

Publications

Major Publications

Publications in Archival Journals

1. S.M. Becker and A.V. Kuznetsov, Thermal *in-vivo* Skin Electroporation Pore Development and Charged Macromolecule Transdermal Delivery: A numerical Study of the Influence of Chemically Enhanced Lower Lipid Phase Transition Temperatures, *International Journal of Heat and Mass Transfer*, vol. 51, pp. 2060-2074, 2008.
2. A.V. Kuznetsov and A.A. Avramenko, Generalized Fourier Series Solution of Equations Governing Molecular-motor-assisted Transport of Adenoviral Vectors in a Spherical Cell, *International Communications in Heat and Mass Transfer*, vol. 35, pp. 395-403, 2008.
3. J. Zhu, A.V. Kuznetsov, and K.P. Sandeep, Investigation of a Particulate Flow Containing Spherical Particles Subjected to Microwave Heating, *Heat and Mass Transfer*, vol. 44, pp. 481-493, 2008.
4. P. Xiang, A.V. Kuznetsov, and A.M. Seyam, A Porous Medium Model of the Hydroentanglement Process, *Journal of Porous Media*, vol. 11, pp. 35-49, 2008.
5. A.A. Avramenko and A.V. Kuznetsov, Flow in a Curved Porous Channel with a Rectangular Cross-Section, *Journal of Porous Media*, vol. 11, pp. 241-246, 2008.
6. A.A. Avramenko, B.I. Basok, A.V. Kuznetsov, and A.I. Tyrinov, Turbulent Bioconvection, *Reports of the National Academy of Sciences of Ukraine*, No. 1, pp. 76-82, 2008 - in Russian.
7. D.A. Nield and A.V. Kuznetsov, The Onset of Convection in a Porous Medium Occupying an Enclosure of Variable Width or Height, *ASME Journal of Heat Transfer*, vol. 129, pp. 1714-1718, 2007.
8. S.M. Becker and A.V. Kuznetsov, Local Temperature Rises Influence *in Vivo* Electroporation Pore Development: A Numerical Stratum Corneum Lipid Phase Transition Model, *ASME Journal of Biomechanical Engineering*, vol. 129, pp. 712-721, 2007.
9. D.A. Nield and A.V. Kuznetsov, The Effects of Combined Horizontal and Vertical Heterogeneity and Anisotropy on the Onset of Convection in a Porous Medium, *International Journal of Thermal Sciences*, vol. 46, pp. 1211-1218, 2007.
10. T. Geng, F. Zheng, A.P. Kiker, A.V. Kuznetsov, and W.L. Roberts, Experimental and Numerical Investigation of an 8-centimeter Valveless Pulsejet, *Experimental Thermal and Fluid Science*, vol. 31, pp. 641-647, 2007.
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12. S.M. Becker and A.V. Kuznetsov, Numerical Assessment of Thermal Response Associated with *in Vivo* Skin Electroporation: The Importance of the Composite Skin Model, *ASME Journal of Biomechanical Engineering*, vol. 129, pp. 330-340, 2007.
13. A.A. Avramenko, A.V. Kuznetsov, and D.A. Nield, Instability of Slip Flow in a Channel Occupied by a Hyperporous Medium, *Journal of Porous Media*, vol. 10, pp. 435-442, 2007.
14. D.A. Nield and A.V. Kuznetsov, The Effect of Combined Vertical and Horizontal Heterogeneity on the Onset of Convection in a Bidisperse Porous Medium, *International Journal of Heat and Mass Transfer*, vol. 50, pp. 3329-3339, 2007.
15. P. Xiang, A.V. Kuznetsov, and A.M. Seyam, Simulation of Fiber Entanglement by Modeling Vorticity in Water Flow Field, *Textile Research Journal*, vol. 77, pp. 312-329, 2007.

16. A.V. Kuznetsov, Analytical Solution of Equations Governing Molecular–Motor–Assisted Transport of Intracellular Particles, *International Communications in Heat and Mass Transfer*, vol. 34, pp. 391–398, 2007.
17. D.A. Nield and A.V. Kuznetsov, The Onset of Convection in a Shallow Box Occupied by a Heterogeneous Porous Medium with Constant Flux Boundaries, *Transport in Porous Media*, vol. 67, pp. 441–451, 2007.
18. D.A. Nield and A.V. Kuznetsov, Forced Convection with Laminar Pulsating Flow in a Channel or Tube, *International Journal of Thermal Sciences*, vol. 46, pp. 551–560, 2007.
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21. J. Zhu, A.V. Kuznetsov, and K.P. Sandeep, Mathematical Modeling of Continuous Flow Microwave Heating of Liquids (Effects of Dielectric Properties and Design Parameters), *International Journal of Thermal Sciences*, vol. 46, pp. 328–341, 2007.
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