

Contents

Vol. 25, No. 1, 2016

A simultaneous English language translation of this journal is available from Pleiades Publishing, Ltd.
Distributed worldwide by Springer. *Journal of Engineering Thermophysics* ISSN 1810-2328.

Separation Efficiency and Pressure Drop of SiC Ceramic
and Mellapak Structured Packings

*A. N. Pavlenko, J. Zeng, N. I. Pecherkin,
V. E. Zhukov, and O. A. Volodin*

1

Heat Transfer in a Flow of Gas Mixture with Low
Prandtl Number in Triangular Channels

*O. V. Vitovsky, S. L. Elistratov, M. S. Makarov,
V. E. Nakoryakov, and V. S. Naumkin*

15

Bubble Boiling in Droplets of Water and Lithium Bromide Water Solution

V. E. Nakoryakov and S. Ya. Misura

24

The Ranges of the Aerodynamic Drag Coefficient of Water
Droplets Moving through Typical Gas Media

*R. S. Volkov, G. V. Kuznetsov, P. A. Kuibin,
and P. A. Strizhak*

32

Peculiarities of Heat Transfer in Water Droplets with a Solid
Inclusion during Heating in a High-Temperature Gas Medium

G. V. Kuznetsov and P. A. Strizhak

45

Brown Coal Gasification in Combustion in Supercritical Water

*A. A. Vostrikov, D. Yu. Dubov, M. Ya. Sokol,
A. V. Shishkin, and O. N. Fedyaeva*

55

Modeling of Vapor Condensation in a Longitudinally Finned Minichannel

I. V. Marchuk, E. A. Chinnov, and O. A. Kabov

67

Numerical Simulation of Momentumless Turbulent Wake
Dynamics in Linearly Stratified Medium

O. F. Voropaeva, O. A. Druzhinin, and G. G. Chernykh

85

Simulating Compression Waves in the Outer Atmosphere
at Depressurization of the Pipeline with Water Coolant

*M. V. Alekseev, I. S. Vozhakov, S. I. Lezhnin,
and N. A. Pribaturin*

100

Density, Viscosity and Speed of Sound of Benzaldehyde with Benzene
at 303.15, 308.15, and 313.15 K

K. Saravanakumar, T. G. Lavanya, and T. R. Kubendran

106

Sprinkler Irrigation Uniformity: Impact on the Crop Yield
and Water Use Efficiency

M. H. Abd El-Wahed, M. Medici, and G. Lorenzini

117

Second Law Analysis of the Flow of Two Immiscible Micropolar Fluids between Two Porous Beds

J. Srinivas and J. V. Ramana Murthy

126

Application of a New Equation of State to Energy Carriers

*Mehdi Baniasadi, Saeed Amir Aslanzadeh,
Maryam Baniasadi, and Sattar Ghader*

143

Hybrid Synchronization of Hyperchaotic CAI Systems
via Sliding Mode Control

A. Khan and R. P. Prasad

151
