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Personal Information

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Education Information

Post Doctorate, Ontario Canada Üniversitesi, Department Of Mechanical Engineering , Energy Research Group, Canada
2009 - 2010

Doctorate, Erciyes University, Fen Bilimleri Enstitüsü, Makine Mühendisliği, Turkey 2003 - 2008

Postgraduate, Erciyes University, Fen Bilimleri Enstitüsü, Makine Mühendisliği, Turkey 2001 - 2003

Undergraduate, Erciyes University, Mühendislik Fakültesi, Makine Mühendisliği, Turkey 1996 - 2001

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Nükleer Atık Yakıcı/Dönüştürücü Sistemlerinin Optimizasyonu ve Enerji Analizi, Erciyes Üniversitesi, Fen Bilimleri Enstitüsü, Makine Mühendisliği Abd , 2008

Postgraduate, İç Çe Borulu Isı Değiştiricisinde Isı Transferinin İyileştirilmesinin Nümerik Olarak İncelenmesi, Erciyes Üniversitesi, Fen Bilimleri Enstitüsü, Makine Mühendisliği Abd , 2003

Research Areas

Mechanical Engineering, Thermodynamics, Heat and Mass Transfer, Engineering and Technology

Academic Titles / Tasks

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

Associate Professor, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği, 2014 - 2019

Assistant Professor, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği, 2011 - 2014

Assistant Professor, Erciyes University, Mühendislik Fakültesi, Makina Mühendisliği, 2009 - 2011

Research Assistant, Erciyes University, Mühendislik Fakültesi, Makina Mühendisliği, 2002 - 2009

Academic and Administrative Experience

Head of Department, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği, 2021 - Continues

Erciyes University, 2021 - Continues

Erciyes University, 2017 - Continues

Deputy Head of Department, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği, 2017 - 2021

Head of Department, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği, 2017 - 2021

Erciyes University, 2015 - 2021

Erciyes Üniversitesi, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği, 2010 - 2011

Courses

ENERJİ DEPOLAMA SİSTEMLERİ, Undergraduate, 2014 - 2015

ENERJİ EKONOMİSİ ve POLİTİKALARI, Undergraduate, 2014 - 2015

YAKITLAR ve YANMA, Undergraduate, 2013 - 2014

İLERİ ENERJİ DÖNÜŞÜM SİSTEMLERİ, Doctorate, 2013 - 2014

İLERİ GAZ DİNAMİĞİ, Doctorate, 2013 - 2014

İLERİ TERMODİNAMİK, Postgraduate, 2012 - 2013

Mühendislik Fiziği-1, Undergraduate, 2012 - 2013

MÜHENDİSLİKTE İSTATİSTİK METODLAR, Undergraduate, 2012 - 2013

ISI ve KÜTLE TRANSFERİ-I, Undergraduate, 2012 - 2013

ISI ve KÜTLE TRANSFERİ-II, Undergraduate, 2012 - 2013

YÜKSEK MATEMATİK-2, Undergraduate, 2010 - 2011

YÜKSEK MATEMATİK-1, Undergraduate, 2010 - 2011

FİZİK-2, Undergraduate, 2011 - 2012

YAŞAM DÖNGÜ ANALİZİ, Postgraduate, 2010 - 2011

TERMODİNAMİK-I, Undergraduate, 2011 - 2012

ENERJİ YÖNETİMİ, Undergraduate, 2010 - 2011

TERMODİNAMİK-II, Undergraduate, 2011 - 2012

EKSERJİ VE ENTROPİ ANALİZİ, Postgraduate, 2010 - 2011

Advising Theses

Kayataş Demir N., PEM elektrolizörlerin manyetik alan altındaki çalışma performansının incelenmesi ve katalizör geliştirilmesi, Doctorate, M.FATİH(Student), 2018

Kayataş Demir N., Organik rankine çevrimi kullanılarak biyogaz tesisi atık ısısından elektrik enerjisi elde edilmesi, Postgraduate, S.YİNANÇ(Student), 2017

Kayataş Demir N., Alkali elektrolizörlerde voltaj darbesinin hidrojen üretimi için gerekli olan enerjiye etkisi, Postgraduate, M.SALAH(Student), 2017

Kayataş Demir N., Buhar ve gaz türbini santrallerinin enerji ve tersinmezlik analizleri, Postgraduate, A.ÖNER(Student), 2015

Kayataş Demir N., Susuzlaştırılmış arıtma çamurlarının enerjisinden faydalanılabilirliğinin araştırılması ve nihai bertarafı, Postgraduate, E.ERKEKKARDEŞ(Student), 2014

Kayataş Demir N., Rüzgar enerjisinden elektrik üretiminin yaşam döngü analizi, Postgraduate, A.TAŞKIN(Student), 2013

Kayataş Demir N., Anot destekli silindirik katı oksit yakıt hücresinin sayısal modellenmesi ve performansının analizi, Postgraduate, M.FATİH(Student), 2012

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Techno-economic and environmental analysis of biogas-based hybrid renewable energy systems: A case study for a small-scale livestock farm**
AKARSU R. T., KAYATAŞ DEMİR N.
PROCESS SAFETY AND ENVIRONMENTAL PROTECTION, vol.191, pp.1968-1981, 2024 (SCI-Expanded)
- II. **First pulsed control system design for enhanced hydrogen production performance in proton exchange membrane water electrolyzers**
Ereli N. C., KISTI M., Eşiyok T., Özdoğan E., Hüner B., KAYATAŞ DEMİR N., KAYA M. F.
Fuel, vol.371, 2024 (SCI-Expanded)
- III. **Pt Thin Film-Coated 3D-Printed Polymer Anode Gas Diffusion Electrodes for PEM Water Electrolyzers**
Hüner B., KISTI M., Özdoğan E., KAYATAŞ DEMİR N., KAYA M. F.
ENERGY & FUELS, vol.38, no.14, pp.13228-13244, 2024 (SCI-Expanded)
- IV. **Fabrication and characterization of Nickel-coated 3D printed electrodes for enhanced oxygen evolution reaction in acidic media at various temperatures**
Hüner B., Demir N., KAYA M. F.
FUEL, vol.366, no.131172, pp.1-16, 2024 (SCI-Expanded)
- V. **Effects of tank heating on hydrogen release from metal hydride system in VoltaFCEV Fuel Cell Electric Vehicle**
Özdoğan E., Hüner B., Süzen Y. O., Eşiyok T., Uzgören İ. N., Kısı M., Uysal S., Selçuklu S. B., Kayataş Demir N., Kaya M. F.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.48, no.18, pp.6811-6823, 2023 (SCI-Expanded)
- VI. **Hydrogen Evolution Reaction Performance of Ni-Co-Coated Graphene-Based 3D Printed Electrodes**
Hüner B., Kayataş Demir N., Kaya M. F.
ACS Omega, vol.8, no.6, pp.5958-5974, 2023 (SCI-Expanded)
- VII. **Ni-Pt coating on graphene based 3D printed electrodes for hydrogen evolution reactions in alkaline media**
Hüner B., Kayataş Demir N., Kaya M. F.
FUEL, vol.331, 2023 (SCI-Expanded)
- VIII. **An Overview of Various Additive Manufacturing Technologies and Materials for Electrochemical Energy Conversion Applications**
Hüner B., Klstl M., Uysal S., Uzgören İ. N., Özdoğan E., Süzen Y. O., Kayataş Demir N., Kaya M. F.
ACS OMEGA, vol.7, no.45, pp.40638-40658, 2022 (SCI-Expanded)
- IX. **Electrodeposition of NiCu bimetal on 3D printed electrodes for hydrogen evolution reactions in alkaline media**
Hüner B., Kayataş Demir N., Kaya M. F.
International Journal of Hydrogen Energy, vol.47, pp.12136-12146, 2022 (SCI-Expanded)
- X. **Investigation of hydrogen production potential from different natural water sources in Turkey**
Uysal S., Kaya M. F., Kayataş Demir N., Hüner B., Ozcan R. U., Erdem O. N., Yılmaz M.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.46, no.61, pp.31097-31107, 2021 (SCI-Expanded)
- XI. **Magnetically modified electrocatalysts for oxygen evolution reaction in proton exchange membrane (PEM) water electrolyzers**
KAYA M. F., Demir N., Rees N. V., El-Kharouf A.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.46, no.40, pp.20825-20834, 2021 (SCI-Expanded)
- XII. **Life cycle environmental and energy impact assessment of sustainable urban municipal solid waste collection and transportation strategies**
Taşkın A., Demir N.
SUSTAINABLE CITIES AND SOCIETY, vol.61, 2020 (SCI-Expanded)
- XIII. **Improving PEM water electrolyser's performance by magnetic field application**
KAYA M. F., Demir N., Rees N. V., El-Kharouf A.
APPLIED ENERGY, vol.264, 2020 (SCI-Expanded)
- XIV. **Effect of pulse potential on alkaline water electrolysis performance**

- Demir N., Kaya M. F., Albawabiji M. S.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.43, pp.17013-17020, 2018 (SCI-Expanded)
- XV. **Investigation of alkaline water electrolysis performance for different cost effective electrodes under magnetic field**
KAYA M. F., Demir N., ALBAWABIJI M. S., TAŞ M.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.42, no.28, pp.17583-17592, 2017 (SCI-Expanded)
- XVI. **Numerical Investigation of PEM Water Electrolysis Performance for Different Oxygen Evolution Electrocatalysts**
KAYA M. F., Demir N.
FUEL CELLS, vol.17, no.1, pp.37-47, 2017 (SCI-Expanded)
- XVII. **Life cycle assessment of wind turbines in Pinarbai-Kayseri**
Demir N., Taşkın A.
JOURNAL OF CLEANER PRODUCTION, vol.54, pp.253-263, 2013 (SCI-Expanded)
- XVIII. **Hydrogen production via steam-methane reforming in a SOMBRERO fusion breeder with ceramic fuel particles**
Demir N.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.38, no.2, pp.853-860, 2013 (SCI-Expanded)
- XIX. **Hydrogen production via water splitting process in a molten-salt fusion breeder**
Ozisik G., Demir N., Ubeyli M., Yapici H.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.35, no.14, pp.7357-7368, 2010 (SCI-Expanded)
- XX. **Rapid Transmutation of High-Level Nuclear Wastes in a Catalyzed Fusion-Driven System**
Demir N., GENÇ G., Altunok T., Yapici H.
JOURNAL OF FUSION ENERGY, vol.28, no.1, pp.107-117, 2009 (SCI-Expanded)
- XXI. **Time-dependent neutronic analysis for high level waste transmutation in a fusion-driven transmuter**
Yapici H., Demir N., GENÇ G.
JOURNAL OF FUSION ENERGY, vol.27, no.3, pp.206-215, 2008 (SCI-Expanded)
- XXII. **A comprehensive study on neutronics of a lead-bismuth eutectic cooled accelerator-driven sub-critical system for long-lived fission product transmutation**
Yapici H., GENÇ G., Demir N.
ANNALS OF NUCLEAR ENERGY, vol.35, no.7, pp.1264-1273, 2008 (SCI-Expanded)
- XXIII. **Neutronic limits in infinite target mediums driven by high energetic protons**
Yapici H., Genc G., Demir N.
ANNALS OF NUCLEAR ENERGY, vol.34, no.5, pp.374-384, 2007 (SCI-Expanded)
- XXIV. **Neutronic analysis for transmutation of minor actinides and long-lived fission products in a fusion-driven transmuter (FDT)**
Yapici H., Demir N., Genc G.
JOURNAL OF FUSION ENERGY, vol.25, pp.225-239, 2006 (SCI-Expanded)
- XXV. **Effect of oxygen fraction on local entropy generation in a hydrogen-air burner**
Yapici H., Basturk G., Kayatas N., Albayrak B.
HEAT AND MASS TRANSFER, vol.43, no.1, pp.37-53, 2006 (SCI-Expanded)
- XXVI. **Study on transient local entropy generation in pulsating fully developed laminar flow through an externally heated pipe**
Yapici H., Kayatas N., Basturk G., Kahraman N.
HEAT AND MASS TRANSFER, vol.43, no.1, pp.17-35, 2006 (SCI-Expanded)
- XXVII. **Transmutation-incineration potential of transuraniums discharged from PWR-UO₂ spent fuel in modified PROMETHEUS fusion reactor**
Yapici H., Genc G., Demir N.
FUSION ENGINEERING AND DESIGN, vol.81, no.18, pp.2093-2108, 2006 (SCI-Expanded)
- XXVIII. **Study on spent fuel rejuvenation in PROMETHEUS fusion reactor**
Yapici H., Demir N., Genc G., Ceper B.
Energy Conversion and Management, vol.47, no.4, pp.346-364, 2006 (SCI-Expanded)

- XXIX. **Neutronic Analysis for Transmutation of Minor Actinides and Long-Lived Fission Products in a Fusion-Driven Transmuter (FDT)**", *Journal of Fusion Energy*
YAPICI H., KAYATAŞ DEMİR N., GENÇ G.
JOURNAL OF FUSION ENERGY, pp.225-239, 2006 (SCI-Expanded)
- XXX. **Numerical study on transient local entropy generation in pulsating turbulent flow through an externally heated pipe**
Yapici H., Basturk G., Kayatas N., YALÇIN Ş.
SADHANA-ACADEMY PROCEEDINGS IN ENGINEERING SCIENCES, vol.30, pp.625-648, 2005 (SCI-Expanded)
- XXXI. **Numerical calculation of local entropy generation in a methane-air burner**
Yapici H., Kayatas N., Albayrak B., Basturk G.
ENERGY CONVERSION AND MANAGEMENT, vol.46, no.11-12, pp.1885-1919, 2005 (SCI-Expanded)
- XXXII. **Numerical study on local entropy generation in a burner fueled with various fuels**
Yapici H., Kayatas N., Albayrak B., Basturk G.
HEAT AND MASS TRANSFER, vol.41, no.6, pp.519-534, 2005 (SCI-Expanded)
- XXXIII. **Numerical study of effect of oxygen fraction on local entropy generation in a methane-air burner**
Yapici H., Basturk G., Kayatas N., Albayrak B.
SADHANA-ACADEMY PROCEEDINGS IN ENGINEERING SCIENCES, vol.29, pp.641-667, 2004 (SCI-Expanded)
- XXXIV. **Numerical study on effects of fuel mixture fraction and Li-6 enrichment on neutronic parameters of a fusion-fission hybrid reactor**
Yapici H., Genc G., Demir N.
JOURNAL OF FUSION ENERGY, vol.23, no.3, pp.191-205, 2004 (SCI-Expanded)
- XXXV. **Minor actinide transmutation potential of modified PROMETHEUS fusion reactor**
Yapici H., Genc G., Demir N., Ceper B.
Journal of Fusion Energy, vol.23, no.2, pp.121-135, 2004 (SCI-Expanded)

Articles Published in Other Journals

- I. **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 (Peer-Reviewed Journal)
- II. **Bir propan-hava yakıcısında yerel entropi üretimi**
KAYATAŞ DEMİR N., GENÇ G., ALBAYRAK ÇEPER B.
Gazi Üniversitesi POLİTEKNİK DERGİSİ, vol.8, no.2, pp.161-172, 2005 (Peer-Reviewed Journal)
- III. **İç içe borulu model bir ısı değiştiricisinde ısı transferinin iyileştirilmesinin sayısal olarak incelenmesi**
KAYATAŞ DEMİR N., İLBAŞ M.
Journal of the Institute of Science and Technology, pp.128-139, 2005 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Sustainable Electrocatalyst for PEM Water Electrolyzers**
Kaya M. F., Kıstı M., Hüner B., Özdoğan E., Conağası M., Durmaz M. A., Çakıraslan E. N., Eşiyok T., Süzen Y. O., Taşkın A., et al.
in: Challenges and Solutions in the Hydrogen Value Chain, Ankica Kovac, Editor, Springer Nature, Bern, pp.67-101, 2024
- II. **Electrochemical Methods and Materials for Transition Metal-Based Electrocatalysts in Alkaline and Acidic Media**

Kaya M. F., Kıstı M., Bulut H., Kayataş Demir N.

in: Transition Metal-Based Electrocatalysts: Applications in Green Hydrogen Production and Storage, Pankaj Pathak, Lakhveer Singh, Editor, American Chemical Society see ACS Publications, Washington, pp.219-248, 2023

Refereed Congress / Symposium Publications in Proceedings

- I. **DESIGN AND ANALYSIS OF HYDROGEN PRODUCED FROM PEM HIGH PRESSURE ELECTROLYZER**
TUNCAY E., KAYATAŞ DEMİR N.
III. INTERNATIONAL KORKUT ATA SCIENTIFIC RESEARCH CONFERENCE, 22 November 2024
- II. **Environmental Impact Assessment of Recycling Waste Collection and Sorting Process with Life Cycle Assessment**
Temizyürek Arslan M., Taşkın A., Kayataş Demir N.
12th Global Conference on Global Warming (GCGW-2024), Şanlıurfa, Turkey, 16 - 19 May 2024, pp.211-214
- III. **Techno-Economic and Environmental Analysis of Grid-Connected Hybrid Energy System in a Small Village with Concentrated Livestock Operations**
Akarsu R. T., Kayataş Demir N.
0. Uluslararası Marmara Fen ve Sosyal Bilimler Kongresi, Imascon 2023 Bahar, Kocaeli, Türkiye, Kocaeli, Turkey, 9 - 10 June 2023, pp.1-10
- IV. **A Control System Design for PEM Water Electrolyzer's Water and Heat Managements**
ÇAKIRASLAN E. N., ÖZDOĞAN E., KISTI M., HÜNER B., KAYATAŞ DEMİR N., KAYA M. F.
7th International Hydrogen Technologies Congress (IHTEC 2023), 10 - 13 May 2023
- V. **THIN FILM COATING OF PLATINUM ON 3D PRINTED POLYMERIC ANODE ELECTRODES FOR PEM WATER ELECTROLYZERS**
Hüner B., Kayataş Demir N., Kaya M. F.
23rd World Hydrogen Energy Conference, İstanbul, Turkey, 26 - 30 June 2022, pp.57
- VI. **THIN FILM COATING OF PLATINUM ON 3D PRINTED POLYMERIC ANODE ELECTRODES FOR PEMWE**
Hüner B., KAYATAŞ DEMİR N., KAYA M. F.
23rd World Hydrogen Energy Conference: Bridging Continents by H₂, WHEC 2022, İstanbul, Turkey, 26 - 30 June 2022, pp.261-263
- VII. **Evaluation of Hydrogen Evolution Reactions for Ni-Pt Coated 3D Printed Electrodes in an Alkaline Medium**
Hüner B., Kayataş Demir N., Kaya M. F.
The 5th International Conference on Alternative Fuels , Energy and Environment : Futures and Challenges (ICAFEE 2021), Kayseri, Turkey, 15 - 18 October 2021, pp.1-12
- VIII. **A Unique Heat Exchanger Design for Most Efficient Hydrogen Release from Metal Hydride Hydrogen Storage Tank for VoltaCARH₂ Hydrogen Electric Vehicle**
Özdoğan E., Süzen Y. O., Uysal S., Kıstı M., Uzgören İ. N., Hüner B., Selçuklu S. B., Kayataş Demir N., Kaya M. F.
The 5th International Conference on Alternative Fuels , Energy and Environment : Futures and Challenges (ICAFEE 2021), Kayseri, Turkey, 15 - 18 October 2021, pp.1-12
- IX. **Evaluation of Hydrogen Evolution Reaction Performance of Ni-Co Coated 3D Printed Electrodes Prepared by Electrochemical Deposition**
Hüner B., Kayataş Demir N., Kaya M. F.
5th International Hydrogen Technologies Congress (IHTEC 2021), Niğde, Turkey, 26 - 28 May 2021, pp.1-12
- X. **Automatic PEM Water Electrolyzer Control System (PEMECS) Design for Cell Testing**
Özdoğan E., Tuncay E., Uzgören İ. N., Kıstı M., Uysal S., Hüner B., Kayataş Demir N., Kaya M. F.
5th International Hydrogen Technologies Congress (IHTEC 2021), Niğde, Turkey, 26 - 28 May 2021, pp.1-12
- XI. **INVESTIGATION OF THE ELECTROCHEMICAL PROPERTIES OF THE BINARY COATING ON 3D PRINTED ELECTRODES**
Hüner B., Kayataş Demir N., Kaya M. F.
International Conference on Energy, Environment and Storage of Energy (ICEESEN 2020), Kayseri, Turkey, 19 - 21

November 2020, pp.1-12

- XII. **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
- XIII. **Life Cycle Assessment of an Organic Rankine Cycle-Waste to Energy (ORC-WtE) Hybrid Plant Operating on Landfill Site**
Taşkın A., KAYATAŞ DEMİR N.
3rd International Mediterranean Science and Engineering Congress, Adana, Türkiye, 24 - 26 October 2018
- XIV. **Life Cycle Environmental and Energy Analysis of a Wind Turbine Power Plant Operating on Erciyes Mountain**
KAYATAŞ DEMİR N., Taşkın A.
3rd International Mediterranean Science and Engineering Congress, 24 - 26 October 2018
- XV. **Life Cycle Assessment of Municipal Solid Waste Incineration Power Plant**
Taşkın A., KAYATAŞ DEMİR N.
3rd International Energy Engineering Congress, Gaziantep, Türkiye, 18 - 19 October 2018
- XVI. **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
- XVII. **Life cycle assessment of a 3 MW wind turbine located on three different regions in Turkey**
KAYATAŞ DEMİR N., Taşkın A.
2nd International Energy and Engineering Conference (UEMK), Gaziantep, Turkey, 10 - 12 October 2017, pp.1-7
- XVIII. **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
- XIX. **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
- XX. **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
- XXI. **Carbon footprint and energy payback time of a 2 Megawatt wind turbine**
KAYATAŞ DEMİR N., Taşkın A.
International Conference on Advances and Innovations in Engineering (ICAIE), Elazığ, Turkey, 10 - 12 May 2017, pp.950-953
- XXII. **Environmental impacts of passing from uncontrolled dumping site to sanitary landfill in Kayseri-Turkey**
KAYATAŞ DEMİR N., Taşkın A.
2nd International Conference on Civil and Environmental Engineering (ICOCEE-Cappadocia), Nevşehir, Turkey, 8 - 10 May 2017, pp.3101
- XXIII. **Investigation the energy and economic performance of Organic Rankine cycle integrated into gas engines operating in landfill site**
KAYATAŞ DEMİR N., Taşkın A.
International Conference on Advances in Natural and Applied Sciences (ICANAS), Antalya, Turkey, 18 - 21 April 2017, pp.269

- XXIV. **Noble Metal-Free Oxides for the Oxygen Evolution Reactions by Using Adam's Fusion Method**
KAYATAŞ DEMİR N., KAYA M. F., ÇÖĞENLİ M. S.
International Hydrogen Technologies Congress (IHTEC-2017), Adana, Turkey, 15 - 18 March 2017
- XXV. **Synthesis and Characterization of Ir_xRu_{1-x}O₂ 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
- XXVI. **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
- XXVII. **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
- XXVIII. **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
- XXIX. **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
- XXX. **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
- XXXI. **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
- XXXII. **Füzyon Sürücülü Sistemlerde Yüksek Sıcaklıklı Elektroliz Yoluyla Hidrojen Üretimi Üzerine Parametrik Çalışma**
ÖZİŞİK G., KAYATAŞ DEMİR N., YALÇIN Ş., YAPICI H.
IV. Ulusal Hidrojen Enerjisi Kongresi (UHK 2009) ve Sergisi, Kocaeli, Turkey, 15 - 17 October 2009, pp.98-108
- XXXIII. **Hidrokarbonlardan Buhar Reformasyonu Yolu İle Hidrojen Üretiminin Analizi**
ÖZİŞİK G., KAYATAŞ DEMİR N., YAPICI H.
V.Yeni ve Yenilenebilir Enerji Kaynakları Sempozyumu, Kayseri, Turkey, 16 - 17 October 2009, pp.48-54
- XXXIV. **A Parametric Study On Hydrogen Production Via Steam-Methane Reforming In Fusion-Driven Systems**
ÖZİŞİK G., KAYATAŞ DEMİR N., YALÇIN Ş., KAHRAMAN N., YAPICI H.
ULIBTK09 17. Ulusal Isı Bilimi ve Tekniği Kongresi, Sivas, Turkey, 24 - 27 June 2009, pp.256-262
- XXXV. **A Parametric Study On Hydrogen Production From Sulfur-Iodine Cycle In Fusion-Driven Systems**
ÖZİŞİK G., KAYATAŞ DEMİR N., YAPICI H., KAHRAMAN N., YALÇIN Ş.
International Conference on Hydrogen Production, Oshawa, Canada, 3 - 06 May 2009, pp.47-53
- XXXVI. **Long-Lived Fission Product Transmutation and Fissile Breeding Potentials of a Lead-Bismuth Eutectic Cooled Accelerator-Driven Sub-Critical System**
GENÇ G., KAYATAŞ DEMİR N., ÖZİŞİK G., YAPICI H.
The Fifth Eurasian Conference Nuclear Science and Its Application, Ankara, Turkey, 14 - 17 October 2008, pp.284-290

- XXXVII. **Neutronic Analysis for High Level Waste Transmutation in a Fusion-Driven Transmuter Based on D-T and D-D Fusion Plasma**
KAYATAŞ DEMİR N., GENÇ G., Altunok T., YAPICI H.
The Fifth Eurasian Conference Nuclear Science and Its Application, Ankara, Turkey, 14 - 17 October 2008, pp.1-8
- XXXVIII. **Neutronic Limits in Various Target Mediums Driven by a Proton Beam of 1 GeV Energy**
KAYATAŞ DEMİR N., GENÇ G., YAPICI H.
13th International Conference on Emerging Nuclear Energy Systems, İstanbul, Turkey, 3 - 08 July 2007, pp.1-8
- XXXIX. **TRANSMUTATION OF HIGH LEVEL WASTES IN A FUSION-DRIVEN TRANSMUTER (FDT)**
KAYATAŞ DEMİR N., GENÇ G., YAPICI H.
ICENES2007 13th International Conference on Emerging Nuclear Energy Systems, İstanbul, Turkey, 3 - 08 July 2007, vol.1, pp.1-8
- XL. **Füzyon Sürücülü Dönüştürücüde Yüksek Seviyeli Atıkların Dönüşümünün Nötronik Analizi**
KAYATAŞ DEMİR N., GENÇ G., YAPICI H.
16. Ulusal Isı Bilimi ve Tekniği Kongresi, Kayseri, Turkey, 30 May - 02 June 2007, pp.1-8
- XLI. **Neutronic Potential of Modified Prometheus Fusion Reactor**
GENÇ G., KAYATAŞ DEMİR N., YAPICI H.
16. Ulusal Isı Bilimi ve Tekniği Kongresi, Kayseri, Turkey, 30 May - 02 June 2007, pp.1-8
- XLII. **Prometheus Füzyon Reaktöründe Kullanılmış Yakıt Gençleştirilmesi**
GENÇ G., KAYATAŞ DEMİR N., YAPICI H.
III. Ege Enerji Sempozyumu ve Sergisi, Muğla, Turkey, 24 - 26 May 2006, pp.1-8
- XLIII. **THO2-UO2 Yakıtlı Bir Füzyon Üretken Reaktöründe Güç Düzgünleştirilmesi**
KAYATAŞ DEMİR N., GENÇ G., YAPICI H.
III. Ege Enerji Sempozyumu ve Sergisi, Muğla, Turkey, 24 - 26 May 2006, pp.1-8
- XLIV. **Daralan-Genişleyen Bir Nozılda Yüksek Hızlı Akışın ve Isı Transferinin Sayısal Simülasyonu**
KAYATAŞ DEMİR N., Doğan Z., GENÇ G.
HaSeM'06 Kayseri VI. Havacılık Sempozyumu, Nevşehir, Turkey, 12 - 14 May 2006, pp.1-8
- XLV. **Modifiye Edilmiş Prometheus Füzyon Reaktöründe Minör Aktinitlerin Yakılması**
GENÇ G., KAYATAŞ DEMİR N.
4rd International Advanced Technologies Symposium, Konya, Turkey, 28 - 30 September 2005, pp.1-8
- XLVI. **dış yüzeyinden ısıtılan silindirik bir boru içinde akan darbeli laminar akıştaki yerel entropi üretiminin alalizi**
KAYATAŞ DEMİR N., ALBAYRAK ÇEPER B.
ulusal ısı bilimi ve tekniği kongresi, Trabzon, Turkey, 7 - 09 September 2005, pp.7-9
- XLVII. **Propan Yakıtlı Bir Yakıcıda Yanma ve Yerel Entropi Üretimi Üzerine Oksijen Oranının Etkisinin Sayısal İncelenmesi**
Bekdemir Ş., Gökçek M., KAYATAŞ DEMİR N.
ULIBTK'05 15. Ulusal Isı Bilimi ve Tekniği Kongresi, Trabzon, Turkey, 7 - 09 September 2005, pp.1-8
- XLVIII. **bir hidrojen hava yakıcısında yerel entropi üretimi**
KAYATAŞ DEMİR N., ALBAYRAK ÇEPER B., GENÇ G., YAPICI H.
gazi üniversitesi 8, yanma sempozyumu, Ankara, Turkey, 8 - 09 September 2004, pp.48-57

Supported Projects

KAYATAŞ DEMİR N., ERKEKKARDEŞ E., Project Supported by Higher Education Institutions, MİKROBİYAL ELEKTROLİZ HÜCRESİ İLE EVSEL NİTELİKLİ ATIKSU ARITMA TESİSİNİN FARKLI PROSES AŞAMALARINDA HİDROJEN ÜRETİM POTANSİYELİNİN BELİRLENMESİ, 2023 - Continues

KAYATAŞ DEMİR N., TUNCAY E., Project Supported by Higher Education Institutions, Yüksek Basıncılı Polimer Elektrolit Membran Elektrolizörün Deneysel ve Sayısal İncelenmesi, 2023 - Continues

KAYATAŞ DEMİR N., Industrial Thesis Project, SİLİNDİRİK KATI OKSİT YAKIT PİLLERİNİN ÜRETİMİ KARAKTERİZASYONU VE PERFORMANSLARININ İNCELENMESİ, 2012 - Continues

KAYA M. F., KISTI M., HÜNER B., UYSAL S., UZGÖREN İ. N., EŞİYOK T., ERELİ N. C., KAYATAŞ DEMİR N., SÜZEN Y. O., ÖZDOĞAN E., Project Supported by Higher Education Institutions, PEM Elektrolizörlerde Darbe Voltajı Kullanılmasının Hidrojen Üretim Performansına Olan Etkilerinin İncelenmesi, 2022 - 2023

KAYATAŞ DEMİR N., UZGÖREN İ. N., KAYA M. F., UYSAL S., HÜNER B., SÜZEN Y. O., KISTI M., ÖZDOĞAN E., Project Supported by Higher Education Institutions, Nikel ve Alaşımaları ile Kaplanan 3D Baskılı Elektrotların Hidrojen Oluşum Reaksiyonuna Olan Etkisinin İncelenmesi, 2021 - 2023

KAYATAŞ DEMİR N., HÜNER B., Project Supported by Higher Education Institutions, PEM ELEKTROLİZÖRLERDE OKSİJEN OLUŞUM REAKSİYONU İÇİN GAZ DİFÜZYON ELEKTROTU GELİŞTİRİLMESİ, 2020 - 2023

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

KAYATAŞ DEMİR N., ÖZCAN R. U., Project Supported by Higher Education Institutions, PEM Elektrolizörler İçin Oksijen Oluşum Reaksiyonlarında Katalizör Geliştirilmesi, 2020 - 2023

KAYA M. F., KAYATAŞ DEMİR N., ATA E., ASLANOĞLU F., HAŞİMOĞLU A., SINDIRAÇ C., Project Supported by Higher Education Institutions, PEM Tipi Elektrolizör ile Yüksek Safılıkta Hidrojen ve Oksijen Üretimi, 2020 - 2022

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 - 2021

KAYATAŞ DEMİR N., TAŞKIN A., Project Supported by Higher Education Institutions, ENTEGRE KENTSEL KATI ATIK YÖNETİM SİSTEMİNİN ÇEVRESEL VE EKSERJİ ETKİLERİNİN YAŞAM DÖNGÜSÜ DEĞERLENDİRMESİ, 2016 - 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., ALBAWABİJİ M. S., Project Supported by Higher Education Institutions, ALKALİ ELEKTROLİZÖRLERDE VOLTAJ DARBESİNİN HİDROJEN ÜRETİMİ İÇİN GEREKLİ OLAN ENERJİYE ETKİSİ, 2017 - 2018

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

KAYATAŞ DEMİR N., ERKEKKARDEŞ E., Project Supported by Higher Education Institutions, SUSUZLAŞTIRILMIŞ ARITMA ÇAMURLARININ ENERJİSİNDEN FAYDALANABİLİRLİĞİN ARAŞTIRILMASI VE NİHAİ BERTARAFI, 2013 - 2015

KAYATAŞ DEMİR N., YAPICI H., GENÇ G., NART B., Project Supported by Higher Education Institutions, SİLİNDİRİK KATI OKSİT YAKIT HÜCRELERİNDE (SOFC) KATI ELEKTROLİTİN PERFORMANSININ ANALİZİ, 2012 - 2015

KAYATAŞ DEMİR N., TAŞKIN A., Project Supported by Higher Education Institutions, Rüzgar Enerjisinden Elektrik Üretiminin Yaşam Döngü Analizi, 2011 - 2015

GENÇ G., KAYATAŞ DEMİR N., YAPICI H., SARIKOÇ S., Project Supported by Higher Education Institutions, Katı Oksit Yakıt Hücreli Güç Üretim Sisteminin Enerji ve Ekserji Analizi, 2012 - 2014

Kayataş Demir N., Industrial Thesis Project, SAN-TEZ-SİLİNDİRİK KATI OKSİT YAKIT PİLLERİNİN ÜRETİMİ KARAKTERİZASYONU VE PERFORMANSLARININ İNCELENMESİ, 2011 - 2014

YAPICI H., ÖZİŞİK G., SELÇUKLU S. B., KAHRAMAN N., DALDABAN F., TÜRKOĞLU O., ÖZLÜ H., KAYATAŞ DEMİR N., ÜSTKOYUNCU N., ERSOY E., et al., Project Supported by Higher Education Institutions, Hidrojen Teknolojisi, Polimer Elektrolit Membranlı Yakıt Hücresi Araştırma Projesi, 2010 - 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

YAPICI H., KAYATAŞ DEMİR N., Project Supported by Higher Education Institutions, NÜKLEER ATIK YAKICI/DÖNÜSTÜRÜCÜ SİSTEMLERİNİN OPTİMİZASYONU VE TERMAL ANALİZİ, 2007 - 2009

Memberships / Tasks in Scientific Organizations

TIBTD Türk Isı Bilimi ve Tekniği Derneği, Member, 2009 - Continues

TMMOB Makine Mühendisleri Odası, Member, 2001 - Continues

Scientific Refereeing

International Journal of Hydrogen Energy, SCI Journal, November 2014
Journal of Cleaner Production, SCI Journal, October 2014
Progress in Nuclear Energy, SCI Journal, May 2014
International Journal of Nuclear Energy, SCI Journal, January 2014
International Journal of Energy Research, SCI Journal, October 2013
Applied Energy, SCI Journal, February 2013

Scientific Research / Working Group Memberships

İklim Değişikliği Ve Sürdürülebilirlik Araştırma Grubu, Erciyes University, Turkey, GWSR, 2022 - Continues

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Publication: 88
Citation (WoS): 555
Citation (Scopus): 524
H-Index (WoS): 15
H-Index (Scopus): 13

Scholarships

Yurt Dışı Doktora Sonrası Araştırma Bursu, University, 2009 - Continues

Awards

KAYATAŞ DEMİR N., Bilimsel Yayın Onur Ödülü (Dördüncülük), Erciyes Üniversitesi, November 2006
KAYATAŞ DEMİR N., Bilimsel Yayın Onur Ödülü (İkincilik), Erciyes Üniversitesi Mühendislik Fakültesi, November 2006
KAYATAŞ DEMİR N., Bilimsel Yayın Onur Ödülü (Üçüncülük), Erciyes Üniversitesi Mühendislik Fakültesi, November 2005

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University of Bahrain
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