BIO-DATA



1. Name: - Dr. Pradip B. Sarawade

Address: Department of Physics, University of Mumbai,

Kalina, Mumbai, India

2. Email: pradip.sarawade@physics.mu.ac.in,

pradipsarawade@yahoo.co.in

3. Institution: - Department of Physics, Mumbai University

Google Scholar profile: https://scholar.google.co.in/citations?user=PcjUrEQAAAAJ&hl=en

"Dr. Pradip Sarawade is Assistant professor in the Department of Physics at University of Mumbai, since sept, 2014. Before moving to Mumbai University, he served at KAUST, catalysis centre Saudi Arabia, during 2011 to 2014. Prior to joining KAUST Catalysis Centre, he worked as a Postdoctoral Research Fellow, at the Department of Chemical Engineering, Hanyang University, South Korea from 2010 to 2011 and research scientist at E & B Nanotech Co. Ltd. South Korea during 2016-2010. He obtained his Ph.D. in Materials Science from the Hanyang University, South Korea 2009. His research interest encompasses the development nanomaterials with specific size and shape for Energy and Environmental applications. He is co-authored of more than 60 peer reviewed publications in high quality journals with citations more than 1500 with h index 25 and 1 patent in the field of nanomaterials including a book on Silica Aerogels. He is a recognized recognized Teacher of the University of Mumbai to guide students seeking M.Sc. (by research) and Ph.D. Degrees in the subjects of Physics, Chemistry, and Nanoscience and Nanotechnology. He already supervised one Ph.D., 4 M. Phil. and more than 30 MSc, Project Students. Currently, four Ph.D. and two M. Phil. Students are pursuing their research work under his guidance".

4. Academic Qualification:

No.	Degree	Year	Subject	University/Institution
1	SSC	1997	Sciences	Kolhapur board
2	HSC	1999	Sciences	Kolhapur board
3	BSc	2002	Physics	Shivaji University
4	MSc	2004	Physics	Shivaji University
5	Ph.D.	2010	Physics	Hanyang University, South Korea

5. Ph.D. Thesis Title: "Studies on Physico-Chemical Properties of Silica Aerogels and

Related Materials Synthesized at an Ambient pressure Drying"

Guide Name: Prof. Kim Hee Taik

Institute/University: Hanyang Unibersity, South Korea. **Thesis submitted and Viva Completed:** Sept, 2009

Year of Award: Feb, 2010

6. Work Experience

No.	Position Held	Name of the Institutes	From	То
1	Teacher	Rajaram College, Kolhapur	Jun, 2004	Dec, 2004
2	Researcher	E & B Nanotech, Co. Ltd, Ansan,	Mar, 2005	Oct, 2008
		South Korea		
3	Senior Researcher	E & B Nanotech, Co. Ltd, Ansan,	Nov, 2008	Oct, 2009
		South Korea		
4	Post-Doctorate	Hanyang University, South Korea	Nov, 2009	Oct, 2011
	Fellow			
5	Post-Doctorate	King Abdullah University of Sci., &	Oct, 2011	Sept, 2014
	Fellow	Technology (KAUST)		
6	Assistant Professor	Department of Physics, Mumbai	Sept, 2014	at present
		University		

7. Professional Recognition/Award/Prize/Certificates/ Fellowship/

Honors and Awards

February 2010 : Honored with "Gold Medal for Excellent Ph.D. Thesis" by

Hanyang University, South Korea.

2005-2008 : BK21 (Sep 2006 to 2008), Hanyang University, Government of

South Korea.

Expert in Using the Following Characterization Techniques

- XRD
- FTIR & DRIFT FTIR
- TGA/DTA and DSC
- BET, N₂, H₂, CO₂, Adsorption
- UV/Vis DRS
- SEM (Quanta 600 & Nova Nano) and FE-SEM (JEOL)
- SEM EDS and FE-SEM EDS
- TEM (T12-Tecnai) & HRTEM (Titan)
- XRF
- Solid-State NMR
- ICP-AES

Professional Activities

- 2005- 2012: **Member** of The Korean Society of Industrial & Engineering Chemistry.
- 2006-2012: **Member** of Korean Chemical Society KCS.
- Since 2009, I serve as a **Peer-Reviewer** in the following international journals (7) after my research work has caught the attention of the editors of international journals
- [1] Applied Surface Science [2] Journal of Materials Science [3] Powder technology [4] Journal of Sol–Gel technology [5] Materials letters[6] Journal of Chemical Engineering [7] Journal of Hazardous Materials, and [8] Nature scientific report.

Government Funded Sanction/ submitted Projects (As a PI):

Title of the project	Role	Sponsor	Duration	Amount
Shape, size and morphological control synthesis	PI	UGC, India	(March	Rs.
of different types of hierarchical porous Metal-			2017-	6,00,000
(Cu, Co and Cr)-Organic Framework (MOFs) for			Feb.	/
H ₂ storage and CO ₂ capture.			2019)	
Development of Nano-catalyst size and	PI	DST, India	April	Rs.
morphology controlled metal/metal oxide based	Fellowship		2015-	23,12,000/
nanocatalyst for electrochemical water splitting	for PhD		March	
	student &		2017	
	capital			
	equipment			
Synthesis of micronized nanoporous silica		Mumbai	(March,	Rs.
aerogel flakes using cheap industrial grade		University	2020-	45,00,00
sodium silicate solution and their application for			March	/
paint as a filler.			2021)	
Synthesis of hierarchically porous carbon	PI	Mumbai	(March,	Rs.
aerogel for supercapacitor applications		University	2020-	65,00,00
			March	/
			2021)	
Total			,	Rs.
				30,22,000
				1

Books/Reports/Chapters/General articles etc.

S.	Title	Author's Name	Publisher	Year of
No.				Publications
1	Nanostructured Silica	Dr. Pradip B. Sarawade	Lambert Academic	2011
	Aerogels	& Prof. Kim Hee Taik	publisher Germany	

1. Publications

S. No.	Authors Name	Title of the Paper	Journal Name	Volume	Pages	Year	IF
1	P Singh, P Sarawade , B Adhikary	Transport of black carbon from planetary boundary layer to free troposphere during the summer monsoon over South Asia	Atmospheric Research	235	104761	2020	4.12
2	Prashant Singh, <u>Pradip</u> <u>Sarawade</u> , Bhupesh Adhikary	Carbonaceous Aerosol From Open Burning and its Impact on Regional Weather in South Asia	Aerosol and Air Quality Research	Article in Press	-	2020	2.73
3	DS Dhawale, P Bodhankar, N Sonawane, P.B. Sarawade	Fast microwave-induced synthesis of solid cobalt hydroxide nanorods and their thermal conversion into porous cobalt oxide nanorods for efficient oxygen evolution reaction	Sustainable Energy & Fuels	235	104761	2019	4.91
4	N Thorat, R Varma, R Mundotia, A Kale, P Sarawade, U Mhatre, N Patel	Photocatalytic activity of nanostructured TiO ₂ and N-TiO ₂ thin films deposited onto glass using CA-PVD technique	AIP Conference Proceedings	2115 (1),	030318	2019	NA
5	Tasneem MA Khan, Asiya Khan, Pradip B Sarawade	Synthesis and characterization of nanoporous silica aerogel beads using cheap industrial grade sodium silicate precursor	AIP Conference Proceedings	1	030274	2018	NA
6	SA Mani, adkar, JR Amare, MS Pradhan, H Al-Johani, PB Sarawade	Optical & Thermal studies on CNT doped liquid crystal mixtures	Composites	11	13	2018	1.2

7	M Shalini, N Patel, <u>Pradip</u> <u>Sarawade</u>	Thermo Optical Study of Nematic Liquid Crystal doped with ferrofluid	AIP Conference Proceeding	1837	40066	2017	NA
8	Santosh A Mani, Jyoti R Amare, Sameer U Hadkar, Krishnakant G Mishra, Pradip B Sarawade*	Investigations of optical and thermal response of polymer dispersed binary liquid crystals	Molecular crystals and Liquid Crystal	646	183-193	2017	0.663
9	Pradip Sarawade*, Santosh A Mani, Sameer U Hadkar, PJ Jessy, Suman Lal, Patrick Keller, Samriti Khosla, Nitin Sood	Study of the optical, thermal, and mechanical properties of nematic liquid crystal elastomers	Journal of Information Display	17	169-176	2016	1.470
10	Ziyauddin S Qureshi, Pradip* B Sarawade, Irshad Hussain, Haibo Zhu, Hind Al-Johani, Dalaver H Anjum, Jean-Marie Basset*	Gold Nanoparticles Supported on Fibrous Silica Nanospheres (KCC-1) as Efficient Heterogeneous Catalysts for CO Oxidation	ChemCatChe m	8	1671- 1678	2016	4.67
11	Pradip B Sarawade Santosh A Mani, PJ Jessy, Suman Lal, SK Tripathi, Samriti Khosla, Rita A Gharde	Effect of CNT on Liquid Crystal Elastomer	2015 Annual IEEE India Conference (INDICON)	NA	1—5	2015	NA
12	Manas K Bhunia, Sigismund Melissen, Manas R Parida, Pradip Sarawade, Jean- Marie Basset, Omar F Mohammed, Kazuhiro Takanabe	Dendritic Tip-on polytriazine-based carbon nitride photocatalyst with high hydrogen evolution activity	Chemistry of Materials	27	8237- 8247	2015	10.51
13	Ziyauddin S Qureshi, <u>Pradip</u> <u>B Sarawade</u> , Matthias Albert, Valerio D'Elia, Mohamed N Hedhili, Klaus Köhler, Jean-Marie Basset	Palladium Nanoparticles Supported on Fibrous-Structured Silica Nanospheres (KCC-1): An Efficient and Selective Catalyst for the Transfer	ChemCatChe m	7	635-642	2015	4.67

		Hydrgenation of Alkenes					
14	Dalaver H Anjum, <u>Pradip</u> <u>Sarawade</u>	TEM Investigations of Pt- NPs Loaded Fibrous Nano- Catalyst Support KCC-1	Microscopy and Microanalysis	20	174-175	2014	2.45
15	Pradip B Sarawade, Sang Min Kim, Ki Do Kim, Hee Taik Kim	Synthesis and characterization of bimodal silver nanoparticles by using semi-batch method	Journal of Industrial and Engineering Chemistry	20	1830- 1833	2014	4.97
16	Pradip Sarawade, Hua Tan, Dalaver Anjum, Dongkyu Cha, Vivek Polshettiwar	Size-and Shape-Controlled Synthesis of Hexagonal Bipyramidal Crystals and Hollow Self-Assembled Al-MOF Spheres	ChemSusChe m	7	529-535	2014	7.84
17	Pradip B Sarawade, Godlisten N Shao, Dang Viet Quang, Hee Taik Kim	Effect of various structure directing agents on the physicochemical properties of the silica aerogels prepared at an ambient pressure	Applied Surface Science	287	84-90	2013	5.155
18	You Na Kim, Godlisten N Shao, Sung Jeong Jeon, SM Imran, <u>Pradip B Sarawade</u> , Hee Taik Kim	Sol-gel synthesis of sodium silicate and titanium oxychloride based TiO 2–SiO 2 aerogels and their photocatalytic property under UV irradiation	Chemical engineering journal	231	502-511	2013	8.355
19	Godlisten N Shao, Yuna Kim, SM Imran, Sun Jeong Jeon, Pradip B Sarawade, Askwar Hilonga, Jong-Kil Kim, Hee Taik Kim	Enhancement of porosity of sodium silicate and titanium oxychloride based TiO 2–SiO 2 systems synthesized by sol–gel process and their	Microporous and Mesoporous Materials	171	111-121	2013	4.10
20	Mohamed Bouhrara, Chanakya Ranga, Aziz Fihri, Rafik R Shaikh, <u>Pradip</u> <u>Sarawade</u> , Abdul-Hamid Emwas, Mohamed N Hedhili,	Nitridated fibrous silica (KCC-1) as a sustainable solid base nanocatalyst	ACS Sustainable Chemistry & Engineering	1	1192- 1199	2013	6.97

	Vivek Polshettiwar						
21	Dang Viet Quang, P <u>radip B</u> <u>Sarawade</u> , Sun Jeong Jeon, Sang Hoon Kim, Jong-Kil Kim, Young Gyu Chai, Hee Taik Kim	Effective water disinfection using silver nanoparticle containing silica beads	Applied Surface Science	266	280-287	2013	5.155
22	Gideon Elineema, Jong Kil Kim, Askwar Hilonga, Godlisten Namwel Shao, You-Na Kim, Dang Viet Quang, Pradip B Sarawade , Hee Taik Kim	Quantitative recovery of high purity nanoporous silica from waste products of the phosphate fertilizer industry	Journal of Industrial and Engineering Chemistry	19	63-67	2013	4.97
23	N Shao, <u>Pradip B Sarawade</u> , Askwar Hilonga, Jong-gil Kim, You Na Kim, Godlisten, Hee Taik Kim, SM Imran, Sunjeong Jeon	Enhancement of porosity of sodium silicate and titanium oxychloride based TiO2–SiO2 systems synthesized by sol–gel process and their photocatalytic activity	Microporous & Mesoporous Materials	197	111-121	2013	4.10
24	Pradip Sarawade, Hua Tan, Vivek Polshettiwar	Shape-and morphology- controlled Sustainable synthesis of Cu, Co, and in metal organic frameworks with high CO ₂ capture capacity	ACS Sustainable Chemistry & Engineering	1	66-74	2012	6.97
25	Askwar Hilonga, Jong-Kil Kim, <u>Pradip B. Sarawade</u> , Dang Viet Quang, Godlisten Namwel Shao, Gideon Elineema, Hee Taik Kim	Two-step rapid synthesis of mesoporous silica for green tire	Korean Journal of Chemical Engineering	29	1643- 1646	2012	2.12
26	Dang Viet Quang, Jong-Kil Kim, Jin-Koo Park, Seok- Hoon Park, Gideon Elineema, Pradip B Sarawade, Hee Taik Kim	Effect of the gelation on the properties of precipitated silica powder produced by acidizing sodium silicate solution at the pilot scale	Chemical engineering journal	209	531-536	2012	8.355

27	Askwar Hilonga, Jong-Kil Kim, <u>Pradip B Sarawade</u> , Dang Viet Quang, Godlisten N Shao, Gideon Elineema, Hee Taik Kim	Synthesis of mesoporous silica with superior properties suitable for green tire	Journal of Industrial and Engineering Chemistry	18	1841- 1844	2012	4.97
28	Pradip B Sarawade, Dang Viet Quang, Askwar Hilonga, Sun Jeong Jeon, Hee Taik Kim	Synthesis and characterization of micrometer-sized silica aerogel nanoporous beads	Materials Letters	81	37-40	2012	3.09
29	Askwar Hilonga, Jong-Kil Kim, Pradip B Sarawade , Dang Viet Quang, Godlisten N Shao, Gideon Elineema, Hee Taik Kim	BET study of silver-doped silica based on an inexpensive method	Materials Letters	80	168-170	2012	3.09
30	Dang Viet Quang, <u>Pradip B</u> <u>Sarawade</u> , Askwar Hilonga, Jong-Kil Kim, Young Ho Shim, Godlisten N Shao, Hee Taik Kim	Synthesis of silver nanoparticles within the pores of functionalized-free silica beads: The effect of pore size and porous structure	Materials Letters	68	350-353	2012	3.09
31	Askwar Hilonga, Jong-Kil Kim, <u>Pradip B Sarawade</u> , Dang Viet Quang, Godlisten Shao, Gideon Elineema, Hee Taik Kim	Silver-doped silica powder with antibacterial properties	Powder Technology	215	219-222	2012	3.41
32	Dang Viet Quang, Jong Kil Kim, <u>Pradip B Sarawade</u> , Dang Huu Tuan, Hee Taik Kim	Preparation of amino- functionalized silica for copper removal from an aqueous solution	Journal of Industrial and Engineering Chemistry	18	83-87	2012	4.97
33	Dang Viet Quang, <u>Pradip B</u> <u>Sarawade</u> , Askwar Hilonga, Jong-gil Kim, Godlisten N Shao, Hee Taik Kim, YoungHo Shim	Synthesis of Silver Nanoparticles within the Pores of Functionalized-Free Silica Beads: The Effect of Pore Size and Porous Structure	Materials Letters	68	350-353	2012	3.09

34	Askwar Hilonga, <u>Pradip B</u> <u>Sarawade</u> , Gideon Elineema, Jong-gil Kim, Dang Viet Quang, Godlisten N Shao, Hee Taik Kim	Silver-Doped Silica Powder with Antibacterial Properties	Powder Technology	215	219-222	2012	3.41
35	Pradip B Sarawade, Jong- Kil Kim, Askwar Hilonga, Dang Viet Quang, Hee Taik Kim	Effect of drying technique on the physicochemical properties of sodium silicate- based mesoporous precipitated silica	Applied Surface Science	258	955-961	2011	5.155
36	Dang Viet Quang, <u>Pradip B</u> <u>Sarawade</u> , Askwar Hilonga, Jong-Kil Kim, Young Gyu Chai, Sang Hoon Kim, Jae- Yong Ryu, Hee Taik Kim	Preparation of amino functionalized silica micro beads by dry method for supporting silver nanoparticles with antibacterial properties	Colloids and Surfaces A: Physicochemi cal and Engineering Aspects	389	118-126	2011	3.131
37	Dang Viet Quang, Pradip B Sarawade, Askwar Hilonga, Jong-Kil Kim, Young Gyu Chai, Sang Hoon Kim, Jae- Yong Ryu, Hee Taik Kim	Preparation of silver nanoparticle containing silica micro beads and investigation of their antibacterial activity	Applied Surface Science	257	6963- 6970	2011	5.155
38	Pradip B Sarawade, Jong- Kil Kim, Askwar Hilonga, Dang Viet Quang, Sun Jeong Jeon, Hee Taik Kim	Synthesis of sodium silicate- based hydrophilic silica aerogel beads with superior properties: Effect of heat- treatment	Journal of Non- Crystalline Solids	357	2156- 2162	2011	2.83
39	Pradip B Sarawade, Jong- Kil Kim, Askwar Hilonga, Dang Viet Quang, Hee Taik Kim	Synthesis of hydrophilic and hydrophobic xerogels with superior properties using sodium silicate	Microporous and Mesoporous Materials	139	138-147	2011	4.10
40	Dang Viet Quang, <u>Pradip B</u> <u>Sarawade</u> , Askwar Hilonga, Sung Dae Park, Jong-Kil Kim, Hee Taik Kim	Facile route for preparation of silver nanoparticle-coated precipitated silica	Applied Surface Science	257	4250- 4256	2011	5.155
41	Pradip B. Sarawade, Jong- Kil Kim, Askwar Hilonga, Hee Taik Kim	Influence of aging conditions on textural properties of water-glass-based silica aerogels prepared at ambient	Korean Journal of Chemical Engineering	27	1301- 1309	2010	

		pressure					2.12
42	Askwar Hilonga, Jong-Kil Kim, <u>Pradip B Sarawade</u> , Hee Taik Kim	Influence of reaction conditions on the properties of sodium alumino silicate synthesized by simultaneous addition of precursors	Journal of Non- Crystalline Solids	356	1466- 1469	2010	2.83
43	P.B. Sarawade, JK Kim, A Hilonga, HT Kim	Production of low-density sodium silicate-based hydrophobic silica aerogel beads by a novel fast gelation process and ambient pressure drying process	Solid State Sciences	12	911-918	2010	2.155
44	Askwar Hilonga, Jong-Kil Kim, Pradip B Sarawade , Hee Taik Kim	Rapid synthesis of homogeneous titania-silica composite with high-BET surface area	Powder Technology	199	284-288	2010	3.41
45	Askwar Hilonga, Jong-Kil Kim, <u>Pradip B Sarawade</u> , Hee Taik Kim	Mesoporous titania–silica composite from sodium silicate and titanium oxychloride. Part I: grafting method	Journal of materials science	45	1255- 1263	2010	3.442
46	Askwar Hilonga, Jong-Kil Kim, Pradip B Sarawade , Hee Taik Kim	Mesoporous titania–silica composite from sodium silicate and titanium oxychloride. Part II: one-pot co-condensation method	Journal of materials science	45	1264- 1271	2010	3.442
47	Askwar Hilonga, Jong-Kil Kim, Prad <u>ip B Sarawade</u> , Hee Taik Kim	Influence of annealing conditions on the properties of reinforced silver-embedded silica matrix from the cheap silica source	Applied Surface Science	256	2849- 2855	2010	5.155
48	Pradip B Sarawade, Jong- Kil Kim, Askwar Hilonga, Hee Taik Kim	Preparation of hydrophobic mesoporous silica powder with a high specific surface area by surface modification of a wet-gel slurry and spray-	Powder Technology	197	288-294	2010	3.41

		drying					
49	Pradip B Sarawade, Jong- Kil Kim, Askwar Hilonga, Hee Taik Kim	Recovery of high surface area mesoporous silica from waste hexafluorosilicic acid (H 2 SiF 6) of fertilizer industry	Journal of hazardous materials	173	576-580	2010	7.65
50	Askwar Hilonga, Jong-Kil Kim, Pradip B Sarawade , Hee Taik Kim	Titania–silica composites with less aggregated particles	Powder Technology	196	286-291	2009	3.41
51	Askwar Hilonga, Jong-Kil Kim, <u>Pradip B Sarawade</u> , Hee Taik Kim	Low-density TEOS-based silica aerogels prepared at ambient pressure using isopropanol as the preparative solvent	Journal of Alloys and Compounds	487	744-750	2009	4.175
52	A Hilonga, JK Kim, <u>P.B.</u> <u>Sarawade</u> , HT Kim	Reinforced silver-embedded silica matrix from the cheap silica source for the controlled release of silver ions	Applied Surface Science	255	8239- 8245	2009	5.155
53	Pradip B Sarawade, Jong- Kil Kim, Ho-Kun Kim, Hee- Taek Kim	High specific surface area TEOS-based aerogels with large pore volume prepared at an ambient pressure	Applied Surface Science	254	574-579	2007	5.155
54	Pradip B Sarawade, Jong- Kil Kim, Jin-Koo Park, Ho- Kun Kim	Influence of solvent exchange on the physical properties of sodium silicate based aerogel prepared at ambient pressure	Aerosol and Air Quality Research	6	93	2006	2.59
55	A Fihri, R Rahal, P Sarawade, V Polshettiwar	Nickel oxides with hierarchical morphologies Synthesis and application in	Proceeding ACS	243	-	2012	NA

		catalysts as a supercapacitor					
56	Pradip Bhikaji Sarawade, Ahmed Abd Elkader, Vivek Polshettiwar	Size & textural properties controlled synthesis of silica nanospheres (KCC-1) at the pilot scale	Proceeding ACS	245	-	2013	NA
57	Pradip B. Sarawade , Kim Hee Taik	Nanostructured silica Aerogels	LAP Lambert Academic Pub. AG & Company KG	Book	-	2011	NA
58	P. Bodankar, N. Ptale, , Pradip Sarawade ,	Implicit doping of Sulfur and Carbon in nanostructured hierarchical Co3O4 for enhanced oxygen evolution reaction	Electrochemic alacta Submitted	-	-	2020	-
59	S. Jadhav & Pradip sarawade	Kevlar reinforced silica aerogel blanket	Filed patent	-	-	2020	-
60	S. Jadhav & Pradip sarawade	Synthesis and characterization of nickel nitrate as additive into SiO2 matrix by supercritical drying method	SSRN- Elsevier's	Accepted	-	2020	-
61	S. Jadhav & Pradip sarawade	Metal oxide silica aerogel composite	Silicon (springer) submitted	-	-	2020	2.5
							Total IF=217. 698

Oral presentation at the International conferences

- 1. <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Ho-Kun Kim, "Synthesis of Nanoporous silica aerogel at ambient pressure using sodium silicate", *4th Asian aerosol conference (AAC)*, 13th December 2005, Grand, Hyatt, Mumbai, India.
- **2.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Ho-Kun Kim, "Influence of solvent exchange on physical properties of sodium silicate based aerogel prepared at ambient pressure", *2nd Korea-Japan Work shop on materials science*, *Recycling and waste treatments*, 1st August 2005, Hanyang University Ansan, Korea.
- **3.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Ho-Kun Kim, "Synthesis of monolithic superhydrophobic silica aerogels by a novel fast ambient pressure drying process", *3rd Korea-Japan Work shop on materials science, Recycling and waste treatments*, December 2005, South Korea.
- **4.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Ho-Kun Kim, "Rapid Synthesis of Sodium Silicate Based Nanoporous Silica Aerogel through One Step Surface Modification at Ambient Pressure", *4th Korea-Japan Work shop on materials science, Recycling and waste treatments*, August 2007, Jeju-do, Korea.
- 5. <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Ho-Kun Kim, "High specific surface area TEOS-based aerogels with large pore volume prepared at an ambient pressure", 24th international Japan-Korea Seminar on Ceramic, November 2007, Nagoya, Japan.
- **6.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga and Hee Taik Kim, "Synthesis of nanoporous silica aerogel and related materials", *I*st *Vietnam-Korea Conference on Materials Science Recycling and Waste Treatments*: 13th August 2009, Hanoi, Vietnam.
- 7. <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga, Hee Taik Kim, "Inexpensive hydrophilic and hydrophobic silica aerogels with superior properties", *Abstracts presented at the* 41th Korean Society of Industrial and Engineering Chemistry Meeting, (1LF-7) 12~14 May., 2010, Novotel Ambassador Busan/BEXCO, Korea.
- **8.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga, Dang Viet Quang and Hee Taik Kim, "High specific surface area sodium silicate based hydrophilic silica aerogel beads with large pore volume at an ambient pressure", *5th International workshop on Advanced Materials Science and Nanotechnology* (IWAMSN 2010) : 12th November 2010, Hanoi, Vietnam.
- 9. <u>Pradip B. Sarawade</u>, Invited Talk "Workshop on Nanotechnology" 25th May, 2015, GOVT. POLYTECHNIC, MUMBAI. Organized in collaboration with National Centre for Nanoscience & Nanotechnology, University of Mumbai (NCNNUM), Kalina.
- 10. <u>Pradip B. Sarawade</u>, Invited Talk "Nanomaterials for Energy and Environmental Applications" at MESMAC INTERNATIONAL CONFERANC, 9-11th January 2018, MES MAPAD COLLAGE (Autonomous), MAPAD, MALAPPURAM, DIST, KERALA, INDIA.

- 11. <u>Pradip B. Sarawade</u>, Invited Talk "Exploring Nanomaterials with Electron Microscopes" at International Conference (ICAMS 2020), 20-22th January 2020, Raje Ramrao Mahaviddya Jath, MH, INDIA.
- 12. <u>Pradip B. Sarawade</u>, Invited Talk "Advanced Nanomaterials for Energy and Environmental Applications" at International Conference on "Recent advances in Physical and Chemical Sciences, 23th January 2020, Sangola College Sangola, MH, INDIA.

Poster presented at the International conferences

- 1. <u>Pradip Sarawade</u>, Hua Tan, and Vivek Polshettiwar*, "Size and textural properties controlled sustainable synthesis of silica nanospheres (KCC-1) at the pilot scale", Abstract presented at **245**th ACS National Meeting, New Orleans, Louisiana, April 7-11, 2013.
- **2.** <u>Pradip Sarawade</u>, Hua Tan, and Vivek Polshettiwar*, "Shape- and Morphology-Controlled Sustainable Synthesis of Cu, Co, and In Metal Organic Frameworks with High CO₂ Capture Capacity", Abstract presented at *I*st international conference on Emerging Advanced Nanomaterial's, Queensland, Australia (ICEAN, 2012).
- **3.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Jin-Koo Park, Ho-Kun Kim, "High specific surface area TEOS-based aerogels with large pore volume prepared at an ambient pressure", *proceeding of the 24th international Japan-Korea Seminar on Ceramic*, 20-22, November 2007, Kakogawa, Shizuoka, Japan.
- **4.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga and Hee Taik Kim, "Synthesis and Characterization of Water Glass Based Silica Aerogels by Ambient Pressure Drying", 5Th *International mesoporous materials symposium* (IMMS) 2006, Shangai, China.
- 5. <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga and Hee Taik Kim, "Design of Mesoporous Titania-Silica Composite Aggregates", 6th International Macrostructured Materials Symposium (IMMS), 8-11, Sept 2008, Namur, Belgium.
- **6.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga and Hee Taik Kim, "Hydrophilic and hydrophobic high surface area xerogels with large pore volume via a surface modification of hydrogels and ambient pressure drying approach", *The XVth International Sol-Gel Conference*, 23~27, August **2009**. Porto de Galinhas, Pernambuco State, Brazil.
- 7. <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga and Hee Taik Kim, "Recovery of hydrofluoric acid (HF) and mesoporous silica through the sol-gel process from hexaflurosilicic acid (H₂SiF₆) of fertilize industry", *The XVth International Sol-Gel Conference*, 23~27, August **2009**. Porto de Galinhas, Pernambuco State, Brazil.

Poster presented at the National conferences

- 1. <u>Pradip Sarawade</u>, Jong-Kil Kim, Park Jin-Koo, Ho-Kun Kim, "Synthesis of TEOS-based nanoporous silica aerogels prepared by two step (acid-base) sol-gel process dried at supercritical condition", *The 96th National Meeting of the Korean Chemical Society Program and Abstracts (KCS)* (IV27P217), 21~22 Oct. 2005.
- **2.** <u>Pradip Sarawade</u>, Woo Sung-Sik, Jong-Kil Kim, Ho-Kun Kim, "Surface Chemical Modification of Nanoporous Silica Aerogel Using TMVS as a Hydrophobic Reagent", Abstracts presented at *the* 31th *Korean Society of Industrial and Engineering Chemistry Meeting*, (1P-144), 13~14 May, 2005, Chungnam National University, Chungnam, Korea.
- **3.** <u>Sarawade Pradip</u>, One-Mo Kang, Jong-Kil Kim, Ho-Kun Kim, "Synthesis and characterization of sodium silicate based silica aerogel through one step surface chemical modification of hydrogel at ambient pressure", *The 97th National Meeting of the Korean Chemical Society Program and Abstracts* (KCS), 20~21 April 2006, KINTEX, Korea(II34P515).
- **4.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Ho-Kun Kim, "Synthesis and Characterization of Superhydrophobic Nanoporous Silica (SiO₂) Powders Prepared by Surface Modification on Hydrogel", *The 98^h National Meeting of the Korean Chemical Society Program and Abstracts* (KCS), Oct 2006, Korea.
- **5.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, and Ho-Kun Kim, "Effect of drying parameters on physico-chemical properties of sodium silicate based silica aerogels", Abstracts presented at the 33th *Korean Society of Industrial and Engineering Chemistry Meeting*, (1P-39), 12~13 May, 2006, Chonbuk National University, Chonbuk, Korea.
- 7. <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga and Hee Taik Kim, "Synthesis and characterization of MTMS-based monolithic superhydrophobic silica aerogel by a novel fast ambient pressure drying process", *The 99^h National Meeting of the Korean Chemical Society Program and Abstracts* (KCS), Oct 2007, Korea.
- **8.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga and Hee Taik Kim "Hydrothermal effect on textural properties of synthesized hydrotalcite of different Mg/Al molar ratio", Abstracts presented at the 35th *Korean Society of Industrial and Engineering Chemistry Meeting*, 2nd Nov., 2007, Hankyoung University, Korea.
- **9.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga and Hee Taik Kim, "Synthesis of Ultrafine Superhydrophobic Nanoporous Silica (SiO₂) Powders Prepared by Surface Modification on Wet-Gel Slurry", *1st Korea-Japan joint forum on sol-gel science and technology*, **KAIST**, 4th December 2008, Dajeon Korea.

- **10.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga and Hee Taik Kim, "Low density TEOS based monolithic silica aerogels with high surface area prepared at an ambient pressure", Abstracts presented at the **37**th *Korean Society of Industrial and Engineering Chemistry Meeting*, (2P-44), 9~10 May, 2008, Hanyang University, Ansan, Korea.
- 11. <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga and Hee Taik Kim, "Synthesis of low-density monolithic silica aerogels using water glass at ambient pressure", Abstracts presented at the *Korean Society of Industrial and Engineering Chemistry Meeting*, (P-59(349), 22~24 Oct., 2008, BEXCO, Busan, Korea.
- **12.** Askwar Hilonga, Jong-Kil Kim, <u>Pradip B. Sarawade</u> and Hee Taik Kim, "Reinforced Silver-Embedded Silica Matrix from the Cheap Silica Source for the Controlled Release of Silver Ions", Abstracts presented at *the Korean Society of Industrial and Engineering Chemistry Meeting*, (P-58(349), 22~24 Oct., 2008, BEXCO, Busan, Korea.
- 13. <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga and Hee Taik Kim, "Effect of aging time and temperature on the physicochemical properties of water-glass-based silica aerogels prepared at an ambient pressure", Abstracts presented at the 39th Korean Society of Industrial and Engineering Chemistry Meeting, (1P-29), 15~17 April 2009, Daegu, Korea.
- **14**. Askwar Hilonga, Jong-Kil Kim, <u>Pradip B. Sarawade</u> and Hee Taik Kim, "Rapid Synthesis of Homogeneous Titania-silica Composite by Two step Method", *Abstracts presented at the* **39**th **Korean Society of Industrial and Engineering Chemistry Meeting**, (1P-28), 15~17 April 2009, Daegu, Korea.
- **15.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga and Hee Taik Kim, "Low density sodium silicate-based hydrophobic silica aerogel beads by a novel fast gelation process and ambient pressure drying", *Abstracts presented at the 40th Korean Society of Industrial and Engineering Chemistry Meeting*, (2P-189), 15~16 Oct., 2009, Seoul National University of Technology/ Seoul Technopark, Korea.
- **16.** Askwar Hilonga, Jong-Kil Kim, <u>Pradip B. Sarawade</u> and Hee Taik Kim, "Influence of Annealing Conditions on the Properties of Reinforced Silver-Embedded Silica Matrix from the Inexpensive Silica Source", *Abstracts presented at the 40th Korean Society of Industrial and Engineering Chemistry Meeting*, (2P-164) 15~16 Oct., 2009, Seoul National University of Technology/ Seoul Technopark, Korea.
- 17. <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga, Hee Taik Kim, "Synthesis of Ultrafine Superhydrophobic Nanoporous Silica (SiO₂) Powders Prepared by Surface Modification on Wet-Gel Slurry", *The 103rd National Meeting of the Korean Chemical Society Program and Abstracts* (KCS), (III37P187), *16-17*, *Apr.*, 2009, COEX, Korea.
- **18.** Askwar Hilonga, Jong-Kil Kim, <u>Pradip B. Sarawade</u>, Hee Taik Kim, "Sodium Alumino Silicate with Desirable Properties for Paper and Paint Industry", *The 103rd National Meeting of the Korean Chemical Society Program and Abstracts* (KCS), (III37P252), *16-17*, *Apr.*, *2009*, COEX, Korea.

- **19.** <u>Pradip B. Sarawade</u>, Jong-Kil Kim, Askwar Hilonga, Hee Taik Kim, "The influence of aging conditions on the textural properties of water-glass-based silica aerogels prepared at ambient pressure", *Abstract presented at the Korean Institute of Chemical Engineering*, 21-23 April., 2010, EXCO, Taegu, Korea.
- **20**. Askwar Hilonga, Jong-Kil Kim, Jing-Gu Park, <u>Pradip B. Sarawade</u>, Hee Taik Kim, "Sodium Silicate-based Titania-Silica Composite by Sol-Gel Method", *Abstract presented at the Korean Institute of Chemical Engineering*, 21-23 April., 2010, EXCO, Tagu, Korea.
- **21.** Dang Viet Quang, <u>Pradip B. Sarawade</u>, Askwar Hilonga, Jong-Kil Kim, Kim Hee Taik, "Preparation of silica micro-beads and investigation of their antibacterial activity", *5*th *International workshop on Advanced Materials Science and Nanotechnology* (IWAMSN 2010): 12th November 2010, Hanoi, Vietnam.
- **22.** Jong-Kil Kim, Askwar Hilonga, Dang Huu Tuan, <u>Pradip B. Sarawade</u>, Hee Taik Kim, "Two step rapid synthesis of nanoporous silica for green tire using H₂SiF₆ of Fertilizer industry", *5th International workshop on Advanced Materials Science and Nanotechnology* (IWAMSN 2010): 12th November 2010, Hanoi, Vietnam.
- **23.** Askwar Hilonga, Jong-Kil Kim, Dang Huu Tuan, <u>Pradip B. Sarawade</u>, Hee Taik Kim, "Silver-Embedded Silica Materials/Products with Antibacterial Properties", *5th International workshop on Advanced Materials Science and Nanotechnology* (IWAMSN 2010) : 12th November 2010, Hanoi, Vietnam.
- **24**. **Pradip B. Sarawade**, Jong-Kil Kim, Askwar Hilonga, Hee Taik Kim, "High specific surface area sodium silicate based hydrophilic silica aerogel beads with large pore volume at an ambient pressure", *Abstracts presented at the* **42**th **Korean Society of Industrial and Engineering Chemistry Meeting**, 27~29 October, 2010, Hotel Riviera (Yuseong) (Daejeon Convention Center) Daejeon, Korea.
- **25.** Askwar Hilonga, Jong-Kil Kim, <u>Pradip B. Sarawade</u>, Hee Taik Kim, "Silver –Embeddded Silica Materials/Products with Antibacterial Properties", *Abstracts presented at the 42th Korean Society of Industrial and Engineering Chemistry Meeting*, 27~29 October, 2010, Hotel Riviera (Yuseong).
- **26.** Dang Viet Quang, <u>Pradip B. Sarawade</u>, <u>Askwar Hilonga</u>, Jong-Kil Kim, Hee Taik Kim, "Preparation of silver-coated silica micro beads and investigation of their antibacterial activity", *Abstracts presented at the 42th Korean Society of Industrial and Engineering Chemistry Meeting*, 27~29 October, 2010, Hotel Riviera (Yuseong).