

Contents

Numerical Analysis of Mass Transfer Around a Sphere Buried in Porous Media: Concentration Contours and Boundary Layer Thickness	1
J. M. P. Q. Delgado and M. Vázquez da Silva	
Mass Transport in Porous Media With Variable Mass	27
Alfio Grillo, Chiara Giverso, Marco Favino, Rolf Krause, Michael Lampe and Gabriel Wittum	
Study of Diffusion in a One-Dimensional Lattice-Gas Model of Zeolites: The Analytical Approach and Kinetic Monte Carlo Simulations	63
Alexander Tarasenko and Lubomir Jastrabík	
Transient Diffusion in Arbitrary Shape Porous Bodies: Numerical Analysis Using Boundary-Fitted Coordinates	85
Vera S. O. Farias, Wilton P. Silva, Cleide M. D. P. S. Silva, J. M. P. Q. Delgado, Severino R. Farias Neto and A. G. Barbosa de Lima	
Resin Transfer Molding Process: Fundamentals, Numerical Computation and Experiments.	121
Felipe Ferreira Luz, Sandro Campos Amico, Jeferson Ávila Souza, Enivaldo Santos Barbosa and Antonio Gilson Barbosa de Lima	
Thermal Dispersion in High-Conductivity Porous Media	153
Christopher T. DeGroot and Anthony G. Straatman	

Heat Transfer Enhancement in Short Corrugated Mini-Tubes	181
P. Kumar, F. Topin, M. Miscevic, P. Lavieille and L. Tadrist	
Assessment of Heat Affected Zone of Submerged Arc Welding Process through Digital Image Processing.	209
A. Ghosh, S. Chattopadhyaya and N. K. Singh	
Modeling the Pore Level Fluid Flow in Porous Media Using the Immersed Boundary Method	229
Isabel Malico and Paulo J. S. A. Ferreira de Sousa	
Computer Simulation of the Origination Porosity.	253
G. I. Zmievskaya, A. L. Bondareva, V. V. Savchenko and T. V. Levchenko	
Unsaturated-Saturated Flow in Porous Media Under Centrifugation	275
Jozef Kačur, Benny Malengier and Pavol Kišon	
Contaminant Transport in Partially Saturated Porous Media	297
Erika Trojakova and Jela Babusikova	

Numerical Analysis of Heat and Mass Transfer in Porous Media

Delgado, J.M.P.Q.; Barbosa de Lima, A.G.; da Silva, M.V.
(Eds.)

2012, VIII, 316 p., Hardcover

ISBN: 978-3-642-30531-3