

Sadegh Poozesh

Email: spoozesh@tuskegee.edu

Phone: (334) 727-8769



Education:

Ph.D. in Mechanical Engineering, University of Kentucky, U.S, 2015

M.S. in Mechanical Engineering, Tehran Polytechnic, Iran, 2012

B.S. in Mechanical Engineering, Isfahan University of Technology, Iran, 2010

Academic experience:

Tuskegee University, Assistant Professor, January 2018-Present

University of Kentucky, Postdoc scholar/Research engineer, April 2016- January 2018

Georgia Southern University, Visiting assistant professor, August 2017- December 2018

University of Kentucky, Teaching/Research assistant, August 2013-March 2016

Non-academic experience:

Irankhodro (IKCO), Senior Engineer, September 2012 – August 2013

Current membership in professional organizations:

1. Society of Automotive Engineers
2. American Association of Pharmaceutical Scientists (AAPS)
3. Center for Pharmaceutical development (CPD)

Featured publications (to see the complete list go to: [my scholar](#))

- ♦ **S Poozesh**, N Setiawan, NK Akafuah, K Saito, PJ Marsac Assessment of Predictive Models for Characterizing Atomization Process in a Spray Dryer's Bi-fluid Nozzle, *Chemical Engineering Science*, Volume 180, 28, 42–51, 2018.
- ♦ **S Poozesh**, K Lu, PJ Marsac, On the particle formation in spray drying process for bio-pharmaceutical applications: Interrogating a new model via computational fluid dynamics, *International Journal of Heat and Mass Transfer* Volume 122, P 863–876, 2018
- ♦ **S Poozesh**, S Gribb, M Renfrob, PJ Marsacc, Near-field dynamics of high-speed spray dryer coannular two fluid nozzle: Effects of operational conditions and formulations, *Powder Technology*, 10.1016/j.powtec.2018.04.064.
- ♦ **S Poozesh**, et al, Understanding the process-product-performance interplay of spray dried drug-polymer systems, *Powder Technology*, 320, 685-695, 2017.
- ♦ Akafuah, N.K.; **S Poozesh**, Salaimeh, A.; Patrick, G.; Lawler, K.; Saito, K. Evolution of the Automotive Body Coating Process—A Review. *Coatings*, 2016, 6, 24.
- ♦ **S Poozesh**, Mohammad, R. H., & Poozesh, A. (2015). Investigations on the internal shape of constructal cavities intruding a heat generating body. *Thermal Science*, 19(2), 609-618.
- ♦ **S Poozesh**, Akafuah, N., & Saito, K. (2015). Numerical Simulation of a Coating Sprayer Capable of Producing Controllable Paint Droplets (No. 2015-01-0737). SAE Technical Paper.

- ◆ **S Poozesh**, N. Akafuah, and K. Saito. "NO formation analysis of turbulent non- premixed coaxial methane/air diffusion flame." *International Journal of Environmental Science and Technology* (2016): 1-6.
- ◆ **S Poozesh**, N. Akafuah, and K. Saito. "New Criteria for Filament Breakup in Droplet- on-Demand Inkjet Printing Using Volume of Fluid (VOF) Method" *The Korean journal of chemical engineering*" 10.1007/s11814-015-0197-5.
- ◆ **S. Poozesh**, K. Saito, N.K. Akafuah, J. Graña-Otero. Comprehensive examination of a new mechanism to produce small droplets in drop-on-demand inkjet technology, *Applied Physics A* 122 1-12 (2016).
- ◆ **S Poozesh**, Nelson Akafuah and Kozo Saito, "Effects of Automotive Paint Spray Technology on Paint Transfer Efficiency- A Review", *Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering*. 2017 Mar 22:0954407017695159.
- ◆ Hajmohammadi M. R, **S Poozesh**, Antonio Campo, "Valuable reconsideration in the constructal design of open cavities", *Energy Conversion and Management*, Elsevier, Volume 66, February 2013, Pages 33–40.
- ◆ Hajmohammadi M. R, **S Poozesh**, Antonio Campo, "Heat transfer improvement due to the imposition of non-uniform wall heating for in-tube laminar forced convection", *Applied Thermal Engineering*, Volume 61, Issue 2, 3 November 2013, Pages 268-277.
- ◆ Hajmohammadi, M. R., S. S. Nourazar, A. Campo, and **S Poozesh**. "Optimal discrete distribution of heat flux elements for in-tube laminar forced convection." *International Journal of Heat and Fluid Flow* 40 (2013): 89-96.
- ◆ Hajmohammadi, M. R., **S Poozesh**, Nourazar, S. S., & Manesh, A. H. (2013). Optimal architecture of heat generating pieces in a fin. *Journal of Mechanical Science and Technology*, 27(4), 1143-1149.
- ◆ Hajmohammadi, M. R., **S Poozesh**., & Hosseini, R. (2012). Radiation effect on constructal design analysis of a TY-shaped assembly of fins. *Journal of Thermal Science and Technology*, 7(4), 677-692.
- ◆ Hajmohammadi, M. R., **S Poozesh**., & Nourazar, S. S. (2012). Constructal design of multiple heat sources in a square-shaped fin. *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering*, 226(4), 324- 336.
- ◆ Reza Hosseini, **S Poozesh** and Saeed Dinarvand," MHD Flow of an Incompressible Viscous Fluid through Convergent or Divergent Channels in Presence of a High Magnetic Field", *Journal of Applied Mathematics*, Volume 2012 (2012), Article ID 157067, 12 pages.

Research interests

- | | |
|--|-------------------------|
| ◆ Bio-pharmaceutical manufacturing processes | ◆ 3D printing |
| ◆ Microfluid devices | ◆ Computational Methods |
| ◆ Heat and Mass Transfer | ◆ Optical diagnostic |