

Arijit Sarkar

CONTACT INFORMATION	Block E-512 · Kandi · Sangareddy Indian Institute of Technology Hyderabad Telangana 502285 · India	<i>Voice:</i> +91 (40) 2301-6148 <i>E-mail:</i> arijit.sarkar1981@gmail.com <i>Web:</i> http://www.iith.ac.in/~arijit
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RESEARCH INTERESTS	Applied Mechanics, Colloids and Interfacial Science
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EMPLOYMENT

NOV. 2015 TO PRESENT	Assistant Professor at Indian Institute of Technology Hyderabad , Hyderabad, India.
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JUNE 2013 TO NOV. 2015	Postdoctoral Research Associate, School of Engineering and Applied Science, University of Pennsylvania . Advisors: Professor David M. Eckmann, Professor Portonovo S. Ayyaswamy, Professor Ravi Radhakrishnan.
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APRIL 2011 TO JUNE 2013	Postdoctoral Research Associate, School of Chemical and Biomolecular Engineering, Cornell University . Advisor: Professor Donald L. Koch.
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JULY 2005 TO JULY 2006	Engineer in plant-operation, Praxair India Pvt. Ltd. , Bangalore, India.
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EDUCATION	PhD, Chemical Engineering (August 2011) Indian Institute of Technology Bombay , India Adviser: Professor Mahesh S. Tirumkudulu M.Tech., Chemical Engineering (June 2005) National Institute of Technology Durgapur , India Adviser: Professor Parthapratin Gupta B.Tech., Chemical Engineering (June 2003) Vidyasagar University , India Adviser: Professor Amalesh Sirkar
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PUBLICATIONS **Journal Publication**

- A. Sarkar and M. S. Tirumkudulu, “Consolidation of charged latex particles”, [Langmuir](#), 25 (9), 4945–4953 (2009).
- A. Sarkar and M. S. Tirumkudulu, “Asymptotic analysis of stresses near a crack tip in a two dimensional colloidal packing saturated with liquid”, [Phys. Rev. E](#), 83, 051401 (2011).
- A. Sarkar and M. S. Tirumkudulu, “Ultimate strength of a colloidal fiber”, [Soft Matter](#), 8 (2), 303 - 306 (2012).
- A. Sarkar and M. S. Tirumkudulu, “Delamination of drying colloidal film in capillary channels”, [Soft Matter](#), 7, 8816-8822 (2011).

A. Sarkar and D. L. Koch, "A model for complex flows of soft glassy materials with application to flows through fixed fiber beds", *J. Rheol.* 59, 1487 (2015).

A. Sarkar and D. L. Koch, "Microstructural evolution of a complex fluid in a stochastically varying linear flow", *in preparation*.

A. Sarkar and D. L. Koch, "Brownian dynamics simulations of nanoparticle organic hybrid materials", *in preparation*.

A. Sarkar, David M. Eckmann, P. S. Ayyaswamy and R. Radhakrishnan, "Hydrodynamic interactions of deformable polymeric nanocarriers and the effect of crosslinking", *Soft Matter*, 2015,11, 5955-5969.

A. Sarkar, David M. Eckmann, P. S. Ayyaswamy and R. Radhakrishnan, "Hydrodynamic interaction for deformable functionalized nanocarriers near endothelium", *in preparation*.

Conference Presentation

A. Sarkar and M. S. Tirumkudulu, "Consolidation of colloidal particles during drying", *22nd ICTAM* (2008).

Tirumkudulu, M. S. and Sarkar, A., "Critical stress required to open a flaw in a two dimensional colloidal packing saturated with solvent", *International Symposium on Recent and Emergent Advances in Chemical Engineering (REACH)*, Indian Institute of Technology Madras, Chennai, India. December 2-4, 2010.

A. Sarkar and D. L. Koch, "Brownian dynamics simulations of a local-fluid-volume preserving model of solvent-free nanoparticle fluids," *The Society of Rheology 84th Annual Meeting* (2013).

A. Sarkar, David M. Eckmann, P. S. Ayyaswamy and R. Radhakrishnan, "Hydrodynamic models for deformable functionalized nanocarriers," *ACS Colloid & Surface Science Symposium* (June 23rd, 2014).

A. Sarkar and D. L. Koch, "Transient response of a soft glassy fluid in porous medium," *The Society of Rheology 86th Annual Meeting* (October 8th, 2014).

A. Sarkar, David M. Eckmann, P. S. Ayyaswamy and R. Radhakrishnan, "Brownian dynamics of functionalized deformable nanocarriers," *The Society of Rheology 86th Annual Meeting* (October 6th, 2014).

A. Sarkar, David M. Eckmann, P. S. Ayyaswamy and R. Radhakrishnan, "Design of functionalized deformable hydrogel nanocarriers through brownian dynamics of entangled star-polymers," *Colloidal Hydrodynamics: Soft and Active Systems - AIChE* (November 8th, 2014).

PROFESSIONAL SERVICES & MEMBERSHIP	Soft Matter (Royal Society of Chemistry scientific publishers) <i>Research Article Reviewer</i>	July 2011 to Present
	Langmuir (American Chemical Society scientific publishers) <i>Research Article Reviewer</i>	Jan 2012 to 2015
	The Society of Rheology <i>Member</i>	Jan 2012 to present
	American Institute of Chemical Engineers <i>Member</i>	Oct 2014 to Oct 2015
PROFESSIONAL RECOGNITION, AWARDS & FELLOWSHIPS	<ul style="list-style-type: none"> • K C Khiller Best PhD thesis award (IIT Bombay), 2011. • Paper selected as “hot article” for Soft Matter and highlighted on Soft Matter Blog. • Graduate Aptitude Test in Engineering Fellowship (by Ministry of Human Resource Development India). • Best poster award in Research Scholars’ Symposium 2007 at IIT Bombay. 	