

# Prof. Ayşe BAYRAKÇEKEN YURTCAN

## Personal Information

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## Education Information

Doctorate, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, Turkey 2004 - 2008

Post Graduate, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, Turkey 2002 - 2004

Under Graduate, Atatürk Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, Turkey 1996 - 2000

## Foreign Languages

English, B2 Upper Intermediate

## Certificates, Courses and Trainings

Other, Supercritical Fluids-Green Solvents in Chemical Engineering, KOÇ ÜNİVERSİTESİ, 2009

Other, First Anatolian School on Catalysis (ASC-I), ODTÜ, 2006

## Dissertations

Doctorate, Platinum and platinum-ruthenium based catalysts on various carbon supports prepared by different methods for pem fuel cell applications, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, 2008

Post Graduate, Determination of the factors that affect the performance of proton exchange membrane fuel cells, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, 2004

## Research Areas

Chemical Engineering and Technology, Engineering and Technology

## Academic Titles / Tasks

Associate Professor, Atatürk Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, 2011 - Continues

Assistant Professor, Atatürk Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, 2011 - 2014

Research Assistant PhD, Atatürk Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, 2008 - 2011

Research Assistant, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, 2002 - 2008

## Professional Experience

Director of the Center, Atatürk Üniversitesi, Nanobilim Ve Nanomühendislik Araştırma Ve Uygulama Merkezi, 2016 - Continues

Deputy Director of the Center, Atatürk Üniversitesi, Doğu Anadolu Yüksek Teknoloji Uygulama Ve Araştırma Merkezi, 2017 - 2017

Deputy Head of Department, Atatürk Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği, 2014 - 2016

## Courses

NANOTEKNOLOJİYE GİRİŞ, Under Graduate, 2009 - 2010, 2011 - 2012, 2017 - 2018

BİTİRME PROJESİ, Under Graduate, 2009 - 2010, 2017 - 2018, 2018 - 2019

ALTERNATİF ENERJİ KAYNAKLARI, Under Graduate, 2018 - 2019

CHEMICAL ENGINEERING COMPUTING, Under Graduate, 2010 - 2011, 2012 - 2013

KİMYA MÜHENDİSLİĞİNDE BİLGİSAYAR UYGULAMALARI, Under Graduate, 2010 - 2011, 2012 - 2013

FUEL CELLS AND HYDROGEN ENERGY SYSTEM, Under Graduate, 2011 - 2012

YAKIT PİLLERİ VE HİDROJEN ENERJİ SİSTEMİ, Under Graduate, 2011 - 2012

## Jury Memberships

Post Graduate, DOĞRUDAN NaBH<sub>4</sub> YAKIT PİLİ İÇİN Pd-Co KATALİZÖRLERİN GELİŞTİRİLMESİ, KOCAELİ ÜNİVERSİTESİ, May, 2018

Post Graduate, Doğrudan Sodyum Borhidrür Yakıt Pilleri için Katyon Değişim Membranları Üretimi ve Karakterizasyonu, KOCAELİ ÜNİVERSİTESİ, May, 2018

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- **Investigation of synergetic effect of PDMS polymer hydrophobicity and polystyrene-silica particles roughness in the content of microporous layer on water management in PEM fuel cell**  
Öztürk A., Bayrakçeken Yurtcan A.  
Applied Surface Science, vol.511, no.145415, pp.1-16, 2020 (Journal Indexed in SCI)
- **Evaluation of Low and High Surface Area TiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> Metal Oxides-Carbon Hybrids in Terms of Polymer Electrolyte Membrane Fuel Cell Catalyst Support.**  
Çelik M., Öztürk A., Çögenli M. S. , Bayrakçeken Yurtcan A.  
Journal of nanoscience and nanotechnology, vol.20, pp.1189-1208, 2020 (Journal Indexed in SCI Expanded)
- **Drug loading with supercritical carbon dioxide deposition on different silica derivatives: Carvedilol study**  
ÖZÇELİK N., Yurtcan A.  
JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY, vol.53, 2019 (Journal Indexed in SCI)
- **PEMFC catalyst layer modification with the addition of different amounts of PDMS polymer in order to improve water management**  
UNGAN H., Yurtcan A.  
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.43, pp.5946-5958, 2019 (Journal Indexed in SCI)
- **Mn<sub>2</sub>O<sub>3</sub>-MO (MO = ZrO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub>, WO<sub>3</sub>) supported PtNi nanoparticles: Designing stable and efficient electrocatalysts for oxygen reduction and borohydride oxidation**  
Martins M., MİLİKİC J., Sijukic B., Soylu G. S. P. , Yurtcan A., Bozkurt G., Santos D. M. F.  
MICROPOROUS AND MESOPOROUS MATERIALS, vol.273, pp.286-293, 2019 (Journal Indexed in SCI)
- **Chemically synthesized reduced graphene oxide-carbon black based hybrid catalysts for PEM fuel cells**  
BAYRAKÇEKEN YURTCAN A., DAŞ E.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.43, pp.18691-18701, 2018 (Journal Indexed in SCI)
- **Graphene aerogel supported platinum nanoparticles for formic acid electro-oxidation**  
ÇÖGENLİ M. S. , BAYRAKÇEKEN YURTCAN A.  
MATERIALS RESEARCH EXPRESS, vol.5, 2018 (Journal Indexed in SCI)
- **Catalytic activity, stability and impedance behavior of PtRu/C, PtPd/C and PtSn/C bimetallic catalysts toward methanol and formic acid oxidation**  
ÇÖGENLİ M. S. , Yurtcan A.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.43, pp.10698-10709, 2018 (Journal Indexed in SCI)
- **Facilitation of water management in low Pt loaded PEM fuel cell by creating hydrophobic microporous layer with PTFE, FEP and PDMS polymers: Effect of polymer and carbon amounts**  
Öztürk A., Fiçıcılar B., Eroğlu İ., Bayrakçeken Yurtcan A.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.42, pp.21226-21249, 2017 (Journal Indexed in SCI)

- **Control of average particle size of carbon aerogel supported platinum nanoparticles by supercritical deposition**  
Barim S. B. , Bayrakceken A., Bozbag S. E. , Zhang L., Kizilel R., Aindow M., Erkey C.  
MICROPOROUS AND MESOPOROUS MATERIALS, vol.245, pp.94-103, 2017 (Journal Indexed in SCI)
- **Effect of calcination temperature on hydrophobicity of microporous layers prepared with two different molecular weights of PDMS polymer on PEM fuel cell performance with low Pt loading**  
Öztürk A., Bayrakceken Yurtcan A.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.42, pp.6250-6261, 2017 (Journal Indexed in SCI)
- **Durability of carbon/conducting polymer composite supported Pt catalysts prepared by supercritical carbon dioxide deposition**  
BOZKURT G., MEMİOĞLU F., Yurtcan A.  
TURKISH JOURNAL OF CHEMISTRY, vol.40, pp.117-124, 2016 (Journal Indexed in SCI)
- **Membrane Electrode Assembly with Ultra Low Platinum Loading for Cathode Electrode of PEM Fuel Cell by Using Sputter Deposition**  
ÇÖGENLİ M. S. , Mukerjee S., Yurtcan A.  
Fuel Cells, vol.15, pp.288-297, 2015 (Journal Indexed in SCI)
- **Membrane Electrode Assembly with Ultra Low Platinum Loading for Cathode Electrode of PEM Fuel Cell by Using Sputter Deposition**  
ÇÖGENLİ M. S. , BAYRAKÇEKEN YURTCAN A., MUKERJEE S.  
Fuel Cells, 2015 (Journal Indexed in SCI)
- **Synthesis and characterization of CuO at nanoscale**  
BOZKURT G., BAYRAKÇEKEN YURTCAN A., ÖZER A.  
Applied Surface Science, vol.318, pp.244-250, 2014 (Journal Indexed in SCI)
- **Conducting carbon/polymer composites as a catalyst support for proton exchange membrane fuel cells**  
Memioğlu F., BAYRAKÇEKEN YURTCAN A., ÖZNLÜER ÖZER T., AK M.  
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.38, pp.1278-1287, 2014 (Journal Indexed in SCI)
- **Platinum or nickel nanoparticles decorated on silica spheres by microwave irradiation technique**  
Bayrakceken A.  
TURKISH JOURNAL OF CHEMISTRY, vol.38, pp.309-316, 2014 (Journal Indexed in SCI)
- **Synthesis and characterization of polypyrrole/carbon composite as a catalyst support for fuel cell applications**  
Memioğlu F., BAYRAKÇEKEN YURTCAN A., ÖZNLÜER ÖZER T., AK M.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.37, pp.16673-16679, 2012 (Journal Indexed in SCI)

## Articles Published in Other Journals

- **SB12 Assisted Synthesis of Nano CuO via Precipitation Method in Different Reaction Environments**  
BOZKURT G., BAYRAKÇEKEN YURTCAN A., ÖZER A.  
Applied Mechanics and Materials, vol.749, pp.164-168, 2015 (Refereed Journals of Other Institutions)

## Book & Book Chapters

- **Carbon-Based Nanomaterials for Alcohol Oxidation**  
ÇÖGENLİ M. S. , BAYRAKÇEKEN YURTCAN A.  
in: Nanomaterials for Alcohol Fuel Cells, İnamuddin, Rangreez T.A, Şen, F., Asiri A.M., Editor, Materials Research Forum Llc, Pennsylvania, pp.1-78, 2019

## Refereed Congress / Symposium Publications in Proceedings

- **Effect of Hydrophobic PDMS-OH/CTAB Catalyst Layer Coating on Water Management in PEM Fuel Cell**  
ÖZTÜRK A., BAYRAKÇEKEN YURTCAN A.

4th International Hydrogen Energy Congress (IHTEC-2019), 20 - 23 June 2019

- **Effects of PPy and PDMS Polymers Addition On GA as Electrical Conductivity and Hydrophobicity Improvement Agents**

ÖNER E., ÖZTÜRK A., BAYRAKÇEKEN YURTCAN A.

4th International Hydrogen Energy Congress (IHTEC-2019), 20 - 23 June 2019

- **Experimental and modeling studies on the effect of inclusion of hydrophobic nanoparticles in cathode microporous and catalyst layer for enhanced water management in PEMFCs**

Avcıoğlu S. G. , Öztürk A., Fiçıcılar B., Bayrakçeken Yurtcan A., Kincal S., Eroğlu İ.

20 th World Hydrogen Energy Conference (WHEC 2014), Gwangju, South Korea, 15 - 20 June 2014, vol.2, pp.1247-1255

- **Synthesis and characterization of nano nickel borate**

OLGUN E., KELEŞ E., BAYRAKÇEKEN YURTCAN A., ÖZER A.

7th Nanoscience and Nanotechnology Conference Nanotr-VII, İstanbul, Turkey, 27 June - 01 July 2011, pp.1

- **Alternatif PEM Yakıt Pili Katalizör Desteği olarak Polipirol/Karbon Kompoziti**

MEMİOĞLU F., BAYRAKÇEKEN YURTCAN A., ÖZNÜLÜER ÖZER T., AK M.

25. Ulusal Kimya Kongresi, Erzurum, Turkey, 27 June - 02 July 2011, pp.1-5

- **Hidrotermal Yöntemle TiO<sub>2</sub> Nanopartiküllerin Sentezi ve Karakterizasyonu**

KELEŞ E., BAYRAKÇEKEN YURTCAN A., ÖZER A.

25. Ulusal Kimya Kongresi, Erzurum, Turkey, 27 June - 02 July 2011, pp.1

- **Alternatif PEM Yakıt Pili Katalizör Desteği olarak Polipirol/Karbon Kompoziti**

MEMİOĞLU F., BAYRAKÇEKEN YURTCAN A., ÖZNÜLÜER ÖZER T., AK M.

25. Ulusal Kimya Kongresi, Erzurum, Turkey, 27 June - 02 July 2011, pp.1-5

- **Karbon Aerojel Destekli PEM Yakıt Pili Katalizörlerindeki Platin Yükünün Performansa Etkisi**

BAYRAKÇEKEN YURTCAN A., ZHANG L., AİNDOW M., ERKEY C.

25. Ulusal Kimya Kongresi, Erzurum, Turkey, 27 June - 02 July 2011, pp.1-5

- **Synthesis and characterization of polypyrrole carbon composite as a catalyst support for fuel cell applications**

ÖZNÜLÜER T., Memioğlu F., AK M., BAYRAKÇEKEN YURTCAN A.

International Conference on Hydrogen Production (ICH2P-11), Thessaloniki, Greece, 19 - 22 June 2011, pp.153

- **Parameters influencing long term performance and durability of PEM fuel cells**

ŞAYİN E. S. , BAYRAKÇEKEN YURTCAN A., EROĞLU İ.

International Conference on Hydrogen Production (ICH2P-2011), Selanik, Greece, 19 - 22 June 2011, pp.1-3

- **TiO<sub>2</sub> Nanopartiküllerin Sol-Jel Yöntemi ile Sentezi ve Karakterizasyonu**

KELEŞ E., BAYRAKÇEKEN YURTCAN A., ÖZER A.

1. Ulusal Nanoteknoloji Kongresi, İstanbul, Turkey, 17 - 18 June 2011, pp.1-5

- **TiO<sub>2</sub> Nanopartiküllerin Sol-Jel Yöntemi ile Sentezi ve Karakterizasyonu**

KELEŞ E., BAYRAKÇEKEN YURTCAN A., ÖZER A.

1. Ulusal Nanoteknoloji Kongresi, İstanbul, Turkey, 17 - 18 June 2011, pp.1-5

- **Improvement of carbon supported platinum electrocatalysts for proton exchange membrane (PEM) fuel cell**

GÜVENATAM B., FIÇICILAR B., BAYRAKÇEKEN YURTCAN A., EROĞLU İ.

International Conference on Clean Energy (ICCE-2010), Gazi Magosa, Cyprus (Kktc), 15 - 17 October 2010, pp.1-5

- **Improvement of carbon supported platinum electrocatalysts for proton exchange membrane (PEM) fuel cell**

GÜVENATAM B., FIÇICILAR B., BAYRAKÇEKEN YURTCAN A., EROĞLU İ.

International Conference on Clean Energy (ICCE-2010), Gazi Magosa, Cyprus (Kktc), 15 - 17 October 2010, pp.1-5

- **Mikrodalga yardımı ile karbon destekli katalizör hazırlanması**

BAYRAKÇEKEN YURTCAN A., FIÇICILAR B., EROĞLU İ.

Ulusal Kimya Mühendisliği Kongresi 9, UKMK9, Ankara, Turkey, 22 - 25 June 2010, pp.1-5

- **Mikrodalga yardımı ile karbon destekli katalizör hazırlanması**

BAYRAKÇEKEN YURTCAN A., FIÇICILAR B., EROĞLU İ.

Ulusal Kimya Mühendisliği Kongresi 9, UKMK9, Ankara, Turkey, 22 - 25 June 2010, pp.1-5

- **Development of different carbon supports for proton exchange membrane (PEM) fuel cell**

### **electrocatalysts**

GÜVENATAM B., FIÇICILAR B., BAYRAKÇEKEN YURTCAN A., EROĞLU İ.

6th Chemical Engineering Conference for Colloborative Research in Eastern Mediterranean Countries EMCC6, Antalya, Turkey, 7 - 12 March 2010, pp.235

- **Development of different carbon supports for proton exchange membrane (PEM) fuel cell electrocatalysts**

GÜVENATAM B., FIÇICILAR B., BAYRAKÇEKEN YURTCAN A., EROĞLU İ.

6th Chemical Engineering Conference for Colloborative Research in Eastern Mediterranean Countries EMCC6, Antalya, Turkey, 7 - 12 March 2010, pp.235

- **Parameters influencing long term performance and durability of PEM fuel cells**

ŞAYİN E. S. , BAYRAKÇEKEN YURTCAN A., EROĞLU İ.

6th Chemical Engineering Conference for Colloborative Research in Eastern Mediterranean Countries EMCC6, Antalya, Turkey, 7 - 12 March 2010, pp.113

- **Karbon destekli Pt, Pd ve PdPt PEM yakıt pili katalizörlerinin süperkritik karbondioksit depozisyon yöntemiyle hazırlanması**

BAYRAKÇEKEN YURTCAN A., CANGÜL B., ZHANG L., AİNDOW M., ERKEY C.

IV. Ulusal Hidrojen Enerjisi Kongresi, Kocaeli, Turkey, 15 - 16 November 2009, pp.1-5

- **Karbon destekli Pt, Pd ve PdPt PEM yakıt pili katalizörlerinin süperkritik karbondioksit depozisyon yöntemiyle hazırlanması**

BAYRAKÇEKEN YURTCAN A., CANGÜL B., ZHANG L., AİNDOW M., ERKEY C.

IV. Ulusal Hidrojen Enerjisi Kongresi, Kocaeli, Turkey, 15 - 16 November 2009, pp.1-5

- **PEM yakıt pilleri için süperkritik karbondioksit depozisyon yöntemiyle hazırlanan PtPd/BP2000 katalizörleri**

BAYRAKÇEKEN YURTCAN A., CANGÜL B., ZHANG L., AİNDOW M., ERKEY C.

Nükleer ve Yenilenebilir Enerji Kaynakları (Uluslararası katılımlı), TÜBAV Konferansları, Ankara, Turkey, 28 - 29 September 2009, pp.1-5

- **PEM yakıt pilleri için süperkritik karbondioksit depozisyon yöntemiyle hazırlanan PtPd/BP2000 katalizörleri**

BAYRAKÇEKEN YURTCAN A., CANGÜL B., ZHANG L., AİNDOW M., ERKEY C.

Nükleer ve Yenilenebilir Enerji Kaynakları (Uluslararası katılımlı), TÜBAV Konferansları, Ankara, Turkey, 28 - 29 September 2009, pp.1-5

- **Nanostructured Materials for Low Temperature Fuel Cell Catalysis**

FIÇICILAR B., BAYRAKÇEKEN YURTCAN A., EROĞLU İ.

NanoTR-5 5th Nanoscience and Nanotechnology Conference, Eskişehir, Turkey, 9 - 11 June 2009, pp.1-5

- **Nanostructured Materials for Low Temperature Fuel Cell Catalysis**

FIÇICILAR B., BAYRAKÇEKEN YURTCAN A., EROĞLU İ.

NanoTR-5 5th Nanoscience and Nanotechnology Conference, Eskişehir, Turkey, 9 - 11 June 2009, pp.1-5

- **Pt incorporated hollow core mesoporous shell carbon nanocomposite catalyst for PEMFCs**

FIÇICILAR B., BAYRAKÇEKEN YURTCAN A., EROĞLU İ.

Hyphothesis VIII, Lisbon, Portugal, 1 - 03 April 2009, pp.1-5

- **Pt incorporated hollow core mesoporous shell carbon nanocomposite catalyst for PEMFCs**

FIÇICILAR B., BAYRAKÇEKEN YURTCAN A., EROĞLU İ.

Hyphothesis VIII, Lisbon, Portugal, 1 - 03 April 2009, pp.1-5

- **PEM yakıt pilleri için karbon destekli Pt ve PtRu katalizörlerinin hazırlanması**

BAYRAKÇEKEN YURTCAN A., TÜRKER L., EROĞLU İ.

Ulusal Kimya Mühendisliği Kongresi 8, Malatya, Turkey, 26 - 29 August 2008, pp.1-5

- **PEM yakıt pilleri için karbon destekli Pt ve PtRu katalizörlerinin hazırlanması**

BAYRAKÇEKEN YURTCAN A., TÜRKER L., EROĞLU İ.

Ulusal Kimya Mühendisliği Kongresi 8, Malatya, Turkey, 26 - 29 August 2008, pp.1-5

- **Microwave assisted preparation of Pt based catalysts for PEMFCs**

BAYRAKÇEKEN YURTCAN A., TÜRKER L., EROĞLU İ.

Second National Catalysis Conference, Erzurum, Turkey, 18 - 21 June 2008, pp.1-5

- **Microwave assisted preparation of Pt based catalysts for PEMFCs**

BAYRAKÇEKEN YURTCAN A., TÜRKER L., EROĞLU İ.

Second National Catalysis Conference, Erzurum, Turkey, 18 - 21 June 2008, pp.1-5

- **Preparation and Characterization of Pt-based Electrocatalysts for PEM Fuel Cells by Using Supercritical Carbon Dioxide Deposition**

BAYRAKÇEKEN YURTCAN A., SMİRNOVA A., TÜRKER B. L. , EROĞLU İ., AİNDOW M., KİTKAMTHORN U.

International Hydrogen Energy Congress and Exhibition, İstanbul, Turkey, 13 - 15 July 2007, pp.1-5

- **Preparation and Characterization of Pt-based Electrocatalysts for PEM Fuel Cells by Using Supercritical Carbon Dioxide Deposition**

BAYRAKÇEKEN YURTCAN A., SMİRNOVA A., TÜRKER B. L. , EROĞLU İ., AİNDOW M., KİTKAMTHORN U.

International Hydrogen Energy Congress and Exhibition, İstanbul, Turkey, 13 - 15 July 2007, pp.1-5

- **High Pt loading Pt/Vulcan electrocatalysts for PEMFCs by Using Supercritical Carbon Dioxide technique**

BAYRAKÇEKEN YURTCAN A., SMİRNOVA A., KİTKAMTHORN U., AİNDOW M., TÜRKER L., EROĞLU İ., ERKEY C.

Somer Symposium Series 1, Ankara, Turkey, 14 - 15 May 2007, pp.1-5

- **High Pt loading Pt/Vulcan electrocatalysts for PEMFCs by Using Supercritical Carbon Dioxide technique**

BAYRAKÇEKEN YURTCAN A., SMİRNOVA A., KİTKAMTHORN U., AİNDOW M., TÜRKER L., EROĞLU İ., ERKEY C.

Somer Symposium Series 1, Ankara, Turkey, 14 - 15 May 2007, pp.1-5

- **Synthesis and Characterization of Pt Based Electrocatalysts by Supercritical Carbon Dioxide Deposition Method**

BAYRAKÇEKEN YURTCAN A., SMİRNOVA A., KİTKAMTHORN U., AİNDOW M., TÜRKER L., EROĞLU İ., ERKEY C.

First National Catalysis Conference, Güzelyurt, Cyprus (Kktc), 17 - 20 January 2007, pp.1-5

- **Synthesis and Characterization of Pt Based Electrocatalysts by Supercritical Carbon Dioxide Deposition Method**

BAYRAKÇEKEN YURTCAN A., SMİRNOVA A., KİTKAMTHORN U., AİNDOW M., TÜRKER L., EROĞLU İ., ERKEY C.

First National Catalysis Conference, Güzelyurt, Cyprus (Kktc), 17 - 20 January 2007, pp.1-5

- **Utilization of Metal Phthalocyanines as Cathode Catalysts of Proton Exchange Membrane Fuel Cells**

EROĞLU İ., ERKAN S., BAYRAKÇEKEN YURTCAN A., TÜRKER L.

AIChE Annual Meeting, San Francisco, United States Of America, 12 - 17 November 2006, pp.1-5

- **Transmission Electron Microscopy Studies of Mesoporous Carbon Aerogels and Carbon/Metal Nanocomposites Produced using Supercritical Carbon Dioxide Based Processes**

AİNDOW M., KANG D., KİTKAMTHORN U., SAQUING C. ... , ZHANG Y., BAYRAKÇEKEN YURTCAN A., ERKEY C.

Brazilian MRS Meeting, Florianopolis, Brazil, 8 - 12 October 2006, pp.1-5

- **Transmission Electron Microscopy Studies of Mesoporous Carbon Aerogels and Carbon/Metal Nanocomposites Produced using Supercritical Carbon Dioxide Based Processes**

AİNDOW M., KANG D., KİTKAMTHORN U., SAQUING C. ... , ZHANG Y., BAYRAKÇEKEN YURTCAN A., ERKEY C.

Brazilian MRS Meeting, Florianopolis, Brazil, 8 - 12 October 2006, pp.1-5

- **Effect of Different Construction Materials on Proton Exchange Membrane Fuel Cell Performance**

BAYRAKÇEKEN YURTCAN A., ERKAN S., TÜRKER L., EROĞLU İ.

International Hydrogen Energy Congress and Exhibition, İstanbul, Turkey, 13 - 15 July 2005, pp.1-5

- **Utilization of Metallophthalocyanines as Cathode Catalyst of Proton Exchange Membrane Fuel Cells**

ERKAN S., BAYRAKÇEKEN YURTCAN A., TÜRKER L., EROĞLU İ.

International Hydrogen Energy Congress and Exhibition, İstanbul, Turkey, 13 - 15 July 2005, pp.1-5

- **Effect of Different Construction Materials on Proton Exchange Membrane Fuel Cell Performance**

BAYRAKÇEKEN YURTCAN A., ERKAN S., TÜRKER L., EROĞLU İ.

International Hydrogen Energy Congress and Exhibition, İstanbul, Turkey, 13 - 15 July 2005, pp.1-5

- **Proton Değişim Zarlı bir Yakıt Hücresinin Performansı Üzerine Farklı Parametrelerin Etkisi**

BAYRAKÇEKEN YURTCAN A., TÜRKER L., EROĞLU İ.

Ulusal Kimya Mühendisliği Kongresi 6, İzmir, Turkey, 7 - 10 September 2004, pp.1-5

- **Proton Değişim Zarlı bir Yakıt Hücresinin Performansı Üzerine Farklı Parametrelerin Etkisi**

BAYRAKÇEKEN YURTCAN A., TÜRKER L., EROĞLU İ.

Ulusal Kimya Mühendisliği Kongresi 6, İzmir, Turkey, 7 - 10 September 2004, pp.1-5

## Other Publications

- **Taşınabilir ve hareketli uygulamalar için PEM yakıt pilleri**

EROĞLU İ., BAYRAKÇEKEN YURTCAN A.

Other, pp.26-29, 2009

## Expert Reports

- **İnceleme**

BAYRAKÇEKEN YURTCAN A., KIZILCA ÇORUH M., KANCA A.

Konya Teknik Üniversitesi, pp.6, Konya, 2019

## Supported Projects

BAYRAKÇEKEN YURTCAN A., UNGAN H., Project Supported by Higher Education Institutions, PDMS hidrofobik malzemesinin yakıt pili katalizör çözeltisinde kullanımının yakıt pili performansına etkisinin incelenmesi, 2018 - 2019

BAYRAKÇEKEN YURTCAN A., ÖNER E., Project Supported by Higher Education Institutions, 3D Grafen sentezi karakterizasyonu ve PEM yakıt pillerinde kullanımı, 2018 - 2019

BAYRAKÇEKEN YURTCAN A., ÇÖGENLİ M. S. , ÖZTÜRK A., Project Supported by Higher Education Institutions, MİKRODALGA YÖNTEMİYLE KARBON DESTEKLİ BİMETALİK KATALİZÖRLERİN HAZIRLANMASI VE FORMİK ASİT VE METANOL YAKIT PİLLERİ İÇİN KULLANILMASI, 2016 - 2018

KARACALI T., GÖR BÖLEN M., BAYRAKÇEKEN YURTCAN A., EFEOĞLU H., Project Supported by Higher Education Institutions, PROTON GEÇİREN MEMBRAN TASARIM VE ÜRETİMİ, 2016 - 2017

BAYRAKÇEKEN YURTCAN A., ÇÖGENLİ M. S. , ÖZTÜRK A., Project Supported by Higher Education Institutions, MCM-41 DESTEKLİ PLATİN NANOPARÇACIKLARIN SENTEZİ, KARAKTERİZASYONU VE PEM YAKIT PİLİNDE KULLANIMI, 2016 - 2017

BAYRAKÇEKEN YURTCAN A., ÖZTÜRK A., Project Supported by Higher Education Institutions, PEM YAKIT PİLİNDE MİKRO GÖZENEKLİ KATMAN OLARAK SÜPERHİDROFOBİK POLİDİMETİLSİLOKSAN (PDMS)/SİLİKA YÜZEY KAPLAMASININ YAPILMASI, 2015 - 2017

BAYRAKÇEKEN YURTCAN A., Project Supported by Higher Education Institutions, FORMİK ASİT YAKIT PİLLERİ İÇİN MEMBRAN ELEKTROT YAPISI (MEA) HAZIRLANMASI VE TAŞINABİLİR AYGITLAR İÇİN UYGULANABİLİR HALE GETİRİLMESİ, 2014 - 2016

BAYRAKÇEKEN YURTCAN A., Project Supported by Higher Education Institutions, GRAFEN DESTEKLİ PLATİN (PT) NANOPARÇACIKLARIN PEM YAKIT PİLLERİ İÇİN SÜPERKRİTİK KARBONDİOKSİT DEPOZİSYON YÖNTEMİ İLE HAZIRLANMASI, 2014 - 2015

BAYRAKÇEKEN YURTCAN A., Project Supported by Higher Education Institutions, SPUTTERİNG YÖNTEMİ İLE PEM YAKIT PİLLERİ İÇİN MEMBRAN ELEKTROD ATACI (MEA) HAZIRLANMASI, 2011 - 2012

## Memberships / Tasks in Scientific Organizations

HİDROJEN TEKNOLOJİLERİ DERNEĞİ, Member, 2015 - Continues

TÜRK KATALİZ DERNEĞİ, Member, 2006 - Continues

## Scientific Refereeing

Fuel cells, SCI Journal, September 2019

International Journal of Hydrogen Energy, SCI Journal, August 2019  
Fuel cells, SCI Journal, August 2019  
International Journal of Hydrogen Energy, SCI Journal, July 2019  
International Journal of Hydrogen Energy, SCI Journal, July 2019  
International Journal of Hydrogen Energy, SCI Journal, April 2019  
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, SCI Journal, March 2019  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, SCI Journal, August 2018  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, SCI Journal, June 2018  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, SCI Journal, May 2018  
ELECTROCHIMICA ACTA, SCI Journal, April 2018  
Journal of The Institute of Science and Technology, Other journals, March 2018  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, SCI Journal, January 2018  
JOURNAL OF POWER SOURCES, SCI Journal, March 2017  
JOURNAL OF POWER SOURCES, SCI Journal, March 2017  
JOURNAL OF POWER SOURCES, SCI Journal, December 2016  
JOURNAL OF POWER SOURCES, SCI Journal, October 2016  
JOURNAL OF POWER SOURCES, SCI Journal, June 2016  
JOURNAL OF POWER SOURCES, SCI Journal, May 2016  
JOURNAL OF POWER SOURCES, SCI Journal, June 2015  
APPLIED SURFACE SCIENCE, SCI Journal, March 2014  
APPLIED SURFACE SCIENCE, SCI Journal, December 2013

## **Scientific Consultations**

TÜBİTAK, Scientific Consultancy, Atatürk Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, Turkey, 2019 - 2019  
TÜBİTAK, Scientific Consultancy, Atatürk Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, Turkey, 2019 - 2019  
TÜBİTAK, Scientific Consultancy, Atatürk Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, Turkey, 2018 - 2018

## **Invited Congress and Symposium Activities**

International Symposium on Applied Sciences and Engineering, Session Moderator, Erzurum, Turkey, 2018  
International Symposium on Applied Sciences and Engineering, Invited Speaker, Erzurum, Turkey, 2018  
International Symposium on Applied Sciences and Engineering, Attendee, Erzurum, Turkey, 2018  
Ulusal Kimya Mühendisliği Kongresi 13 (UKMK-13), Attendee, Van, Turkey, 2018  
2nd International Symposium on Materials for Energy Storage and Conversion, Attendee, Nevşehir, Turkey, 2017  
10th Nanoscience and Nanotechnology Conference, Attendee, İstanbul, Turkey, 2014  
10th Nanoscience ve Nanotechnology Conference, Invited Speaker, İstanbul, Turkey, 2014  
Xth European Congress on Catalysis (Europacat XI), Attendee, Lyon, France, 2013  
Sixth International Exergy, Energy and Environment Symposium (IEEES-6), Attendee, Rize, Turkey, 2013  
9th Nanoscience and Nanotechnology Conference, Attendee, Erzurum, Turkey, 2013  
Ulusal Kimya Mühendisliği Kongresi 10, Attendee, İstanbul, Turkey, 2012  
The Energy and Materials Research Conference, Attendee, Malaga, Spain, 2012  
International Conference on Hydrogen Production (ICH2P-2011), Attendee, Thessaloniki, Greece, 2011  
25. Ulusal Kimya Kongresi, Attendee, Erzurum, Turkey, 2011  
Ulusal Kimya Mühendisliği Kongresi 9, Attendee, Ankara, Turkey, 2010  
6th Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries EMCC6, Attendee, Antalya, Turkey, 2010  
IV. Ulusal Hidrojen Enerjisi Kongresi, Attendee, Kocaeli, Turkey, 2009  
Nükleer ve Yenilenebilir Enerji Kaynakları (Uluslararası katılımlı), TÜBAV Konferansları, Attendee, Ankara, Turkey, 2009

International Hydrogen Energy Congress and Exhibition 2007 , Attendee, İstanbul, Turkey, 2007

First National Catalysis Conference, Attendee, Güzelyurt, Cyprus (Kktc), 2007

Ulusal Kimya Mühendisliği Kongresi 6, Attendee, İzmir, Turkey, 2005

International Hydrogen Energy Congress and Exhibition 2005, Attendee, Turkey, 2005

## Citations

Total Citations (WOS):151

h-index (WOS):8

## Awards

BAYRAKÇEKEN YURTCAN A., Araştırma Teşvik Ödülü, ODTÜ N. Parlar Eğitim ve Araştırma Vakfı, December 2018

BAYRAKÇEKEN YURTCAN A., Üstün Başarılı Genç Bilim İnsanı Ödülü (GEBİP), Türkiye Bilimler Akademisi (TÜBA), December 2017

BAYRAKÇEKEN YURTCAN A., ODTÜ Yılın Tezi Ödülü, ODTÜ N. Parlar Eğitim ve Araştırma Vakfı, December 2008