

Asst. Prof. MEHMET FATİH KAYA

Personal Information

Office Phone: [+90 352 207 6666](tel:+903522076666) Extension: 32331

Office Phone: [+90 352 207 6666](tel:+903522076666) Extension: 32304

Fax Phone: [+90 352 437 5784](tel:+903524375784)

Email: kayamehmetfatih@erciyes.edu.tr

Other Email: kayamehmetfatih@gmail.com

Web: <http://aves.erciyes.edu.tr/kayamehmetfatih/cv>

Address: Erciyes Üniversitesi Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği Bölümü, 38039 Melikgazi/Kayseri

Education Information

Doctorate, Erciyes Üniversitesi, Fen Bilimleri Enstitüsü, Enerji Sistemleri Mühendisliği, Turkey 2013 - 2018

Post Graduate, Erciyes Üniversitesi, Fen Bilimleri Enstitüsü, Makine Mühendisliği-Isıl Bilimler Ve Enerji Teknolojileri, Turkey 2010 - 2013

Under Graduate, Erciyes Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği, Turkey 2005 - 2010

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, PEM ELEKTROLİZÖRLERİN MANYETİK ALAN ALTINDAKİ ÇALIŞMA PERFORMANSININ İNCELENMESİ VE KATALİZÖR GELİŞTİRİLMESİ, Erciyes Üniversitesi, Fen Bilimleri Enstitüsü, Enerji Sistemleri Mühendisliği, 2018

Post Graduate, Anot Destekli Silindirik Katı Oksit Yakıt Hücresinin Sayısal Modellenmesi ve Performansının Analizi, Erciyes Üniversitesi, Isıl Bilimler Ve Enerji Teknolojileri, Makine Mühendisliği, 2013

Research Areas

Chemical Engineering and Technology, Chemical Technologies, Electrochemical Processes, Defense Technology, Mechanical Engineering, Energy, Alternative Energy Resources, Hydrogen Technologies and Fuel Cells , Construction and Manufacturing, Computer Aided Design and Manufacturing, Material, Mechanical, Finite Element Methods, Thermodynamics, Heat and Mass Transfer, Aeronautical and Space Engineering, Metallurgical and Materials Engineering, Material science and engineering, Ceramic Materials, Aeronautical Engineering , Structural Technologies, Design Techniques, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği , 2019 - Continues

Lecturer, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği , 2013 - 2019

Research Assistant, University of Birmingham, Engineering Faculty, Chemical Engineering-Centre Of Doctoral Training-Fuel Cell Group, 2017 - 2018

Research Assistant, Erciyes Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği, 2011 - 2013

Courses

Bilgisayar Destekli Teknik Resim-2, Under Graduate, 2018 - 2019
Bilgisayar Destekli Teknik Resim-1, Under Graduate, 2018 - 2019
YAKIT PİLLERİ, Under Graduate, 2018 - 2019
Tasarım ve modelleme Teknikleri, Under Graduate, 2018 - 2019
Malzeme Bilgisi, Under Graduate, 2014 - 2015
Enerji Ekonomisi ve Politikaları, Under Graduate, 2013 - 2014
Mühendislik Fiziği-2, Under Graduate, 2013 - 2014
Ölçme Tekniği, Under Graduate, 2013 - 2014
Elektromekanik Enerji Dönüşümü, Under Graduate, 2013 - 2014

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

- **Improving PEM Water Electrolyser's Performance by Magnetic Field Application**
Kaya M. F. , Kayataş Demir N., Rees N. V. , El-Kharouf A.
Applied Energy, vol.264, no.114721, pp.22222-22229, 2020 (Journal Indexed in SCI)
- **Effect of pulse potential on alkaline water electrolysis performance**
Demir N., Kaya M. F. , Albawabji M. S.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.43, pp.17013-17020, 2018 (Journal Indexed in SCI)
- **Investigation of alkaline water electrolysis performance for different cost effective electrodes under magnetic field**
KAYA M. F. , Demir N., ALBAWABJI M. S. , TAŞ M.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.42, pp.17583-17592, 2017 (Journal Indexed in SCI)
- **Numerical Investigation of PEM Water Electrolysis Performance for Different Oxygen Evolution Electrocatalysts**
KAYA M. F. , Demir N.
FUEL CELLS, vol.17, pp.37-47, 2017 (Journal Indexed in SCI)

Articles Published in Other Journals

- **EFFECT OF CU COATING ON THE PHYSICAL AND ELECTROCHEMICAL PROPERTIES OF CONDUCTIVE PLA FILAMENT**
Kaya M. F. , Kayataş Demir N., Hüner B., Özcan R. U.
International Journal of 3D Printing Technologies and Digital Industry, vol.3, no.2, pp.128-136, 2019 (Refereed Journals of Other Institutions)

Refereed Congress / Symposium Publications in Proceedings

- **CHARACTERIZATION OF TUNGSTEN CARBIDE DIE USED IN REDUCTION OF STEEL WIRES**
Bozkurt Ö., Benlice E., Yıldırım S., Kaya M. F.
The International Conference on Material Science and Technology, IMSTEC'19, Ankara, Turkey, 18 - 20 October 2019, pp.1-10
- **EFFICIENCY COMPARISON OF COMBUSTION SYSTEMS USED IN INDUSTRIAL FURNACES**
Bozkurt Ö., Kaya M. F.
The International Conference on Material Science and Technology, IMSTEC'19, Ankara, Turkey, 18 - 20 October 2019, pp.1-12
- **A CFD SIMULATION OF ALUMINIUM MELTING FURNACES IN WIRE INDUSTRY**
Bozkurt Ö., Kaya M. F.
22nd Congress of Thermal Sciences and Technology (CTST2019-ULIBTK'19), Kocaeli, Turkey, 11 - 14 September 2019, pp.1-12
- **Investigation of the Physical and Electrochemical Properties of Cu Coated Conductive PLA Filament**
KAYA M. F. , KAYATAŞ DEMİR N., HÜNER B., ÖZCAN R. U.

International Congress on 3D Printing(Additive Manufacturing) Technologies and Digital Industry (3D-PTC2019), Antalya, Turkey, 11 - 14 April 2019, pp.1-12

- **Modelling of Lorentz Force Effects on PEM Water Electrolysis Performance**

KAYA M. F. , KAYATAŞ DEMİR N., El-Kharouf A.

Fuel Cell & Hydrogen Technical Conference 2018-FCH2018, Birmingham, United Kingdom, 13 - 14 March 2018, vol.1, no.1, pp.12-14

- **Numerical Investigation of Heat Transfer Performance for Pumice Block Materials Using Silica Aerogel Insulation Materials**

KAYA M. F. , TAŞKIN A., KAYATAŞ DEMİR N.

International Conference on Advances and Innovations in Engineering (ICAIE), Elazığ, Turkey, 10 - 12 May 2017, pp.187

- **Numerical Modeling of Magnetohydrodynamic Effect of Lorentz Force to the Water Electrolysis Performance**

KAYATAŞ DEMİR N., KAYA M. F.

International Conference on Advances and Innovations in Engineering (ICAIE), Elazığ, Turkey, 10 - 12 May 2017, pp.873-874

- **Effect of Constant Magnetic Field to the Hydrogen Evolution Reactions Under Acidic Medium**

KAYA M. F. , KAYATAŞ DEMİR N.

International Conference on Advances and Innovations in Engineering (ICAIE), Elazığ, Turkey, 10 - 12 May 2017, pp.871-872

- **Synthesis and Characterization of IrxRu1-xO2 Catalysts for the Oxygen Evolution Reactions**

KAYA M. F. , KAYATAŞ DEMİR N., BAYRAKÇEKEN YURTCAN A.

The Second International Hydrogen Technologies Congress (IHTEC-2017), Adana, Turkey, 15 - 18 March 2017, vol.1, no.1, pp.50

- **Noble metal-free Oxides for the Oxygen Evolution Reactions by Using Adam's Fusion Method**

KAYATAŞ DEMİR N., KAYA M. F. , ÇÖĞENLİ M. S.

The Second International Hydrogen Technologies Congress (IHTEC-2017), Adana, Turkey, 15 - 18 March 2017, vol.1, no.1, pp.83

- **Cost Effective Electrodes For Alkaline Water Electrolysis And Performance Analysis Under Magnetic Field**

KAYA M. F. , KAYATAŞ DEMİR N., TAŞ M.

Fourth European Conference on Renewable Energy Systems (ECRES2016), İstanbul, Turkey, 28 - 31 August 2016, vol.1, no.1, pp.1-8

- **EXPERIMENTAL AND NUMERICAL INVESTIGATION OF HEAT TRANSFER CHARACTERISTICS OF SILICA AEROGEL AND OTHER INSULATION MATERIALS**

KAYATAŞ DEMİR N., KAYA M. F. , YILDIRIM E.

Uluslararası Malzeme Bilimi ve Teknolojisi Konferansı Kapadokya, Nevşehir, Turkey, 6 - 08 April 2016, pp.47

- **Modelling of PEM Water Electrolysis and Determining Operating Parameters for Different Anode Catalysts**

KAYA M. F. , KAYATAŞ DEMİR N.

International Symposium on Materials for Energy Storage and Conversion-mESCIS, Ankara, Turkey, 7 - 09 September 2015, pp.1-8

- **Numerically Modeling of Anode Supported Tubular SOFC**

KAYATAŞ DEMİR N., KAYA M. F. , GENÇ G., YAPICI H.

International Conference and Exhibition on Mechanical & Aerospace Engineering, San Antonio, United States Of America, 30 September - 02 October 2013, pp.1-8

- **Anot Destekli Tek Hücreli Katı Oksit Yakıt Hücresinin Sayısal Modellenmesi**

KAYATAŞ DEMİR N., KAYA M. F. , YAPICI H., GENÇ G.

19. Ulusal Isı Bilimi ve Tekniği Kongresi, Samsun, Turkey, 9 - 12 September 2013, pp.1-8

Supported Projects

KAYA M. F. , ŞENDOĞDULAR L., TUBITAK Project, Yerli Kablo Üretiminde Yeni Ürün Ve Test Yöntemlerinin

Geliştirilmesi, 2020 - Continues

KAYA M. F. , KORKMAZ F. , YILDIRIM S. , BENLİCE E. , Project Supported by Higher Education Institutions, Sanayi Uygulamaları için WC/Co Kompozit Ürün Prototipi Geliştirilmesi, 2020 - Continues

KAYA M. F. , UYSAL S. , ÖZCAN R. U. , HÜNER B. , KAYATAŞ DEMİR N. , Project Supported by Higher Education Institutions, Yüzen Fotovoltaik Sistemlerle Elektrokimyasal Hidrojen Üretim Potansiyelinin Araştırılması, 2019 - Continues

KAYA M. F. , TUBITAK Project, YENİ NESİL OPGW EK KUTUSU TASARIMI VE PROTOTİP İMALATI, 2019 - Continues

KAYA M. F. , TUBITAK Project, Yakıt Pillerinde Kullanılan Interkonnektör ve Bipolar Plakaların Tasarım ve Üretimi, 2019 - Continues

KAYA M. F. , Project Supported by Other Official Institutions, Rejeneratif Yakma Sistemi İle Alüminyum Döküm Fırınında Enerji Verimliliği, 2019 - Continues

Pietrelli A., Kaya M. F. , EU Supported Other Project, European Cooperation in Science and Technology – COST Association, Resilience, Rehabilitation of Damaged Environment, 2020 - 2024

Kayataş Demir N., Kaya M. F. , TUBITAK Project, PEM Elektrolizörler için Yenilikçi Anot Gaz Difüzyon Tabakaları Geliştirilmesi, 2020 - 2023

Kaya M. F. , Kayataş Demir N., Bayrakçeken Yurtcan A., TUBITAK Project, PEM Elektrolizörler için Yenilikçi Anot Gaz Difüzyon Tabakaları Geliştirilmesi, 2020 - 2023

Kahveci O., Erol H., Kaya M. F. , Akkaya A., Project Supported by Higher Education Institutions, Alüminyumca Zengin Alaşımlarda Hidrojen Üretim Potansiyelinin Deneysel Olarak İncelenmesi, 2020 - 2021

Kaya M. F. , Kayataş Demir N., Project Supported by Higher Education Institutions, PEM Elektrolizörlerde Kullanılan Bipolar Plakaların Geometrik Optimizasyonu, 2019 - 2020

KAYATAŞ DEMİR N., KAYA M. F. , Project Supported by Higher Education Institutions, PEM ELEKTROLİZÖRLERİN MANYETİK ALAN ALTINDAKİ ÇALIŞMA PERFORMANSININ İNCELENMESİ VE KATALİZÖR GELİŞTİRİLMESİ, 2016 - 2019

KAYATAŞ DEMİR N., KAYA M. F. , Project Supported by Higher Education Institutions, PEM Elektrolizörler İçin Katalizör Geliştirilmesi, 2016 - 2018

KAYATAŞ DEMİR N., Industrial Thesis Project, SİLİNDİRİK KATI OKSİT YAKIT PİLLERİNİN ÜRETİMİ KARAKTERİZASYONU VE PERFORMANSLARININ İNCELENMESİ, 2011 - 2014

KAYATAŞ DEMİR N., KAYA M. F. , YAPICI H., GENÇ G., Project Supported by Higher Education Institutions, ANOT DESTEKLİ SİLİNDİRİK KATI OKSİT YAKIT HÜCRESİNİN SAYISAL MODELLENMESİ VE PERFORMANSININ ANALİZİ, 2012 - 2013

Memberships / Tasks in Scientific Organizations

Türk Isı Bilimi ve Tekniği Derneği (TIBTD), Member, 2019 - Continues

The Electrochemical Society (ECS), Member, 2018 - Continues

Hidrojen Teknolojileri Derneği, Member, 2017 - Continues

Makine Mühendisleri Odası, Member, 2010 - Continues

Scientific Refereeing

ELECTROCHIMICA ACTA, SCI Journal, July 2019

JOURNAL OF POWER SOURCES, SCI Journal, December 2018

ENERGY, SCI Journal, November 2018

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, SCI Journal, June 2016

Invited Congress and Symposium Activities

IV.National Electrochemistry Summer School(Electrocatalyst and Photocatalyst)-Bursiyer, Attendee, Manisa, Turkey, 2016

International Summer School on Materials for Energy Storage and Conversion-mESCIS-COST Actions Scholarship, Attendee, Ankara, Turkey, 2015

V.International Renewable Energy Sources (RES) Winter School-Bursiyer, Attendee, Afyon, Turkey, 2015

National Thermal Science and Technology Congress, Attendee, Samsun, Turkey, 2013

International Solar Energy for World Peace-Türkiye Teknoloji Geliştirme Vakfı(TTGV) Bursiyeri, Attendee, İstanbul, Turkey, 2013

Exergy and Applications Summer School, Attendee, Bolu, Turkey, 2012

PEM Fuel Cells Summer School (ICHET and JRC co-organized), Attendee, İzmir, Turkey, 2010

TUMTMK XVI. International Mechanic Congress, Attendee, Kayseri, Turkey, 2008

International NanoCOF SOFC Meeting, Attendee, Niğde, Turkey, 2008

Citations

Total Citations (WOS):14

h-index (WOS):2

Scholarships

TÜBİTAK 2214-A - Yurt Dışı Doktora Sırası Araştırma Bursu, TUBITAK, 2017 - Continues

TÜBİTAK 2211-C Öncelikli Alanlar Doktora Bursu, TUBITAK, 2016 - Continues

Sanayi Tezleri Bursu (San-Tez), Other Government Agencies, 2013 - Continues

Awards

KAYA M. F. , Comunication Award, TÜBİTAK Electromobile Efficiency Challenge 2018, August 2018

KAYA M. F. , Jury Special Award, TÜBİTAK Electromobile Efficiency Challenge 2016, August 2016

KAYA M. F. , En İyi Tasarım Ödülü, TÜBİTAK Hidromobil, August 2008

KAYA M. F. , First Thirteen Design Award, Shell Eco Marathon 2008-France, May 2008