Resume **Dr. Pravin Sadashiv More (Professor in Physics)**

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Nano Material Application Laboratory

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(Dr. Pravin S. More)

Personal details

Birth date and Place: May 1,1971, Chalisgaon, Dist. Jalgaon, (Maharashtra state), Indian,

Educational qualifications

Ph.D. (Physics): University of Pune, Year of submission Dec.2002, Awarded June 2004

Research topic: Effect of Cu addition on gas sensing properties of metal oxides and the related

Material Characterization

M. Phil. (Physics): University of Pune, Awarded June 1998

Research topic: Study of SnO₂: Cu in Pellet form as gas sensor

M. Sc. (Physics): Pratap college Amalner, Dist. Jalgaon, North Maharashtra University

Awarded April 1994.

B. Sc. (**Physics**): Pratap College, Amalner, Dist. Jalgaon, University of Pune,

Awarded April 1992.

Teaching Experience

Total Teaching Experience: 26 Years

Name of Institute /College Govt. Institute of Science, Mumbai Govt. Institute of Science, Amravati V.P. College of Science, Vaijapur Science college Pune and Around

Nature of Duties and Responsibility Teaching and Research (P.G. and Ph.D.) Teaching and Research (P.G, M.Phil.& Ph.D.) Teaching and Research (U.G. P.G & M.Phil..) Teaching and Research (U.G. & P.G)

Experience in Years From 2012 at present = 10Yrs From 2007 to 2012 = 05 YrsFrom 2003 to 2007 = 04 YrsFrom 1995-2003 = 08 Yrs

Presently working as

Professor (Permanent) Department of Physics, Nanomaterials Application laboratory, The Institute of Science, Dr. Homi Bhabha State University Madam Cama Road, Fort, Mumbai 400032. Selected through M.P.S.C. Maharashtra Educational Services

Visited abroad for paper presentation and collaborative work

- 1. Japan Takushinma at University of Takushima 2. S. Korea (MOU for research collaboration)
- 3. Sweden,

4. Finland

5. United State of America

- 6. Mexico
- 7. Bahamas

Life Membership

- 1. Material Research Society of India (LMB2927)
- 2. Luminescence Society of India (LMLSI 534)

Administrative Experience and member of the committees

- 1. Member, Management Council, Dr. Homibha bha State University, Mumbai
- 2. Member, Board of Studies ,The Institute of Science, Dr. Homibha bha State University, Mumbai
- 3. Member, National and International linkage Dr. Homibha bha State University, Mumbai
- 4. Member, Research and Recognition committee ,The Institute of Science, HBSU Mumbai
- 5. Member, Research and Recognition committee ,UDOP,Mumbai University,(2014-2017) Mumbai

Member of editorial board

- 1. International journal of Engineering Practical Research
- 2. American Journal of Polymer science.

Research experience

(a) Synthesis / preparation of materials

- 1. Well versed with synthesis methods: solid state reaction, conventional hydrothermal, Microwave hydrothermal, sol-gel, co-precipitation, oxalate route
- 2. Well versed with films deposition methods: dip coating, spin coating, sputtering, physical vapor deposition, chemical vapor deposition, Screen printing, Spray pyrolysis,

(b) Processing of materials

- 1. Ball-mill, Dry grinding, calcinations, binder mixing and binder burn out
- 2. Palletization (at different conditions: pressure, time, weight and geometry)
- 3. Sintering (at different conditions: temperature, hold time and heating-cooling rate)
- 4. Lapping (to uniform thickness), electroding (using silver paint), curing the silvered paint and polling
- (c) Characterization of materials Physico-chemical techniques
- 1. Thermal analysis (DTA/TGA), phase analysis (XRD), spectral-structural analysis (FTIR, XPS, Mossbauer spectroscopy), stoichiometry and elemental analysis (EDAX), particle/grain morphological analysis (SEM, TEM)
- 2. Film / coating characteristics: thickness, microstructure

Electrical characterization

- 1. Capacitance (C), dielectric constant (K), dielectric loss (tan φ) &Curie temperature (Tc). Using the impedance (LCR) bridge.
- 2. Low temperature four probe resistivity (ρ), Non-linear coefficient (γ) for varistor (home built I-V setup), sensitivity factor (S) and selectivity for gas sensors (using home-built static half bridge gas characterization system)

Industrial Achievements

- 1. Commercialization of Cu coating for the decorative applications using physical vapor, Deposition (PVD) process.
- 2. Development Cu based coating for the wear resistance applications using physical vapor deposition (PVD) process.
- 3. Development of titanium (Ti) coating on Al2O3 ring using physical vapor deposition

(PVD), Process.

Research student working/completed M. Phil and Ph.D.

M. Phil.: 10 (Awarded)

Ph. D.: 05 (Awarded) and 05 (presently working)

Awards

- **1. RCMF PRIZE: First Prize** for the best Industrial oriented Work Presented at National Symposium on Physics and Technology of the sensor-10, 1996
- 2. University Of Pune, Awarded JRF During year 1996-97
- **3.** Department of Science and Technology Awarded JRF During year 1997-98.
- 4. University Of Pune, Awarded JRF During year 2000-2001
- 5. Selected and Worked as research fellow on project The mechanism of kinetics of NO reduction reaction sponsored by Volkswagen foundation Germany at catalysis division, National Chem. Lab., Dr. Homi Bhabha Road, Pashan, Pune 411 008NCL, Pune-7
- 6. Best ORAL presentation Award in international conference on AMDP 2011, Tokushima University, Tokushima City, OSAKA, JAPAN

Participation in UGC-CEC sponsored Refresher course / Orientation and Capacity Building program:

- **1.** Completed AICT-ISTE sponsored summer refresher course, 15-27 May 2000 Visvakarma Institute of Technology Pune
- **2.** Completed Orientation program UGC-Academic Staff College, University of Pune dated 05-11-2005-2-12-2005
- **3.** Capacity Building program on Multimedia and E-content Development by consortium for Educational communication IUAC campus Aruna Asaf Ali Marge New Delhi -110067, Through Educational Satellite Network (EDSAT) Dated 07-26 November 2005
- **4.** Completed Refresher Course UGC-Academic staff college, University of Mumbai dated 03/10/2008-23/10/2008

Participation in International / National Conference and Workshop

- **1.** Participated and presented research paper in International Conference on Pollution IIT Kharagpur, 29-31 Dec. 1997.
- 2. Participated and presented research paper in National Workshop on Atmospheric chemistry

- (NWAC-1999) IITM Pune 14 Oct-1999.
- **3.** Participated and presented research paper in National workshop on Solid state sensors: Theory and Application sponsored by DST and Government of India at University Kolhapur, dated 16-28 June 2003.
- **4.** Participated in State level workshop on NAAC at Haribhi Desai college dated 26 Oct. 2002.
- **5.** Participated in State level workshop on B.Sc. Physics practical"s at Deogiri College Aurangabad 19 Aug. 2004.
- **6.** Participated in State level workshop on B.Sc. Physics practical's at Maulana Azad College Aurangabad 16 Sep. 2005.
- 7. Participated and presented research paper in International Conference on Advance Material and technologies for Nano and Oxide Electronics 19-22 Feb. 2007, IIT New Delhi Venue India Habitat Center.
- **8.** Participated and presented research paper by Co-author in International conference on materials of advance technology (ICMAT -2007) Singapore.
- **9.** Workshop on Neutrons as probes of condensed Matter at B.A.R.C. Mumbai organized by UGC-DAE Consortium for Scientific research Mumbai center on 12/01/2008-14/01/2008.
- **10.** Participated and presented research paper in International conference on hands on Science, Science city, Ahmadabad, 27-31 Oct. 2009.
- 11. Participated, Worked as SESSITION CHAIR and presented research paper in International conference on Advance Material and Development Program 2011 Tokushima University, Tokushima city, OSAKA, JAPAN 15-18 July 2011.
- **12.** Organized and work as coordinator in one Work Shop on Career opportunities in Science dated 3rd May 2012.
- **13.** Participated and presented research paper in International Conference on Physics and Technology of Sensor (ISPTS-1), 8-10 March 2012 at Pune.
- **14.** Participated and attained a work shop on Modern Trends in Polymer Science and Technology 3 -4 April 2013 at Institute of Chemical Technology.
- 15. Participated and presented research paper in International Conference on Nano Science and Nano Technology (ICONN 2013)at SRM University ,Kattankulathur, Paper entitled Peculiarity of Surface doping With PEO Thin Film on Porous Silicon" during 18-20 March 2013 at SRM University.
- **16.** Participated and presented research paper in International Conference on recent trends and challenges in science and technology (RTCST-2014), V.K. Patil College, Pravara Nager, Dist Ahmednagar, 20-22-Augest 2014, Metal Organic Film deposition: A new Approach.
- **17.** Participated and presented research paper in International Conference on Advance Techniques & Devices in Mathematics and Physical Science 23-25 January 2015 at SRM

- University.
- 18. Participated and presented research paper entitled "Edible oil deterioration analysis via optochemical spectrum analyzer", Presented in Two Day State Level Seminar on "Emerging Trends in Physics (ETP 2015)" 6th 7th February 2015 at Anantrao Pawar College Pirangut, Tal. Mulshi, Dist. Pune, Pune 412 115.
- **19.** Participated and presented research paper entitled "Pt embedded porous aluminum based gas sensor, Presented in Two Day State Level Seminar on"Emerging Trends in Physics (ETP 2015)" 6th 7th February 2015, Anantrao Pawar College Pirangut, Tal. Mulshi, Dist. Pune, Pune 412 115.
- 20. Participated and presented research paper entitled "Soil character analysis via. Wide band optical wave guide sensor". In Two Day State Level Seminar on "Emerging Trends in Physics (ETP 2015)" 6th 7th February 2015, Anantrao Pawar College Pirangut, Tal. Mulshi, Dist. Pune, Pune 412 115.
- 21. Participated and presented research paper entitled "Doping effects on the response of metal organic thin film sensor, Presented in Two Day State Level Seminar on "Emerging Trends in Physics (ETP 2015)" 6th 7th February 2015, Anantrao Pawar College Pirangut, Tal. Mulshi, Dist. Pune, Pune 412 115.
- **22.** Participated and presented research paper entitled "Classification and Study of near surface region of active material for gas detection using X-Ray photoelectron spectroscopy, Advanced Materials World Congress –August 2015, Sweden.
- 23. Participated and presented research paper entitled "PEO embedded planer optical waveguide sensor for unidentified soil character analysis "Presented in International Conference on Materials Science & Technology (ICMTech -2016).
- **24.** Participated and presented research paper entitled "Room temperature synthesis of colloidal palladium nanoparticles thin film formation on porous aluminum" Presented in International Conference on Materials Science & Technology (ICMTech -2016).
- **25.** Participated and presented research paper entitled "Investigation of PEG embedded WO3-Graphene Thin film sensor" Presented in International Conference on Materials Science & Technology (ICMTech -2016).
- **26**. Participated and presented research paper entitled "In situ FT/IR spectroscopic study of Cu-SnO₂ nano composite as surfaces supported catalysts and its characteristics as a gas sensor, American Advanced Materials Congress 4-9 Dec 2016, Miami USA
- 27. Participated and presented research paper entitled "In situ spectroscopy study of composite as surfaces supported catalysts viz a gas sensor", International conference on Nanotechnology for human welfare proceedings., ISBN: 978-93-87317-98-7 (2018) 1st -3rd

- Feb-2018 at H. V. Desai College, Pune
- **28.** Participated and presented research paper entitled "Effect of microwaves on surface wet ability on various materials. International conference on Nanotechnology for human welfare proceedings 2018. ISBN: 978-93-87317-98-7 1st -3rd Feb-2018 at H. V. Desai College, Pune
- 29. Participated and Worked as Coordinator in National Seminar on Recent Trends in Science and Technology for Sustainable Developments-2018 (RTSTSD-2018) organized by The Institute of Science, Mumbai in collaboration with National Gallery of Modem Art (NGMA), Mumbai during 22nd to 23rd March, 2018
- **30.** Participated and Worked as Coordinator in "National Seminar on Communicating Recent Developments in Science-2019" [NSCRDS 2019] organized by The Institute of Science, Mumbai in collaboration with National Gallery of Modem Art (NGMA), Mumbai during 27th and 28th February, 2019
- 31. Organized and worked as an organizing secretary in two day national conference on Materials and their Applications: A Broad Perspective (9th 10th January 2020) in collaboration with B. N. Bandodkar College of Science, Thane.
- **32.** Organized and worked as a convener in National Seminar on Advanced Materials 2020 (A Special Contribution: Women Scientist)" [NSAM 2020] during 3rd and 4th March 2020.

Participation in Sports and National Cadet Corps (NCC)

- Participated in district level interschool sports championship for volleyball conducted at Jalgaon district in June 1988.
- 2. Participated in District level sports camp for football at Jalgaon dated 4-13 Nov. 1985.
- **3.** Participated in National cadet crop (NCC) at Chopda dated 25-31 Dec. 1987.
- **4.** Participated in National cadet crop (NCC) at Boradi dated 25-31 Dec. 1989.

Academic contributions

- 1. Participated as a Demonstrator in Department of Space science, University of Pune.
- 2. Participated in Dr. Lagu lecture series as a referee in S.P. College, Pune
- 3. Participated in Science Exhibition to guide the students in S.P. College, Pune
- 4. Participated Raman Memorial Conference as a member In Department of Physics, Pune
- **5.** Participated in research student seminar "SUSUVWAD" at Department of Physics, University of Pune.
- **6.** Participated in Interface meeting to evaluate proposals under carrier oriented programs scheme on 21/02/2006
- 7. Invited and Participated as a guest lecturer in Inamdar Art, commerce, Science college Pune on

- Physics of Viscosity
- **8.** Participated in Seminars conducted by Department of Physics as a guide and Referee for M.Sc. Physics students
- 9. Participated as member and in charge of admission committee for B.Sc.-I.
- **10.** Participated and Worked as a Presiding Officer in General Elections
- **11.** Participated and worked as External Examiner at Dr. Baba sahib Marathwada University Aurangabad for Undergraduate B. Sc. Practical Examination.
- **12.** Participated and worked as External and Internal Examiner at S.G.B. Amravati University, Amravati.
- 13. Participated and worked as Paper valuator at S.G.B. Amravati University, Amravati.
- **14.** Member, Organizing Committee, Student council, Staff club Government Vidarbha Institute of Science and Humanities, Amravati 444 604.
- **15.** Organized and work as coordinator in one Work Shop on Career opportunities in Science dated 3rd May 2012.
- **16.** Organized and work as co-coordinator in Seven days Work Shop on Hands on training on Analytical Instrument 2012-2013.
- **17.** Organized and work as Coordinator in National Seminar on Recent Trends in Science and Technology for Sustainable Developments-2018 (RTSTSD-2018) during 22nd to 23rd March, 2018.
- **18.** Organized and work as Coordinator in "National Seminar on Communicating Recent Developments in Science-2019" [NSCRDS 2019] during 27th and 28th February, 2019.
- 19. Organized and worked as an organising secretary in two day national conference on Materials and their Applications: A Broad Perspective (9th -10^{th} January 2020) in collaboration with B. N. Bandodkar College of Science, Thane.
- **20.** Organized and worked as a convener in National Seminar on Advanced Materials 2020 (A Special Contribution: Women Scientist)" [NSAM 2020] during 3rd and 4th March 2020.

Research Project (Major/Minor) Completed and ongoing

UGC Minor research Project Completed:

- **Project 1. Entitled** "Detection of moisture and pigments in crop and its characterization for Agricultural application" for Year 2007-2009. MRP No. 47-225/07 dated 16/01/2008
- **Project 2. Entitled** "Study, Synthesis and Physical characterization of metal /metal oxide on gas Sensing properties File. No.47-1367/10 date 22/09/2011"

UGC Major Research Project (Rs. 11.79 Lakh)

Project 1. Major Project Entitled "Synthesis and Fabrication of Metal Oxide based LPG and C0 Investigator' gas Sensor" for Year 2013-2016 F. No. 42-800 / 2013 (SR) dated 31 Mar 2013

RGSTC Mega Project (Rs. 86,10,400 Lakh) (On Going till March 2023)

Project 2. Mega Research Project: Rajiv Gandhi Science and Technology commission (Proposed 1.21 Cr , Approved Rs. 86,10,400 Lakh)

Entitled "Fabrication and Development of In -Situ Characterization of Soil Element Determination System" F. No RGSTC/File-2016/DPP-146/CR-36.

UGC Travel Grant Scheme Awarded for to Visit Abroad

- 1. UGC sanction File No:F. 6-527/2011 (TG) Dated 15/10/2011 Participated and presented research paper entitled "Polyethylene oxide-Cu Nano Composite thick films for LPG gas sensing" is accepted for oral presentation in the 6th International Conference on Advanced Materials Development and Performance (AMDP 2011), which will be held at Tokushima, Japan from 15th to 18th July, 2011.
- UGC sanction File No: 6-567/2015(TG) dated 16.06.2016 Participated and presented research paper entitled "Classification and Study of near surface region of active material for gas detection using X-Ray photoelectron spectroscopy, in International Conference on Advanced Materials World Congress -23rd to 26th August 2015, Sweden

National Science Day Celebration Proposal sanction by RGSTC and DST

- 1. Worked as Coordinator and Convener for National Science Day Celebration 2017 Proposal on the theme "Science and Technology for specially abled persons" Grant Sanction and Received RGSTC/File-2016/NSD/NMD/CR-11 dated 2017.
- 2. Worked as Coordinator and Convener for National Science Day Celebration 2018 Proposal On the theme "Science and Technology for Sustainable Developments" Grant Sanction and Received RGSTC/File-2018/NSD/NMD/CR-11 dated १५ December 2018.
- 3. Worked as Coordinator and Convener for National Science Day Celebration 2019 Proposal On the theme "Communicating Recent Developments in Science-2019" Grant Sanction and Received RGSTC/File-2018/NSD/NMD/CR-37 dated 20th Feb 2018.
- 4. Worked as Coordinator and Convener for National Science Day Celebration 2022 Proposal On the theme "Integrated Approach in Science and Technology for Sustainable Future" Grant Sanction and Received RGSTC/File 2021/NSD 22/ NMD21/ CR-32/ 173, Dated 30th September 2021

Book Published

- 1. B.Sc. Third Year Physics –X, with Anupam Prakashan, Aurangabad, 2007
- 2. Development of High performance Sensors (special Reference) LAMBERT Academic Publishing, Germany 2014:148 pages, Publisher: LAP LAMBERT Academic Publishing (June 10, 2014) ISBN-10: 3659542415, ISBN-13: 978-3659542411

Specific area and discipline: Material Science

- 1. Nano Material synthesis,
- 2. Composite Polymers,
- 3. Composite Inorganic Resistive Materials,
- 4. Graphane synthesis,
- 5. Application study for Sensors
- 6. Nanocomposite inorganic material,
- 7. Ceramic,
- 8. Conducting polymer,
- 9. Porous material

List of publications

List of Papers published In National and International Journals

- 1. Sarthak Hajirnis, Prachi Chavan, Vaibhav Manapure, Akshay Patil, Ayesha Khan, B Nadekar, P. S. More and A V Kadam "Hydrothermal synthesis of WO₃ film on rough surface to analyze methanol gas at room temperature" **Materials Research Express; Bristol** Vol. 8, Iss. 9, (Sep 2021). DOI:10.1088/2053-1591/ac1bcc.
- 2. Punam N. Wani, Abhra Pratip Ray, Avinash V. Rokade, Sandesh R. Jadkar, Pandit N. Shelke, Vasant V. Chabukswar, Pravin S. More, Alok J. Verma, Yogesh B. Khollam "N719 Sensitized Solar Cell Features of Photoanodes Prepared with CDS Coated Hydrothermally Derived Anatase Tio2 Nanobelts" Journal of Physics: Conference Series 1916 (2021), IOP Publishing doi:10.1088/1742-6596/1916/1/012231
- 3. Revati P. Potdar, Mandar M. Shirolkar, Alok J. Verma, **Pravin S. More** & Atul Kulkarni "Determination of soil nutrients (NPK) using optical methods: a mini review" Journal Of Plant Nutrition, Taylor & Francis Group, LLC (2021) 1-14, DOI: 10.1080/01904167.2021.1884702
- **4.** Shivani A. Singh, **Pravin S. More**, Yogesh B. Khollam, Subhash B. Kondawar "Enhanced Hydrogen Gas Sensing Characteristics of Graphene Modified with Rubidium (Rb)" Materials Chemistry and Physics Volume 260, 15 February (**2021**), 124105 DOI:10.1016/j.matchemphys.2020.124105.
- **5.** Pallavi T. Patil, **Pravin S. More** and Subhash B. Kondawar "LPG Sensing Properties of Electrospun In-Situ Polymerized Polyaniline/MWCNT Composite Nanofibers". Springer Proceedings in Physics volume 242, Page-3-18 (**2020**) ISSN 0930-8989, ISSN 1867-4941

- (electronic).ISBN 978-981-15-2293-2 DOI.org/10.1007/978-981-15-2294-9.
- **6.** Wani, P.N., Jadkar, S.R., Waykar, R., Sharma, V., **More, P.S.**, Sarode, M.T., Chabukswar, V.V., Khollam, Y.B. (2019). Synthesis of TiO₂ nanocrystalline powder by basic route and its application for dye sensitized solar cell (DSSC). Journal of Emerging Technologies and Innovative Research, 6 (5), 23-29. ISSN(print/online): 2349-5162, URL/DOI: https://pdfs.semanticscholar.org/ed04/eac32579eed91583039c70d6cd870a2d2062.pdf.
- **7. P. S. More**, N. D. Sali , Y. B. Khollam "Diethylene Glycol Embedded ZrO2 as a Gas Sensor" Journal of Emerging Technologies and Innovative Research (JETIR) (2019), Volume 6, Issue 5 (ISSN-2349-5162), 34-38
- **8. P. S. More**, N. S. Thakur, S. B. Kondwar "Studying the effect of Cu on physical and elastic properties of ZnO using nondestructive ultrasonic method". **International Journal of Chemical and Physical Science** (ISSN:2319-6602), Vol. 7,(2018), Page 680-684.
- 9. Pravin S. More, Nitin D. Sali, S.V. Bhoraskar, "Effect of microwaves on surface wet ability on various materials. International conference on Nanotechnology for human welfare proceedings 2018. ISBN: 978-93-87317-98-7.
- **10. Pravin S. More**, "In situ spectroscopy study of composite as surfaces supported catalysts viz a gas sensor", **International conference on Nanotechnology for human welfare proceedings**. ISBN: 978-93-87317-98-7 (2018).
- **11. Pravin S. More**, S. A. Singh, N. D. Sali "Effect of LPG gas sensing on Rb- Modified graphene," **International Journal of Chemical and Physical Science** Vol. 7 special issue (part-II), ISSN: 2319-6602., (2018), 675-679.
- **12. Pravin S. More**, S. A. Singh, B. S. Nadekar, S. R. Gadakh "Unidentified Character of Fe-Modified Graphene and its effect on gas sensing activity" **International Journal of Chemical and Physical Science**, Vol. 7 special issue (part-II), 2018. ISSN: 2319-6602. 597-601
- **13.** Shivani A. Singh, Pravin. S. More, Dattatray. J. Late, Rajesh W. Raut "Investigation of PEG embedded WO3-Graphene Thin film sensor" Adv. Mater. Letter 2017, 2(8), 506-509. DOI.10.5185/amp2017/807
- **14. Pravin S. More,** Hiranand R. Khambayat, Bandoba T. Nikam"PEO embedded planer optical waveguide sensor for unidentified soil character analysis "Adv. Mater. Letter, 2017, 2(3), 167-170. DOI.10.5185/amp2017/307.
- **15.** S.S.Dange, S. N. Dange, N.S.Ramgir, **P. S. More**, "H2S Sensing Properties of ZnO Microcrystals having almond morphology." "**Asian Journal of Physics**." Vol 25 No 8, 2016, 993-998, ISSN: 0971-3093.
- 16. Pravin S. More, Dattatray J. Late, Subhash B. Kondawar "Classification and Study of near

- surface region of active material for gas detection using X-Ray photoelectron spectroscopy", **Adv. Mater. Lett.** 2016, 7(4), 330-336. DOI: 10.5185/amlett.2016.6137.
- **17. Pravin S More,** Anil V Shelke and Dattatray J Late "Rapid Characterization of Oxidative Deterioration in Edible Oil" **International Journal of Food and Dairy Technology**, Volm 4/1, March-April, 2015 e-ISSN:2321-6204, p-ISSN:2347-2359, 7-11.
- 18. P. S. More, Y. B. Khollam "Doping effects on the response of metal organic thin film sensor", International Journal of Chemical and Physical Science (ISSN:2319-6602), Vol.4, (2015) Page 118-124.
- **19.** H. R. Khambayat, **P. S. More**, M. T. Sarode, Y. B. Khollam "Soil character analysis via. Wide band optical wave guide sensor". **International Journal of Chemical and Physical Science** (ISSN:2319-6602), Vol. 4,(2015), Page 110-114.
- **20.** C. S. Ghuge, **P. S. More**, Y. B. Khollam "Pt embedded porous aluminum based gas sensor", **International Journal of Chemical and Physical Science** (ISSN:2319-6602) Vol.4 (2015) Page 104-109.
- 21. A.V. Shelke, P. S. More, Y. B. Khollam "Edible oil deterioration analysis via optochemical spectrum analyzer" International Journal of Chemical and Physical Science (ISSN:2319-6602) Vol.4, (2015) Page 93-103.
- **22.** S. S.Dange, S.N.Dange, **P. S. More** "Synthesis of ZnO Nanorods by Precipitation Method."," **International Journal of Advanced Engineering and Nano Technology**." Vol-2 Issue-10, September 2015, ISSN: 2347-6389.
- 23. S. S. Dange, S. N. Dange, P. S. More "Effect of pH on Morphology of Cu Added ZnO Nanostructures by Precipitation Method" International Journal of Innovative Research in Science, Engineering and Technology Vol.4, Issue 9, September 2015 DOI:10.15680/IJIRSET.2015.0409131.
- **24.** S. S. Dange, S. N. Dange, P. S. More "Synthesis of Almond-Like ZnO Microcrystal"s by Chemical Bath Deposition Method at Room Temperature" International Journal of Innovative Research in Science, Engineering and Technology Vol. 4, Issue 8, August 2015, 7827-7831. DOI:10.15680/IJIRSET.2015.0408160.
- **25.** Shrikant H. Nimkar, Subhash B. Kondawar, Pravin S. More "Polyaniline/TiO₂ Nano Composite Thin Film Based Carbon Dioxide Gas Sensor" International journal of Research in Bioscience, Agriculture and Technology (2014) Issue-2, Vol-2 Pages 13-20 ISSN-2347-517X.
- **26. P.S. More**, R.W. Raut, C.S. Ghuge "Room temperature H₂S gas sensing characteristics of platinum (Pt) coated porous alumina (PoAl) thick films" **Journal of Materials Chemistry and Physics** Volume 143, Issue 3, 14 February 2014, Pages 1278–1281. DOI.org/10.1016/j.matchemphys.2013.11.034.

- **27. P. S. More** and A.V. Shelke "Synthesis and Analysis of optical transmission/ capacitance bridge system for oil deterioration identification" **International Journal of Instrumentation Science**, 2(2): (2013) 41-45. DOI: 10.5923/j.instrument.20130202.04
- 28. P.S. More, Y.B. Khollam, C.S. Ghuge And R.S. Sonone "Peculiarities Of Surface Doping With Poly-Ethylene Oxide Thin Film On Porous Silicon" Asian Journal Of Chemistry; Vol. 25, Supplementary Issue (2013) S378-S380 AJC-12880.
- **29.** Y. B. Wankhede, S. B. Kondawar, S. R. Thakare, **P. S. More** "Synthesis and characterization of silver nanoparticles embedded in polyaniline nanocomposite" **Adv. Mat.** Lett. 2013, 4(1), 89-93 DOI: 10.5185/amlett.2013.icnano.108.
- **30. P.S. More**, Y.B. Khollam and S.G. Gawande "Synthesis and Study of Electrical Properties of Di Ethylene Glycol Embedded ZrO2 Films as a Gas Sensor" **Journal of Research Updates in Polymer Science**, 2012, 1(2), 72-74 DOI.org/10.6000/1929-5995.2012.01.02.2.
- 31. P. N. Shelke, Y. B. Khollam, P. N. Pabrekar, P. S. More, A. M. Datir, S. D. Chakane, K. C. Mohite, Pankaj Koinkar "Synthesis and characterization of Co3O4 powders for humidity sensing" International Journal of Modern Physics: Conference Series Vol. 6 (2012) 197-202 DOI: 10.1142/S2010194512003170.
- **32.** P. N. Shelke Y. B. Khollam, S. D.Ggunjal, M.T. Sarode, **P. S. More**, S.R. Jadkar, M. G. Takwale, K. C. Mohite "Optical Properties Of Electrochemically Deposited 1-D Interlinked Nanowired Co3o4 Thin Films" **International Journal Of Modern Physics B** Vol. 25 (31) (2012) 4281-4184 DOI: 10.1142/S0217979211066775.
- **33. P. S. More**, Y. B. Khollam, Pankaj Koinkar, N. D. Sali, P. N. Shelke, S. S. Borwar "Polyethylene Oxide-Cu Composite Thick Films For LPG Sensing" **International Journal Of Modern Physics B**, Vol. 25 (31) (2012) 4199-4203 DOI: 10.1142/S021797921106657X.
- 34. V. M. Raut, P. S. More, Y. B. Khollam, Pankaj Koinkar "Synthesis and Characterization of Luminol Persulphate Chemiluminescence in Aqueous Amines" International Journal of Modern Physics: B Conference Series. Vol. 6 (2012) 162–165.
 DOI.org/10.1142/S201019451200311X.
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