

## Assoc. Prof. YAVUZ GÖKÇE

### Personal Information

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### International Researcher IDs

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ScopusID: 23984652100

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### Education Information

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Kimya Mühendisliği (Dr), Turkey 2008 - 2014

Postgraduate, Ankara University, Fen Bilimleri Enstitüsü, Kimya Mühendisliği (YI) (Tezli), Turkey 2005 - 2008

Undergraduate, Ankara University, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, Turkey 2000 - 2004

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Surface modification and characterisation of biomass-based activated carbons, Ankara University, Fen Bilimleri Enstitüsü, Kimya Mühendisliği (Dr), 2014

Postgraduate, Synthesis of chitosan nanoparticles, Ankara University, Fen Bilimleri Enstitüsü, Kimya Mühendisliği (YI) (Tezli), 2008

### Research Areas

Chemical Engineering and Technology, Engineering and Technology

### Academic Titles / Tasks

Research Assistant, Ankara University, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, 2007 - Continues

### Courses

KYM 345 New Materials, Undergraduate, 2021 - 2022

KMU 345 New Materials, Undergraduate, 2021 - 2022, 2020 - 2021

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

- I. **Oleaster (*Elaeagnus angustifolia* L.) fruit peel as a novel natural separator in supercapacitors**  
Gökçe Y., Yağmur E., Yağlıkçı S., Banford A., Aktaş Z.  
Journal of Industrial and Engineering Chemistry, vol.132, pp.212-219, 2024 (SCI-Expanded)
- II. **Production of demineralised high quality hierarchical activated carbon from lignite and determination of adsorption performance using methylene blue and p-nitrophenol: The role of surface functionality, accessible pore size and surface area**  
Chalil Oglou R., GÖKÇE Y., YAĞMUR E., AKTAŞ Z.  
Journal of Environmental Management, vol.345, 2023 (SCI-Expanded)
- III. **Waste jean derived self N-containing activated carbon as a potential electrode material for supercapacitors**  
Gokce Y.  
TURKISH JOURNAL OF CHEMISTRY, vol.47, no.4, 2023 (SCI-Expanded)
- IV. **Highly stable Megalopolis lignite based N and S self-doped hierarchically porous activated carbons for high performance supercapacitors and ash content effects on performance**  
Oglou R. C., GÖKÇE Y., YAĞMUR E., Ghobadi T. G. U., AKTAŞ Z.  
JOURNAL OF ENERGY STORAGE, vol.46, 2022 (SCI-Expanded)
- V. **Assessing the effect of protic ionic liquid pretreatment of *Pinus radiata* from different perspectives including solvent-water ratio**  
SEMERCİ N. I., SOYSAL K., YAĞLIKÇI S., GÖKÇE Y.  
JOURNAL OF WOOD CHEMISTRY AND TECHNOLOGY, vol.41, no.6, pp.236-248, 2021 (SCI-Expanded)
- VI. **The synthesis and application of chitosan coated ZnO nanorods for multifunctional cotton fabrics**  
Turemen M., DEMİR A., GÖKÇE Y.  
MATERIALS CHEMISTRY AND PHYSICS, vol.268, 2021 (SCI-Expanded)
- VII. **Adsorption behaviour of high performance activated carbon from demineralised low rank coal (Rawdon) for methylene blue and phenol**  
GÖKÇE Y., YAĞLIKÇI S., YAĞMUR E., Banford A., AKTAŞ Z.  
JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING, vol.9, no.2, 2021 (SCI-Expanded)
- VIII. **Does high sulphur coal have the potential to produce high performance - low cost supercapacitors?**  
YAĞLIKÇI S., GÖKÇE Y., YAĞMUR E., Banford A., AKTAŞ Z.  
SURFACES AND INTERFACES, vol.22, 2021 (SCI-Expanded)
- IX. **Improved antibacterial property of cotton fabrics coated with waste sericin/silver nanocomposite**  
GÖKÇE Y., AKTAŞ Z., ÇAPAR G., Kutlu E., ANIŞ P.  
MATERIALS CHEMISTRY AND PHYSICS, vol.254, 2020 (SCI-Expanded)
- X. **Characteristics and comparison of activated carbons prepared from oleaster (*Elaeagnus angustifolia* L.) fruit using KOH and ZnCl<sub>2</sub>**  
YAĞMUR E., GÖKÇE Y., Tekin S., SEMERCİ N. I., AKTAŞ Z.  
FUEL, vol.267, 2020 (SCI-Expanded)
- XI. **Investigation of supercapacitor performance of the biomass based activated carbon modified with nitric acid**  
GÜRTEK İNAL İ. I., GÖKÇE Y., YAĞMUR E., AKTAŞ Z.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.35, no.3, pp.1243-1255, 2020 (SCI-Expanded)
- XII. **The performance of sulphur doped activated carbon supercapacitors prepared from waste tea**  
YAĞLIKÇI S., GÖKÇE Y., YAĞMUR E., AKTAŞ Z.  
ENVIRONMENTAL TECHNOLOGY, vol.41, no.1, pp.36-48, 2020 (SCI-Expanded)
- XIII. **Examination of gas and solid products during the preparation of activated carbon using phosphoric acid**  
YAĞMUR E., GÜRTEK İNAL İ. I., GÖKÇE Y., Ghobadi T. G. U., Aktar T., AKTAŞ Z.  
JOURNAL OF ENVIRONMENTAL MANAGEMENT, vol.228, pp.328-335, 2018 (SCI-Expanded)
- XIV. **Improving certain properties of wool fibers by applying chitosan nanoparticles and atmospheric**

### **plasma treatment**

Sahan G., DEMİR A., GÖKÇE Y.

FIBERS AND POLYMERS, vol.17, no.7, pp.1007-1012, 2016 (SCI-Expanded)

XV. **Ultrasonication of chitosan nanoparticle suspension: Influence on particle size**

GÖKÇE Y., Cengiz B., YILDIZ N., Calimli A., AKTAŞ Z.

COLLOIDS AND SURFACES A-PHYSCOCHEMICAL AND ENGINEERING ASPECTS, vol.462, pp.75-81, 2014 (SCI-Expanded)

XVI. **Nitric acid modification of activated carbon produced from waste tea and adsorption of methylene blue and phenol**

GÖKÇE Y., AKTAŞ Z.

APPLIED SURFACE SCIENCE, vol.313, pp.352-359, 2014 (SCI-Expanded)

XVII. **Synthesis and characterization of hydroxyapatite nanoparticles**

Cengiz B., Gökçe Y., Yıldız N., Aktaş Z., Calimli A.

COLLOIDS AND SURFACES A-PHYSCOCHEMICAL AND ENGINEERING ASPECTS, vol.322, no.1-3, pp.29-33, 2008 (SCI-Expanded)

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

I. **Preparation of Waste Fabric Based Activated Carbon and Determination of Adsorption Performance Using Methylene Blue**

Gökçe Y.

Journal of the Turkish Chemical Society Section B: Chemical Engineering, vol.6, no.2, pp.85-94, 2023 (Peer-Reviewed Journal)

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

I. **Evaluation of EVA foam wastes from solar panel manufacturing processes in energy storage application**

GÖKÇE Y., Duman H., Kök A. E., YAĞLIKÇI S., YAĞMUR E.

11th International Conference on Sustainable Solid Waste Management (RHODES 2024), Rodos, Greece, 19 - 22 June 2024

II. **Supercapacitor Performance of Self-heteroatom Doped Activated Carbon Samples Produced from Chitosan**

GÖKÇE Y.

III. International Halich Congress on Multidisciplinary Scientific Research, İstanbul, Turkey, 12 - 13 March 2022

III. **The Performance of Sulphur Doped Activated Carbon Supercapacitors Prepared from Waste Tea**

YAĞLIKÇI S., GÖKÇE Y., YAĞMUR E., AKTAŞ Z.

6. European Conference on Renewable Energy Systems, 25 - 27 June 2018

IV. **Cotton Fabrics Obtained UV Protection Properties with Zinc-Chitosan Bio-Nanocomposites**

TÜREMEN M., DEMİR A., GÖKÇE Y., GÜLÜMSER T.

4 th International Conference on Engineering and Natural Sciences, 2 - 06 May 2018, pp.50

V. **Preparation and Cotton Fabric Applications of Chitosan-Silver Nanocomposite**

GÖKÇE Y., TÜREMEN M., DEMİR A., GÜLÜMSER T.

8th International Istanbul Conference on Evolution Technical Textile (ETT2018), 14 - 16 April 2018

VI. **Synthesis, Characterization and Investigation of Electrochemical Behavior of Activated Carbon-Iron Nanoparticle Composite**

Çabuk N., Gökçe Y., Gürten İnal İ. I., Yağmur E., Aktaş Z.

2. Ulusal Karbon Konferansı, İstanbul, Turkey, 16 March 2018

VII. **Supercapacitor performance of the activated carbons produced from waste tea and lignite mixtures**

- GÜRTEN İNAL İ. I., GÖKÇE Y., YAĞMUR E., AKTAŞ Z.  
3rd International Conference Porous and Powder Materials Symposium and Exhibition, 12 - 15 September 2017
- VIII. **Synthesis and UV-protecting properties of textiles containing zinc oxide nanoparticles**  
GÖKÇE Y., Türemen M., DEMİR A., GÜLÜMSER T.  
3rd International Conference Porous Powder Materials Symposium (PPM2017), 12 - 15 September 2017
- IX. **Effects of Demineralisation Process on the Activated Carbon Prepared from Rawdon Coal**  
YAĞLIKÇI S., GÖKÇE Y., YAĞMUR E., AKTAŞ Z.  
3rd International Conference Porous Powder Materials Symposium (PPM2017), 12 - 15 September 2017
- X. **Preparation and Characterisation of Sericin Stabilised Silver Nanoparticles**  
GÖKÇE Y., ÇAPAR G., AKTAŞ Z.  
3rd International Conference Porous Powder Materials Symposium (PPM2017), 12 - 15 September 2017
- XI. **Biopolymer Applications with Ecological Methods in the Textile Industry**  
Demir A., Türemen M., Gökçe Y., Gülümser T.  
Uluslararası Geleneksel Sanatlar Sempozyumu, Trabzon, Turkey, 20 - 21 April 2017
- XII. **Waste tea derived activated carbon/polyaniline composites as supercapacitor electrodes**  
GÜRTEN İNAL İ. I., GÖKÇE Y., AKTAŞ Z.  
5th IEEE International Conference on Renewable Energy Research and Applications (ICRERA), Birmingham, United Kingdom, 20 - 23 November 2016, pp.458-462
- XIII. **Nitric acid modified activated carbons as electrode materials for supercapacitors**  
GÖKÇE Y., GÜRTEN İNAL İ. I., YAĞMUR E., AKTAŞ Z.  
12th International Conference on Materials Chemistry (MC12), 20 - 23 July 2015
- XIV. **Preparation of activated carbon from cumin cuminum cyminum and its adsorption performance**  
BAYKAN Y., GÖKÇE Y., YAĞMUR E., AKTAŞ Z.  
12th International Conference on Materials Chemistry (MC12), York, Sierra Leone, 20 - 23 July 2015
- XV. **Methylene Blue and Phenol Adsorption of Activated Carbon Modified by Microwave Heating**  
Gökçe Y., Yağmur E., Aktaş Z.  
1. Ulusal Karbon Konferansı, İstanbul, Turkey, 12 - 13 March 2015
- XVI. **Surface modification of biomass based activated carbon with chitosan**  
GÖKÇE Y., YAĞMUR E., AKTAŞ Z.  
2nd International Surface Treatment Symposium, 25 - 27 June 2014
- XVII. **Surface Modification of Activated Carbons Produced from Tea Waste with HNO<sub>3</sub>**  
Gökçe Y., Yağmur E., Aktaş Z.  
Ulusal Kimya Mühendisliği Kongresi 10, İstanbul, Turkey, 3 - 06 September 2012
- XVIII. **Preparation of Nanohydroxyapatite -Chitosan Composite Film Using Spin Coating Technique**  
GEÇER A., GÖKÇE Y., TEKİN S., YAĞLIOĞLU H. G., ELMALI A., YILDIZ N., AKTAŞ Z., ÇALIMLI A.  
3rd International Conference Advanced Composite Materials Engineering, Brasov, Romania, 27 - 29 October 2010, vol.1, pp.69-72
- XIX. **Effect of Lyoprotectants Used in Freeze-Drying on the Size Distribution of Chitosan Nanoparticles**  
Gökçe Y., Cengiz B., Yıldız N., Aktaş Z., Çalimli A.  
Ulusal Kimya Mühendisliği Kongresi 9, Ankara, Turkey, 22 - 25 June 2010
- XX. **Synthesis of Nanohydroxyapatite Chitosan Composite Using Calcium Phosphor Tris Solution**  
GÖKÇE Y., CENGİZ B., YILDIZ N., AKTAŞ Z., ÇALIMLI A.  
Nanoparticles 2009, 2 - 04 September 2009
- XXI. **The Use of Ultrasonication for the Synthesis of Ionically Cross linked Ultrafine Chitosan Nanoparticles**  
GÖKÇE Y., CENGİZ B., YILDIZ N., AKTAŞ Z., ÇALIMLI A.  
NanoTR IV Nanobilim ve Nanoteknoloji Konferansı, Turkey, 9 - 13 June 2008
- XXII. **Effects of Ultrasonication on the Size of Chitosan Nanoparticles**  
GÖKÇE Y., CENGİZ B., YILDIZ N., AKTAŞ Z., ÇALIMLI A.  
8th International Conference of the European Chitin Society, 8 - 11 September 2007
- XXIII. **Synthesis of Chitosan Nanoparticles**

GÖKÇE Y., CENGİZ B., YILDIZ N., AKTAŞ Z., ÇALIMLI A.

NanoTR III, Turkey, 11 - 14 June 2007

**XXIV. Synthesis and Characterization of Hydroxyapatite**

CENGİZ B., GÖKÇE Y., YILDIZ N., AKTAŞ Z., ÇALIMLI A.

NanoTR II, Ankara, Turkey, 3 - 05 May 2006

**XXV. Feedback Control of Upper Product Temperature in Pilot Scale Packed Distillation Column**

Hacıbekiroğlu B., Gökçe Y., Ertunç S., Akay B.

6. Ulusal Kimya Mühendisliği Kongresi (UKMK6), İzmir, Turkey, 7 - 10 November 2004, pp.3

## Supported Projects

Semerci N. I., Smağ A., Donar Y. O., Gökçe Y., TÜBİTAK International Bilateral Joint Cooperation Program Project, Use of Biomass Components Separated by Protic Ionic Liquid Pretreatment in Electrode Material Production and Supercapacitor Applications, 2022 - 2024

Demir A., Gökçe Y., TÜBİTAK Project, Investigation of the Possibilities of Obtaining Multifunctional Cotton Products Using Nanochitosan and Chitosan-Metal Nanocomposites, 2017 - 2018

Aktaş Z., Gökçe Y., Çapar G., Project Supported by Higher Education Institutions, Sericin Protein and Water Recovery from Textile Wastewater, 2015 - 2018

Gökçe Y., Aktaş Z., Anış P., Çapar G., TÜBİTAK Project, Sericin Protein Recovery and Prototype Sericin Production from Textile Industry Silk Yarn Processing Wastewater via Membrane Hybrid Processes, 2015 - 2018

Yağmur E., Gürten Inal I. I., Gökçe Y., Aktaş Z., Project Supported by Higher Education Institutions, The Use of Biomass-Based Activated Carbons as Electrode Materials in Electrochemical Double-Layer Capacitors, 2014 - 2016

Aktaş Z., Yıldız N., Çalimli A., TÜBİTAK Project, Synthesis and particle characterization of nanostructured chitosan, hydroxyapatite and composites, 2005 - 2007

## Patent

Gökçe Y., Yağmur E., New Separator for Supercapacitors, Patent, CHAPTER H Electricity, The Invention Registration Number: TR 2019 20426 B , Standard Registration, 2022

## Scientific Refereeing

Journal of the Turkish chemical society section b chemical engineering, National Scientific Refreed Journal, May 2024

SAKARYA UNIVERSITY JOURNAL OF SCIENCE, National Scientific Refreed Journal, May 2024

MATERIALS CHEMISTRY AND PHYSICS, Journal Indexed in SCI-E, March 2024

INTERNATIONAL JOURNAL OF GREEN ENERGY, Journal Indexed in SCI-E, February 2023

RSC ADVANCES, Journal Indexed in SCI-E, September 2019

TURKISH JOURNAL OF BIOCHEMISTRY, Journal Indexed in SCI-E, January 2019

ENERGY, Journal Indexed in SCI-E, February 2018

ENERGY, Journal Indexed in SCI-E, February 2017

MATERIALS RESEARCH EXPRESS, Journal Indexed in SCI-E, December 2016

JOURNAL OF THE TAIWAN INSTITUTE OF CHEMICAL ENGINEERS, Journal Indexed in SCI-E, June 2016

JOURNAL OF THE TAIWAN INSTITUTE OF CHEMICAL ENGINEERS, Journal Indexed in SCI-E, February 2015

JOURNAL OF THE TAIWAN INSTITUTE OF CHEMICAL ENGINEERS, Journal Indexed in SCI-E, January 2015

## Scientific Consultations

Mak Savunma San. Elekt. Otom. İnş. Tur. Ltd. Şti., Scientific Consultancy, Ankara University, Mühendislik Fakültesi, Kimya

Mühendisliđi Bölümü, Turkey, 2024 - Continues

## **Metrics**

Publication: 43

Citation (WoS): 867

Citation (Scopus): 1037

H-Index (WoS): 11

H-Index (Scopus): 13

## **Scholarships**

2219-Yurt Dışı Doktora Sonrası Araştırma Burs Programı, TÜBİTAK, 2019 - 2023