

International Journal of Thermodynamics

Editor-in-Chief

L. Kuddusi

Honorary Editors

A. Bejan

M. J. Moran

J. Szargut

G. Tsatsaronis

A. Valero

M. R. von Spakovsky

Abstracting and Indexing:

Chemical Abstracts Services, Copernicus, DOAJ, EBSCO, Emerging Sources Citation Index, Engineering Index, Google Scholar, Scopus, and ULAKBIM



***International Centre for
Applied Thermodynamics***

International Journal of Thermodynamics

<https://dergipark.org.tr/tr/pub/ijot>

Editor-in-Chief

Prof. Dr. Lütfullah KUDDUSİ

Associate Editor-in-Chief

Assoc. Prof. Dr. Patrice ESTELLÉ

Prof. Dr. Enrico SCIUBBA

Associate Editor

Prof. Dr. Ali KOSAR

Prof. Dr. Rahul TEVATIA

Prof. Dr. Derya Burcu ÖZKAN

Prof. Dr. Mustafa ÖZDEMİR

Prof. Dr. Ahmet DURMAYAZ

Assoc. Prof. Dr. Onur TAYLAN

Prof. Dr. Mehmet ARİK

Prof. Dr. Ayşegül ABUŞOĞLU

Assoc. Prof. Dr. Ersin SAYAR

Prof. Dr. Hakan Fehmi ÖZTOP

Assoc. Prof. Dr. Silvio De Oliveira JUNIOR

Editorial Board

Prof. Dr. Yasar DEMİREL

Prof. Dr. Lütfullah KUDDUSİ

Prof. Dr. Ahmet DURMAYAZ

Prof. Dr. Derya Burcu ÖZKAN

Prof. Dr. Mustafa ÖZDEMİR

Prof. Dr. Ali KOSAR

Assoc. Prof. Dr. Ersin SAYAR

Prof. Dr. Mehmet ARİK

Assoc. Prof. Dr. Abdussamet SUBASI

Daniel FAVRAT

Francois MARECHAL

Prof. Silvia Azucena NEBRA

Luis SERRA

Assoc. Prof. Dr. Onur TAYLAN

Rahul TEVATIA

Prof. Dr. Ayşegül ABUŞOĞLU

Vittorio VERDA

Assoc. Prof. Dr. Silvio DE OLIVEIRA

Gian Paolo BERETTA

Abel HERNANDEZ-GUERRERO

Nilufer EGRİCAN

Dr. Sean WRIGHT

Prof. Dr. Hakan Fehmi ÖZTOP

Assoc. Prof. Dr. Silvio De Oliveria JUNIOR

Prof. Dr. Enrico SCIUBBA

International Journal of Thermodynamics

<https://dergipark.org.tr/tr/pub/ijot>

Publishing Editor

Assoc. Prof. Dr. Abdussamet SUBASI

Assist Prof. Dr. Mustafa Yasin GÖKASLAN

Res. Assist. Ali Murat BİNARK

Language Editor

Assoc. Prof. Dr. Abdussamet SUBASI

Journal Contacts

Editor-in-Chief

Prof. Dr. Lütfullah Kuddusi

ISTANBUL TECHNICAL UNIVERSITY

kuddusi@itu.edu.tr

+902122931300/2452

*Department of Mechanical Engineering
Istanbul Technical University
Gumussuyu, 34437 Istanbul Turkey*

Volume: 26

Issue: 2

Web: <https://dergipark.org.tr/tr/pub/ijot>

International Journal of Thermodynamics (IJOT)

ISSN:1301-9724 / e-ISSN:2146-1511

International Journal of Thermodynamics

<https://dergipark.org.tr/tr/pub/ijot>

ISSN 1301-9724 / e-ISSN 2146-1511

Volume: 26 / No: 2 - June / 2023

CONTENTS	
<u>Research Article</u>	
1. Semi-Analytical Solution for Modelling Moving Heat Sources in a Semi-Infinite Medium with Radiative and Convective Boundary Conditions	1-11
Antonio Metallo	
<u>Research Article</u>	
2. Modelling and Simulation of Existing Geothermal Power Plant: A Case Study of Darajat Geothermal Power Plant	13-20
Kurnia Fajar Adhi Sukra, Diki Ismail Permana, Willy Adriansyah	
<u>Research Article</u>	
3. Modeling of the Vapor-Liquid Equilibria Properties of Binary Mixtures for Refrigeration Machinery	22-33
Youcef Maalem, Youcef Tamene, Hakim Madani	
<u>Research Article</u>	
4. Thermoelastic Analysis For A Thick Plate Under The Radiation Boundary Conditions	35-44
Geeta Dhameja, Lalsingh Khalsa, Vinod Varghese	
<u>Research Article</u>	
5. Thermally-Induced Stresses in a Pre-Buckling State of a Circular Plate within the Fractional-Order Framework	46-55
Geeta Dhameja, Lalsingh Khalsa, Vinod Varghese	
<u>Research Article</u>	
6. Investigation of Kalina Cycle for Power Generation from Heat Dissipation of Tarasht Power Plant	57-63
Somayyeh Sadri, S.Y.S. Mohseni	
<u>Research Article</u>	
7. Design of a Coal Drying System with Solar-Assisted Heat Pump and Waste Heat Utilisation	65-71
Mert Ökten	
<u>Research Article</u>	
8. The Effect of the Conversion Coefficients of Platinum-Based Resistance Thermometers on the Uncertainty Estimation	73-76
Fatma Melda Patan Alper	
<u>Research Article</u>	
9. Optimization of a Dry Peeling System for Tomatoes Using Approximate Solutions	78-87
Antonio Metallo	