

## Profile Page



Name : Dr Amit Dhruv Saran

Designation : Assistant Professor

Department : Chemical Engineering

Qualification : Post-PhD Research Scientist (Michelin Inc, South Carolina, USA, 2013-2017)  
Ph.D. Chemical Engineering (Indian Institute of Technology Bombay, 2013)  
M.Tech. Chemical Engineering (Indian Institute of Technology Kanpur)  
B. Tech. Chemical Engineering (Laxminarayan Institute of Technology, Nagpur University)  
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### **Research Interests :**

Nanomaterials in Energy, Environment and Health Care: Use of Nanomaterials in Renewable and Clean Energy resources such as solar cells and fuel cells, Environmental Pollution Control using nanomaterials, Developing nanoparticle-based biosensors for glucose and similar biological analytes.

### **Other Profile Links :**

#### **Google Scholar Link :**

Dr Amit Saran [Click Here](#)

#### **Personal Web Link :**

Scopus ID [Click Here](#)Orcid ID [Click Here](#)Vidwan ID [Click Here](#)Publons ID [Click Here](#)Google Scholar ID [Click Here](#)

### **Journal Publications :**

Year	Journal	Publication
2015	Optical Materials, Volume 39, 2015, pages 46 - 51	“Effect of ZnS shell on optical properties of CdSe–ZnS core–shell quantum dots” S. Mathew, Bishwajeet Singh Bhardwaj, Amit D. Saran, P Radhakrishnan, VPN Nampoori, C P Girijavallabhan, Jayesh R. Bellare

2012	Journal of Colloid and Interface Science Volume 378, Issue 1, 2012, pages 21-29.	“Superposition of Quantum Confinement Energy (SQCE) model for estimating shell thickness in CdSe-CdS and CdSe-ZnS core-shell quantum dots” Amit D. Saran , Anurag Mehra, Jayesh R. Bellare
2012	Journal of Applied Physics Volume 111, Issue 7, 2012, pages 074312 (1-8).	“Size dependent optical properties of the CdSe-CdS core- shell quantum dots in the strong confinement regime” S. Mathew, Amit D. Saran, Santhi Ani Joseph, Bishwajeet Singh Bhardwaj, Deep Punj, P Radhakrishnan, VPN Nampoori, C P Girijavallabhan, Jayesh R. Bellare
2011	Colloids and Surfaces A: Physicochemical and Engineering Aspects Volume 384, Issues 1-3, 2011, pages 393- 400.	“An Optimized Quantum Dot-Ligand System for Biosensing Applications: Evaluation as A Glucose Biosensor” Amit D. Saran , Mayur M. Sadawana , Rohit Srivastava , Jayesh R. Bellare
2011	Journal of Materials Science: Materials in Electronics Volume 23, Issue 3, 2011, pages 739- 745.	“Nonlinear optical characterization and optical limiting of CdSe quantum dots prepared by micro emulsion technique” S. Mathew, Amit D. Saran, Santhi Ani Joseph, Bishwajeet Singh Bhardwaj, Deep Punj, P Radhakrishnan, VPN Nampoori, C P Girijavallabhan, Jayesh R. Bellare
2010	Colloids and Surfaces A: Physicochemical and Engineering Aspects Volume 369, Issues 1-3, 2010, pages 165- 175.	“Green engineering for large-scale synthesis of CdSe and CdSe-CdS quantum dots from microemulsion by double capping” Amit D. Saran, Jayesh R. Bellare
2004	Polymer, Volume 45, Issue 25, pages 8603-8612.	“Constrained Nonlinear Optimization for Solubility Parameters of Poly(lactic acid) and Poly (glycolic acid)- Validation and Comparison” Abhishek Agrawal, Amit D. Saran, Swagat S Rath, Ashok Khanna

### Conference Publications :

Year	Conference	Publication
2012	Proceedings, Indo-Australian Symposium on Multifunctional Nanomaterials, Nanostructures and Applications, (MNNA-2007), New Delhi, 2012	Quantum Dots of CdS, CdS-ZnS, CdS-Ag <sub>2</sub> S and CdS-PbS: Studies for Potential Biolabeling Applications Amit D. Saran, Rachana, Rochish Thaokar, Anurag Mehra, Jayesh R. Bellare
2012	Proceedings, Research Scholar's Symposium, Department of Chemical Engineering, IIT Bombay, March, 2012	Core-shell Quantum Dots: Microemulsion Synthesis and Applications in Biosensing, Cell-differentiation and Optics Amit D. Saran, Anurag Mehra, Jayesh R. Bellare
2010	Proceedings, International Conference on Nanotechnology & Health Care Applications (NateHCA-07), Mumbai, 2010	Core-Shell Quantum Dots: Synthesis, Characterization and Fluorescence Studies for Potential Biological Applications Amit D. Saran, Rachana, Rochish Thaokar, Anurag Mehra, Jayesh R. Bellare