

# Prof. GÜLSÜN GÖKAĞAÇ ARSLAN

## Personal Information

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## International Researcher IDs

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## Education Information

Doctorate, University of Sydney, Australia 1989 - Continues

Postgraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Chemistry, Turkey 1984 - 1986

## Foreign Languages

English, C1 Advanced

## Dissertations

Doctorate, Metal oxides aspromoters for methanol oxidation, University Of Sydney, 1994

Postgraduate, Some chemistry and the electronic absorption spectra of  $[Pt_2(SO_4)_4X_2]_n$ - and  $[Pt_2(HPO_4)_4X_2]_n$ - (X=H<sub>2</sub>O, Br-, Cl-) complexes., Middle East Technical University, Faculty of Arts and Sciences, Department of Chemistry, 1986

## Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Chemistry, 2012 - Continues

## Supervised Theses

GÖKAĞAÇ ARSLAN G., Preparation and characterization of Pt nanocatalysts supported by thiourea-treated GO nanoparticles: The application to anodic process of DMFC, Postgraduate, T.SEDA(Student), 2017

TUNCEL S., GÖKAĞAÇ ARSLAN G., Functionalization of nanomaterial: applied for environmental remediation, Postgraduate, E.Alemdar(Student), 2017

GÖKAĞAÇ ARSLAN G., Pt/MWCNT and Pt/f-MWCNT catalysts preparation by hydrogen reduction and impregnation method: The application to methanol oxidation reaction, Postgraduate, M.AHMED(Student), 2016

GÖKAĞAÇ ARSLAN G., Carbon-supported pt nanoparticles prepared by new surfactants and different reducing agents for methanol oxidation reaction, Postgraduate, S.SELİME(Student), 2015

GÖKAĞAÇ ARSLAN G., Preperation and characterization of carbon supported platinum nanoparticles for methanol oxidation reactions, Postgraduate, A.ÇOKANGIN(Student), 2015

GÖKAĞAÇ ARSLAN G., Preparation and characterization of platinum/carbon catalysts synthesized by different reducing

agents and surfactants and their performance towards methanol oxidation reaction, Postgraduate, D.ÇAKAL(Student), 2014

GÖKAĞAÇ ARSLAN G., The Preparation and analysis of new carbon supported Pt and Pt+ second metal nanoparticles catalysts for direct methanol fuel cells, Doctorate, F.Şen(Student), 2012

GÖKAĞAÇ ARSLAN G., Preparation and characterization of carbon supported platinum nanocatalysts with different surfactants for C1 to C3 alcohol oxidations, Postgraduate, S.ERTAN(Student), 2011

GÖKAĞAÇ ARSLAN G., Carbon supported platinum-palladium catalysts for methanol and ethanol oxidation reactions, Postgraduate, Z.Öztürk(Student), 2011

GÖKAĞAÇ ARSLAN G., Activity of carbon supported platinum nanoparticles catalysts toward methanol oxidation reaction : role of metal precursor and a new surfactant, Postgraduate, S.Şen(Student), 2008

GÖKAĞAÇ ARSLAN G., Carbon supported and surfactant stabilized metal nanoparticle catalysts for direct methanol fuel cells, Postgraduate, Ç.Çelik(Student), 2005

GÖKAĞAÇ ARSLAN G., Synthesis and characterization of poly(dihalophenylene oxide)s and its derivatives from diammine bis(trihalophenolato) Cu(II) complexes, Postgraduate, M.Sonsuz(Student), 2004

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

- I. **Improved Pt/C electrocatalysts for methanol oxidation prepared by different reducing agents and surfactants and DFT studies on it**  
Cokangin A., AYDIN M., GÖKAĞAÇ ARSLAN G.  
JOURNAL OF NANOPARTICLE RESEARCH, vol.19, no.10, 2017 (SCI-Expanded)
- II. **Pt nanoparticles synthesized with new surfactants: improvement in C-1-C-3 alcohol oxidation catalytic activity**  
ŞEN F., GÖKAĞAÇ ARSLAN G.  
JOURNAL OF APPLIED ELECTROCHEMISTRY, vol.44, no.1, pp.199-207, 2014 (SCI-Expanded)
- III. **High performance Pt nanoparticles prepared by new surfactants for C-1 to C-3 alcohol oxidation reactions**  
ŞEN F., GÖKAĞAÇ ARSLAN G., Sen S.  
JOURNAL OF NANOPARTICLE RESEARCH, vol.15, no.10, 2013 (SCI-Expanded)
- IV. **The preparation and characterization of nano-sized Pt-Pd/C catalysts and comparison of their superior catalytic activities for methanol and ethanol oxidation**  
Ozturk Z., Sen F., Sen S., GÖKAĞAÇ ARSLAN G.  
JOURNAL OF MATERIALS SCIENCE, vol.47, no.23, pp.8134-8144, 2012 (SCI-Expanded)
- V. **Platinum nanocatalysts prepared with different surfactants for C1-C3 alcohol oxidations and their surface morphologies by AFM**  
Ertan S., Sen F., Sen S., Gokagac G.  
JOURNAL OF NANOPARTICLE RESEARCH, vol.14, no.6, 2012 (SCI-Expanded)
- VI. **Effects of sodium hypochlorite on gutta-percha and Resilon cones: An atomic force microscopy and scanning electron microscopy study**  
TOPUZ Ö., Saglam B. C., Sen F., Sen S., GÖKAĞAÇ ARSLAN G., Gorgul G.  
ORAL SURGERY ORAL MEDICINE ORAL PATHOLOGY ORAL RADIOLOGY AND ENDODONTOLOGY, vol.112, no.4, 2011 (SCI-Expanded)
- VII. **Efficiency enhancement of methanol/ethanol oxidation reactions on Pt nanoparticles prepared using a new surfactant, 1,1-dimethyl heptanethiol**  
Sen F., Sen S., GÖKAĞAÇ ARSLAN G.  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.13, no.4, pp.1676-1684, 2011 (SCI-Expanded)
- VIII. **Preparation and characterization of nano-sized Pt-Ru/C catalysts and their superior catalytic activities for methanol and ethanol oxidation**  
Sen S., Sen F., GÖKAĞAÇ ARSLAN G.  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.13, no.15, pp.6784-6792, 2011 (SCI-Expanded)

- IX. **Improving catalytic efficiency in the methanol oxidation reaction by inserting Ru in face-centered cubic Pt nanoparticles prepared by a new surfactant, tert-octanethiol**  
Sen F., Gokagac G.  
ENERGY & FUELS, vol.22, no.3, pp.1858-1864, 2008 (SCI-Expanded)
- X. **Different sized platinum nanoparticles supported on carbon: An XPS study on these methanol oxidation catalysts**  
Sen F., Gokagac G.  
JOURNAL OF PHYSICAL CHEMISTRY C, vol.111, no.15, pp.5715-5720, 2007 (SCI-Expanded)
- XI. **Activity of carbon-supported platinum nanoparticles toward methanol oxidation reaction: Role of metal precursor and a new surfactant, tert-octanethiol**  
Sen F., Gokagac G.  
JOURNAL OF PHYSICAL CHEMISTRY C, vol.111, no.3, pp.1467-1473, 2007 (SCI-Expanded)
- XII. **Spectroscopic and crystal structure analysis of diamminebis(2,4,6-triiodophenolato-O) copper(II)**  
Gokagac G., Yildirim L. T., Sonsuz M., Sen F.  
CRYSTAL RESEARCH AND TECHNOLOGY, vol.41, no.5, pp.523-527, 2006 (SCI-Expanded)
- XIII. **Adsorption of dithiophosphate and dithiophosphate on chalcopyrite**  
Guler T., Hicyilmaz C., Gokagac G., Ekmekci Z.  
MINERALS ENGINEERING, vol.19, no.1, pp.62-71, 2006 (SCI-Expanded)
- XIV. **Electrochemical behaviour of chalcopyrite in the absence and presence of dithiophosphate**  
Guler T., Hicyilmaz C., Gokagac G., Ekmekci Z.  
INTERNATIONAL JOURNAL OF MINERAL PROCESSING, vol.75, no.3-4, pp.217-228, 2005 (SCI-Expanded)
- XV. **Voltammetric and drift spectroscopy investigation in dithiophosphate-chalcopyrite system**  
Guler T., Hicyilmaz C., Gokagac G., Ekmekci Z.  
JOURNAL OF COLLOID AND INTERFACE SCIENCE, vol.279, no.1, pp.46-54, 2004 (SCI-Expanded)
- XVI. **Pyrite-DTPI interaction as a function of pulp potential and pH**  
Hicyilmaz C., Altun N., Ekmekci Z., Gokagac G.  
COLLOIDS AND SURFACES A-PHYSICO-CHEMICAL AND ENGINEERING ASPECTS, vol.233, no.1-3, pp.11-24, 2004 (SCI-Expanded)
- XVII. **Axial water substitution kinetics of sulphato- and hydrogenphosphato-bridged binuclear platinum(III) complexes**  
Camadanli S., Deveci N., Gokagac G., Isci H.  
INORGANICA CHIMICA ACTA, vol.351, pp.1-6, 2003 (SCI-Expanded)
- XVIII. **Behaviour of bimetallic Pt-Pd carbon-supported catalysts in methanol electrooxidation**  
Gokagac G., Leger J., Hahn F.  
ZEITSCHRIFT FUR NATURFORSCHUNG SECTION B-A JOURNAL OF CHEMICAL SCIENCES, vol.58, no.5, pp.423-432, 2003 (SCI-Expanded)
- XIX. **Carbon supported Pt plus Os catalysts for methanol oxidation**  
Gokagac G., Kennedy B.  
ZEITSCHRIFT FUR NATURFORSCHUNG SECTION B-A JOURNAL OF CHEMICAL SCIENCES, vol.57, no.2, pp.193-201, 2002 (SCI-Expanded)
- XX. **Effect of a thermal treatment on the activity of carbon-supported Pt, Pt+W and Pt+Mo electrocatalysts for methanol oxidation reactions**  
Gokagac G., Leger J., Hahn F.  
ZEITSCHRIFT FUR NATURFORSCHUNG SECTION B-A JOURNAL OF CHEMICAL SCIENCES, vol.56, no.12, pp.1306-1314, 2001 (SCI-Expanded)
- XXI. **SURFACE STABILITY OF BISMUTH-RUTHENIUM OXIDE ELECTRODES**  
GOKAGAC G., KENNEDY B.  
LANGMUIR, vol.9, no.7, pp.1862-1867, 1993 (SCI-Expanded)
- XXII. **POTENTIAL-DEPENDENT SURFACE SEGREGATION IN LEAD PLUS RUTHENIUM PYROCHLORE PB<sub>2</sub>RU<sub>2</sub>O<sub>7</sub>-Y**  
GOKAGAC G., KENNEDY B.

JOURNAL OF ELECTROANALYTICAL CHEMISTRY, vol.353, no.1-2, pp.71-80, 1993 (SCI-Expanded)

XXIII. **CHARACTERIZATION OF CARBON-SUPPORTED PT-SN BIMETALLIC CATALYSTS FOR THE ELECTROCHEMICAL OXIDATION OF METHANOL**

GOKAGAC G., KENNEDY B., CASHION J., BROWN L.

JOURNAL OF THE CHEMICAL SOCIETY-FARADAY TRANSACTIONS, vol.89, no.1, pp.151-157, 1993 (SCI-Expanded)

## Articles Published in Other Journals

I. **Redox behaviour of chalcopyrite**

GÜLER T., HIÇYILMAZ C., GÖKAĞAÇ ARSLAN G., EKMEKÇİ Z.

International Journal of Natural and Engineering Sciences, vol.3, no.1, pp.83-89, 2009 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

I. **Destek Maddelerinin Katalizörlerin Performansları Üzerindeki Etkisi**

ANAKLI D., KARAOSMANOĞLU T. S., GÖKAĞAÇ ARSLAN G.

29. Ulusal Kimya Kongresi, Ankara, Turkey, 10 - 14 December 2017

II. **Methanol oxidation by nano Pt C electrocatalysts and DFT studies**

GÖKAĞAÇ ARSLAN G., AYDIN M., ÇOKANGIN A.

6th EuCheMS Chemistry Congress, 11 - 15 September 2016

III. **Electrochemical Behavior Pyrite in the Absence and Presence of DTPI at Acidic and Alkaline Conditions**

Hiçyılmaz C., ALTUN N. E., EKMEKÇİ Z., GÖKAĞAÇ ARSLAN G.

XXIII. International Mineral Processing Conference, 3 - 08 September 2006, pp.609-616

IV. **Investigation of the Hydrophobicity of Pyrite as a Function of Pulp Potential**

Hiçyılmaz C., ALTUN N. E., EKMEKÇİ Z., GÖKAĞAÇ ARSLAN G.

8th Conference on Environment and Mineral Processing, 10 - 12 June 2004, pp.247-253

## Supported Projects

YILMAZ A., AKMAN P., GÖKAĞAÇ ARSLAN G., ÇORUH N., NALBANT ESENTÜRK E., KAYRAN İŞÇİ C., PERSİL ÇETİNKOL Ö., Project Supported by Higher Education Institutions, Lüminesan MCM-41 Mezogözenekli Silika Nanoparçacıklarına Selekoksib Yükleme Çalışmaları: İlaç Yükleme ve Bırakma Özellikleri, 2018 - 2019

GÖKAĞAÇ ARSLAN G., Project Supported by Higher Education Institutions, DFT STUDIES ON f-CNT AND COMPARISON WITH EXPERIMENTAL RESULTS, 2017 - 2017

GÖKAĞAÇ ARSLAN G., YILMAZ A., ÇORUH N., NALBANT ESENTÜRK E., KAYRAN İŞÇİ C., PERSİL ÇETİNKOL Ö., Project Supported by Higher Education Institutions, Değişik destek maddeleri kullanılarak yeni katalizörlerin hazırlanması, 2017 - 2017

ÖZKAR S., GÖKAĞAÇ ARSLAN G., AKBAYRAK S., YILMAZ A., NALBANT ESENTÜRK E., KAYRAN İŞÇİ C., Project Supported by Higher Education Institutions, Serya destekli rutenyum nanokümelere: Sentezi, tanımlanması ve amonyak boranın hidrojen üretiminde katalitik etkinliğinin incelenmesi, 2016 - 2016

ÖZKAR S., GÖKAĞAÇ ARSLAN G., YILMAZ A., NALBANT ESENTÜRK E., KAYRAN İŞÇİ C., Project Supported by Higher Education Institutions, Hidrojen Üretiminde Formik Asidin Dehidrojenlenmesini Katalizleyecek Metal Nanokümelere Hazırlanması, Tanımlanması ve Katalitik Performanslarının İncelenmesi, 2015 - 2015

GÖKAĞAÇ ARSLAN G., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

GÖKAĞAÇ ARSLAN G., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

GÖKAĞAÇ ARSLAN G., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

GÖKAĞAÇ ARSLAN G., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

YILMAZ A., GÖKAĞAÇ ARSLAN G., NALBANT ESENTÜRK E., KAYRAN İŞÇİ C., Project Supported by Higher Education Institutions, Biyomedikal Amaçla Kullanılabilecek Anorganik Nanoparçacıkların Yüzey Aktifleme Çalışmaları ve Bunların Fizikokimyasal Karakterizasyonları, 2014 - 2014

GÖKAĞAÇ ARSLAN G., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

GÖKAĞAÇ ARSLAN G., ASLANTÜRK A., Project Supported by Higher Education Institutions, METANOL YÜKSELTGENME REAKSİYONU İÇİN KULLANILAN KARBON DESTEKLİ PLATİN NANOPARÇACIKLARIN HAZIRLANMASI VE KARAKTERİZASYONU, 2013 - 2013

GÖKAĞAÇ ARSLAN G., KALYONCU S. S., Project Supported by Higher Education Institutions, YENİ SÜRFİKTANLAR VE FARKLI İNDİRGEYİCİLERLE METANOL OKSİDASYONUNA KARŞI HAZIRLANAN KARBON DESTEKLİ PLATİN NANOPARÇACIKLAR, 2013 - 2013

GÖKAĞAÇ ARSLAN G., ÇAKAL D., Project Supported by Higher Education Institutions, ÇEŞİTLİ İNDİRGEYİCİLER KULLANILARAK HAZIRLANAN KATALİZÖRLERİN VERİMLİLİKLERİ, 2013 - 2013

## Metrics

Publication: 28

Citation (WoS): 902

Citation (Scopus): 990

H-Index (WoS): 13

H-Index (Scopus): 15

## Non Academic Experience

METU, Assistant

METU, Professor

METU, Assistant

METU, Associate Professor (Title)

METU, Assistant Professor

METU, Assistant

University of Sydney, Teaching Assistant and Scholarship

METU, Assistant