



C.P. Chen

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BIO:

Dr. Chen is currently the Chair and Professor of Chemical and Materials Engineering at the University of Alabama in Huntsville. Dr. Chen received his Ph.D. degree from Michigan State University and B.S. from National Taiwan University, both in Chemical Engineering. Prior to joining UAHuntsville in 1986, he was a Research Scientist at NASA's Marshall Space Flight Center. Dr. Chen has led research projects funded by NASA, DoD, US Air Force, US Army Strategic Defense Command, and industries including Cray Research, Rockwell, ESI Inc., AeroThermal Tech., and CFD Research Corporation. His research areas include multiphase flows, spray combustion, turbulence modeling, computational fluid dynamics, and most recently, Lab-on-Chip and aero-optics. He has been recognized for his research contributions by NASA, the American Institute of Aeronautics and Aerospace, the National Research Council, and University of Alabama Foundation Award for Outstanding Research. Dr. Chen is an Honorary Fellow of Australian Institute of High Energetic Materials and an Associate Fellow of American Institute of Aeronautics and Astronautics.

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RELEVANT PUBLICATIONS:

- 1 Samimi Abianeh, O., Chen, C. P. and Cerro, R., "Mass Transfer and Conservation from a Finite Point Source to an Infinite Media," *Int. J. Chemical Reaction Eng.*, in press.
- 2 Samimi Abianeh, O., Chen, C. P., and S. Mahalingam, "Modeling of Multicomponent Droplets Collision in Dense Evaporating and Non-Evaporating Sprays", Symposium ILASS Americas, 25th Annual Conference on Liquid Atomization and Spray Systems, Pittsburgh, PA, May 2013.
- 3 Samimi Abianeh, O and Chen, C. P., "Multicomponent Fuel Evaporating Spray in Hot Gas Flow", 8th International Conference on Multiphase Flow, ICMF 2013, Jeju, Korea, May 26-31, 2013.
- 4 Samimi Abianeh, O. and Chen, C. P., "Multi-Component Turbulent Droplet Evaporation of Kerosene Fuel in Hot Gas Environment," AIAA Paper 2012-0345, in 50th Aerospace Science Meeting, Nashville, TN, January 9-12, 2012.
- 5 Samimi Abianeh, O. and Chen, C. P., "A Discrete Multi-component Fuel Evaporation Model with liquid turbulence effects" *Int. J. Heat and Mass Transfer*, Vol. 55, 6897-6907, 2012.
- 6 Samimi Abianeh, O., Chen, C. P. and Cerro, R., "Batch Distillation: The forward and inverse problems; Surrogate fuel development," *Ind. Eng. Chem. Res.*, Vol. 51, 12435-12488, 2012.
- 7 Yang, Z., Zhao, X., Zhang, S. and Chen, C. P., "Fluid-Structure Interaction for Flutter Predictions in Transonic and Supersonic Flows," Proc. ASME-JSME-KSME Joint Fluids Engineering Conference, AJK2011-08030, Hamamatsu, Japan, July 24-29, 2011.
- 8 Brumback, T. E. and Chen, C. P., "Hybrid Modeling of Homogeneous Gas-Phase Reaction," *Monte Carlo Methods and Applications*, Vol. 17, pp. 99-116. 2011.
- 9 Movahednejad, E, Ommi, F., Chen, C. P. and S. M. Hosseinalipour, "Application of Maximum Entropy Method for Droplet Size Distribution Prediction using Instability Analysis of Liquid Sheet," *Heat and Mass Transfer*, Vol. 47, pp. 1591-1600, 2011.
- 10 Lineberry, D., Balasubramanyan, M. S., Chen, C. P. and Landrum, D. B., "Experimental and Numerical Investigation of a Non-axisymmetric Strut Based Ejector," *Int. J. Hypersonics*, Vol. 1, No. 3, pp. 181-197, 2010.
- 11 Balasubramanyan, M. S., Chen, C. P. and Bazarov, V. G., "Design Investigation of a Hydro-mechanical Pulsator for Injector Dynamics Research," *Eng. Applications Computational Fluid Mech.*, vol. 4, pp. 314-325, 2009.
- 12 Balasubramanyan, M. S. and Chen, C. P. "Modeling Liquid Jet Breakup in High Speed Cross-Flow with Finite Conductivity Evaporation," *Int. J. Heat and Mass Transfer*, Vol. 51, pp. 3896-3905, 2008.