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### Advising Theses

KÜLAH G., SELÇUK N., Nongray gas and nongray particle effects in modeling fluidized bed combustors, Doctorate, C.ATEŞ(Student), 2018

Külah G., Selçuk N., Mathematical modeling of a bubbling fluidized bed combustor co-fired with cotton residue and lignite, Postgraduate, M.SONER(Student), 2018

KÜLAH G., SELÇUK N., Modeling of radiative heat transfer in strongly forward scattering media of bubbling fluidized bed combustor with and without recycle, Postgraduate, Ö.ŞEN(Student), 2017

SELÇUK N., Thermal radiation from solid propellant rocket motor plume, Doctorate, G.ÖZEN(Student), 2015

SELÇUK N., KÜLAH G., Radiative-convective model for one-dimensional cloudy atmosphere, Postgraduate, M.YUSUF(Student), 2011

Selçuk N., Külah G., Radiative-convective model for one-dimensional cloudy sky atmosphere, Postgraduate, M.YUSUF(Student), 2011

SELÇUK N., Pyrolysis and combustion behaviour of various fuels in oxygen-enriched air and CO<sub>2</sub> atmospheres, Postgraduate, N.SENA(Student), 2011

SELÇUK N., Simulation of circulating fluidized bed combustors firing indigenous lignite, Postgraduate, M.ÖZKAN(Student), 2010

SELÇUK N., Utilization of fluidized bed combustion ashes as raw material in the production of a special cement, Postgraduate, İ.SONER(Student), 2009

KÜLAH G., SELÇUK N., Investigation of combustion characteristics of indigenous lignite in a 150 kWt circulating fluidized bed combustor, Doctorate, A.BATU(Student), 2008

KÜLAH G., SELÇUK N., Radiative-convective model for one-dimensional longwave clear sky atmosphere, Postgraduate, G.AYDIN(Student), 2008

TUNCER İ. H., SELÇUK N., A non-iterative pressure based algorithm for the computation of reacting radiating flows, Doctorate, A.BİLGE(Student), 2007

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F.NİHAN(Student), 2006  
SELÇUK N., The method of lines solution of discrete ordinates method for Nongray media experimental, Postgraduate, F.Nihan(Student), 2006  
KÜLAH G., SELÇUK N., Mathematical modeling of fluidized bed combustors with radiation model, Postgraduate, D.ECE(Student), 2006  
TOKYAY M., SELÇUK N., Utilization of fly ash from fluidized bed combustion of a Turkish lignite in production of blended cements, Postgraduate, M.KÜRKÇÜ(Student), 2006  
SELÇUK N., Mathematical modeling of NOx emissions in bubbling fluidized bed combustors, Postgraduate, O.AFACAN(Student), 2005  
SELÇUK N., Numerical simulation of radiating flows, Postgraduate, E.KARAİSMAIL(Student), 2005  
SELÇUK N., Numerical simulation of laminar reacting flows, Doctorate, T.TARHAN(Student), 2004  
SELÇUK N., Numerical simulation of laminar reaction flows, Doctorate, T.Tarhan(Student), 2004  
SELÇUK N., Effect of recycling on the performance of bubbling fluidized bed combustors, Postgraduate, H.HARMANDAR(Student), 2003  
SELÇUK N., Mathematical modelling of sulfur retention in fluidized bed combustors, Postgraduate, H.Altındağ(Student), 2003  
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SELÇUK N., Numerical simulation of transient turbulent flow in a heated pipe, Postgraduate, A.BİLGE(Student), 2002  
SELÇUK N., The method of lines solution of discrete ordinates method for radiative heat transfer in cylindrical enclosures., Postgraduate, S.Karamehmetoğlu(Student), 2002  
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SELÇUK N., TUNCER İ. H., Parallelization of a transient Navier-Stokes code based on method of lines solution, Postgraduate, C.ERŞAHİN(Student), 2001  
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SELÇUK N., Char attrition in fluidized bed combustors, Postgraduate, Y.GÖĞEBAKAN(Student), 2000  
SELÇUK N., Dynamic simulation of fluidized bed combustors, Doctorate, E.DEĞİRMENCİ(Student), 2000  
SELÇUK N., Numerical simulation of flow through inlet flues of heat recovery steam generators, Postgraduate, T.TARHAN(Student), 1999  
SELÇUK N., Investigation of radiative heat transfer in freeboard of a 0.3 MW AFBC test rig, Postgraduate, M.KOZAN(Student), 1999  
SELÇUK N., The Method of lines solution of discrete ordinates method for radiative heat transfer in enclosures, Postgraduate, G.KIRBAŞ(Student), 1999  
SELÇUK N., Discrete transfer and discrete ordinates methods for radiative heat transfer in furnaces, Doctorate, N.KAYAKOL(Student), 1998  
SELÇUK N., Discrete transfer and discrete ordinates methods for radiative heat transfer in furnaces, Doctorate, N.Kayakol(Student), 1998  
SELÇUK N., The method of lines solution of time-dependent 2D navier-stokes equations for incompressible separated internal flows, Doctorate, O.Oymak(Student), 1997  
SELÇUK N., Sulfation characteristics of limestone in 0.3 MW AFBC testrig, Postgraduate, L.ORGAN(Student), 1997  
SELÇUK N., The Method of lines solution of time dependent 2D navier-stokes equations for incompressible separated internal flows, Doctorate, O.OYMAK(Student), 1997  
SELÇUK N., Simulation of fluidized bed combustors, Postgraduate, E.DEĞİRMENCİ(Student), 1994  
SELÇUK N., Corrosion of N-80 type steel by CO<sub>2</sub> / formation fluid mixtures, Postgraduate, S.SEZA(Student), 1993  
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SELÇUK N., Simulation of atmospheric fluidized bed combustors including in-situ desulfurization, Postgraduate, O.OYMAK(Student), 1991

SELÇUK N., ÖNAL I., Mathematical modelign of the behavior of atmospheric fluidized bed combustors. (AFBC's), Postgraduate, R.Roostaaazad(Student), 1990

SELÇUK N., Biogas production from agricultural wastes semi-continous digestion of sunflower head, Postgraduate, H.POLAT(Student), 1990

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SELÇUK N., Biogas production from agricultural wastes semi-continuous digestion of sunflower head, Postgraduate, H.Polat(Student), 1990

SELÇUK N., Experimental investigation of an atmospheric fluidized bed coal combustor, Postgraduate, Ü.KIRMIZIGÜL(Student), 1989

SELÇUK N., Exact solutions for radiative heat transfer in box-shaped furnaces, Postgraduate, İ.AKŞAHİN(Student), 1988

SELÇUK N., Biogas production from agricultural wastes-semi-continuous digestion of wheat straw, Postgraduate, A.TOSUN(Student), 1987

## **Published journal articles indexed by SCI, SSCI, and AHCI**

- I. **Special issue of the 12th Mediterranean Combustion Symposium**  
Mansour M. S., SELÇUK N., Beretta F., D'Anna A.  
International Journal of Spray and Combustion Dynamics, vol.15, no.4, pp.185, 2023 (SCI-Expanded)
- II. **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)
- III. **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)
- IV. **Preface for Special Issue on MCS12 Mediterranean Combustion Symposium**  
Beretta F., D'Anna A., Mansour M. S., SELÇUK N.  
Combustion Science and Technology, vol.195, no.14, pp.3231, 2023 (SCI-Expanded)
- V. **<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)
- VI. **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)
- VII. **Influence of soot on radiative heat transfer in bubbling fluidized bed combustors**  
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Journal of Quantitative Spectroscopy and Radiative Transfer, vol.270, 2021 (SCI-Expanded)
- VIII. **Special Issue: Advances in Combustion Research**  
Mansour M. S., SELÇUK N., Beretta F., D'Anna A.  
Flow, Turbulence and Combustion, vol.106, no.4, pp.1017-1018, 2021 (SCI-Expanded)
- IX. **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)
- X. **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)

- XI. **Special issue: Eurotherm Seminar No. 110: Computational thermal radiation in participating media - VI**  
Coelho P. J., Lemonnier D., Lybaert P., SELÇUK N.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.241, 2020 (SCI-Expanded)
- XII. **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)
- XIII. **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)
- XIV. **Preface: Tenth Mediterranean Combustion Symposium**  
SELÇUK N., Beretta F., Mansour M. S., D'Anna A.  
COMBUSTION SCIENCE AND TECHNOLOGY, vol.191, no.1, pp.1, 2019 (SCI-Expanded)
- XV. **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)
- XVI. **Special Issue: Advances in Turbulent Combustion Preface**  
Mansour M. S., SELÇUK N., Beretta F., D'Anna A.  
FLOW TURBULENCE AND COMBUSTION, vol.101, no.4, pp.971, 2018 (SCI-Expanded)
- XVII. **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)
- XVIII. **Influence of fly ash composition on non-gray particle radiation in combusting systems**  
Ates C., SELÇUK N., KÜLAH G.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.215, pp.25-40, 2018 (SCI-Expanded)
- XIX. **Preface Tenth Mediterranean Combustion Symposium**  
SELÇUK N., Beretta F., Mansour M. S., D'Anna A.  
EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.95, pp.1, 2018 (SCI-Expanded)
- XX. **Significance of particle concentration distribution on radiative heat transfer in circulating fluidized bed combustors**  
Ates C., SELÇUK N., KÜLAH G.  
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- XXI. **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)
- XXII. **Assessment of gas radiative property models in the presence of nongray particles**  
Ates C., OZEN G., Selcuk N., Kulah G.  
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- 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. **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)
- XXV. **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)
- XXVI. **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)
- XXVII. **Radiative Heat Transfer in the Dilute Zone of an Air-Fired Circulating Fluidized Bed Combustor and Its Oxy-Fired Retrofit**  
Ozen G., Aydin F., SELÇUK N.  
COMBUSTION SCIENCE AND TECHNOLOGY, vol.188, pp.730-744, 2016 (SCI-Expanded)
- XXVIII. **Ninth Mediterranean Combustion Symposium PREFACE**  
SELÇUK N., Beretta F., Mansour M. S., D'Anna A.  
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- XXIX. **SLW model for computational fluid dynamics modeling of combustion systems: Implementation and validation**  
Ozen G., SELÇUK N.  
NUMERICAL HEAT TRANSFER PART B-FUNDAMENTALS, vol.70, no.1, pp.47-55, 2016 (SCI-Expanded)
- XXX. **Eighth Mediterranean Combustion Symposium Preface**  
SELÇUK N., Beretta F., Mansour M. S., D'Anna A.  
EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.56, pp.1, 2014 (SCI-Expanded)
- XXXI. **SENSITIVITY OF RADIATION MODELING TO PROPERTY ESTIMATION TECHNIQUES IN THE FREEBOARD OF LIGNITE- FIRED BUBBLING FLUIDIZED BED COMBUSTORS ( BFBCs)**  
Ozen G., SELÇUK N.  
COMBUSTION SCIENCE AND TECHNOLOGY, vol.186, pp.684-697, 2014 (SCI-Expanded)
- XXXII. **EIGHTH MEDITERRANEAN COMBUSTION SYMPOSIUM**  
SELÇUK N., Beretta F., Mansour M. S., D'Anna A.  
COMBUSTION SCIENCE AND TECHNOLOGY, vol.186, pp.387-388, 2014 (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. **Special issue based on the Eurotherm Seminar 95-Computational Thermal Radiation in Participating Media IV**  
Boulet P., Lacroix D., Lemonnier D., Lybaert P., MENGÜÇ M. P., SELÇUK N.  
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- XXXV. **Performance of DOM and IDA with different angular discretization methods in 3-D absorbing-emitting-scattering media**  
Ozen G., SELÇUK N.  
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.65, pp.104-110, 2013 (SCI-Expanded)
- XXXVI. **An application of Spectral line-based weighted sum of grey gases (SLW) model with geometric optics approximation for radiative heat transfer in 3-D participating media**  
DÖNER N., SELÇUK N.  
APPLIED THERMAL ENGINEERING, vol.50, no.1, pp.89-93, 2013 (SCI-Expanded)
- XXXVII. **Air and oxy-fuel combustion behaviour of petcoke/lignite blends**  
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- XXXVIII. **PYROLYSIS AND COMBUSTION BEHAVIOR OF TERNARY FUEL BLENDS IN AIR AND OXY-FUEL CONDITIONS BY USING TGA-FTIR**  
Yuzbasi N. S., SELÇUK N.  
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- XXXIX. **SEVENTH MEDITERRANEAN COMBUSTION SYMPOSIUM Preface**  
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- COMBUSTION SCIENCE AND TECHNOLOGY, vol.184, pp.869-870, 2012 (SCI-Expanded)
- XL. **Simulation of circulating fluidized bed combustors firing indigenous lignite**  
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- XLI. **Air and oxy-fuel combustion characteristics of biomass/lignite blends in TGA-FTIR**  
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- XLII. **The Sixth International Symposium on Radiative Transfer Preface**  
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- XLIII. **Combustion behaviour of Turkish lignite in O-2/N-2 and O-2/CO2 mixtures by using TGA-FTIR**  
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- XLIV. **Design assessment of a 150 kWt CFBC Test Unit**  
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- XLV. **Sixth Mediterranean Combustion Symposium**  
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- XLVI. **Mathematical Modeling of a Bubbling Fluidized Bed Combustor Cofired with Lignite and Biomass**  
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- XLVII. **SIXTH MEDITERRANEAN COMBUSTION SYMPOSIUM PREFACE**  
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- XLVIII. **Special issue based on Eurotherm Seminar No. 83: Computational thermal radiation in participating media III**  
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- XLIX. **Trace elements partitioning during co-firing biomass with lignite in a pilot-scale fluidized bed combustor**  
Gogebakan Z., SELÇUK N.  
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- L. **A 3-D radiation model for non-grey gases**  
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- LI. **Investigation of ash deposition in a pilot-scale fluidized bed combustor co-firing biomass with lignite**  
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- LII. **Fifth mediterranean combustion symposium - Preface**  
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- LIII. **Cofiring lignite with hazelnut shell and cotton residue in a pilot-scale fluidized bed combustor**  
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- LVII. Preface - Fifth Mediterranean Combustion Symposium**  
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- LVIII. Near-infrared emission spectrometry measurements for nonintrusive soot diagnostics in flames**  
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- LX. Effect of particle polydispersity on particle concentration measurement by using laser Doppler anemometry**  
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- LXI. Special issue based on Eurotherm Seminar 78 - Computational thermal radiation in participating media II - Preface**  
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- LXII. The method of lines solution of discrete ordinates method for non-grey media**  
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- LXIII. Determination of soot temperature, volume fraction and refractive index from flame emission spectrometry**  
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- LXVI. A comparative study of modeling of radiative heat transfer using mol solution of dom with gray gas, wide-band correlated-k, and spectral line-based weighted sum of gray gases models**  
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- I. **Coupling of Spectral Thermal Radiation Model with a Comprehensive System Model for Co-Combustion of Biomass in Bubbling Fluidized Bed**  
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- II. **THE METHOD OF LINES SOLUTION OF DISCRETE ORDINATES METHOD FOR TRANSIENT SIMULATION OF RADIATIVE HEAT TRANSFER**  
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- III. **Co-firing of steam coal with high sulfur content lignite in a bubbling fluidized bed combustor**  
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- IV. **Partitioning of trace elements during fluidized bed combustion of high ash content lignite**  
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