

MULTIPHASE SCIENCE AND TECHNOLOGY

CONTENTS, VOLUME 30, 2018

Page Range of Issues; Issue 1: 1–97; Issues 2-3: 99–245; Issue 4: 247–349

Issue 1

A Review of OpenFOAM-Based CFD Investigations of Component-Scale Subcooled Flow Boiling Phenomena Using the Two-Fluid Model <i>J.S. Murallidharan</i>	1
Comparison of Models for Drag and Non-Drag Forces for Gas-Liquid Two-Phase Bubbly Flow <i>D.A. Lote, V. Vinod, & A.W. Patwardhan</i>	31
Prediction of Borehole Cleaning and Hole Instability for Drilling Fluid Flow through Annulus Using Mini-Pilot Plant Setup <i>S.K. Dewangan & S.L. Sinha</i>	77

Issues 2-3

SPECIAL ISSUE: ADVANCES IN COMPUTATIONAL HEAT TRANSFER (CHT-17)

GUEST EDITORS: ORONZIO MANCA & YOGESH JALURIA

Preface: Selected Papers from the 7th International Symposium in Advances in Computational Heat Transfer (CHT-17) <i>O. Manca & Y. Jaluria</i>	v
Numerical Investigation of Bubbling Fluidized Bed to Be Used as Thermal Energy Storage Integrated to High-Temperature Concentrated Solar Power <i>S. Hicdurmaz & I. Tari</i>	99
Investigation on Latent Thermal Energy Storage with Parallel Squared Channel Systems <i>A. Andreozzi, B. Buonomo, D. Ercole, & O. Manca</i>	121
Investigation of Natural Convection Characteristics with Brownian Motion Effect Using Different Nanofluids <i>S. Etaig, R. Hasan, & N. Perera</i>	135
Viscous Dissipation Instability of Non-Newtonian Flow in a Horizontal Porous Channel <i>M. Celli & A. Barletta</i>	153
Analysis of Mass Transfer in Hollow-Fiber Membrane Separator via Nonlinear Eigenfunction Expansions <i>P.C. Pontes, A.P. Almeida, R.M. Cotta, & C.P. Naveira-Cotta</i>	165
Sustainability of Oscillations in a Simplest Pulsating Heat Pipe (PHP) <i>U. Bhardwaj & S.P. Das</i>	187
Thermal Characterization Using Fourier and Non-Fourier Conduction during Radiofrequency Ablation of Breast Tumor <i>S. Singh & R. Repaka</i>	207
Effect of Phase-Changing Material Encapsulation on Flow Boiling in a Microchannel-Based Electronics Cooling System <i>B. Indulakshmi & G. Madhu</i>	221
Numerical Study of Convective Term for a Solid-Liquid Phase Change Problem <i>R.R. Kasibhatla, A. König-Haagen, & D. Brüggemann</i>	239

Issue 4

Review of Literature on Departure from Nucleate Boiling in Subcooled Flow Boiling <i>S.R.G. Vadlamudi & A.K. Nayak</i>	247
---	-----

Numerical Investigations and Performance Evaluation of a Folded Tube Heat Transport System under Boiling Conditions <i>M. Kumar, A. Moharana, R.K. Singh, A.K. Nayak, & J.B. Joshi</i>	267
Simulation of Sand–Water Slurry Flows through Pipeline <i>R. Ohlan, M.K. Gopaliya, & D.R. Kaushal</i>	293
Measurement of Entrained Fraction near Onset of Annular Two-Phase Flow in Boiling Systems <i>A. Dasgupta, D.K. Chandraker, O.B. Patel, & A.K. Nayak</i>	319
EMHD Effects on Subcooled Boiling in a Vertical Annulus <i>M.Y.A. Jamalabadi</i>	333
Index, Volume 30, 2018	350

MULTIPHASE SCIENCE AND TECHNOLOGY

AUTHOR INDEX, VOLUME 30, 2018

Page Range of Issues; Issue 1: 1–97; Issues 2-3: 99–245; Issue 4: 247–349

- | | | |
|-----------------------|-------------------------|----------------------------|
| Almeida, A.P., 165 | Hasan, R., 135 | Naveira-Cotta, C.P., 165 |
| Andreozzi, A., 121 | Hicdurmaz, S., 99 | Nayak, A.K., 247, 267, 319 |
| Barletta, A., 153 | Indulakshmi, B., 221 | Ohlan, R., 293 |
| Bhardwaj, U., 187 | Jaluria, Y., v | Patel, O.B., 319 |
| Brüggemann, D., 239 | Jamalabadi, M.Y.A., 333 | Patwardhan, A.W., 31 |
| Buonomo, B., 121 | Joshi, J.B., 267 | Perera, N., 135 |
| Celli, M., 153 | Kasibhatla, R.R., 239 | Pontes, P.C., 165 |
| Chandraker, D.K., 319 | Kaushal, D.R., 293 | Repaka, R., 207 |
| Cotta, R.M., 165 | König-Haagen, A., 239 | Singh, R.K., 267 |
| Das, S.P., 187 | Kumar, M., 267 | Singh, S., 207 |
| Dasgupta, A., 319 | Lote, D.A., 31 | Sinha, S.L., 77 |
| Dewangan, S.K., 77 | Madhu, G., 221 | Tari, I., 99 |
| Ercole, D., 121 | Manca, O., v, 121 | Vadlamudi, S.R.G., 247 |
| Etaig, S., 135 | Moharana, A., 267 | Vinod, V., 31 |
| Gopaliya, M.K., 293 | Murallidharan, J.S., 1 | |

MULTIPHASE SCIENCE AND TECHNOLOGY

SUBJECT INDEX, VOLUME 30, 2018

Page Range of Issues; Issue 1: 1–97; Issues 2-3: 99–245; Issue 4: 247–349

- annular flow, 319
babool gum, 77
boiling heat transfer, 267
boiling two phase flow, 267
borehole enlargement, 77
breast cancer, 207
Brownian motion, 135
CFD simulation, 31
CFD, 239
charge and discharge, 121
computational fluid dynamics (CFD) two-fluid model, 1
computational fluid dynamics (CFD), 135, 293
concentration distribution, 293
condensation, 187
convection-diffusion-reaction, 165
core peak, 31
departure from nucleate boiling, 1
DNB, 247
drag model, 293
drilling defect, 77
drilling fluid additives, 77
drilling fluid rheology, 77
eigenvalue problem, 153
electromagnetohydrodynamic, 333
evaporation, 187
experiments, 319
feasibility, 99
finite element method, 207
flow boiling, 221, 247
fluidized bed, 99
folded tube heat exchanger, 267
gas void fraction, 31
heat transfer, 135, 239
high temperature, 99
hole instability, 77
hyperbolic bioheat equation, 207
initial entrained fraction, 319
integral transforms, 165
interfacial forces, 31
Joule heating, 333
latent thermal energy storage, 121
lift coefficient, 293
linear stability, 153
Lorentz force, 333
low solid mud, 77
marsh funnel, 77
melting, 239
membrane separator, 165
natural convection, 135
nonhomogeneous model, 333
nonlinear eigenvalue problem, 165
nonlinear filter, 165
numerical analysis, 121
OpenFOAM, 1
oscillations, 187
P-1 approximation, 333
parallel squared channel systems, 121
particulate wear, 77
PCM, 121
Pennes bioheat transfer, 207
petroleum well drilling industries, 77
phase-changing material, 221
porous medium, 153
power-law fluid, 153
radiofrequency ablation, 207
rectangular microchannel, 221
rod bundles, 1
Runge-Kutta method, 153
separation, 165
slurry erosion, 77
slurry flow, 293
solar energy, 99
solidification, 239
state space model, 221
subcooled boiling CHF, 247
subcooled flow boiling, 1
sustainability, 187
thermal energy storage, 99
thermal management, 187
thermal modelling, 221
thermal nonequilibrium model, 333
thermal radiation, 333
two-phase flow, 31, 333
vertical tube, 333
viscous dissipation, 153
wall peak, 31

