

MD MUSTAFA ERKARTAL

Personal Information

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Education Information

Doctorate, Abdullah Gul University, Fen Bilimleri Enstitüsü, Malzeme Bilimi Ve Makine Mühendisliği, Turkey 2015 - 2019

Postgraduate, Abdullah Gül Üniversitesi, Fen Bilimleri Enstitüsü, İleri Malzemeler Ve Nanoteknoloji, Turkey 2013 - 2015

Undergraduate, Ankara Üniversitesi, Mühendislik Fakültesi, Fizik Mühendisliği, Turkey 2005 - 2010

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Modelling and investigations of amorphous materials, Abdullah Gul University, Fen Bilimleri Enstitüsü, 2019

Postgraduate, Proton Conductive Polymer/Metal Organic Framework Composite Membranes, Abdullah Gül Üniversitesi, Fen Bilimleri Enstitüsü, İleri Malzemeler Ve Nanoteknoloji, 2015

Research Areas

Physics, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Magnetic Properties and Materials, Chemistry, Physical Chemistry, Polymeric Materials, Inorganic Chemistry, Coordination Chemistry, Natural Sciences

Academic Titles / Tasks

Research Assistant PhD, Abdullah Gul University, Mühendislik Fakültesi, Nanoteknoloji Mühendisliği, 2014 - Continues

Research Assistant, Erciyes Üniversitesi, Sivil Havacılık Yüksekokulu, Uçak Gövde Motor, 2011 - 2013

Courses

PHYSICS 101, Undergraduate, 2016 - 2017

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

- Mesoscale Morphologies of Nafion-Based Blend Membranes by Dissipative Particle Dynamics**
Sen U., Ozdemir M., ERKARTAL M., KAYA A. M. , Manda A. A. , Oveisi A. R. , Ali Aboudzadeh M., Tokumasu T.

PROCESSES, vol.9, no.6, 2021 (Journal Indexed in SCI)

- II. **Poly(lauryl methacrylate)-Grafted Amino-Functionalized Zirconium-Terephthalate Metal-Organic Framework: Efficient Adsorbent for Extraction of Polycyclic Aromatic Hydrocarbons from Water Samples**
Tabatabaai M., Khajeh M., Oveisi A. R. , ERKARTAL M., Sen U.
ACS OMEGA, vol.5, no.21, pp.12202-12209, 2020 (Journal Indexed in SCI)
- III. **Pressure-induced amorphization, mechanical and electronic properties of zeolitic imidazolate framework (ZIF-8)**
ERKARTAL M., DURANDURDU M.
MATERIALS CHEMISTRY AND PHYSICS, vol.240, 2020 (Journal Indexed in SCI)
- IV. **An in-depth investigation of Mg-Zn-Ca metallic glasses: A first principles study**
ERKARTAL M., DURANDURDU M.
COMPUTATIONAL MATERIALS SCIENCE, vol.153, pp.326-337, 2018 (Journal Indexed in SCI)
- V. **Pressure-Induced Amorphization of MOF-5: A First Principles Study**
ERKARTAL M., DURANDURDU M.
CHEMISTRYSELECT, vol.3, no.28, pp.8056-8063, 2018 (Journal Indexed in SCI)
- VI. **Boronic Acid Moiety as Functional Defect in UiO-66 and Its Effect on Hydrogen Uptake Capacity and Selective CO₂ Adsorption: A Comparative Study**
ERKARTAL M., ŞEN Ü.
ACS APPLIED MATERIALS & INTERFACES, vol.10, no.1, pp.787-795, 2018 (Journal Indexed in SCI)
- VII. **Three-Dimensional Au-Coated Electrospayed Nanostructured BODIPY Films on Aluminum Foil as Surface-Enhanced Raman Scattering Platforms and Their Catalytic Applications**
YILMAZ M., ERKARTAL M., Ozdemir M., ŞEN Ü., USTA H., DEMİREL G.
ACS APPLIED MATERIALS & INTERFACES, vol.9, no.21, pp.18199-18206, 2017 (Journal Indexed in SCI)
- VIII. **A Solution-Processable Liquid-Crystalline Semiconductor for Low-Temperature-Annealed Air-Stable N-Channel Field-Effect Transistors**
ÖZDEMİR R., CHOI D., OZDEMİR M., KIM H., Kostakoglu S. T. , ERKARTAL M., KIM H., Kim C., USTA H.
CHEMPHYSICHEM, vol.18, no.7, pp.850-861, 2017 (Journal Indexed in SCI)
- IX. **From 2-methylimidazole to 1,2,3-triazole: a topological transformation of ZIF-8 and ZIF-67 by post-synthetic modification**
ERKARTAL M., ERKILIC U., TAM B., USTA H., YAZAYDIN O., HUPP J. T. , Farha O. K. , Sen U.
Chemical Communications, vol.53, no.12, pp.2028-2031, 2017 (Journal Indexed in SCI)
- X. **Proton Conducting Self-Assembled Metal-Organic Framework/Polyelectrolyte Hollow Hybrid Nanostructures**
SEN U., ERKARTAL M., Kung C., Ramani V., Hupp J. T. , Farha O. K.
ACS APPLIED MATERIALS & INTERFACES, vol.8, no.35, pp.23015-23021, 2016 (Journal Indexed in SCI)
- XI. **Anhydrous proton conducting poly(vinyl alcohol) (PVA)/poly(2-acrylamido-2-methylpropane sulfonic acid) (PAMPS)/1,2,4-triazole composite membrane**
ERKARTAL M., Asian A., ERKILIC U., DADI Ş., Yazaydin O., USTA H., SEN U.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.41, no.26, pp.11321-11330, 2016 (Journal Indexed in SCI)
- XII. **Proton conducting poly(vinyl alcohol) (PVA)/poly (2-acrylamido-2-methylpropane sulfonic acid) (PAMPS)/zeolitic imidazolate framework (ZIF) ternary composite membrane**
ERKARTAL M., USTA H., Citir M., Sen U.
JOURNAL OF MEMBRANE SCIENCE, vol.499, pp.156-163, 2016 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **Mixed-Ligand Boronic Acid UiO Type Metal-Organic Frameworks and Their Sugar Capture Properties**
ERKARTAL M.
INTERNATIONAL CONGRESS ON CHEMISTRY AND MATERIALS SCIENCE, Ankara, Turkey, 5 - 07 October 2017,

pp.122

- II. **Kristal Kusur Mühendisliği Metal-Organik Çerçeve Yapıların Hidrojen Depolama Özelliklerinin İyileştirilmesi**
ERKARTAL M.
VI. Ulusal Anorganik Kimya Kongresi, Burdur, Turkey, 18 - 21 May 2017, pp.47
- III. **Proton Conducting PVA PAMPS ZIF8 Composite Membranes for PEMFC**
ERKARTAL M., USTA H., ÇITIR M., ŞEN Ü.
1st European Conference on Metal Organic Frameworks and Porous Polymers, 11 - 14 October 2015
- IV. **Proton Conducting MOF-Polymer Composites**
ERKARTAL M., Aslan A., USTA H., ÇITIR M., ŞEN Ü.
International Porous Powder Materials (PPM) 2015, İzmir, Turkey, 15 - 18 September 2015, pp.28
- V. **High Proton Conductive PVA/PAMPS/Triazole Composite Membranes for PEMFC**
ERKARTAL M., DADI Ş., USTA H., ÇITIR M., ŞEN Ü.
International Symposium on Materials for Energy Storage and Conversion, Ankara, Turkey, 7 - 09 September 2015, pp.34
- VI. **High Proton Conductive PVA PAMPS Triazole Composite Membranes for PEMFC PEM Membrane**
ERKARTAL M., DADI Ş., USTA H., ÇITIR M., ŞEN Ü.
International Symposium on Materials for Energy Storage and Conversion, Ankara, Turkey, 7 - 09 September 2015, pp.34

Other Publications

- I. **Proton Conducting PVA/PAMPS/ZIF8 Composite Membranes for PEMFC**
ERKARTAL M.
Presentation, pp.50, 2015
- II. **Poisoning of Fuel Cell Catalysts by Triazole-like Molecules**
ERKARTAL M.
Other, pp.609, 2014
- III. **Proton Conducting MOF/Polymer Composite Materials**
ERKARTAL M.
Other, 2014

Supported Projects

DURANDURDU M., ERKARTAL M., Project Supported by Higher Education Institutions, Kristal Kusur Mühendisliği ile Metal-Organik Kafes Yapıların (MOF) Karbondioksit (CO₂) Yakalama ve Depolama Özelliklerinin İyileştirilmesi, 2017 - 2019

ŞEN Ü., ÇELİK M., ERKARTAL M., Project Supported by Higher Education Institutions, Polimer Elektrolit Yakıt Hücreleri için Metal-Organik Kafes Yapılar İçeren Proton İletken Nano-kompozit Membranların Üretilmesi, 2015 - 2017

ERKARTAL M., Project Supported by Other Official Institutions, Ultrasonik Temizleyici Banyo, 2015 - 2016

ŞEN Ü., ERKARTAL M., Project Supported by Higher Education Institutions, Zeolitik İmidazolat Kafes Yapılara Dayalı Proton İletken Kompozit Malzemeler, 2014 - 2016

Scientific Refereeing

SMALL, SCI Journal, June 2021

Edit Congress and Symposium Activities

International Symposium on Materials for Energy Storage&Conversion, Attendee, Ankara, Turkey, 2015

Citations

Total Citations (WOS):132

h-index (WOS):6