

## PROFILE

Although academia and industry differ in many ways—the speed of research, the methods of funding, and the asking of basic versus applied research questions ultimately, the two environments are more similar than they are different. Both have innovation at its core and constantly try to push the technology edge.

From the academic point of view the industry represents the quintessential black box; for example, intellectual property that results from commercial science is necessarily protected through patents. And from the industrial point of view, the researches in the academic institution in many cases do not translate to a real life application. The question is where these viewpoints can align themselves.

In the industry there is a lack of intellectual freedom and ability to do "my thing". It is not individual's research interests which count and all the effort lies on what is relevant to the present industrial situation. It is extremely difficult to squeeze time and material for research interests.

Challenge is to bridge this gap.

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# D S CHAKRABORTY

## **EDUCATION**

Ph.D in Chemical Engineering. IIT Bombay

## WORK EXPERIENCE

Visiting Professor of IIT BHU, Department of Chemical Engineering (2016-2018) Visiting Professor in Jadavpur University, Department of Food Technology (2018) Vice President of Tata BSL (2011-2016) HOD, Project Leader in Tata Steel Jamshedpur (1996-2011)

## **RESEARCH AREA**

Application of nano technology for industrial safety. Safety Hazard modelling. Hazop. Project Management. Air pollution Control. Materials development. Particulate technology. Nonconventional Energy. Reaction kinetics modelling. Aggolomeration.

### LIST OF MAJOR PUBLICATIONS

- D. Chakraborty and S Sarkar, Catalytic Hydrogenation of an Aromatic rich oil, Chem. ENgg. World, 1992, Vol. XXVII, No 4, April, 45-49.
- Debasish Chakraborty and Suresh K Bhatia, "Formation and Agrregation of Polymorphs in Continuous Precipitation.1. Mathematical Modelling", Ind. Eng., Chem. Res. 1996, 35, 1985-1994 Cited 11
- Debasish Chakraborty and Suresh K Bhatia, "Formation and Agrregation of Polymorphs in Continuous Precipitation.2 Kinetics of CaCO<sub>3</sub> Precipitation", Ind. Eng., Chem. Res. 1996, 35, 1995-2006 cited 45
- 4. D. Chakraborty, V K Agarwal, S.K. Bhatia and J Bellare, "Steady-State Transitions and Polymorph Transformations in Continuous Precipitation of Calcium Carbonate", Ind. Eng., Chem. Res. 1994, 33, 2187-2197Cited 49
- 5. S. K. Bhatia and D. Chakraborty, "Modified MWR Approach: Application to Agglomerative Precipitation", AICHE J, 1992, 38, 868 cited 21
- 6. D. S. Chakraborty, B.K. Das and Ashok Kumar, "Use of Alternate Fuel in Iron Ore Sintering", CORAS 2001, Sept 25-26, pp 238-246, Ranchi, India
- 7. D. S. Chakraborty, D. Mitra, M. Roy, B. K. Das, "Sinter RDI Control Using Multivariate Analysis", Tata Search, 2002, 33-37. India
- 8. D. S. Chakraborty, B. K. Das and Ashok Kumar, "Use of Alternate Solid Fuels in Iron Ore Sintering", Tata Search, 2003, 77-81. India
- D. S. Chakraborty, R. Singh, B. K. Das and H. S. Sandhu, "Coke Breeze Size Control Its Effect on Iron Ore Sintering, Proceedings of the International Seminar on Mineral Processing Technology, MPT-2002, 3-5 January 2002, Vol2, 398-404. India
- 10. D. S. Chakraborty, A B Sengupta, S Sarkar, B K. Das, A. Kumar, P. Weber and R. P. Singh, " Commissioning of Sinter Plant 4, Tata Search, 2008, 417-424, India
- 11. Walter Gerlach, K Pazayanur, D. S. Chakraborty, R. P. Singh, B. K. Das and S. K. John, "Sinter Plant 4 at Tata Steel, Jamshedpur: Benchmarking Productivity and Energy Efficiency", Steel Times International Supplement, March 2009, S12-S14.
- 12. P Kumar, S Sinha, D S Chakraborty, P R Prasad and R Bhaduri, "Application of Shainin DOE Technique to Increase Productivity at Sinter Plant 4" Tata Search, 2012, 33-38, India.

#### **PATENTS**

- 1. A process for producing iron ore sinter with low reduction degradation index. Patent number 233924. Publication date 24 Apr-2009.
- A process for producing lime briquettes. Patent number 223387. Publication date 12-Sep-2008.