**Complete List of Patent and Publications:**

## PATENTS:

**1. A Novel Method for Production of Nanoparticles using Sub-critical Carbon Dioxide,** Granted Indian Patent (Number 544/MUM/2004).

**2. Protein Shelled Microbubbles for Intravenous Oxygen Delivery** (US Patent Being Filed)

## PUBLICATIONS:

### *a) In International Journals*

1. Alpana Thorat and Sameer V Dalvi, "Liquid Antisolvent Precipitation and Stabilization of Nanoparticles of Poorly Water Soluble Drugs in Aqueous Suspensions: Recent Developments and Future Perspective" *Chemical Engineering Journal, 181-182, 2012, 1-34.*

2. Wusheng Zhu, Francis S. Romanski, Sameer V. Dalvi, Rajesh N. Dave, M. Silvina Tomassone, "Atomistic Simulations of Aqueous Griseofulvin Crystals in the Presence of Individual and Multiple Additives" *Chemical Engineering Science, In Press, Accepted Manuscript, Available Online 24th January, 2012.*

3. Sameer V. Dalvi and Rajesh N. Dave, "Analysis of Nucleation Kinetics for Precipitation of Poorly Water Soluble Drugs in Presence of Ultrasound and Hydroxypropyl Methyl Cellulose" , *International Journal of Pharmaceutics*, 387 (1-2), 2010, 172-179

4. Christian Beck, Sameer V. Dalvi and Rajesh Dave, "Controlled Liquid Antisolvent Precipitation of Drug Particles using Rapid Mixing Device", *Chemical Engineering Science*, 65, (21, 1), 2010, Pages 5669-5675

5. Sameer V. Dalvi and Rajesh N. Dave, "Controlling Particle Size of Poorly Water Soluble Drug using Ultrasound and Stabilizers in Antisolvent Precipitation", *Ind. Eng. Chem. Res.* 48 (16), 2009, page 7581-7593.

6. Sameer V. Dalvi and Mamata Mukhopadhyay, "Use of Subcritical $CO_2$ for Precipitation of Ultra-fine Particles by Pressure Reduction of Gas-Expanded Organic Liquids" *Ind. Eng. Chem. Res*. 48, 2009, page 5696-5707.

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11. Mamata Mukhopadhyay and Sameer V. Dalvi, "New Prediction Method for Ternary Solid-Liquid-Vapor Equilibrium from Binary Data", *Journal of Chemical Engg. Data*, 50, issue 4, 2005, page 1283-1289.

12. Mamata Mukhopadhyay and Sameer V. Dalvi, "Analysis of supersaturation and nucleation in a solution droplet in SC $CO_2$ environment", *Journal of Chemical and Biotechnology*, 80,2005, page 445-454

13. M.Mukhopadhyay and Sameer.V. Dalvi, Mass and heat transfer analysis of SAS: effects of thermodynamic states and flow rates on droplet size", *The Journal of Supercritical Fluids*, 30, 2004, page 333-348.

14. M.Mukhopadhyay and S.V. Dalvi, "Partial Molar Volume Fraction of Solvent in Binary ($CO_2$-Solvent) Solution for Solid Solubility Predictions", *The Journal of Supercritical Fluids*, 29, 2004, pages 221-230.

***b) In Conferences***

1. Alpana Thorat, Sameer V Dalvi, "Controlled Liquid Antisolvent Precipitation of Ultrafine Particles of Curcumin in Aqueous Suspensions using Ultrasound and Stabilizers", Oral presentation made by Ms. Alpana Thorat in 64$^{th}$ CHEMCON Conference held in Bangalore from December 27-29$^{th}$, 2011.

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3. Sameer V. Dalvi and Rajesh N. Dave, "Precipitation of Poorly Water Soluble Drugs using Ultrasound and Stabilizers: Controlling Process Parameters" Annual Meeting of AICHE at Nashville, TN, November 8-13, 2009.

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5. Daniel To, Sameer V. Dalvi, Sankaran Sundaresan and Rajesh N. Dave, " Deagglomeration and Mixing of Nanopowders Using RESS Based Methods" Annual Meeting of AICHE at Nashville, TN, November 8-13, 2009.

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8. Anagha Bhakay, Sameer V. Dalvi, Rajesh N. Dave and Habibe Karacay, "Preparation and Stabilization of Biodegradable Cationic Polyelectrolyte Complexes for Targeted Drug Delivery", at Annual Meeting of AICHE, Philadelphia, PA, November 17-21, 2008.

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16. Mamata Mukhopadhyay and Sameer V. Dalvi, “Solid Solubility Prediction From Partial Molar Volume Fraction of Solvent in Antisolvent-Solvent Mixture”, in the proceedings of Super Green-2002, held at Suwon, South Korea during November 3-6, 2002.