

Prof. GÖRKEM KÜLAH

Personal Information

Office Phone: [+90 312 210 4345](tel:+903122104345)

Email: gorkemk@metu.edu.tr

Web: <https://avesis.metu.edu.tr/gorkemk>

International Researcher IDs

ScholarID: 6Z_vL8AAAAJ

ORCID: 0000-0002-7254-2832

Publons / Web Of Science ResearcherID: AAZ-9338-2020

ScopusID: 24071182800

Yoksis Researcher ID: 164335

Education Information

1999 - 2004	Doctorate, The University of British Columbia, Chemical Engineering, Canada
1998 - 1999	Postgraduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Kimya Mühendisliği (Y) (Tezli), Turkey
1993 - 1998	Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, Turkey

Foreign Languages

English, C1 Advanced

Dissertations

2004	Solids Motion and Mixing in High Density Circulating Fluidized Beds, The University of British Columbia, Doctorate
1999	The Method of lines solution of discrete ordinates method for radiative heat transfer in enclosures, Middle East Technical University, Graduate School of Natural and Applied Sciences, Graduate School of Natural and Applied Sciences, Postgraduate

Research Areas

Fluid Mechanics, Heat Transfer, Conventional Energy Systems and Their Technology, Energy storage technologies, Fuels and Combustion

Academic Titles / Tasks

2018 - Continues	Professor, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering
2011 - 2018	Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering
2005 - 2011	Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering

Academic and Administrative Experience

2016 - Continues	Vice Dean, Middle East Technical University, Faculty of Engineering
2011 - 2014	Deputy Head of Department, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering

Courses

2023 - 2024, 2022 - 2023, 2021 - 2022, 2019 - 2020	TOPICS IN CHEMICAL ENGINEERING I, Undergraduate
2022 - 2023, 2015 - 2016	ChE 320 CHEMICAL ENGINEERING LABORATORY I, Undergraduate
2023 - 2024, 2018 - 2019	ChE 410 Chemical Engineering Laboratory II, Undergraduate
2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018	FLUID MECHANICS, Undergraduate
2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2013 - 2014	HEAT & MASS TRANSFER OPERATIONS, Undergraduate
2019 - 2020	TOPICS IN CHEMICAL ENGINEERING II, Undergraduate
2016 - 2017, 2015 - 2016, 2011 - 2012, 2010 - 2011	ChE 532 Fluidization, Postgraduate
2012 - 2013	ChE 432 DESIGN OF FLUIDIZED BED REACTORS, Undergraduate
2009 - 2010	CHEMICAL ENGINEERING LABORATORY III, Undergraduate

Advising Theses

2022	KÜLAH G., Postgraduate, Z.TANER(Student), Investigation of slow cook-off characteristics of self-igniting energetic materials
2021	Külah G., Önal I., Doctorate, B.BAYRAM(Student), DEVELOPMENT OF THREE WAY CATALYTIC CONVERTER FOR AUTOMOTIVE EXHAUST GAS
2021	KÜLAH G., Postgraduate, N.DOĞAN(Student), Gas mixing in conical spouted beds
2019	Külah G., Postgraduate, A.YENİÇERİ(Student), CHARACTERIZATION OF LOCAL FLOW BEHAVIOUR IN CONICAL SPOUTED BEDS
2019	Külah G., Postgraduate, N.ERİŞEN(Student), Modeling of reaction and degradation mechanisms in lithium-sulfur batteries
2019	Külah G., Postgraduate, N.BER(Student), EFFECT OF ELECTROLYTE/SULFUR RATIO IN THE CATHODE ON THE ELECTROCHEMICAL PERFORMANCE OF Li-S BATTERIES
2018	Külah G., Selçuk N., Postgraduate, M.SONER(Student), Mathematical modeling of a bubbling fluidized bed combustor co-fired with cotton residue and lignite
2018	KÜLAH G., SELÇUK N., Doctorate, C.ATEŞ(Student), Nongray gas and nongray particle effects in modeling fluidized bed combustors
2017	KÜLAH G., Postgraduate, O.YAMAN(Student), Bed-to-surface heat transfer in conical spouted and spout-fluid beds
2017	KÜLAH G., Postgraduate, Ö.BATIR(Student), Investigation of effect of kaolin addition on combustion characteristic of olive residue

2017	KÜLAH G., SELÇUK N., Postgraduate, Ö.ŞEN(Student), Modeling of radiative heat transfer in strongly forward scattering media of bubbling fluidized bed combustor with and without recycle
2013	KÜLAH G., Postgraduate, C.ÖCAL(Student), Drying of natural zeolite powders in vibrated fluidized beds
2011	Selçuk N., Külah G., Postgraduate, M.YUSUF(Student), Radiative-convective model for one-dimensional cloudy sky atmosphere
2008	KÜLAH G., SELÇUK N., Postgraduate, G.AYDIN(Student), Radiative-convective model for one-dimensional longwave clear sky atmosphere
2008	KÜLAH G., SELÇUK N., Doctorate, A.BATU(Student), Investigation of combustion characteristics of indigenous lignite in a 150 kWt circulating fluidized bed combustor
2007	KÜLAH G., SELÇUK N., Postgraduate, E.MEHMET(Student), Mathematical modeling of fbcs co-fired with lignite and biomass
2007	KÜLAH G., Postgraduate, Ö.KAYA(Student), COATING OF PHARMACEUTICAL GRANULES IN FLUIDIZED BEDS
2006	KÜLAH G., SELÇUK N., Postgraduate, D.ECE(Student), Mathematical modeling of fluidized bed combustors with radiation model

Jury Memberships

September 2018	Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi
August 2018	Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi
June 2018	Post Graduate, Post Graduate, Hacettepe Üniversitesi
June 2018	PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi
January 2018	PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Solids dispersion in high density circulating fluidized beds**
KÜLAH G., Bi X., Lim C., Grace J.
Powder Technology, vol.431, 2024 (SCI-Expanded)
- II. **Axial gas mixing in conical spouted beds with high density particles**
Doğan N., Köksal M., Külah G.
Particuology, vol.81, pp.45-57, 2023 (SCI-Expanded)
- III. **Thermal stability and SO₂ resistance of Pd/Rh-perovskite based three-way catalyst wash-coated on cordierite monoliths**
Bayram B., Önal I., Külah G.
CHEMICAL ENGINEERING COMMUNICATIONS, vol.210, no.2, pp.205-222, 2023 (SCI-Expanded)
- IV. **Coupling of spectral thermal radiation model with a comprehensive system model for co-combustion of biomass in bubbling fluidized bed**
YAŞAR M. S., SELÇUK N., KÜLAH G.
Fuel, vol.333, 2023 (SCI-Expanded)
- V. **Effect of Particle Size Distribution and Complex Refraction Index of Alumina on Infrared Rocket Plume Signatures**
YAŞAR M., Ozen G., SELÇUK N., KÜLAH G.
Combustion Science and Technology, vol.195, no.14, pp.3232-3247, 2023 (SCI-Expanded)

- VI. **<p>Performance and validation of a radiation model coupled with a transient bubbling fluidized bed combustion model</p>**
YAŞAR M. S., SELÇUK N., KÜLAH G.
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.176, 2022 (SCI-Expanded)
- VII. **Influence of bag filter ash to spectral thermal radiation in fluidized bed combustors Co-Fired with biomass**
YAŞAR M. S., SELÇUK N., KÜLAH G.
International Journal of Thermal Sciences, vol.167, 2021 (SCI-Expanded)
- VIII. **Influence of soot on radiative heat transfer in bubbling fluidized bed combustors**
YAŞAR M. S., SELÇUK N., KÜLAH G.
Journal of Quantitative Spectroscopy and Radiative Transfer, vol.270, 2021 (SCI-Expanded)
- IX. **Gas velocity distribution in conical spouted beds with high-density particles**
DOĞAN N., KÖKSAL M., KÜLAH G.
CANADIAN JOURNAL OF CHEMICAL ENGINEERING, vol.99, no.7, pp.1607-1615, 2021 (SCI-Expanded)
- X. **Performance of banded SLW-1 in presence of non-gray walls and particles in fluidized bed combustors**
YAŞAR M. S., Ozen G., SELÇUK N., KÜLAH G.
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.257, 2020 (SCI-Expanded)
- XI. **Assessment of improved banded model for spectral thermal radiation in presence of non-gray particles in fluidized bed combustors**
YAŞAR M. S., Ozen G., SELÇUK N., KÜLAH G.
APPLIED THERMAL ENGINEERING, vol.176, 2020 (SCI-Expanded)
- XII. **Comment on "Deciphering conical spouted bed hydrodynamics using high intensity microphone"**
Yaman O., KÖKSAL M., KÜLAH G.
NUCLEAR ENGINEERING AND DESIGN, vol.353, 2019 (SCI-Expanded)
- XIII. **Modeling of Fluidized Bed Combustion of Lignite with High Nitrogen Content Cotton Residue**
Yasar M. S., Selcuk N., Kulah G.
COMBUSTION SCIENCE AND TECHNOLOGY, 2019 (SCI-Expanded)
- XIV. **Detecting stability of conical spouted beds based on information entropy theory**
Savari C., Sotudeh-Gharebagh R., KÜLAH G., KÖKSAL M., Mostoufi N.
POWDER TECHNOLOGY, vol.343, pp.185-193, 2019 (SCI-Expanded)
- XV. **Surface-to-bed heat transfer for high-density particles in conical spouted and spout-fluid beds**
Yaman O., Külah G., Köksal M.
PARTICULOLOGY, vol.42, pp.35-47, 2019 (SCI-Expanded)
- XVI. **Assessment of SLW-1 model in the presence of gray and non-gray particles**
Özen G., ATEŞ C., Selçuk N., KÜLAH G.
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.136, pp.420-432, 2019 (SCI-Expanded)
- XVII. **Effect of kaolin addition on alkali capture capability during combustion of olive residue**
Batir O., Selcuk N., Kulah G.
COMBUSTION SCIENCE AND TECHNOLOGY, vol.191, pp.43-53, 2019 (SCI-Expanded)
- XVIII. **Influence of gray particle assumption on the predictive accuracy of gas property approximations**
Ates C., SELÇUK N., KÜLAH G.
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.220, pp.67-83, 2018 (SCI-Expanded)
- XIX. **A new correlation for minimum spouting velocity for conical spouted beds operating with high density particles**
GOLSHAN S., YAMAN O., KÖKSAL M., KÜLAH G., ZARGHAMI R., MOSTOUFI N.
EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.96, pp.358-370, 2018 (SCI-Expanded)
- XX. **Influence of fly ash composition on non-gray particle radiation in combustions systems**
Ates C., SELÇUK N., KÜLAH G.
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.215, pp.25-40, 2018 (SCI-Expanded)
- XXI. **Significance of particle concentration distribution on radiative heat transfer in circulating fluidized**

bed combustors

- Ates C., SELÇUK N., KÜLAH G.
INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.117, pp.58-70, 2018 (SCI-Expanded)
- XXII. **Effect of changing biomass source on radiative heat transfer during co-firing of high-sulfur content lignite in fluidized bed combustors**
Ates C., SELÇUK N., KÜLAH G.
APPLIED THERMAL ENGINEERING, vol.128, pp.539-550, 2018 (SCI-Expanded)
- XXIII. **Effect of limestone addition on radiative heat transfer during co-firing of high-sulfur content lignite with biomass in fluidized bed combustors**
Ates C., Selcuk N., Kulah G.
COMBUSTION SCIENCE AND TECHNOLOGY, vol.190, no.8, pp.1377-1391, 2018 (SCI-Expanded)
- XXIV. **Assessment of gas radiative property models in the presence of nongray particles**
Ates C., OZEN G., Selcuk N., Kulah G.
NUMERICAL HEAT TRANSFER PART A-APPLICATIONS, vol.73, no.6, pp.385-407, 2018 (SCI-Expanded)
- XXV. **Influence of spectral particle properties on radiative heat transfer in optically thin and thick media of fluidized bed combustors**
Ates C., Sen O., SELÇUK N., KÜLAH G.
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.122, pp.266-280, 2017 (SCI-Expanded)
- XXVI. **Monitoring of liquid sprayed conical spouted beds by recurrence plots**
Savari C., KÜLAH G., KÖKSAL M., Sotudeh-Gharebagh R., Zarghami R., Mostoufi N.
POWDER TECHNOLOGY, vol.316, pp.148-156, 2017 (SCI-Expanded)
- XXVII. **Benchmarking grey particle approximations against nongrey particle radiation in circulating fluidized bed combustors**
Ates C., SELÇUK N., Ozen G., Kulah G.
NUMERICAL HEAT TRANSFER PART B-FUNDAMENTALS, vol.71, no.5, pp.467-484, 2017 (SCI-Expanded)
- XXVIII. **Radiative heat transfer in strongly forward scattering media of circulating fluidized bed combustors**
Ates C., Ozen G., SELÇUK N., KÜLAH G.
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.182, pp.264-276, 2016 (SCI-Expanded)
- XXIX. **Early Detection of Agglomeration in Conical Spouted Beds Using Recurrence Plots**
Savari C., KÜLAH G., Sotudeh-Gharebagh R., Mostoufi N., KÖKSAL M.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.55, no.26, pp.7179-7190, 2016 (SCI-Expanded)
- XXX. **Particle Velocity, Solids Hold-Up, and Solids Flux Distributions in Conical Spouted Beds Operating with Heavy Particles**
KÜLAH G., Sari S., KÖKSAL M.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.55, no.11, pp.3131-3138, 2016 (SCI-Expanded)
- XXXI. **CFD Simulations of Hydrodynamics of Conical Spouted Bed Nuclear Fuel Coaters**
Lule S. S., Çolak Ü., KÖKSAL M., KÜLAH G.
CHEMICAL VAPOR DEPOSITION, vol.21, pp.122-132, 2015 (SCI-Expanded)
- XXXII. **Flow structure characterization in conical spouted beds using pressure fluctuation signals**
MOSTOUFI N., KÜLAH G., KÖKSAL M.
POWDER TECHNOLOGY, vol.269, pp.392-400, 2015 (SCI-Expanded)
- XXXIII. **COMPARISON BETWEEN COMBUSTION BEHAVIOR OF SOLID FUELS AND THEIR CHARS UNDER OXY-FUEL CONDITIONS**
Inmas S. V., KÜLAH G., SELÇUK N.
COMBUSTION SCIENCE AND TECHNOLOGY, vol.186, pp.398-408, 2014 (SCI-Expanded)
- XXXIV. **Characterization of gas-solid flow in conical spouted beds operating with heavy particles**
Sari S., KÜLAH G., KÖKSAL M.
EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.40, pp.132-139, 2012 (SCI-Expanded)
- XXXV. **Investigation and scale-up of hot-melt coating of pharmaceuticals in fluidized beds**
KÜLAH G., Kaya O.
POWDER TECHNOLOGY, vol.208, no.1, pp.175-184, 2011 (SCI-Expanded)

- XXXVI. **Validation of a FBC model for co-firing of hazelnut shell with lignite against experimental data**
KÜLAH G.
EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.34, no.5, pp.646-655, 2010 (SCI-Expanded)
- XXXVII. **Design assessment of a 150 kWt CFBC Test Unit**
Batu A., SELÇUK N., KÜLAH G.
EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.34, no.3, pp.275-281, 2010 (SCI-Expanded)
- XXXVIII. **Mathematical Modeling of a Bubbling Fluidized Bed Combustor Cofired with Lignite and Biomass**
KÜLAH G., Morali E. M., SELÇUK N.
COMBUSTION SCIENCE AND TECHNOLOGY, vol.182, pp.600-612, 2010 (SCI-Expanded)
- XXXIX. **A comprehensive fluidized bed combustion model coupled with a radiation model**
Alagoz D. E., KÜLAH G., SELÇUK N.
COMBUSTION SCIENCE AND TECHNOLOGY, vol.180, no.5, pp.910-926, 2008 (SCI-Expanded)
- XL. **Flow behavior and regime transition in a high-density circulating fluidized bed riser**
Kim S., Kirbas G., Bi H., Lim C., Grace J.
CHEMICAL ENGINEERING SCIENCE, vol.59, no.18, pp.3955-3963, 2004 (SCI-Expanded)
- XLI. **Flow structure and thickness of annular downflow layer in a circulating fluidized bed riser**
Kim S., Kirbas G., Bi H., Lim C., Grace J.
POWDER TECHNOLOGY, vol.142, no.1, pp.48-58, 2004 (SCI-Expanded)
- XLII. **The method of lines solution of the discrete ordinates method for radiative heat transfer in enclosures**
Selcuk N., Kirbas G.
NUMERICAL HEAT TRANSFER PART B-FUNDAMENTALS, vol.37, no.3, pp.379-392, 2000 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. **CFD-DEM MODELING OF CONICAL SPOUTED BED SOLAR RECEIVERS**
ÖZDEMİR A. E., DOĞAN N., KÜLAH G., KÖKSAL M.
ULUSLARARASI KATILIMLI 24. ISI BİLİMİ VE TEKNİĞİ KONGRESİ (ULIBTK'23), Ankara, Turkey, 6 - 08 September 2023
- II. **CFD-DEM MODELING OF CONICAL SPOUTED BED SOLAR RECEIVERS**
ÖZDEMİR A. E., DOĞAN N., KÜLAH G., KÖKSAL M.
2023 Multiphase Flow Science Workshop, United States Of America, 1 - 02 August 2023
- III. **Coupling of Spectral Thermal Radiation Model with a Comprehensive System Model for Co-Combustion of Biomass in Bubbling Fluidized Bed**
YAŞAR M. S., SELÇUK N., KÜLAH G.
24th Fluidized Bed Conversion Conference, Göteborg, Sweden, 8 - 11 May 2022
- IV. **MODELLING OF FBC OF LIGNITE WITH HIGH NITROGENCONTENT COTTON RESIDUE**
Yaşar M. S., Selçuk N., Külah G.
11th Mediterranean Combustion Symposium, Tenerife, Spain, 16 - 20 June 2019
- V. **Gas Velocity Distributions in Conical Spouted Beds with High Density Particles**
GÜLER N., KÖKSAL M., KÜLAH G.
Fluidization XVI, Guilin, China, 26 - 31 May 2019
- VI. **Modeling of reaction mechanisms in lithium-sulfur batteries**
ERİŞEN N., KÜLAH G., EROĞLU PALA D.
9th Eastern Mediterranean Chemical Engineering Conference (EMCC 9), Ankara, Turkey, 31 August - 02 September 2018
- VII. **Modeling the effect of electrolyte-to-sulfur ratio in the cathode on the electrochemical performance of a lithium-sulfur battery**
Emerce N. B., KÜLAH G., EROĞLU PALA D.
9th Eastern Mediterranean Chemical Engineering Conference (EMCC 9), Ankara, Turkey, 31 August - 02 September

2018

- VIII. **INFLUENCE OF SPECTRAL PARTICLE PROPERTIES ON THE PREDICTIVE ACCURACY OF GAS PROPERTY APPROXIMATIONS**
ATEŞ C., Selçuk N., KÜLAH G.
Eurotherm Seminar 110 – Computational Thermal Radiation in Participating Media - VI, Cascais, Portugal, 11 - 13 April 2018
- IX. **Course Design for Curriculum Internationalization: Project- Based International Learning Experience @Home**
Stefanova A., Bandali Z., AYRANCI İ., KÜLAH G.
67th Canadian Chemical Engineering Conference, Edmonton, Canada, 22 - 25 October 2017
- X. **Surface-to-Bed Heat Transfer in Conical Spout-Fluid Beds with High Density Particles**
Yaman O., KÖKSAL M., KÜLAH G.
Symposium on Spouted Beds (ISSB-7), Barselona, Spain, 1 - 05 October 2017
- XI. **Effects of particle density and gas inlet diameter on particle velocity, solids hold-up and flux distributions in conical spouted beds with high density particles**
Golshan S., Yeniceri A., Zarghami R., Mostoufi N., KÖKSAL M., KÜLAH G.
7th International Symposium on Spouted Beds (ISSB-7), Barselona, Spain, 1 - 05 October 2017
- XII. **Effect Of Kaolin Addition On Alkali Capture Capability During Combustion Of Olive Residue**
Batir O., Selçuk N., KÜLAH G.
10th Mediterranean Combustion Symposium, Napoli, Italy, 17 - 21 September 2017
- XIII. **Effect Of Limestone Addition on Radiative Heat Transfer During Co-Firing of High-Sulfur Content Lignite With Biomass in Fluidized Bed Combustors**
ATEŞ C., Selçuk N., KÜLAH G.
10th Mediterranean Combustion Symposium, Napoli, Italy, 17 - 21 September 2017
- XIV. **CFD-DEM Simulation of a Conical Spouted Bed Operating with High Density Particles**
Golshan S., Zarghami R., Mostoufi N., KÖKSAL M., KÜLAH G.
7th International Conference on Discrete Element Methods (DEM), Dalian, China, 1 - 04 August 2016, vol.188, pp.947-955
- XV. **Monitoring of the hydrodynamic instabilities inconical spouted beds by recurrence plot analysis of pressure fluctuations and acoustic emission signals**
Savari C., KÜLAH G., KÖKSAL M., Sotudeh Gharebagh R., Mostoufi N., Zarghami R.
FLUIDIZATION XV, 22 - 27 May 2016
- XVI. **Hydrodynamic characteristics of fine zeolite particles in a conical spout fluid bed with a draft tube**
Nasirimarekani V., Karabiyik A. G., KÖKSAL M., KÜLAH G.
64th Canadian Chemical Engineering Conference, 19 - 22 October 2014
- XVII. **Simultaneous analyses of pressure vibration and acoustic signals from a conical spouted bed with high density particles**
Nasirimarekani V., KÜLAH G., KÖKSAL M., Savari C., Mostoufi N., Sotudeh Ghare R.
64th Canadian Chemical Engineering Conference, 19 - 21 October 2014
- XVIII. **Comparison between combustion behaviour of solid fuels and their chars under oxy fuel conditions**
Inmas S. V., KÜLAH G., Selçuk N.
8th Mediterranean Combustion Symposium, 8 - 13 September 2013
- XIX. **Gas Mixing in Conical Spouted Beds with Heavy Particles**
Külah G.
6th International Symposium on Spouted Beds, Vancouver, Canada, 14 - 17 October 2012, pp.295
- XX. **Characterization of Gas-Solid Flow in Vibrated Fluidized Beds Operating with Natural Zeolite Powders**
Külah G.
62nd Canadian Chemical Engineering Conference, Vancouver, Canada, 14 - 17 October 2012, pp.541
- XXI. **Design Assessment of a 150 kWt CFBC Test Unit**
Batu A., Selçuk N., KÜLAH G.

- Proceedings of the 6th Mediterranean Combustion Symposium, 7 - 11 September 2009
- XXII. **Evaluation of Method of Lines Solution of Discrete Ordinates Method and Finite Volume Method in a Planar Medium**
Selçuk N., KIRBAŞ G., Tarhan T.
Int. Conf. Computational Heat and Mass Transfer, 26 - 29 April 1999
- XXIII. **A Novel System for Measuring Solids Dispersion In Circulating Fluidized Beds**
KÜLAH G., Song X. Q., Bi H. T., Lim C. J., Grace J. R.
Proceedings of the 9th International Conference on Circulating Fluidized Beds, 13 - 16 January 2008
- XXIV. **Mathematical Modeling of a Bubbling FBC Co fired with Lignite and Biomass**
KÜLAH G., Morali E. M., Selçuk N.
Proceedings of the 6th Mediterranean Combustion Symposium, 7 - 11 June 2009
- XXV. **Hydrodynamics of Conical Spouted Beds With High Density Particles**
Sari S., Polat A., Zaglanmis D., KÜLAH G., KÖKSAL M.
Proceeding of 10th International Conference on Circulating Fluidized Beds, 1 - 05 May 2011
- XXVI. **Radiative Convective Model for One Dimensional Longwave Clear Sky Atmosphere**
Aydin G., KÜLAH G., Selçuk N.
Eurotherm Seminar #83 - Computational Thermal Radiation in Participating Media, 15 - 17 April 2009
- XXVII. **A COMPREHENSIVE FLUIDIZED BED COMBUSTION MODEL COUPLED WITH A RADIATION MODEL**
Alagoz D. E., KÜLAH G., Selçuk N.
Proceedings of the 5th Mediterranean Combustion Symposium, 9 - 13 September 2007
- XXVIII. **Radial Distribution of Local Concentration Weighted Particle Velocities in High Density Circulating Fluidized Beds**
KIRBAŞ G., Kim S. W., Bi X., Lim J., Grace J. R.
Proceedings of the 12th Fluidization Conference, 13 - 17 May 2007
- XXIX. **Multiscale analysis of solids flux signals measured in a high density circulating fluidized bed using wavelet transformation**
Kirbas G., Ellis N.
8th International Conference on Circulating Fluidized Beds, Hangzhou, China, 10 - 13 May 2005, pp.75-82
- XXX. **Solids Motion near the Wall of High Density Circulating Fluidized Beds**
KIRBAŞ G., Lim C. J., Grace J. R., Bi H. T.
Proceedings of 4th World Congress on Particle Technology, 21 - 25 July 2002

Supported Projects

2022 - 2024	Konsantre Güneş Enerjisi Sistemleri İçin Taşkın Yatak Alıcısı Geliştirilmesi, TUBITAK Project
2018 - 2019	PAMUK ARTIĞI VE LİNYİTİN KABARCIKLİ AKIŞKAN YATAKLI YAKICIDA BİRLİKTE YAKILMASININ MATEMATİKSEL MODELLENMESİ, Project Supported by Higher Education Institutions
2015 - 2018	Taskın Akışkan Yataklarda Gaz Parçacık Akış Dinamigi ve Yatak Yüzey Isı Transferi, TUBITAK Project
2017 - 2017	DEVELOPMENT OF THREE WAY CATALYTIC CONVERTER FOR AUTOMOTIVE EXHAUST GAS, Project Supported by Higher Education Institutions
2017 - 2017	Dolaşimli Akışkan Yataklı Yakıcı Sisteminde Işınım Isı Akışının Ölçülmesi, Project Supported by Higher Education Institutions
2017 - 2017	Otomobil Egzoz Gazları için Üç Yollu Katalitik Dönüştürücü Geliştirilmesi, Project Supported by Higher Education Institutions
2017 - 2017	PAMUK ARTIĞI VE LİNYİTİN KABARCIKLİ AKIŞKAN YATAKLI YAKICIDA BİRLİKTE YAKILMASININ MATEMATİKSEL MODELLENMESİ, Project Supported by Higher Education Institutions
2017 - 2017	AKIŞKAN YATAKLI YANMA ODALARINDA PARÇAÇIK TAŞINMASININ İNCELENMESİ, Project Supported by Higher Education Institutions

2014 - 2016	FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, Project Supported by Higher Education Institutions
2012 - 2015	Doğal Zeolit Klinoptilolit Akış Borulu Taşkın-Akışkan Yatakta Kurutulması, TUBİTAK Project
2012 - 2015	Doğal Zeolit Klinoptilolit Akış Borulu Taşkın Akışkan Yatakta Kurutulması, TUBİTAK Project
2014 - 2014	Rafinerici Yetistirme Eğitim Programı Proses Muhendisleri Gelism Projesi RAYEP, Company
2012 - 2013	Klinoptilolit Titreşimli Akışkan Yatakta Kurutulması, Project Supported by Higher Education Institutions
2012 - 2013	Klinoptilolit Titreşimli Akışkan Yatakta Kurutulması, Project Supported by Higher Education Institutions
2005 - 2008	Silopi Termik Santralının Teknoloji Seçimi, Company

Activities in Scientific Journals

2022 - 2023	FUEL, Special Issue Editor
-------------	----------------------------

Memberships / Tasks in Scientific Organizations

2019 - Continues	European Society for Engineering Education, Executive Board Member
2012 - Continues	International Centre for Heat and Mass Transfer, Member of Science Committee
2018 - 2022	Enerji-Fosil Yakıtlar-Kömür, Biyokütle ve Atık Teknolojileri, Member of Advisory Board

Scientific Refereeing

September 2022	SEFI Annual Conference, Conference Paper (Full Text)
September 2022	SEFI Annual Conference, Conference Paper (Abstract)
September 2022	SEFI Annual Conference, Conference Paper (Abstract)
September 2022	SEFI Annual Conference, Conference Paper (Abstract)
April 2022	POWDER TECHNOLOGY, SCI Journal
March 2022	APPLIED THERMAL ENGINEERING, Journal Indexed in SCIE
September 2020	48th SEFI Annual Conference, Conference Paper (Full Text)
September 2020	48th SEFI Annual Conference, Conference Paper (Full Text)
September 2020	48th SEFI Annual Conference, Conference Paper (Full Text)
August 2019	POWDER TECHNOLOGY, SCI Journal
October 2018	POWDER TECHNOLOGY, SCI Journal
July 2018	FUEL PROCESSING TECHNOLOGY, SCI Journal
July 2018	TUBİTAK Project, 1003 - Priority Areas R&D Projects Support Program, Middle East Technical University, Turkey
July 2018	TUBİTAK Project, 1003 - Priority Areas R&D Projects Support Program, Middle East Technical University, Turkey
May 2018	JOURNAL OF INDUSTRIAL AND ENGINEERING CHEMISTRY, SCI Journal
April 2018	JOURNAL OF INDUSTRIAL AND ENGINEERING CHEMISTRY, SCI Journal
March 2018	PARTICULOLOGY, SCI Journal
February 2018	Particuology, SCI Journal
January 2018	PARTICULOLOGY, SCI Journal

Tasks In Event Organizations

23 Ocak 2023	Külâh G., 12th Mediterranean Combustion Symposium, Scientific Congress, Egypt
--------------	---

08 Mayıs 2022	Kölah G., Fluidized Bed Conversion Conference, Scientific Congress, Sweden
16 Haziran 2019	Kölah G., 11th Mediterranean Combustion Symposium, Scientific Congress, Spain
17 Eylül 2017	Kölah G., 10th Mediterranean Combustion Symposium, Scientific Congress, Italy

Metrics

Publication: 72
Citation (WoS): 463
Citation (Scopus): 563
H-Index (WoS): 12
H-Index (Scopus): 15

Awards

December 2018	Gri – Olmayan Gaz ve Gri – Olmayan Parçacık Etkilerinin Akışkan Yataklı Yakıcılarda Modellenmesi, Mustafa Parlar Vakfı
January 2011	ODTÜ Geliştirme Vakfı Genç Araştırmacı Başarı Ödülü , Odtü Geliştirme Vakfı
January 2006	ODTÜ Prof. Dr. Tarık G. Somer Akademik Başarı Ödülü, Tarık Somer Vakfı

Non Academic Experience

2023 - Continues	Professional Association, SEFI- European Society for Engineering Education , SEFI-Curriculum Development
2023 - Continues	Professional Association, SEFI- European Society for Engineering Education , SEFI- Engineering Skills
2019 - Continues	Professional Association, SEFI- European Society for Engineering Education , European Engineering Deans Council
2018 - Continues	Professional Association, European Society for Engineering Education (SEFI), Member of Board of Directors
2018 - Continues	European Society for Engineering Education