

Publication List of Jing Wang

Peer-reviewed articles (original publications)

- Wang, J., Shin, W-G, Mertler, M., Sachweh, B., Fissan, H., Pui, D.Y.H. 2010 Measurement of Nanoparticle Agglomerates by Combined Measurement of Electrical Mobility and Unipolar Charging Properties, *Aerosol Sci. & Technology*, 44, 97 – 108.
- Shin, W.G., Wang, J., Mertler, M., Sachweh, B., Fissan, H., and Pui, D.Y.H. 2010 The Effect of Particle Morphology on Unipolar Diffusion Charging of Nanoparticle Agglomerates in the Transition Regime, *J. Aerosol sci.* doi:10.1016/j.jaerosci.2010.07.004..
- Denny, F., Permana, E., Scott, J., Wang, J., Pui, D.Y.H. and Amal, R. 2010 An integrated photocatalytic filtration array for indoor air quality control, *Environmental Sci. & Technology*, 44, 5558 – 5563.
- Zuo, Z., Wang, J., Lin, C. and Pui D.Y.H. 2010 VOC outgassing from baked and unbaked ventilation filters, *Aerosol and Air Quality Research*. 10, 265 – 271.
- Ling, T.Y., Wang, J. Pui, D.Y.H. 2010 Measurement of Retention Efficiency of Filters against Nanoparticles in Liquids using an Aerosolization Technique, *Environmental Science & Technology*, 44, 774 – 779.
- Kim, S-C, Wang, J., Shin, W-G., Scheckman, J. and Pui, D.Y.H. 2009 Structural properties and filter loading characteristics of soot agglomerates. *Aerosol Sci. & Technology*, 43(10), 1033 - 1041.
- Shin, W.G., Mulholland, G.W., Kim, S.C., Wang, J., Emery, M.S., and Pui, D.Y.H. 2009 Friction coefficient and mass of silver agglomerates in the transition regime, *J. Aerosol Sci.* 40(7), 573 – 587.
- Kim, S-C, Wang, J., Emery, M., Shin, W-G, Mullholand, G. and Pui, D.Y.H., 2009 Structural Property Effect of Nanoparticle Agglomerates on Particle Penetration through Fibrous Filter, *Aerosol Sci. & Technology*, 43, 344 – 355, 2009.
- Wang, J. and Pui, D.Y.H. 2009 Numerical Investigation of Filtration by Fibers with Elliptical Cross-sections, *J. Nanoparticle Research*, 11, 185 – 196.
- Shin, W-G, Qi, C., Wang, J., Fissan, H., Pui, D.Y.H. 2009 The Effect of Dielectric Constant of Materials on Unipolar Diffusion Charging of Nanoparticles, *J. Aerosol Sci.* 40(5), 463 – 468.
- Shin, W-G, Wang, J., Mertler, M., Sachweh, B., Fissan, H., Pui, D.Y.H. 2009 Structural properties of silver nanoparticle agglomerates based on transmission electron microscopy: relationship to particle mobility analysis, *J. Nanoparticle Research*. 11, 163 – 173.
- Wang, J., S.C. Kim and D.Y.H. Pui 2008 Figure of merit of composite filters with micrometer and nanometer fibers, *Aerosol Science & Technology*, 42, 722 – 728.
- Christof Asbach, Heinz Fissan, Thomas A.J. Kuhlbusch, Wang, J. and Pui, D.Y.H., Model for the combination of diffusional and inertial particle deposition on inverse surfaces at low pressure, *Applied Physics Letters*, 93, 054104, 2008.
- Wang, J., Kim, S.C. and Pui, D.Y.H. 2008 Investigation of the Figure of Merit for Filters with a Single Nanofiber Layer on a Substrate, *J. Aerosol Sci.* 39, 323 – 334.

- Yook, S-J., Fissan, H., Engelke, T., Asbach, C., van der Zwaag, T., Kim, J.H, Wang, J. and Pui, D.Y.H, 2008 Methods to deposit nanoparticles of NIST-traceable sizes on a mask or a wafer surface for characterizing surface inspection tools, *J. Aerosol Sci.* 39, 537 – 548.
- Wang, J., Pui, D.Y.H., Qi, C., Yook, S-J., Fissan, H., Ultanir, E. and Liang, T. “Controlled Deposition of NIST-traceable Nanoparticles as Additional Size Standards for Photomask Applications”, Proceedings of SPIE, 6922-15, DOI: 10.1117/12.756741.
- Asbach, C., Stahlmecke, B., Fissan, H., Kuhlbusch, T.A.J., Wang, J. and Pui, D.Y.H. 2008 Analytical-statistical model to approximate diffusional nanoparticle deposition on inverted surfaces at low pressure, *Applied Physics Letters*, 92, 064107.
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- Wang, J., Chen, D-R, and Pui, D.Y.H 2007 Modeling of filtration efficiency of nanoparticles in standard filter media, *J. Nanoparticle Research*, 9, 117–125.
- Yook, S-J., Fissan, H., Asbach, C., Kim, J-H., Wang, J., Yan, P-Y. and Pui, D.Y.H. 2007 Evaluation of protection schemes for extreme ultraviolet lithography (EUVL) masks against top–down aerosol flow. *J. Aerosol Sci.* 38: 211-227.
- Padrino, J.C, Joseph, D.D., Funada, T., Wang, J. and Sirignano, W.A. 2007 Stress-induced cavitation for the streaming motion of a viscous liquid past a sphere. *J. Fluid Mech.*, 578, 381-411
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- Wang, J. and Joseph, D.D. 2006 Boundary layer analysis for effects of viscosity on the irrotational flow induced by a rapidly rotating cylinder in a uniform stream, *J. Fluid Mech.* 557, 167 – 190.
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- Wang, J., Joseph, D.D. and Funada, T. 2005 Purely irrotational theories of the effects of viscosity and viscoelasticity on capillary instability of a liquid cylinder, *J. Non-Newtonian Fluid Mech.* 129(2), 106 – 116.
- Funada, T., Saitoh, M., Wang, J. and Joseph, D.D. 2005 Stability of a Liquid Jet into Incompressible Gases and Liquids: Part 2. Effects of the irrotational viscous pressure, *Int. J. Multiphase Flow*, 31, 1134 – 1154.
- Funada, T., Wang, J. and Joseph, D.D. 2005 Viscous potential flow analysis of stress induced cavitation in an aperture flow, *Atomization and Sprays.* 16, 763 – 776.

- Yang, H., Wang, J., Joseph, D.D., Hu, H.H., Pan, T-W. and Glowinski, R. 2005 Correlations from the numerical simulation for a single sphere in Poiseuille flows, *J. Fluid Mech.* 540, 109 – 131.
- Wang, J., Joseph, D.D. and Funada, T. 2005 Pressure corrections for potential flow analysis of capillary instability of two viscous fluids, *Phys. Fluids*, 17, Art. 052105.
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- Wang, J. and Joseph, D.D. 2003 Lift forces on a cylindrical particle in plane Poiseuille flow of Shear thinning fluids, *Phys. Fluids*, 15(8), 2267 – 2278.
- Wang J. and Joseph, D.D. 2003 Particle-laden Tubeless Siphon, *J. Fluid Mech.*, 480, 119 – 128.
- Wang, J., Joseph, D.D., Patankar, N.A., Conway, M. and Barree, R.D. 2003 Bi-power law correlations for sediment transport in pressure driven channel flows, *Int. J. Multiphase Flow*, 29, 475 – 494.
- Patankar, N.A., Joseph, D.D., Wang, J., Barree, R.B., Conway, M. and Asadi, M. 2002 Power law correlations for sediment transport in pressure driven channel flows, *Int. J. Multiphase Flow*, 28, 1269 – 1292.

Reviews

- Fissan, H., Asbach, C., Kuhlbusch, T.A.J., Wang, J., Pui, D.Y.H., Yook, S-J. and Kim, J.H. 2009 Nanoparticle Contamination Control for EUVL-Technology - Especially for Photomasks in Carriers and Scanners, *Nanotechnology IV*, edited by Achim Wixforth, Axel Lorke, Friedrich C. Simmel, Proc. of SPIE Vol. 7364, doi: 10.1117/12.821654.

Books

- Joseph, D.D., Funada, T. and Wang, J. 2007 *Potential Flows of Viscous and Viscoelastic Fluids*, Cambridge University Press, 2007.

Book Contributions

- Pui, D.Y.H., Fissan, H. and Wang, J. 2007 Health Related Concerns for Nanoparticles, Chapter 7, Section 9, in *NNIN Open Textbook*, Ed. Stephen Campbell.

Patents

Universal Nanoparticle Analyzer (UNPA), inventors: H. Fissan, M. Linsenbuehler, M. Mertler, B. Sachweh, WG Shin, D. Pui, J. Wang, US patent pending, USPROVPF60557 on 06.02.2008.