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International Researcher IDs

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Publons / Web Of Science ResearcherID: JEO-7047-2023

ScopusID: 35757295900

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Learning Knowledge

Doctorate 2014 - 2019	Middle East Technical University, Faculty Of Engineering, Department Of Mechanical Engineering, Turkey
Postgraduate 2007 - 2010	Urmia University, Faculty of Engineering, Mechanical Engineering, Iran
Undergraduate 2003 - 2007	Urmia University, Faculty of Engineering, Mechanical Engineering, Iran

Dissertations

Doctorate, Investigation of Combustion of Lignite and Torrefied Biomass in a Thermogravimetric Analyzer (TGA) and in a Circulating Fluidized Bed (CFB) under Oxy-Fuel Combustion Conditions, Middle East Technical University, Faculty Of Engineering, Department Of Mechanical Engineering, 2019

Postgraduate, Numerical Investigation of Combustion and Exhaust Emissions in Spark Ignition Engines, Urmia University, Faculty of Engineering, Mechanical Engineering, 2010

Academic Titles / Tasks

Assistant Professor 2023 - Continues	Hacettepe University, Mühendislik Fakültesi, Makina Mühendisliği Bölümü
Assistant Professor 2019 - 2023	Atilim University, Faculty of Engineering, Automotive Engineering

Published journal articles indexed by SCI, SSCI, and AHCI

- Developing a high-fidelity reduced chemical kinetic mechanism for liquefied petroleum gas (LPG)**
Tekin O., BARZEGAR R., SÖYLEMEZ M.
INTERNATIONAL JOURNAL OF ENGINE RESEARCH, 2024 (SCI-Expanded)
- Developing a New Skeletal Mechanism for Propane, Butane, and LPG Fuels**
Tekin O., BARZEGAR R., SÖYLEMEZ M.
COMBUSTION SCIENCE AND TECHNOLOGY, 2024 (SCI-Expanded)

3. **Co-combustion of high and low ash lignites with raw and torrefied biomass under air and oxy-fuel combustion atmospheres**
BARZEGAR R., Yozgatligil A., ATİMTAY A.
Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2022 (SCI-Expanded)
4. **TGA and kinetic study of different torrefaction conditions of wood biomass under air and oxy-fuel combustion atmospheres**
BARZEGAR R., Yozgatligil A., Olgun H., ATİMTAY A.
Journal of the Energy Institute, vol.93, no.3, pp.889-898, 2020 (SCI-Expanded)
5. **Combustion characteristics of Turkish lignites at oxygen-enriched and oxy-fuel combustion conditions**
BARZEGAR R., Yozgatligil A., ATİMTAY A.
Journal of the Energy Institute, vol.92, no.5, pp.1440-1450, 2019 (SCI-Expanded)
6. **Pyrolysis characteristics of Turkish lignites in N₂ and CO₂ environments**
BARZEGAR R., Avsaroglu S., Yozgatligil A., ATİMTAY A.
Energy Sources, Part A: Recovery, Utilization and Environmental Effects, vol.40, no.20, pp.2467-2475, 2018 (SCI-Expanded)
7. **The effects of injected fuel temperature on exergy balance under the various operating loads in a diesel engine**
Nemati A., BARZEGAR R., Khalilarya S.
International Journal of Exergy, vol.17, no.1, pp.35-53, 2015 (SCI-Expanded)
8. **Numerical investigation of the effect of injection timing under various equivalence ratios on energy and exergy terms in a direct injection SI hydrogen fueled engine**
Nemati A., Fathi V., BARZEGAR R., Khalilarya S.
International Journal of Hydrogen Energy, vol.38, no.2, pp.1189-1199, 2013 (SCI-Expanded)
9. **Computational fluid dynamics simulation of the combustion process, emission formation and the flow field in an in-direct injection diesel engine**
BARZEGAR R., Shafee S., Khalilarya S.
Thermal Science, vol.17, no.1, pp.11-23, 2013 (SCI-Expanded)
10. **Decreasing the emissions of a partially premixed gasoline fueled compression ignition engine by means of injection characteristics and exhaust gas recirculation**
Nemati A., BARZEGAR R., Khalil Arya S., Khatamnezhad H.
Thermal Science, vol.15, no.4, pp.939-952, 2011 (SCI-Expanded)
11. **Numerical investigation of the effect of fuel injection mode on Spray/Wall interaction and emission formation in a direct injection diesel engine at full load state**
Jafarmadar S., Shafee S., BARZEGAR R.
Thermal Science, vol.14, no.4, pp.1039-1049, 2010 (SCI-Expanded)
12. **Modeling the effect of spray/wall impingement on combustion process and emission of DI diesel engine**
Jafarmadar S., Khalilarya S., Shafee S., BARZEGAR R.
Thermal Science, vol.13, no.3, pp.23-34, 2009 (SCI-Expanded)

Articles Published in Other Journals

1. **Prediction of Composite Mechanical Properties: Integration of Deep Neural Network Methods and Finite Element Analysis**
Gholami K., Ege F., BARZEGAR R.
Journal of Composites Science, vol.7, no.2, 2023 (ESCI)
2. **Three dimensional modeling of combustion process and emission formation in a spark Ignition engine**
BARZEGAR R., Mirizadeh A.

Courses

Thermodynamics II, Undergraduate, 2023 - 2024

Internal Combustion Engines, Undergraduate, 2023 - 2024

Advanced Engineering Thermodynamics, Postgraduate, 2023 - 2024

Research Areas

Energy, Thermodynamics