

Dr. Salunkhe Dipak Bharat

Assistant Professor

At-Bambhori (Bk), Po-Toli, Tal- Dharangaon, Dist-Jalgaon-425 109 (M.S.) India

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▪ **Educational qualification:**

Education	Board/University	Year	Subjects	Marks (%)
Ph. D.	North Maharashtra University, Jalgaon, India	2013	Physics	---
M. Sc.	North Maharashtra University, Jalgaon, India	2008	Physics	67.25
B. Sc.	North Maharashtra University, Jalgaon, India	2006	Physics	70.40
H. S.C.	Nasik Board	2003	PCMB	70.17
S.S.C.	Nasik Board	2001	General	74

▪ **Experience details:**

Position	Institute	Date of Joining	Leaving date	Total Experience
Assistant Professor	Kisan ACS College Parola	14/08/2014	till	8 Years
Assistant Professor	S.R.N.D. ACS College Bhadgaon	01/01/2014	13/08/2014	8 month
“JRF” position on DAE-BRNS project	North Maharashtra University, Jalgaon	01/11/2010	01/03/2012	1 Year 5 Month
“SRF” position on DAE-BRNS project	North Maharashtra University, Jalgaon	01/04/2012	31/03/2013	1 Year
“Project Assistant” on DST Project	North Maharashtra University, Jalgaon	09/08/2013	31/10/2013	3 Month 22 Days

Ph. D Title: *“Chemical synthesis of extremely thin film consisting of nanoparticles onto TiO₂ and their light sensitization for solar cell applications”*

Degree Award : 21st November 2013 at North Maharashtra University, Jalgaon

Project : Synthesis And Characterization Of Metal Chalcogenides Semiconductor Nanostructure: For Solar Cell Application

Sanction : NMU/11A/VCRMS/Budget-2016-17/Science-18/85/2017 Date : 25/03/2017

Status : Project Completed

 **Publications/Conferences**

JOURNAL PUBLICATION

Sr. No.	Name of the Author	Title of the research paper	Vol, Year & Page	Name of the Journal	ISSN No
01	P K Baviskar, D B Salunkhe and B R Sankapal	Synthesis and characterization of AgI thin films at low temperature	506 (2010) 268-270	Journal of Alloys & Compounds	ISSN: 0925-8388
02	P K Baviskar, D B Salunkhe and B R Sankapal	Photoelectrochemical characterizations of ZnO based dye-sensitized solar cell	2 (2010) 96-100	Journal of Scientific Review	EISSN: 0975-0754
03	B R Sankapal, D B Salunkhe , R D Ladhe, P K Baviskar, Vinay Gupta, and S Chand,	Room temperature chemical synthesis of highly oriented PbSe nanotubes based on negative free energy of formation	509 (2011) 10066–10069.	Journal of Alloys & Compounds	ISSN: 0925-8388
04	D B Salunkhe , D P Dubal, W B Kim B R Sankapal	Sb ₂ S ₃ nanoparticles through solution chemistry on mesoporous TiO ₂ for solar cell application	554 (2012) 150–154	Chemical Physics Letter	ISSN: 0009-2614
05	D B Salunkhe , D P Dubal, J V Sali, B R Sankapal	Linker free synthesis of TiO ₂ /Bi ₂ S ₃ heterostructure towards solar cell application: Facile chemical routes	30 (2015) 335-342	Materials Science in Semiconductor Processing	ISSN: 1369-8001
06	D B Salunkhe , D P Dubal, J V Sali, B R Sankapal	Room Temperature Linker Free Growth of CdSe Quantum Dots on Mesoporous TiO ₂ : Solar cell Application	41 3 (2015) 3940-3946	Ceramics International	ISSN: 0272-8842
07	Swapna Samanta, D.B. Salunke , M.S. Shinde,, R.S. Patil	Studies on growth and characterization of CdTe thin film deposited by chemicalbath deposition.	7 11 (2015) 10-15	Schollar Research Library	ISSN: 0975-508X
08	B R Sankapal, D B Salunkhe , Sutripto Majumder, D P Dubal	Solution-processed CdS quantum dots on TiO ₂ : light-induced electrochemical properties	6 (2016) 83175-83184	RSC Advances	ISSN: 2046-2069
09	R.A. Wagh, D.B.	Effect of Uniform decoration of Ag ₂ S	4 2 (2016) 04080-04085,	Journal of Nano and electronic	ISSN: 2077-6772

	Salunke, S.R. Gosavi3,*, R.S. Patil	nanoparticles on physical properties of granular TiO ₂ thin film synthesized by using spin coating technique		Physics	
10	Swapna Samanta, D.B. Salunke, S.R. Gosavi3., R.S. Patil	Structural and Optoelectronic Properties of Nanocrystalline CdTe Thin Films Synthesized by Using SILAR Technique	9 5 (2017) 050258-050262	Journal of Nano and electronic Physics	ISSN: 2077-6772
11	Vijay Baviskar, Dipak Salunkhe, Hemant Tarkas, Rahul Wagh, Prashant Baviskare Rajendra Patil	Sensitization of TiO ₂ by chemically deposited Cu ₂ S for solar cell: Effect of deposition time on photoelectrochemical performance	207 (20220) 163890-	Optik	ISSN: 0030-4026
12	Vijay Baviskar, Dattatray M. Nerkar, Prashant Baviskar, Dipak Salunkhe, S.R. Gosavi, R.S. Patil	Room Temperature synthesized TiO ₂ /Bi ₂ Se ₃ bilayer thin film by simple chemical route: Study the effect of deposition time of Bismuth selenide on physical properties of film	12 2 (2020) 0238-0242	Journal of Nano and electronic Physics	ISSN: 2077-6772
13	Vijay S. Baviskar, Dipak B. Salunkhe, Girish P. Patil, Chandradip D. Jadhav, D. M. Nerkar, Prashant K. Baviskar, Rajendra S. Patil	Effect of deposition time on photoelectrochemical performance of chemically grown Bi ₂ Se ₃ -sensitized TiO ₂ nanostructure solar cells	doi.org/10.1007/s10854-020-04300-y	J Mater Sci: Mater Electron	ISSN:0957-4522

➤ **Conference Participation:**

Sr No.	Year	Conferences / Seminars attended	Title of paper read	<u>Authors</u>
1.	2018	State level conference on “ New trends in recent material” at Department of Physics Nutan Maratha college Jalgaon	Poster presentation synthesis of nano structure using low cost chemical method	<u>D B Salunkhe</u>
2.	2018	National conference on “non conventional energy source for rural development of India” (NCESFRDOI-2018 at Uttamrao patil college Dahivel Tal Sakri, Dist Dhule	Poster presentation Linker free synthesis of metal chalcogenides nanoparticles by wet chemical technique onto TiO ₂ : towards solar cell application	<u>D B Salunkhe</u>
3.	2017	International conference on “Nanotechnology addressing the convergence of material science, biotechnology, and medical science (IC-NAMBM) at DY Patil society deemed to be university Kolhapur	Poster presentation , Synthesis and characterization of chemically deposited copper sulphide onto TiO ₂ thin film	<u>D B Salunkhe</u>
4.	2016	National conference on Electronic Material thin film & its applications at Nutan Maratha College, Jalgaon	Poster presentation	<u>D B Salunkhe</u>
5.	2014	II nd International conference on “ Physics of materials and materials based fabrication (ICPM-MDF 2014) at Department of Physics Shivaji University, Kolhapur	Poster presentation Novel chemical approach for the synthesis of metal chalcogenides quantum dot on TiO ₂ : Quantum dots sensitized solar cells	<u>D. B. Salunkhe, P. R. Nikam, B. R. Sankapal</u>
6.	2013	1st International Conference On “Mathematical modelling and optimization techniques in science and engineering” at Department of applied science SSBT’s college of Engineering and technology, Bambhori. Jalgaon (M.S.) India during 26 th and 27 th July 2013	Oral Presentation Synthesis of CdS nanoparticles coated ZnO nanorods assemble for light harvesting applications	P.R. Nikam , D. B. Salunkhe , B. R. Sankapal*
7.	2013	National conference on “Recent trends & technology of nano materials & smart devices” at Solapur University, Solapur (M.S.) India during 18 th to 20 th April 2013.	Poster presentation Growth of metal chalcogenides nanoparticles onto porous Titanium dioxide by linker free wet chemical methods for solar cell application	D. B. Salunkhe^a , P. R. Nikam ^a , B. R. Sankapal ^{b*}
8.	2013	National conference on “Advance Materials and its applications” held at Dondicha (MS) India, during 1 st and 2 nd February 2013.	Second prize poster presentation The room temperature synthesis of quantum to nano structure of semiconducting nanoparticles onto porous titanium dioxide array via linker free SILAR techniques for solar cell application	D. B. Salunkhe^a , P. R. Nikam ^a , B. R. Sankapal ^{b*}
9.	2013	National conference on “ Advance functional materials” held at VNIT Nagpur (MS) during 21 st to 23 rd January 2013	Oral Presentation Linker free wet chemical approach for metal chalcogenides nanoparticles over porous Titanium Dioxide array for solar cell application	<u>D.B. Salunkhe^a</u> , P. R. Nikam ^a , Faisal. M.A. Almontaser ^a , D.P. Dubal ^b , W.B. Kim ^b , N.B. Sonawane ^a , B R.

				Sankapal ^{c*}
10.	2012	National conference on “Indian development in recent and ideal semiconductors for novel applications” held at Navapur (MS)	First prize poster presentation “Linker free synthesis of semiconducting metal chalcogenide quantum dots (QD’s) via simple chemical route at room temperature on titanium dioxide array for solar cell application”	<u>D. B. Salunkhe</u> , B.R. Sankapal
11.	2012	National conference on “Nanomaterials, industrial polymers and Eco-friendly coatings-perspective and challenges (NIPEC-2012) held at North Maharashtra University, Jalgaon on 7 th March 2012	Poster presentation “Chemical synthesis of quantum dots on TiO ₂ and their light sensitization for solar cell application”	<u>D. B. Salunkhe</u> and B.R. Sankapal
12.	2012	Fourth conference on Recent Advances in polymer technology, held at North Maharashtra University, Jalgaon during March 2-3 2012	Poster presentation “ Wet solution chemistry to attach semiconducting metal chalcogenide quantum dots (QD’s) on titanium dioxide array”	<u>D. B. Salunkhe</u> and B.R. Sankapal
13.	2012	I st International conference on physics of materials and materials based device fabrication (ICPM-MDF-2012) held at Shivaji University Kolhapur-2011 during as 17-19 January 2012	Poster presentation “Study the extremely thin absorber layer of Ag ₂ S/Ag ₂ Se over titanium dioxide thin film based <i>eta</i> -solar cell structure”	<u>D. B. Salunkhe</u> and B.R. Sankapal
14.	2011	National conference on Material and Devices for Future Technology, held at North Maharashtra University, Jalgaon-2011	Poster presentation “ Syntesis and charectarization of extremely thin bismuth sulphide onto wide band gap titanium dioxide film”	<u>D. B. Salunkhe</u> and B.R. Sankapal
15.	2010	State level seminar on Advances in Science and Technology of Nanomaterials (AISATON-2010), held at Sakri (M.S.)	Oral presentation “Photoelectrochemical characterizations of ZnO based dye-sensitized solar cell”	P K Baviskar, <u>D B Salunkhe</u> and B R Sankapal
16.	2010	State level seminar on Advances in Science and Technology of Nanomaterials (AISATON-2010), held at Sakri	Poster presentation “CNT/CdS Nanocomposites Synthesized By Soft Chemical Route And Their Characterization”	D D Koli , S G Kasar, <u>D B Salunkhe</u> , P K Baviskar and B R Sankapal

➤ **Workshop**

1. Participated in the workshop entitled “Project thesis and paper writing in chemistry on 9th March 2012” held at School of chemical science, North Maharashtra University, Jalgaon. For the celebration of international year of chemistry 2011.
2. Participated in the workshop entitled “Grid connected solar photovoltaic systems: Design and applications.” Held at department of Physcis NMU, Jalgaon on 15th March 2013
3. Participated in the workshop entitled Materials: synthesis todiverse applications (MSDA-2013” held at VNIT, Nagpur during 9-13 december 2013.
4. Participated in the workshop entitled “Advances in material processing” held at school of physical science, NMU, Jalgaon on 8th March 2014.
5. Participated in the workshop entitled “2nd INUP Familiarization Workshop” to be held at IIT Bombay during November 28-30, 2014.
6. Work as organizing committee member for 5th state level workshop Technique in prepration of NET & SET examination in chemistry organized by Department of Chemistry KVPS ksian arts, commerce and science college Parola on February 6th 2015.
7. Participated in 'INUP Hands-on Training Workshop entitled “Fabrication of MEMS Sensor” to be held at IIT Bombay during March 23–27, 2015.
8. Work as organizing committee member for workshop on PHP hands on practice on live project organized by department of B.Voc. KVPS ksian arts, commerce and science college Parola on July 21-22, 2015
9. Participated in the workshop on use of ICT in teaching & learning organized by IQAC of KVPS ksian arts, commerce and science college Parola on 11th septber 2015
10. Participated in the workshop on materials charectarization techniques organized by School of Physical Science North Maharashtra University Jalgaon. On 08th Januarty 2016.
11. Participated in the workshop on TYB.Voc. software development syllabus framing workshop to be held at KVPS ksian arts, commerce and science college Parola on 17th feb. 2016.

➤ **Awards:**

- 1. Junior Research Fellow** on the **DAE-BRNS** sanctioned project entitled as “Chemical synthesis of quantum dots and their light sensitization for solar cell application” **Funding Agency- DAE-BRNS., Mumbai, India. [For the period 01st November 2010 to 31st March 2012]**
- 2. Senior Research Fellow** on the **DAE-BRNS** sanctioned project entitled as “Chemical synthesis of quantum dots and their light sensitization for solar cell application” **Funding Agency- DAE-BRNS., Mumbai, India. [For the period 31st March 2012 to 31st March 2013]**
- 3. Awarded by MHRD and DST, Govt. of India** to participate in the meeting (December 8-14, 2010) of “Nobel Laureates” in **Indian Institute of Information Technology, Allahabad.**
- 4. First prize poster presentation** National conference on “Indian development in recent and ideal semiconductors for novel applications” held at Navapur (MS)
- 5. Second prize poster presentation** National conference on “Advance Materials and its applications” held at Dondicha (MS) India, during 1st and 2nd February 2013.

Date: 2021

Place: Parola

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