Kongresi, May 2016

Kanberoğlu G. S., Şentürk Z., ANTIİNFLAMATUVAR -ANALJEZİK İLAÇLARDAN ASEMETASİN'İN AKİŞ-ENJEKSİYON ANALİZ YÖNTEMİ İLE MİKTAR TAYİNİ BAŞLIKLI POSTERİ İLE EN İYİ POSTER ÖDÜLÜ, 1. Ulusal Analitik Kimya Kongresi, September 2004

**Non Academic Experience**

ERCİYES ÜNİVERSİTESİ