



Curriculum Vitae

Office Address S. G. Patil Arts, Sci&Comm College, Sakri, Dist : Dhule. Pin - 424304 (MS.)	Permanent Address 12, Pratik, Akalade Nagar, Sakri, Dist. Dhule Pin - 424304 (MS) Email rr_ahire@yahoo.co.in Mob : +91-9860364793	
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Personal Details

Name	Dr. AHIRE RAJENDRA RAMDAS
Date of Birth	25 th Mar. 1964
Nationality	Indian
Marital status	Married
Category	Open
Present Post	Principal, Professor and Head, Dept. Of Physics.
Date of Appointment	01/09/1986.
Scale of Pay and Present Pay	13A
Present Address	12, 'Pratik', Akalade Nagar, Sakri, Dist. Dhulia 424304 (MS)
Mobile No.	+91-9860364793
E-Mail	rr_ahire@yahoo.co.in
Teaching Experience	35 years (U.G.)
Research Experience	21 years
Languages Known	Marathi, Hindi, and English



Educational Qualification

Exam. Passed	Name of The University	Year of Passing	Class	Subject
B. Sc.	University of Pune, Pune	April 1984	First	Physics
M. Sc.	University of Pune, Pune	April 1986	First	Physics
M.Phil.	Shivaji University, Kolhapur	April 2001	B grade	Physics
Ph.D.	North Maharashtra Univ., Jalgaon	12 th July 2007	-	Physics
MS-CIT	M.S.B.T.E., Mumbai	Dec. 2004	First	I.T.

Orientation and Refresher Courses Attended

Sr. No.	Name of the A.S.College	Duration
1	A.S.C.University of Pune, Pune	15/11 to 11/12/1988
2	A.S.C.DeviAhjilyaVishwavidyalayaIndore	7 to 27/3/1991
3	A.S.C.University of Pune, Pune	6/9 to 3/10/1994
4	A.S.C.OsmaniaUniversity, Hyderabad	8/5 to 1/6/1996

Ph.D.Research Topic

“Growth, Structural, Optical and Electronic Transport Properties of CdS, Bi₂S₃ and CdS-Bi₂S₃ Semiconductor Thin Films for Sensor Application”

Guide - Dr.Ramphal Sharma, Professor, Dept. of Physics, Dr.BabasahebAmbedkarMarathwada University, Aurangabad.

Research Project

Research Project

Minor Research Project

Title :

Growth and characterization of Iodates of Strontium, Zinc, Cobalt by Gel Method

Funding Agency:

UGC WRO

Sanction Amount :

1,20,000/-

Date of Implementation:

7.10.2010



Research Publications

International Journals and Proceedings

1. Preparation and characterization of Bi_2S_3 thin films using modified chemical bath deposition method, **R. R. Ahire**, B. R. Sankapal and C. D. Lokhande, *Mater. Res. Bull.***36** (2001) 199
2. Photoelectrochemical characterization of chemically deposited $(\text{CdS})_x(\text{Bi}_2\text{S}_3)_{2-x}$ composite thinfilms, **R. R. Ahire**, B. R. Sankapal and C. D. Lokhande, *Mater. Chem. Phys.***72** (2001) 48.
3. Effect of Swift heavy Ag ion irradiation on the structural and optical properties of CdS thin films deposited by modified chemical bath deposition (MCBD). **R. R. Ahire**, S. D. Chavhan, F. Singh, A. Tripathi, D. Phase, J. C. Vyas and R. P. Sharma, *Solid State Physics, Proceedings of the DAE*, Vol.**50** (2005) [ISBN 818372019-6].
4. Effect of swift heavy ion irradiation on the structural and optical properties of CdS thin films deposited by modified chemical bath deposition. **R. R. Ahire**, S. D. Chavhan, F. Singh, A. Tripathi, D. Phase, J. C. Vyas and R. P. Sharma, *Optoelectronic Materials and Thin Films* Edited By M. K. Jayaraj, Allied Pub. PVT. LTD., (2006) p. 387-394 [ISBN-81-7764-978-7].
5. Fabrication of n-Si/p-CuIn($\text{S}_{1-x}\text{Se}_x$)₂ thin film solar cell by solution growth technique, S. D. Chavhan, **R. R. Ahire** and R. P. Sharma *Optoelectronic Materials and Thin Films* Edited By M. K. Jayaraj, Allied Pub. PVT. LTD., (2006) p. 395-402 [ISBN-81-7764-978-7].
6. Photoelectrochemical characterization of Bi_2S_3 thin films deposited by modified chemical bath deposition. **R. R. Ahire**, and R. P. Sharma; *Ind. J. Eng. Mater. Sci.***13** (2006) 140.
7. Growth, structural, optical and electronic transport properties of CdS thin films deposited by modified chemical bath deposition method, **Ahire R. R.**, Chavhan S. D., Lokhande C. D. and Sharma R. P., *J. Adv. Sci. and Tech.* **9** (2006) 17-27.
8. Growth and Characterization of CdZn ($\text{S}_{1-x}\text{Se}_x$)₂ alloy film deposited by solution growth technique. S. Chavhan, Satish Bagul, **R. R. Ahire**, N. G. Deshpande, A. A. Sagade, Y. Gudage and R. Sharma, *Journal of alloys and compound*, **436**(2007) 400-406
9. Gigantic irradiation effect of 100 MeV Au^{8+} swift heavy ions on the copper sulfide thin films with different chemical compositions. Abhay A. Sagade, N. G. Deshpande S. D. Chavhan, **R. R. Ahire**, D. K. Avasthi, F. Singh, A. Tripathi and R. P. Sharma. *Radiation Effect and Defects in Solids*, **162**(2007)77-85



10. Engineering of nanocrystalline cadmium sulfide thin films by using swift heavy ions. **R. R. Ahire**, Abhay A. Sagade, N. G. Deshpande, S. D. Chavhan and Ramphal Sharma & F. Singh *Journal of Physics D: Applied Physics*, 40(2007) 4850-4854
11. A comparative study of the physical properties of CdS, Bi₂S₃ and composite CdS-Bi₂S₃ thin films for photosensor application. **R.R.Ahire**, N.G.Deshpande, G.Gudage, A.A.Sagade, S.D.Chavhan, D.M.Phase and Ramphal Sharma, *Sensors and Actuator A*, 140(2007)207-214
12. Effect of swift heavy ion irradiation on the physical properties of CuIn(S_{0.4}Se_{0.6})₂ alloy thin films prepared by solution growth technique, S.D.Chavhan, N.G.Deshpande, Y.G. Gudage, A. Ghosh, **R.R. Ahire**, S.V.Borse, R.S. Khairnar, K.M. Jadhav, F. Singh and Ramphal Sharma, *Radiation physics and chemistry*, 77(2008)794-798
13. Modification of structural, optical and electrical properties of nanocrystalline bismuth sulfide by using swift heavy ions. **R. R. Ahire**, Abhay A. Sagade, S. D. Chavan, V.Huse, Y.G.Gudage, F. Singh, D. K. Avasthi, D.M.Phase and Ramphal Sharma, *Current Applied Physics* 9(2009)374-379
14. Single crystal growth and study of strontium iodate in gel method. S.J.Nandre, **R.R.Ahire** and S.J.Shitole. *Advances in applied science research* 2011, 2(2) 134-139.
15. Effect of annealing on CdS-Bi₂S₃ composite thin films deposited by modified chemical bath deposition technique. **R.R.Ahire**, C.D.Lokhande and R.P.Sharma. *Invertis journal renewable energy* 2011, vol 1 (4) 179-185.
16. Single crystal growth and characterization of Strontium iodate in sodium meta silicate gel. S.J.Nandre, S.J.Shitole. **R.R.Ahire**. and K.B.Saraf, *Proceeding of U.G.C. Sponsored NCRAMS 2011*. 43-48. ISBN 978-93-80638-06-5
17. Thermal and optical studies of gel grown cobalt iodate crystal. S.J.Nandre, S.J.Shitole and **R.R.Ahire**. *Scholar research Library Archives of Physics Research*, 2012, 3(1) 70-77.
18. Effect of post-deposition heat treatment on the Physical properties of SILAR grown tin disulfide. N.G. Deshpande, A.Ghosh, **R.R.Ahire**, S.R.Gosavi, R.R.Kasar, H.K.Sadekar, J.B.Chaudhary and Ramphal Sharma. *Journal of scientific review* 2012, Vol 4 (1)196-202.
19. Growth and study of gel grown crystals of Zinc Iodate, S.J.Nandre, S.J.Shitole, S. S. Sonawane and **R.R.Ahire** National conference on "Lasers and Advanced Materials", SantGadge Baba Amravati University Amravati May 29 – 30, 2012 ISBN 978-81-922256-6-1



20. Optical and surface morphology of Zinc Tartrate Crystals, S.J.Nandre, S.J.Shitole, S.S.Sonawane, **R.R.Ahire**, International journal of basic and applied research, ISSN No.2249-3352, 125-128, 26-27 Oct.2012.
21. Study of Growth, EDAX, Optical properties and Surface Morphology of Zinc Tartrate Crystals. S.J. Nandre, S.J. Shitole, **R.R. Ahire**. *Journal of Nano and Electronic Physics*.(2012),Vol. 4 No 4, 04013(4pp)
22. Structural and Optical Study of Gel Grown Crystal of Zinc Iodide. S.J. Nandre, S.J. Shitole, **R.R. Ahire**. *Journal of scientific review* 2012, Vol 4 (1)203-207.
23. Growth and Study of Calcium tartrate single crystal for Optoelectronic Applications S.S.Sonawane , S.J.Nandre, S.J. Shitole, **R.R.Ahire**. ASouvenir of National conference on Advances in Nano Structured Materials and Their Applications, Taloda Dist Nandurbar 22nd-23rd Jan.2013, 78-85 ISBN 978-93-82414-41-4
24. Growth and Study of Optical Characterization of Strontium Iodate Single Crystal S.J.Nandre, S.J. Shitole, **R.R.Ahire**. ASouvenir of National conference on Advances in Nano Structured Materials and Their Applications, Taloda Dist Nandurbar 22nd-23rd Jan.2013, 104-110 ISBN 978-93-82414-41-4
25. "Growth XRD, Thermal & FT-IR Studies of gel grown single crystals of Zinc Tartrate". S.J.Nandre, S.J. Shitole, S.S.Sonawane AND **R.R.Ahire**. NCANAP2013 Proceeding, Sonai Dist. Ahmednagar (M.S.) INDIA, (Feb.2013) 155 – 159. ISBN 978-81-924820-3-3.
26. Nucleation and Growth of Calcium tartrate crystals in Sodium meta silicate gel", S. S. Sonawane, S. J. Nandre, S.J.Shitole and **R.R.Ahire** Scholar research Library Archives of Physics Research, 2015, 3(3) 237-240.
27. Influence of firing temperature on compositional & structural parameters of screen printed TiO₂ Thick films, S.J.Patil, K.S.Thakare, S.J.Nandre and **R.R.Ahire**. *Bionano frontier*, (2016)63-66. ISSN-2320-9593
28. Nanonecklace of CdO through simple solution chemistry", Materials Science in semiconductor processing, N.B. Sonawane, P. B. Baviskar, **R. R. Ahire**, V. H. Ojha, B. R. Sankapal, *Materials Science in semiconductor processing*, 49 (2016) 81-83, ISSN 1369-8001
29. Preparation Characterization and Gas Sensing Performance of pure SnO₂ Thin Films deposited using Physical Vapour Deposition Technique, K. S. Thakare, S. J. Patil, S. B. Dheshmukh, R. Y. Borse, **R. R. Ahire**, *International Journal of Technology and Engineering*, 04 (2016) 103-116, ISSN 2455-4480



30. Nucleation and Growth of Copper Tartrate Crystals in Sodium Meta- silicate gel, 4. D. V. Sonawane, H. M. Patil, D. K. Sawant, S.J.Nandre, &**R.R.Ahire**, *International Journal of Science Info (IJSI)*, (2016) 263-268, ISSN- 2455-4367
31. X-ray Diffraction Studies of Strontium Iodate Crystal by Gel Technique, S.J.Nandre, S.J.Shitole, S.S.Sonawane and **R. R. Ahire**, *BSPK Book Publishing Company, Special Issue*(2016) 112-118. ISBN – 978-93-84198-42-8
32. Non-Conventional Energy Sources For Rural Development of India, S.J.Nandre, N.B.Sonawane, D.V.Sonawane, S.S.Sonawane and **R.R.Ahire**, *Platinum A peer Reviewed National Multidisciplinary Journal*, 6 (4) (2016) 42-46,ISSN 2231-0096
33. Structural and optical properties of CdxCr_{2-x}S₄ thin films grown by CBD method for solar cell applications, H.B. Patil, S.V. Borse, **R.R. Ahire**, *Invertis Journal of Renewable Energy*,7 (2017) 1-4, ISSN2231-3419
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36. Study of NLO properties of Grown Copper Tartrate Crystals By Single Diffusion Gel Method, D.V. Sonawane, S.J.Nandre, &**R.R.Ahire**, *Vidyawarta Interdisciplinary Multilingual Refereed Journal*, 06(2017) 47-52, ISSN: 2319 9318
37. Growth of Lithium Tartrate crystals by Gel Method, D.V.Sonawane,H.M.Patil, D.K.Sawant, S.J.Nandre and **R.R.Ahire**, *Journal of Research and Development*, 8 (2017) 58 - 59, ISSN-2230-9578
38. Review Article on Human Rights, Health and Environmental Protection, S.J.Nandre&**R.R.Ahire**, *VicharManthan*,4(3) (2017) 64-65 ISSN No.2347-9639
39. CdO necklace like nanobeads decorated with PbS nanoparticles: Room temperature LPG sensor, N.B. Sonawane, P.K.Baviskar, **R.R Ahire**, *Material Chemistry and Physics*, 191 (2017) 168-172, ISSN0254-0584
40. India Towards solar Energy Independence, N.B.sonwane, S.J.NandreS.S.Sonwane,**R.R.Ahire**, *Journal of Research and Development*, 8 (2017) 102 - 109,ISSN-2230-9578



41. Gas Sensing Studies of Tin Oxide Thin Films Annealed at Different Temperatures, K.S. Thakare, S. J. Patil, **R.R. Ahire**, *IRA-International Journal of Technology & Engineering*, 9 (2017) 10-15, ISSN 2455-4480
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47. A Scientific Approach towards Social Media, S.J.Nandre, S.S.Sonawane, N.B.Sonawane and **R.R.Ahire**, *Research Journey*, Special Issue, (2018) 22 -24, ISSN 2348-7143
48. NANOTECHNOLOGY APPLICATIONS: Current and future Nanotechnology applications Nanomaterials, Nano-electronic Nano-medecine and bio nanotechnology applications, S.J Nandre, S.S.Sonawane and **R.R.Ahire**, *International Journal of Emerging Technologies and Innovative Research*, (2018) ISSN – 2349-5162
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50. Windmill is another Sources of Alternative Energy for the Development of India, S.J.Nandre, S Ssonawane and **R RAhire**, *Journal of Research & Development*, 8 (2018) 35-40 ISSN-2230-9578. ISSN-2230-9578
51. Renewable and Non –Renewable Energies for Sustainable Development, S.J.Nandre, S.S.Sonawane, N.B.Sonawane and **R.R.Ahire**, *Ajanta An International Multidisciplinary Quarterly Research Journal*, (2019) 179-186, ISSN 2277-5730
52. Growth of Mixed Copper- Lithium Tartrate Crystal by Single Diffusion Gel Method, D.V.Sonawane, D.K.Sawant, H.M.Patil, S.J.Nandre, and **R.R.Ahire**, *Ajanta An International Multidisciplinary Quarterly Research Journal*, (2019) 118-125, ISSN 2277-5730



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54. Comparative X-ray Diffraction Studies on Gel Grown Crystals of Li-tartrate, Cu-tartrate and Mixed Li-Cu tartrate, D. V. Sonawane, H.M. Patil, and **R.R. Ahire**, *Journal of Emerging Technologies and Innovative Research*, 6 (2019) 664-669, ISSN-2349-5162
55. Utilization of Solar Energy from Generation to Generation- A Review, N.B. Sonawane, D.B.Salunke, S.S.Sonawane, **R.R.Ahire**, *Ajanta*, 8 (2019) 126-132, ISSN 2277-5730
56. Role in Prevention of CORONA Virus Infection, S J Nandre, N B Sonawane and **R RAhire**, *Journal of Research & Development*, 10 (2020) 18 - 20. ISSN-2230-9578
57. Growth of Copper Tartrate Crystals in Sodium Meta-Silicate Gel Method, D. V. Sonawane, S.J.Nandre, Sudam Chavhan and **R.R.Ahire**, Ethical and Quality Aspects in Nanoscience and Nanotechnology Research,*One Day International e-Conference*(2020) 313-315,ISBN: 978-93-87098-56-5
58. E-Waste Management in India: A Scenario, S.J.Nandre, N.B.Sonawane and **R.R.Ahire**, Ethical and Quality Aspects in Nanoscience and Nanotechnology Research,*One Day International e-Conference*(2020) 328-330, ISBN: 978-93-87098-56-5
59. Synthesis of Cobalt Oxalate Crystal in Agar Agar Gel, H.S.Pawar,S.J.Nandre,N.B.Sonawane and **R.R.Ahire**, *Journal of Research and Development*, (2020) 210 -215, ISSN-2230-9578
60. Impact of COVID 19 on Education in India", *Journal of Research and Development*, K.R. Digawakar, **R. R. Ahire**, *Journal of Research and Development*, 10 (2020) 138-141, ISSN 2230-9538
61. Influence of Mn^{2+} Magnetic Ions on the Properties of $Cd_{1-x}Mn_xS$ Thin Films Synthesized by Chemical Bath Deposition, A.E. Mali, A. S. Gaiwkwad, S.V.Borse, **R.R. Ahire**, *Journal of Nano and Electronic Physics*, 13 (2021) ISSN 01004-1-5
62. Growth and Characterization of Barium Oxalate Crystals by Single Diffusion Gel Method, H. S. Pawar, S. J. Nandre, S. D. Chavhan and **R. R. Ahire**, *Journal of Emerging Technologies and Innovative Research*, 8 (2021) 625-633, ISSN-2349-5162
63. Physical and Morphological Study of Barium Oxalate Crystals Grown by Agar-Agar Gel Method, H. S. Pawar, S. J. Nandre, S. D. Chavhan and **R. R. Ahire**, *Journal of Emerging Technologies and Innovative Research*, 8 (2021) 737-743, ISSN-2349-5162



64. Growth and Characterization of Cobalt Oxalate Crystal by Ager-Ager Gel Method, H. S. Pawar, S. J. Nandre, N.B.Sonawane , S. D. Chavhan and **R. R. Ahire**, *International Journal of Creative Research Thoughts*, 9 (2021) 1343-1348, ISSN- 2320-2882
65. Thermal and Morphological Study of Transition Metal Cobalt Oxalate Crystal Grown By Agar-Agar Gel Technique, 5. H. S. Pawar, S. J. Nandre, S. D. Chavhan and **R. R. Ahire**, *International Journal of Creative Research Thoughts*, 9 (2021) e-349-e355, ISSN- 2320-2882
66. Physical and Optical Study of Cobalt Oxalate Single Crystals Grown by Agar-Agar Gel Method, H. S. Pawar, S. J. Nandre, N. B. Sonawane and **R. R. Ahire**, *Journal of Scientific Research of The Banaras Hindu University*, 65 (2021) 58-60, ISSN- 0447-9483
67. Comparative Thermal Analysis Studies on Gel Grown Crystals of Li, Cu and Mixed Li-Cu Tartrate, D. V. Sonawane, S. J. Nandre, and **R. R. Ahire**, *Journal of Scientific Research of The Banaras Hindu University*, 65 (2021) 46-48, ISSN- 0447-9483

Presentations at National & International Conferences

1. Studies on decomposition of FeS₂ (Pyrite) thin film grown by successive ionic layer adsorption and reaction (SILAR) method, P. V. Salunke, B. R. Sankpal, **R. R. Ahire** and C. D. Lokhande, Oral Presentation at *Ninth National Convention of Electrochemist*, Surat, 26-27 Nov. 1999.
2. Growth of multilayer Bi₂Se₃-Sb₂Se₃ thin films by SILAR technique, B. R. Sankpal, **R. R. Ahire** and C. D. Lokhande, Poster presentation at *National Seminar on Material Science : Trends and Future*, (MSTF-2000), Punjab, 24-25 Feb. 2000.
3. Structural optical and electrical properties of (CdS)_x(Bi₂S₃)_{1-x} thin film deposited by successive Ionic layer adsorption and reaction (SILAR) method, **R. R. Ahire**, B. R. Sankpal and C. D. Lokhande, Oral presentation at *National Seminar on Material Science : Trends and Future*, (MSTF-2000), Punjab, 24-25 Feb. 2000.
4. Some studies on (CdS)_x(Bi₂S₃)_{1-x} thin films deposited by successive ionic layer adsorption and reaction (SILAR) method, **R. R. Ahire**, S. D. Sartale, G. D. Bagde and C. D. Lokhande, Oral Presentation at *National Conference on Recent Trends in Composite*, Amravati, 28 Feb.- 2 March 2001.
5. Photoelectrochemical characterisation of Bi₂S₃ thin films deposited by chemical deposition, **R. R. Ahire**, R. S. Patil, H. M. Pathan and C. D. Lokhande, Oral



- Presentation at *National Symposium on recent Advances in Renewable Energy Technologies (RARE-T-2002)*, Kolhapur, 13-15 Aug. 2002.
6. Effect of swift heavy ion irradiation on the structural and optical properties of the structural and optical properties of CdS thin films deposited by modified chemical bath deposition. **R. R. Ahire**, S. D. Chavhan, F. Singh, A. Tripathi, D. Phase, J. C. Vyas and R. P. Sharma, Poster presentation at International Conference on Optoelectronics Material and Thin Films for advanced Technology, Cochin University, Kochi. 24 – 27 Oct.2005
 7. Fabrication of n-Si/p-CuIn(S_{1-x}Se_x)₂ thin film solar cell by solution growth technique, S. D. Chavhan, **R. R. Ahire** and R. P. Sharma Poster presentation at International Conference on Optoelectronics Material and Thin Films for advanced Technology, Cochin University, Kochi. 24 – 27 Oct.2005
 8. Growth and effect of swift heavy Ag and Au ions irradiation on structural and optical properties of Cu_xS thin films for room temperature gas sensing applications, S. V. Bagul, S. D. Chavhan, N. G. Deshpande, A. A. Sagade, **R. R. Ahire**, Fouran Singh, A. Tripathi, D. K. Avasthi and R. P. Sharma, Poster presentation at *international conference on Optics and Optoelectronics*, IRDE, Dehradun, 12-15 Dec.2005.
 9. Growth and opto-electric properties of chemically deposited CdS-Bi₂S₃ composite thin films, **Rajendra R. Ahire**, Sudam D. Chavhan and Ramphal Sharma, Poster Presentation at *international conference on Optics and Optoelectronics*, IRDE, Dehradun, 12-15 Dec.2005.
 10. Growth and Ag ion irradiation effect on structural and optical properties of CuIn(S_{1-x}Se_x)₂ thin film prepared by solution growth technique. S. D. Chavhan, **R. R. Ahire**, S.V.Bagul,F.Singh, A. Tripathi, D. K. Avasthi,and R. P. Sharma,Oral presentation at national seminar on materials for advanced techanologies,Kolhapur,23-25 Jan.2006
 11. Effect of annealing on CdS-Bi₂S₃ composite thin films deposited by modified chemical bath depositon technique. **R. R. Ahire**, S. D .Chavhan, A. A. Sagade, N. G. Deshpande, V. K. Sharma, G. K. Bichale and R. P. Sharma, Poster presentation at *International Conference on Recent Trends in Nanoscience and Technology*, Kolkotta, 7-9 Dec, 2006.
 12. Effect of annealing on CdS-Bi₂S₃ composite thin films deposited by modified chemical bath depositon technique. **R. R. Ahire**, S. D .Chavhan, A. A. Sagade, N. G. Deshpande, V. K. Sharma, G. K. Bichale and R. P. Sharma, Poster presentation at



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13. Effect of swift heavy Ag ion irradiation on polycrystalline CdZnS_{1.4}Se_{0.6} thin films deposited by solution growth technique. S. Chavhan, Abhay A. Sagade, N. G. Deshpande, Y. G. Gudage, S. Bagul, **R. R. Ahire**, F. Singh, A. Tripathi, D. K. Avasthi R. P. Sharma, Poster presentation at *Eighth International Conference on optoelectronic, fiber optics and photonics*, Hyderabad, 13-16 Dec, 2006.
 14. Structural and opto-electronic properties of electrochemically deposited CdSe thin films on various substrates for photovoltaic applications. Y. G. Gudage, N. G. Deshpande, Abhay A. Sagade, S. D. Chauvhan, Ramphal Sharma, **R. R. Ahire**, S. M. Pawar, C. H. Bhosale, Poster presentation at *Eighth International Conference on optoelectronic, fiber optics and photonics*, Hyderabad, 13-16 Dec, 2006.
 15. Studies on Tin Oxide thin films prepared by oxygen thermal annealing process of chemically grown Tin disulfide. N. G. Deshpande, A. A. Sagade, Y. G. Gudage, S. D. Chavhan, **R. R. Ahire**, C. D. Lokhande, J. C. Vyas & R. P. Sharma, Poster presentation at *Eighth International Conference on optoelectronic, fiber optics and photonics*, Hyderabad, 13-16 Dec, 2006.
 16. Modifications of optical properties of copper sulfide thin films with different chemical compositions by 100 MeV Au⁸⁺ swift heavy ions. Abhay A. Sagade, N. G. Deshpande, Y. G. Gudage, S. D. Chavhan, **R. R. Ahire**, R. P. Sharma, D. K. Avasthi, F. Singh, A. Tripathi, Poster presentation at *Eighth International Conference on optoelectronic, fiber optics and photonics*, Hyderabad, 13-16 Dec, 2006.
 17. Growth and characterization of CdS, Bi₂S₃ and CdS- Bi₂S₃ thin films by modified chemical bath deposition (M-CBD) technique. **R. R. Ahire**, Abhay A. Sagade, N. G. Deshpande, Y. G. Gudage, S. D. Chavhan and R. P. Sharma, Poster presentation at *Eighth International Conference on optoelectronic, fiber optics and photonics*, Hyderabad, 13-16 Dec, 2006.
 18. Effect of deposition potential on electrical properties of electropolymerized PANI thin films. Y. G. Gudage, N. G. Deshpande, A. A. Sagade, S. D. Chavhan, A. A. Ghosh, **R. R. Ahire**, S. R. Gosavi and R. P. Sharma, Poster presentation at *national conference on current trends in material research for advanced technology*, Aurangabad, 29-30 Jan. 2007.
 19. Engineering of physical properties of metal (Cd, Bi) sulfide by using 100 MeV gold swift heavy ions. **R. R. Ahire**, Abhay A. Sagade, S. D. Chavhan N. G. Deshpande,



- Y.G.Gudage, A.A.Ghosh, V.Huse, A.R.Patil and Ramphal Sharma, Poster presentation at *International Conference on Advance Materias and Applications. Kolhapur, 15-17 Nov. 2007.*
20. Comparison between effect of annealing and SHI irradiation on optoelectronic properties of CdS- Bi₂S₃ nanocomposite. **R. R. Ahire**, Abhay A. Sagade, A.A.Ghosh, Y.G.Gudage, S.S. Sonawane and Ramphal Sharma, State Level Seminar on Recent Advances in Nanocrystalline Materials and Applications, shahada. 6-7 Feb. 2009.
 21. Single crystal growth and characterization of strontium iodate in sodium meta silicate gel. S.J. Nandre, R.R.Ahire, S.J.Shitole and K.B.Saraf, National level Conference NCRAMS 2011 Bhusawal, 2011
 22. Study of Strontium iodate crystal grown by single diffusion gel method, S.J.Nandre, R.R.Ahire and S.J.shitole Oral presentation at National Conference on Matrials& Devices For Future Technology, NMU Jalgaon (7th March 2011)
 23. Gel Growth of IInd and VIIIth Group of Some Iodate Crystals. S.J.Nandre, S.J.Shitole, and R.R. Ahire Poster presentation at National Seminar on Nanostuctured Materials for Advanced Technology (NS-NMAT-2011), Pandharpur 3-4 Oct 2011.
 24. Effect of Various Parameters on Growth of Zinc Iodate Single Crystals in silica gel. S.J.Nandre, S.J.Shitole, and R.R. Ahire Poster presentation at National Seminar on Nanostuctured Materials for Advanced Technology (NS-NMAT-2011) Pandharpur 3-4 Oct 2011.
 25. National workshop on nanotechnology and intellectual property rights and patents in science and technology from nanotechnology perspectives, Aurangabad (16-17 Feb 2012).
 26. Thermal and Optical studies of Gel Grown Cobalt Iodate Crystal, S.J.Nandre, S.J.Shitole S. S. Sonawane and R.R.Ahire, National conference on Nanotechnology and Intellectual Property Rights & Patents in Science & technology from Nanotechnology Perspectives Feb 16 – 17 2012 DR.BAMU Aurangabad.
 27. Growth and study of gel grown crystals of Zinc Iodate, S.J.Nandre, S.J.Shitole, S. S. Sonawane and R.R.Ahire National conference on " Lasers and Advanced Materials", SantGadge Baba Amravati University Amravati May 29 – 30, 2012,
 28. "Strontium Tartrate crystals Grown by Single Diffusion Method". S.J.Nandre, S.J. Shitole, S.S.Sonawane and **R.R.Ahire**. Poster presentation at National Conference on Indian Development in Recent and Ideal Semiconductors for Novel



- Application. Arts, Com & Science College, Navapur. Dist-Nadurbar, [Maharashtra]. 6-7 Oct 2012
29. "Studies on the Growth and Vibrational Spectroscopy of Calcium Tartrate Single Crystals". S.J. Nandre, S.J. Shitole, S.S. Sonawane and **R.R. Ahire**. Poster presentation at National Conference National Conference on Recent Trends in Physics (NCRTP). Mungasagi Maharaj Mahavidyalaya, Darwaha, Dist – Yavatmal. 26-27 OCT. 2012
30. "Optical and Surface morphology of Zinc Tartrate Crystals". S.J. Nandre, S.J. Shitole, S.S. Sonawane and **R.R. Ahire**. Oral presentation at National conference on Advances in Nano Structured Materials and Their Applications, Taloda Dist Nandurbar 22nd-23rd Jan. 2013
31. Growth and Study of Calcium tartrate single crystal for optoelectronic applications. S.S. Sonawane, S.J. Nandre, S.J. Shitole, **R.R. Ahire**. Oral presentation at National conference on Advances in Nano Structured Materials and Their Applications, Taloda Dist Nandurbar 22nd-23rd Jan. 2013
32. Growth and Study of Optical Characterization of Strontium Iodate Single Crystal. S.J. Nandre, S.J. Shitole, **R.R. Ahire**. Oral presentation at National conference on Advances in Nano Structured Materials and Their Applications, Taloda Dist Nandurbar 22nd-23rd Jan. 2013
33. Nucleation and Growth of Calcium tartrate crystals in Sodium meta silicate gel". S. S. Sonawane, S. J. Nandre, S.J. Shitole and **R.R. Ahire**. National Seminar on Advanced Materials and Its Applications. S.V.S's Art's and Science College, Dondaicha. (Dhule) 1-2 Feb 2013

Publications (Paper/ Books/ Articles/ Monographs):

Book

1. Applied Physics_I for S.Y.B.Sc. ISBN 81-7815-001-8, Vrinda Publications, Jalgaon.
2. Modern Physics S.Y.B.Sc., Prashant Publications, Jalgaon. Practical Course in Physics Nirali Prakashan, Pune.
3. Waves, Oscillation and Acoustics, Vrinda Publications, Jalgaon.
4. Practical Physics F.Y.B.Sc., Prashant Publications, Jalgaon.
5. Thermodynamics and Kinetic Theory of Gases, Vrinda Publications, Jalgaon.
6. Physical Properties of Calcogenides and their possible applications, Lap Lambert Academic Publication, Germany



7. Growth on Second Group Iodate Crystal by Gel Method, BSPK Book Publishing Company, Nagpur
8. Electricity and Magnetism for F.Y.B.Sc. Prashant Publications, Jalgaon.
9. Theoretical Physics for F.Y.B.Sc., Prashant Publications, Jalgaon.
10. Practical Physics F.Y.B.Sc., Prashant Publications, Jalgaon.
11. Practical Physics F.Y.B.Sc., Prashant Publications, Jalgaon.
12. Practical Physics F.Y.B.Sc., Prashant Publications, Jalgaon.

Conferences / Seminars / Short Term Courses attended

1. Workshop on joint CSIR-UGC Syllabus Structure in Physics, Jai -Hind College, Dhule(1.1.1990)
2. Workshop for Syllabus, Pratap College, Amalner. (12 to 13.01.1991)
3. N.S.S. Orientation Course, Ahmednagar.(01 to 13.07.1992)
4. N.S.S. Workshop, Bodawad. (19.12.1993)
5. One Day Workshop On Superconductivity, Satana. (26.02.1994)
6. N.S.S. Refresher Course, Ahmednagar. (3 to 19.03.1994)
7. N.S.S. Training Programme (AIDS), University of Pune. (5days)
8. N.S.S. Art of Living Camp, Nagai. (31.12.1997 to 04.01.1998)
9. Workshop On Reformation of syllabi In Physics for S.Y.B.Sc., Pachora(4. 2.1998)
10. Seminar on "Radiation Physics and Peaceful Use of Nuclear Energy" Shivaji University, Kolhapur. (9 to10.09.1999)
11. Ninth National Convention of Electrochemist, SVRCET, Surat. (26 to 27.11.1999)
12. National Seminar on Material Science, Longowal, Sangarur(24 to 25.02.2000)
13. NSPODMA-2000, Shivaji University, Kolhapur.(23.03.2000)
14. International Seminar on Smart Materials, Nanocomposites, Industrial Applications and Devices, Shivaji University, Kolhapur.(28-29.07.2000)
15. Workshop on Population Education,ACEES,N.M.U. Jalgaon. (27 to 29.12.2000)
16. National Conference on Recent Trends In Composites, Amravati
17. N.S.S. Workshop Yuvatisabha, Nagai-sakri. (30 to 31.10.2001)
18. Workshop on Continuing education, ACEES,N.M.U. Jalgaon. (06 to 08.02.2002)
19. Workshop on F.Y.B.Sc. Syll. Revision, Amalner.(17 to18.02.2002)
20. National Symposium on RARET, Shivaji Univ., Kolhapur. (13 to15.08.2002)
21. 37th All India M.V.Sambelan, Aurangabad. (8 to 10.11.2002)
22. Seminar on Water Management in Rashtrakuta period, Nanded. (14 to15.06.2003)



23. Workshop on "Water Management and Fud System", Sakri. (18 to 19.10.2003)
24. Workshop on "Intellectual Property rights With Special References to Patents" NMU, Jalgaon. (09.01.2004)
25. International Conference on Optoelectronics Material and Thin Films for advanced Technology, Cochin University, Kochi. (24 to 27.10.2005)
26. 50th DAE Solid State Physics Symposium, BARC, Mumbai. (5 to 7.12.2005)
27. International Conference on Optics and Optoelectronics, IRDE, Dehradun. (12 to 15.12.2005)
28. International Seminar on surfaces and Interfaces, University of Rajasthan, Jaipur. (10 to 13.11.2006)
29. International Conference on Recent Trends in Nanoscience and Techanology, Jadavpur University, Kolkata. (7 to 9.12.2006)
30. International Conference on Optoelectronics, Fiber Optics and Photonics, University of Hyderabad. (13-16.12.2006)
31. *National* Conference on Current Trends in Material Research for Technology, Aurangabad. (29-30 Jan.2007)
32. International Conference on Advance Materias and Applications. Kolhapur. (15- 17 Nov.2007).
33. State Level Seminar on Recent Advances in Nanocrystalline Materials and Applications, Shahada. (6-7 Feb.2009).
34. University level workshop on New Trends in Higher Education, Sakri (1 March 2009)
35. State level Seminar on Recents trends in agrobasede industries For community development, Sakri. (8-9 Feb 2010)
36. State level Seminar on Advances in Science & Technology of Nanomaterials, Sakri. (8-9 March 2010).
37. University level Workshop on Visit to laboratories for exploring current Trends and carrier opportunities in physics NMU Jalgaon (23 Feb 2010)
38. National level Conference on AIFUCTO 27th Academic conference 2010 NMU Jalgaon (19-21 Nov 2010)
39. University level Workshop on Global warming, Sakri, (29 Dec 2010).
40. University Level Research Festival AVISHKAR 2010 , NMU Jalgaon (23-24 Dec 2010)
41. National Conference on Materials & Devices For Future Technology, NMU Jalgaon (7th March 2011)



42. National Seminar on Nanostuctured Materials for Advanced Technology (NS- MAT-2011) Pandharpur (3-4 Oct 2011).
43. Nationalworkshop on nanotechnology and intellectual property rights and patents in science and technology from nanotechnology perspectives, Aurangabad (16-17 Feb 2012).
44. National Conference on Lasers and Advanced Materials (NCLAM-2012),SantGadge Baba Amravati University Amravati.(M.S).29-30 May 2012.
45. National Conference on Indian Development In Recent And Ideal Semiconductors For Novel Application, Arts, Com. & Science College, Navapur. Dist- Nadurbar,[Maharashtra].6-7Oct 2012
46. National Conference National Conference on Recent Trends in Physics (NCRTP). MungasagiMaharajMahavidyalya, Darwha , Dist – Yavatmal.26-27 OCT.2012
47. International Conference on Strategies for Sustainable Development in India, Shri JIT University, Jhunjhun(Rajasthan) 17-18th Nov2012
48. National conference on Advances in Nano -Structured Materials and Their Applications,TalodaDist Nandurbar22nd-23rd Jan.2013
49. National Seminar on Advanced Materials and Its Applications. S.V.S's Art's and Science College,Dondaicha.(Dhule)1-2 Feb2013

Extension Activities (at College level)

Sr.No.	Activities	Position Held	Duration
1	N.S.S.	Asst. P.O.	1992-93,2000-2003
2	N.S.S.	Programme Officer	1993-99
3	Nature Club	Co-ordinator	1998-99
4	ACEES	Co-ordinator	2000-2003
5	Counseling Club	Member	2000-2003
6	Yuvati Sabha	Member	2000-2003
7	Student Council	Member	1993-99, 2009 onwards
8	Debating committee	Chairman	2000-2002
9	Magazine Committee	Member	2002-2004, 2010 onwards
10	Disciplinary Committee	Member	1993-99



Organization of Extra Curricular Activities

- ❖ N.S.S. Art of Living Camp (University Level)
- ❖ Blood Donation and Medical Camp
- ❖ Workshops on "Laws for Women's"
- ❖ Taluka Level Bal Vidnyan Sambelan (Marathi Vigyan Parishad)
- ❖ Taluka Level Debating Competition (every year)
- ❖ Awareness of Superstitions
- ❖ Water Management Programmes
- ❖ AIDS Awareness Programmes
- ❖ Workshop on Adolescence
- ❖ Workshop on Mushroom Cultivation
- ❖ Workshop on Organic Farming
- ❖ Vidnyan Kutuhalam Competitive Examination (for school students)
- ❖ Workshop for Science Teachers

Public Lectures: Delivered many lectures in Marathi on following subjects

- ❖ Youth and HIV/AIDS
- ❖ Sound Pollution
- ❖ History and Aims of N.S.S.
- ❖ Zep Tarunyakade
- ❖ Social responsibilities of Youth
- ❖ Scientific Attitude
- ❖ Vayat Yetana (slide show)
- ❖ Personality Development

Articles Published in News Paper

1. Zep Tarunyakade (Aapla Maharashtra) 1.12.2002
2. Sane Gurujincheshikshan Vishyak Vichar (Gavakari) 24.12.2002
3. Nobel Vijeta Sir C.V. Raman (Gavakari) 28.2.2003
4. Samagra Kamjivan (Gavakari) 16.3.2003
5. Sneh Sanwardhan Mandal ek Agalavegala Upakram (Aapla Maharashtra) 2.4.2003
6. Vigyanvadi Sawarkar (Gavakari) 1.6.2003
7. Vichar, Bhavana ani Vartanache Shikshan (Gavakari) 24.9.2003



8. Mata Durga Tuch de Subudhi (Gavakari)28.9.2003
9. Jal Sanskruti Ek Etahasik Varsa(Gavakari)18.10.2003

Special Highlighted Social Activities

- ❖ Best Poster Presentation Second Prize **at** State Level Seminar on Recent Advances in Nanocrystalline Materials and Applications, shahada. 6-7 Feb.2009.
- ❖ **Acts of removing superstitions :**
 1. Tried to stop the act of suddenly burning huts at Bhadgaon village in Sakri Taluka with help of ANS workers.
 2. Tried to find out the bhanamati act of suddenly falling stones on the house in Bhamer village.
- ❖ **Marathi VidnyanParishad, Sakrichapter :**
 1. For the sake of canvassing and expansion of scientific attitude we establish MVP, Sakri chapter (affiliated to MVP, Mumbai). With help of 21 founder members and 45 members, tried to conduct various programmes for the welfare and guidance to the farmers, students, and teachers.75 boys and 75 girls 'VayatYetana' programmes (slide shows) are conducted by
 2. Our chapter under 'Gender Education programme' (Funding agencies Give Foundation).
 3. Experimented and demonstrated "Roof Water Harvesting"
- ❖ **Blood Donation and Blood Group Checking Camp :**

Every year on the Memorial Day of Late Sau AamadarGojartaiBhamare (29th Aug.) I am participated to organized blood donation and blood group checking camp.

Linkage With and Representation on Various Bodies

- Marathi VidnyanParishad, Mumbai
- Bhaskaracharya Research Institute,Dhule
- Dept. of Physics, North Maharashtra University, Jalgaon
- Dr.BabasahebAmbedkarMarathwada University, Aurangabad
- Shivaji University, Kolhapur
- Swami RamanandTeerthMarathwada University, Nanded



Representation on Various Bodies:

University level: 1 Senate Member, KBC NMU Jalgaon,
 2 Member **ACEES**, KBC NMU Jalgaon
 3 Member Board of Studies Physics, KBC NMU Jalgaon

Social Organization:

1. Member LMC S.G.Patil College
2. Secretary, Marathi Vigayayn Parishad, Sakri Vibhag,
3. Manad Sachiv, Maratha Seva Sangh Patasanstha, Sakri
4. Vice president, Andhshradha Nirmulan Samiti, Sakri
5. Member, Rotary Club, Sakri
6. Ex Member, Shivaji Vachanarya, Sakri
7. Member, Grahak Panchayat pravashimahasangh, Sakri
8. Member, Grahak Panchayat, Sakri

University Exam Work: Sinor Supervisor, Chairman Flying Squad, Director CAP at Sakri, Paper Setter, Chairman of Paper Setter.