

Name Dr. Amol A. Kulkarni

Division Chemical Engineering & Process Development (CEPD)

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Subjects Chemical Engineering, microreactors, multiphase flows, multiphase reactors, flow synthesis (organic compounds and nanomaterials),

Education and experience

- Ph.D., (Chemical Engineering), M. Chem. Engg., B. Chem. Engg. all from Inst. of Chem. Technology (ICT, formerly UDCT).

- Postdoctoral fellow, MPI for Dynamics of Complex Systems, Magdeburg, Germany
- IUSSTF Research fellow, MIT, Cambridge, USA

Achievements

- INSA Medal for Young Scientist (2009)
- Young Engineer Award (2009) by Indian National Academy of Engineering
- IUSSTF Research fellowship, Massachusetts Inst. of Technology (MIT), Cambridge, USA (2010)

- CSIR Young Scientist Award (2011)
- Young Associate of Indian Academy of Sciences (2011)

Research Area

- Microreaction technology: micro-fluidics, design of miniaturized devices, development of protocols, modelling and experimentation.

- Continuous flow synthesis (API, nanoparticles and azo colorants)
- Experimental and computational fluid dynamics
- Design of multiphase reactors

Recent publications

- Kulkarni, A. A.; Singh A.; Bhatnagar, S.; Kulkarni, B. D. (2011) Fractal impeller for stirred tank reactor, *Ind. Eng. Chem. Res.*, 50 (12), 7667–7676
- Ravi Kumar, D. V. ; Kasture, M.; Prabhune, A. A.; Ramana, C. V.; Prasad, B. L. V., Kulkarni, A. A. (2010) Continuous flow synthesis of functionalized silver nanoparticles using bifunctional biosurfactants, *Green Chem.*, 12, 609–615