

List of Publications

(Peer Reviewed Journals, Books/ Proceedings,
Presented in conferences,)

1992-1993

JOURNALS

1. "Modelling of the vapour phase epitaxial growth of $Gax In_{1-x}As$ from a Ga-In-As-H-Cl System' – V.N. Mani; Epitaxial Crystal Growth Part 2, Crystal Properties and Preparation, Vol. 32-34, 447(1991).
2. "Molecular ordering in electro-chemically synthesized conducting polymer of pyrrole with N-phenyl maleimide" – D.P. Amalnerkar; Solid State Communications, Vol.84 (No.9) pp911-915-1992.
3. "Biosensors prepared for electrochemically synthesized conducting polymers (Review)" – D.P. Amalnerkar, Progress in Polymer Science, Vol.18, pp 623-649 (1993).

SYMPOSIA / CONFERENCE

1. "Tantalum capacitor production trend –overview" – Study Report, C-MET Laboratory, Hyderabad
2. "Indium: A wonderful metal even for flying vehicles' – S. Chaudhary, B.B. Sharma, Arvind Kumar, M.R.P. Reddy; 7th National Convention of Metallurgists & Material Scientists on Aerospace Materials, Hyderabad, September 22-23, 1992.
3. "Criticalities of solder pastes" – M.S. Setty; Seminar on Soldering Techniques of SMD's MELTRON, October 8, 1992.
4. "Synthesis of coordination polymers on electrode and study of its application for the chemical reduction of MV_2 ' – M.K. Khandwe; Conference of coordination Chemistry, Society of Japan, August 1992.

1993-1994

JOURNALS

1. "Novel Electrochemical Synthesis of CdS Films from supersaturated solutions", D.P. Amalnerkar, Chemistry Letters, (1994) pp 339-342.
2. "Photo-Electrochemical Investigations on Particulate Films of CdS Grown by novel Electrochemical Method", D.P. Amalnerkar Solid State Communications,90 (1994) pp 3-6,
3. "Kinetics of reduction of Phosphogypsum", B.B. Kale, Met. Trans, Sec. B, 23B, (1993) pp 92.

SYMPOSIA / CONFERENCE

1. "High-tech Metals, the availability and the state of the art the country in the exploitation of the resources", S.G. Patil, 10th Annual Symposium of the Indian Society of Analytical Scientists, Udaipu, March 21-22, 1994.

1994-1995

JOURNALS

1. "Compositional aspects on the vapour phase eplitaxial growth of GalnAs layers from Ga-In-As-H-Cl Systems" V.N. Mani, Bulletin of Materials Science, 17, 5, (1994) pp 469-478.
2. "Creation of Nanometer scale structures on Nickel thin film by STM", Dr.M.V. H. Rao, Bulletin of Materials of Science, 17, (1994) P 841.
3. "Design and Development of Ceramic based Biomass Gasifier and R&D study from India", By P. Sashidharan. K.P. Murali, K. Sasidharan, Energy for sustainable Development, Journal of the International Energy Initiative 49-51, Vol-II, No.4, Nov. 1995

BOOKS/ PROCEEDINGS

1. "CdS based photoconducting sensors", D.P. Amalnerkar, M. S. Setty, Invited Chapter in `Handbook of Sensors & Actuators, Thick Film Sensors" Vol. 1, (ed. Prof.Maria Prudenziati) Elsevier Science Publisher, Amsterdam Netherlands.

SYMPOSIA / CONFERENCE

1. "Indian Experience in Solvents Sector", S.G. Patil, Asian Regional Workshop on Ozone Depletion and Management of ODS Phase out in SMES, New Delhi, February 7-10, 1995.
2. "Electronics Material", S.G. Patil, Tech March India 1994, , Seminar on Emerging Technologies for SME's Pragati Maidan, New Delhi – November 17, 1994.
3. "Detection of surface lattice defects by line scan method", Dr. M.V.H. Rao 6th AGM of MRSI at IIT Kharagpur, 1995.

4. "Photoelectrochemical properties of electrochemically formed particulate CdS films" D.P. Amalnerkar, presented in 'International Conference on New trends in Photoelectro Chemistry' held in April 94, at Tokyo, Japan.
5. "Photoelectrochemical properties of particulate Cds Films" D.P. Amalnerkar, presented in Spring Meeting of Electrochemical Society of Japan, May 1994.

1995-1996

JOURNALS

1. "A simple system for the Preparation of Submicrometer Lead Titanate powders" by the Sol-Gel Method" V.Kumar, R. Marimuthu, S.G.Patil, J.Am. Ceram. Soc., 79, 10 (1996)2775-78.

1996-1997

JOURNALS

1. "Mossbauer measurements of amorphous $Fe_{72-x}Ni_{10+x-y}Mo_yB_{16}Si_2$ " A.K. Bhatnagar, B. Seshu, G.V. Sudhakar Rao, N.R. Munirathnam, J. Non-cryst. Solids, 204 (1996) 305-308.
2. "Advancements in the process Technology for Batch Sintering of Electroceramic Components" P. Sasidharan, K.R. Dayas and P.A. Abraham, Asian Journal of Physics, Vol.6, No.1 (1997).

SYMPOSIA / CONFERENCE

1. "Crystallisation of GaCl₃ and Growth Kinetics of III-V Ternary VPE," V.N. Mani and C. Sudheer presented in 14th European Conference on Thermophysical properties held on Lyon, France, 16-19 September 1996.
2. "Functional Advantages of Rare Earth Elements in the Material Compositions of Electronic Components and Devices", K.R. Dayas, P. Sasidharan and V. Kumar, Symposium held at IRE, 1997.

1997-1998

JOURNALS

1. "Photoluminescence spectra of LaOBr:Eu³⁺ powder phosphors", T. Balaji, Materials Chemistry and Physics 52(1998) 157-160.

2. "Fluorescence spectra of rare earth oxybromide based powder Phosphors"; U. Rambabu, P.K. Khanna, I.C. Rao, Materials Letters 34 (1998) 269-274.

BOOKS /PROCEEDINGS

1. "Conversion of natural resource through waste reduction at the processing step by briqueting technique" By B.B. Kale, Environmental and Waste Management: (ISSN 0971-9407) (eds- A. Bandopadhyay, N.G. Goswami and P.R. Rao), NML Jamshedpur, 1998, pp 137-142.
2. "Influence of Li addition on the sintering and dielectric properties of PNN-PMW-PT relaxor ferroelectrics" Proceedings of the Materials Research Society Fall 1996 meeting Raghu Natrajan and J.P. Dougherty.
3. "Material compatibility and dielectric properties of Co-fired high and low dielectric constant ceramic packages" Raghu Natrajan and J.P. Dougherty, Proceedings of 47th Electronic Conference and Technology Conference (ECTC), 1997.

SYMPOSIA/CONFERENCES

1. "Characterisation of OH-impurities in GeS₂ based glasses", B.B. Kale, XVIIIth Int. congress on glass San Francisco, USA, July 1998.
2. "Processing of GeS₂ for the removal of OH impurities"; B.B. Kale, XIIth Int.Symposium of Non-Oxide Glasses and New Optical Glasses, Sheffield UK, Sept.1998.
3. "Photocatalytic Hydrogen Production using colloidal Pt and RuO₂ overcoated and sensitized colloidal SnO₂ and CdS/SnO₂"; by K. Gurunathan, XII Int. Conference on Photochemical Conversion and Storage of Solar Energy to be held on August 9-14, 1998 in Berlin, Germany.
4. "Efforts of Doping of Al₂O₃ in ZnO on the Sensitivity of Hydrogen Gas"; by G.J. Phatak, D.P. Amalnerkar presented in 5th National Seminar on Physics and Technology of Sensors, held during Feb. 2-4, 1998, Department of Electronic Science, University of Pune, Pune.
5. "Spray CVD for ZnO Based Gas sensor and study of thickness Effects, Cu₂O Doping and Reproducibility"; G.J. Phatak, presented in 5th National Seminar on Physics and Technology of Sensors held during Feb 2-4, 1998 Department of Electronics Science, University of Pune, Pune.
6. "Study of Gas Sensing Properties of ZnO/Cu₂O Films by spray-CVD" by G.J. Phatak presented in 5th National Seminar on Physics and Technology of sensors held during Feb. 2-4, 1998 at Department of Electronic Science, University of Pune, Pune.
7. "Preparation of ZnO nanoparticles and study of its gas sensing properties" by G.J. Phatak, presented in 5th National Seminar of Physics and Technology of

Sensors during held during Feb. 2-4 1998 Department of Electronics Science, University of Pune, Pune.

8. "Dielectric Ceramic compositions", P. Sasidharan, et.al presented at the National Seminar on Technology Transfer at ARC, Hyderabad.
9. "Silver paste for ceramic capacitor", P. Sasidharan, et.al, presented at the National Seminar on Technology Transfer at ARC, Hyderabad.
10. "Effect of batch sintering on the dielectric properties of a novel Z5U compositions for capacitor applications", P. Sasidharan et al, in the Electroceramic VI Symposium at Monteux, Switzerland during 24-27 August 1998.
11. "Solution precipitation of the fine powders of PbTiO_3 ", V. Kumar et.al in the Electroceramic VI Symposium at Montreux, Switzerland during 24-27 August 1998.

1998-1999

JOURNALS

1. "Studies on Fritted' thick films of photoconducting CdS", L.A. Patil, P.A. Wani, S.R. Sainkar, A. Mitra, G.J. Phatak and D.P. Amalnerkar, Mat.Chem & phys.55 (1998) 79-83
2. " $\text{Bi}_2\text{Nb}_3\text{O}_{15}$ as a Photocatalyst : Photocatalytic and photoelectrochemical studies" by K. Gurunathan, J. Solid state electrochem.2 (1998) 176-180
3. "Proposal of lithography using LB film resist and EBEP etching", Girish J. Phatak, J. Photopoly. Sc. Technol, 11(4) (1998) 585-588,
4. "Soluble aromatic soluble polyamide and Co-polyamides" Review article, Y.S. Negi, J. Macromole Sci.Phys., C39, 391 (1999) – Review Macromole. Chem.
5. "Role of Mn in controlling the dielectric loss and aging effect in "PZN-PFW-PFB, N. Raghu and J.P. Dougherty, J. May. Sci. 33,1991 (1998)
6. "Sol-Gel processing of ferro-electric PbTiO_3 and $\text{Pb}(\text{ZrTi}_{1-x})\text{O}_3$ thin-films" V. Kumar, Y. Ohya and Y. Takahashi, Jap. J. Apply.Phys. 37(8) 4477-81 (1998).

SYMPOSIA/CONFERENCES

1. "Effect of leafy vegetation on the characterization of rejection filter" by S. Rane, paper presented in National Conference on Electronic Materials Devices & Systems held at Gulbarga University during 18-20 January 1999.
2. "Moisture dependent effects due to overlay of leaf on microstrip rejection filter" paper presented by S. Rane in the DAE-BRNS Symposium on Recent Trends in

Electromagnetoceramics held at Shivaji University, Kolhapur during 18-20 February 1999.

3. "Fluorescence spectra of (Ga, Zn) of Ce^{3+} powder phosphors" presented by U. Rambabu in Seminar Cum Workshop on Materials and Characterization, CECI, Karaikudi during 13-17 July 1998.
4. "The influence of Zinc on Ce^{3+} doped rare earth oxy fluoride powder phosphors by U.Rambabu and B.B. Kale, U. Rambabu has been awarded R. Charasekhar's Memorial Foundations, Dr. M.R. Bhiday Prize in the Raman Memorial Conference held at Physics Dept. Univ. of Pune during 3-5 December 1988,
5. "Fluorescence Spectra of (Ln,Zn) of : Eu^{3+} (where Ln=La,Gd) powder Phosphors" presented by U. Rambabu in the DAE-BRNS National Symposium on Recent Trends in Electromagnetoceramics Physics Dept. Shivaji Univ. Kolhapur during 18-20 February, 1999.
6. "Tuned Emission from polymer encapsulated quantum dots of CdS Semiconductor and Role of ZnS in Photoluminescence" by P.K.Khanna presented in II-VI Nanoparticles Symposium – Nano-III held at London, England, during December 20, 1998.
7. "Tuned Emission from polymer encapsulated quantum dots of CdS semiconductors" by P.K.Khanna presented in Industry & Electronics, Royal Society of Edinburg Scotland, UK on 17 March 1999.
8. "Methods of removal of Arsenic from ground/waste water" by U.P. Mulik and B.B. Kale, NDA Annual Seminar – 1999. Destillation and water Management held at NCL, Pune on 17 February 1999.
9. "Hydrothermal synthesis of Ultrafine $BaTiO_3$ by B.B. Kale, R.S.Sonawane and S.K. Apte presented in Raman Memorial Conference held at physics Dept.Univ of Pune during 3-5 December 1998.
10. "Sub 100 nm pattern fabrication by using LB resist" G.J. Phatak, 59th Autumn Meeting of The Japan Society of Applied Physics, September 15-18, 1998, Hiroshima, Japan.
11. "Electron beam acceleration in the anode fall of a hot cathode glow discharge", G.J. Phatak, 59th autumn Meeting of The Japan Society of Applied Physics, September 15-18, 1998, Hiroshima, Japan.
12. "Sub 100 nm lithography with using fatty acid LB film resist" G.J. Phatak, The 1998 Electronics Society Conference of IEICE (The Institute of Electronics Information and Communication Engineers), September 29-October 2 1998. Published in the Proceedings p. 159.
13. "Fine pattern fabrication by stearic acid LB films and electron beam" (Title translated from Japanese), G.J. Phatak, Tokai Section Joint Conference on the

Seven Institutes of Electrical and Related Engineers, September 21-22. 1998. Published in the Records of the Conference p.169

14. "Recent progress on the E-beam excited plasma reactor' G.J. Phatak, Tokai Section Joint Conference on the Seven Institutes of Electrical and Related Engineers, September 21-22. 1998. Published in the Records of the Conference p.165.
15. "Fine pattern fabrication on Si wafer using LB film resist" G.Phatak, 46th Spring Meeting of The Japan Society of Applied Physics and Related Societies, March 28-31, 1999, Tokyo, Japan, Published in the Extended Abstracts.P. 805.
16. "Sub 100 nm patterning by plasma graft polymerized styrene and electron-beam excited plasma etching" G.J. Phatak 46th Spring Meeting of The Japan Society of Applied Physics and Related Societies, March 28-31, 1999, Tokyo, Japan, Published in the Extended Abstracts.P. 805.
17. "Ablation of polyimide interface film by the transmitting electron beam' G.J. Phatak, The 1998 General Conference of IEICE (The Institute of Electronics Information and Communication Engineers), March 25-28, 1999 Tokyo, Japan.
18. "Electron acceleration in the anode fall of E-beam assisted glow discharge" G.J. Phatak, 4th Asia-Pacific Conference on Plasma Science and Technology and 11th Symposium on Plasma Science of Materials, Sydney, Australia, July 27-29, 1998.Published in the proceedings.
19. "Sub 100 nm pattern fabrication using Lb resist and e-beam or synchrotron radiation excited plasma", G.J. Phatak, Conference 3676, emerging Lithographic technologies III in SPIE's (The International Society for Optical Engineering's) 24th Annual International Symposium on Microlithography (Microlithography'99), Santa Clara, California, U.S.A.
20. "Silicon etching in polyimide interface transmitted electron beam excited plasma reactor' G.J. Phatak, 14th International Symposium on Plasma Chemistry, August 2-6 1999, Prague, Czech Republic.
21. "Sub 100nm pattern Fabrication Using Plasma Graft Polymerized Styrene Resist" G.J. Phatak 14th International Symposium on Plasma Chemistry, August 2-6, 1999, Prague, Czech Republic,
22. "On the formation aspects of BaTiO₃ and SrTiO₃ from solutions', V.Kumar, I.Packia Selvam, K. Jayan and K J. Stanly 10th National Seminar on Ferroelectrics and Dielectrics (NSFD-X) held at IIT, Madras in Dec.1998.
23. "Sol-Gel processing of PbTiO₃ thin films" V. Kumar, Y. Ohya and Y. Takahasi, NSFD-X held at IIT, Madras in Dec, 1999.

1999-2000

JOURNALS

1. "Reduction of OH related Photoluminescence quenching in PI^{3+} doped GeSe based glasses by means of purification" B.B. Kale, J.Non-Crystalline Solids, 256-257 (1999) 1-7.
2. "Effect of catalyst on the kinetics & reduction of Ce^{3+} doped by active charcoal" R.S. Sonawane, B.B. Kale, S.K. Apte, M.K. Dongare, Melt and Mater.Trans. B. 30B (1999) 294-298.
3. "The effect of zinc ions on the fluorescence spectra of (Ln,Zn) of Eu (3+) (Ln=y, La and Gd) powder phosphors" U. Rambabu, D.P. Amalnerkar, B.B. Kale Spectroscopy Lett., 33(2000).
4. "Fluorescence spectra of Eu(3+) doped Ln VO_4 (Ln=La and Y) powder phosphors" U. Rambabu, D.P. Amalnerkar, B.B.Kale, Mater. Res. Bull, 35(2000)
5. "High piezoresistivity and its origin in conducting polyaniline/ TiO_2 composites' Prakash Somani, R. Marimuthu, U.P. Mulik, S.R.Sainkar, D.P. Amalnerkar, Synthetic Metals 106(1999) 45-52.
6. "Charge transport mechanism and the effect of poling on the I-V characteristics of conducting polyaniline/ BaTiO_3 composites", Prakash Somani, B.B. Kale, D.P. Amalnerkar, Synthetic Metals, 106(1999) 53-58.
7. "Effect of moisture (in Solid Polymer Electrolyte) on the photoresistivity of conducting polypyrrole sensitized by Prussian blue in solid state photocells" Prakash Somani, D.P. Amalnerkar, S. Radhakrishnan, Synthetic Metals 110 (2000) 181-187,
8. "Study and development of conducting polymer based electro chromic display devices' Prakash Somani, A.B. Mandale, S. Radhkrishnan, Acta Materialia, 48/11 (2000) 2987-3000.
9. "Dinuclear diselenolenes derived from Cycloarkeño-1,2,3, Selenadiazole and tetrakis (triphenyl Phosphine) Palladium" P.K. Khanna, J. Chem. Soc. Dalton Trans (1999) 791-794.
10. " CuCl_2 assisted cubic \rightarrow hexagonal phase transformation in CdS thick films" D.P. Amalnerkar, Materials Chemistry and Physics, 61 (1999) 260-265.
11. 'Electrochemically synthesized conducting polymers for applications towards technology in electronics, optoelectronics and energy storage devices" (Review Article) by K. Gurunathan, A.V. Murugan, R. Marimuthu, U.P. Mulik and D.P. Amalnerkar, Materials Chemistry and Physics, 61 (1999) 173-191.
12. "Photoconducting and allied properties of CdS thick films", (Review Article) D.P. Amalnerkar, Materials Chemistry and Physics, 60(1999) 1-21.

13. "Solution-precipitation of fine powders of BaTiO₃ and SrTiO₃", V. Kular, J. Am. Ceram Soc. 82(10),(1999) 2580-2584.
14. "Precipitation of fine powders of PbTiO₃ Derived from Organometallic Solution", K.J. Stanly, I. Packia Selvam and V.Kumar, Mater.Lett. 40(1999)118-123.
15. "Whispering gallery mode microwave characterization of Ba (Mg_{1/3} Ta_{2/3})O₃ dielectric resonator", R. Ratheesh, J. Phys.D. Appl.Phys. 32(1999) 2821-2826.

SYMPOSIA/CONFERENCES

1. "Deposition of Silicon nitride films by activated reactive evaporation (ARE) process and their characterization" G.J. Phatak presented at National Seminar on Physics and Technology of Sensors held at University of Pune February 14-16, 2000.
2. "Deposition of ultrathin Titania (TiO₂) films for catalytic application', R.S. Sonawane presented in National Workshop on Catalysis, IICT, Hyderabad, January 7-8, 2000.
3. "Optical properties of (La,Y) Vo₄:Eu (3+) powder Phosphors" U. Rambabu" Proc. Of DAE-BRNS Symposium on spectroscopy of Lanthanides and Actnides (SLA-99)" held at BARC, Mumbai, November 16-19, 1999.
4. "Optimization of dopant (Eu, Tb and Ce) concentration in Lanthanide Phosphate powder phosphors" U. Rambabu, D.P. Amalnerkar and B.B. Kale, Proc. Of National Laser Symposium, National Laser Programme and DAE held at School of Physics, Central University, Hyderabad, December 15-17, 1999.
5. "Charge transport processes in conducting polypyrrole sensitized with Prussian blue", Prakash Somani and S. Radhakrishnan, Presented in Ninth Convention of Electrochemists (NCE-IX) held at SURAT (INDIA), November 26-27, 1999.
6. "Conducting Polymer based electrochromic display devices". Prakash Somani, A.B. Mandale, S. Radhakrishnan Presented in Raman Memorial Conference-99, Physics Department, University of Pune, December 10-11,1999.
7. "Study and development of conducting polymer based eletrochromic display devices" Prakash Somani Presented in 87th Indian Science Congress, Pune University, Pune -411 008 under "ISCA Young Scientists Award Programme", January 3-7,2000.
8. "Study of conducting polymer composites for pressure sensor applications", Prakash Somani presented in 7th National Seminar on Physics and Technology of Sensors, held at University of Poona, Pune February 14-16, 2000.
9. "Dye sensitized conducting polymers for photosensor applications", Prakash Somani D.P. Amalnerkar, S. Radhkrishnan Presented in 7th National Seminar on

Physics and Technology of Sensors, University of Poona, Pune, February 14-16, 2000.

10. "Bismuth based ternary oxides for thick film resistor paste", K. Gurunathan, M.V. H. Rao, Shany Joseph, G.J. Phatak & D.P. Amalnerkar, 7th International Conference on Sintering, held at IIT, Delhi, February 20-22,2000.
11. "Synthesis and characterization of soluble polyureas based on 2,2-Bis [4-Aminophenoxyphenyl], Hexafluoropropane and 2,2-Bis[4-(4-Aminophenoxy phenyl) Propane and Aromatic Disocynates" Y.S. Negi Poster, 11th Annual General Meeting, Materials Research Society of India (MRSI)', Gujarat Chapter, M.S. Univ. Vadodara and S.P. Univ.V. Vidya Nagar, Gujarat, February 3-5, 2000.
12. "Role of Zns in tuning emission from Nanoparticles of CdS embedded in Polymer" P.K. Khanna and R. Gorte, in Annual General Meeting, Materials Research Society of India (MRSI) held at V.Vidya Nagar, Gujarat, February 3-5, 2000.
13. "Nanoparticles of Cds" P.K. Khanna in "Indian Science Congress Association" held at University of Poona, Pune, January 3-7. 2000.
14. "Ba₂DyNbO₆: A New microwave dielectric ceramic resonator", R. Ratheesh, R. Blachnik, H. Sreemoolanadhan and M.T. Sebastain Masterialiac 99, Munich, Germany during 26-30 Sept. 1999.
15. "Structure property relationship in polyamide/Polyamide Blends"" Y.S. Negi "Indian Science Congress Association" held at University of Poona, Pune, January 3-7, 2000.
16. "LnTiNbO₆ ceramics for microwave applications" R.Ratheesh, R.Balchnik, M.T. Sebastian, S. Soloman and P.Mohan, European Frequency and Time Forum, Torino, Italy duing 14-16 March 2000.

2000-2001

JOURNALS

1. "A Study on sintering and microstructure of fritless silver thick film conductors" Sunit Rane, Vijaya Puri and Dinesh Amalnerkar, J. Materials Science: Materials in Electronics, 11(2000) 667-674.
2. "Photobiocatalytic hydrogen production using TiO₂-MV²⁺System Coupled Rhodopseudomonas capsulata" K. Gurunathan, J. Mol. Catalysis: A Chemical 156 (2000) 59-67.
3. "Studies of polyaniline and colloidal TiO₂ Composites" K. Gurunathan and D.C. Trivedi, Materials Lett. 45(2000), 262-268.

4. "Thick film microstrip rejection filter with improved Q using overlay" Sunit Rane and Vijaya Puri, *Microelectronics International* 18 (2001) 23-28.
5. "A study on effect of line width, composition and firing temperature on the microstripline properties" Sunit Rane and Vijaya Puri, *Active & Passive Elect. Comp.*, 23 (2001), 3.
6. "Cathodic electrodeposition of TiO₂ thin films for dye-sensitized photoelectrochemical applications" S. Karuppurchamy, D.P. Amalnerkar, K. Yamaguchi, Y. Yoshida, T. Sugiura and H.Minoura, *Chemistry Letters* (2001) 78-79.
7. "Electron-beam excited plasma etching reactor with polyimide interface film" Shinzo Monta, Girish. J. Phatak and Yuki Mori, *Thin Solid Films* 386 (2001), 142-146.
8. "Plasma deposition of carbon films at room temperature from C₂H₂-Ar mixtures: anodic versus cathodic films" T. Seth and P. Rocai Cabarrocas, *Thin Solid Films* 383 (2001) 216-219.
9. "Effect of catalyst on the kinetics of reduction of celestite by active charcoal"; R.S. Sonawane, S.K. Apte, M.K. Dongare and B.B. Kale, *Metallurgical and Materials Transaction B*, 31B 2000(35).
10. "Recent development of acrylic polymer coating for corrosion control and electronics applications", Y.S. Negi and R.K. Goyal, *Mol. Mater.*, (2001) 1-17.
11. "Photosensitive Polyimides", Y.S. Negi, S.R. Damakale and S. Ansari, *J. Macromol.Sci C41* (1&2), (2001) 95-113.
12. "Microwave characterization of BaCe₂Ti₅O₁₅ and Ba₅Nb₄O₁₅ ceramic dielectric resonators using whispering gallery mode method" R. Ratheesh, M.T. Sebastian, P. Mohanan, M.E. Tobar, J. Harnett, R. Woode, D.G. Blair, *Material letters* 45(2000) 279-285.
13. "Raman study of the ordering in Sr(b'_{0.5} Nb_{0.5})O₃ compounds" R. Ratheesh, M.Wohlecke, B. Berge, Th.Wahlbrink, H. Haeuseler, E. Ruhl, R.Blacknik, P. Balan, N. Santha and M.T. Sebastian, *Journal of Applied Physics*, 88, (2000),2813.
14. "Sintering behaviour of alumina rich cordierite porous ceramics" – T.D. Senguttuvan, H.S. Kalsi, S.K. Sharda, B.K.Das – *Material Chemistry and Physics*, 8875, (2000), 1-5.
15. "Green color emission from Tb³⁺ LnPO₄ (Ln = Y, La, Gd) phosphors for photonic applications", S.L. Ng, Y.L. Lam, C.H. Kam, U. Rambabu and S. Buddhudu, *J. Materials Science Letters* 19(4) (2000) 495.
16. "Optical properties of LnPO₄; Tb³⁺ (Ln = Y, La, Gd) powder Phosphors". U. Rambabu, D.P. Amalnerkar, B.B. Kale, S. Buddhudu, *Materials Chem. Phy.*70,1(2001) 7-11.

BOOKS/PROCEEDINGS

1. "One step synthesis of submicron silver and nanosized silver-palladium powder" P.K.Khanna, R.M. Gorte, S. Pitale, G.J. Phatak, S.B. Rane and D.P. Amalnerkar" Proc. "Processing and Characterisation of Special Materials" ed. B.B. Nayak and B.C. Mohanty, 2001, pp 121-127.
2. "Development and validation of process simulators" : 2D Difusion and ID Steps – P.K. Singh and B.K. Das –Proc. 10th International Workshop on Phys. Semiconductor devices – 1999 (Allied publishers Ltd, New Delhi), 2000, pp 1254.
3. "Design aspect of a dynamic load tester to determine the ability of PV module to withstand windsnow and ice loads", – M.Lal, S.N. Singh and B.K. Das – Proc. 10th International Workshop on Phys. of Semiconductor Devices – 1999 (Allied publishers Ltd., New Delhi, 2000 pp 1254.
4. "Preparation of pure crystalline indium and its characterization", V.N. Mani and K. Balaraju, Proc. Int; Workshop Prep & Charact.Tech.Imp. Single Crystals (2001), 177-184, S.K. Gupta, S.K. Haidar and G. Bhagavannarayana (Eds). National Physical Laboratory, New Delhi, February 26-28. 2001.
5. "Physio-chemical study on the initial stages of Gain AsP/InP Vapur phase epitaxy"; V.N. Mani, Proc. Intl. Workshop Prep. & Charact.Tech.imp.Single Crystals (2001) 451-458, S.K. Gupta, S.K. Haidar and G. Bhagavannarayana (Eds). National Physical Laboratory, New Delhi, February 26-28. 2001.
6. "Investigations on thick film rare earth manganates to observe giant magneto-resistance" G.J. Phatak, S.S. Gunthe, J. Jesudasan, D.P. Amalnerkar, S.A. Gangal and SK. Date, Proceedings of the Eight National Seminar on Physics and Technology of Sensors, Indira Gandhi Centre for Atomic Research, February 27 – March 1, 2001, pp C5-1, 2001, Kalpakkam.
7. Thick film heat flux sensors using Ag/Ag-pd thermopiles on alumina substrates" G.J. Phatak, S.S. Pitale, P.K. Khanna and D.P. Amalnerkar, Proceedings of the Eight National Seminar on Physics and Technology of Sensors, Indira Gandhi Centre for Atomic Research, February 27 – March 1, 2001 pp C54-1, 2001 , Kalpakkam.
8. "Room temperature deposition of silicon nitride films by activated reactive evaporation (ARE) process for use as passivation layer",Sheetal J. Patil, Girish J. Pathak and S.A. Gangal. Proceedings of the Eight National Seminar on Physics and Technology of Sensors, Indira Gandhi Centre for Atomic

SYMPOSIA/CONFERENCES

1. "One step synthesis of submicron size silver and nano size silver-palladium powder" P.K. Khanna, R.M. Gorte, Shreyas S. Pitale, D.P. Amalnerkar, G.J. Pathak and S.B. Rane, Presented in the National Seminar on Special Materials : Processing and Characterisation, 17-18 January, 2001.

2. "One step synthesis of submicron silver and nanosized silver-palladium powder" by P.K. Khanna, R.M. Gorte, S. Pitale, G.J. Pthank, S.B. Rane and D.P. Amalnerkar. XII Annual General Meeting MRSI, Jan 31-Feb.2, 2001, Calcutta.
3. "Synthesis and characterization of high specific capacity of PPY/LiMn₂O₄ nanocomposite as a positive electrode material for 4V lithium secondary batteries" (B-20), A. Vadivel Murugan, R.S. Sonawane, B.B. Kale, International Conference on Electrochemical Power Systems (ICEPS-2000), Chennai, 9-10 Nov. 2000.
4. "Preparation of Mn₃O₄ by Microwaves", S.K. Apte, B.B. Kale and N.R. Pawaskar, National Seminar on Inorganic Materials 18-19 Jan 2001, IIT, Chennai.
5. "High Performance Polyimide alignment layer for antiferroelectric liquid crystal display cell devices and their molecular design's effect on contrast, double hysteresis and memory margin properties" Y.S. Negi MRSI-2001, 31st Jan to 2nd Feb 2001, Science City Calcutta.
6. " Solderable ohmic contact electrodes for switching PTC thermistors", K.R. Dayas, P.S. Raghavan, A. Seema and R. Govindaiah, Proceedings of the National Seminar of "Challenges of the new IPR Regime and Need for New Strategies for R&D Management", SEM-001, April 26 & 27, 2001, Trivandrum.
7. "Preparation of Lead Magnesium Niobate [Pb(Mg_{1/2}Nb_{2/3})O₃] from carbonate prefursors" K.R. Dayas, P.S. Raghavan, A. Seema and K. Prasad, Proceedings of National Seminar on "Challenges of the New IPR Regime and Need for New Strategies for R&D Management", SEM – 2001, April 26 & 27, 2001, Trivandrum.
8. "Characterization of barium Titanate Nano-sized powders", V. Kumar and I. Packiaselvam, National Seminar on Current Trends in Material Science, MG University, March 23 & 24, 2001, Kottayam.
9. "Analysis of Optical transmittance spectra of TEOS silica aerogels", P. Sasidharan, S.N. Potty, P.A. Abraham, K.P. Murali and R. Ratheesh, National Seminar on Current Trends in Material Science, MG University, March 23 & 24, 2001, Kottayam.
10. "Synthesis and characterization of transparent silica aerogels", P. Sasidharan, S.N. Potty, P.A. Abraham, K.P. Murali, R. Ratheesh and I.C. Rao, National Conference on Materials for the New Millennium.
11. "An Overview of Multilayer ceramic processing and devices", N. Raghu, K. Sivanandan, K.G. Vasanthakumari and V. Priyadharsini, National Conference on Materials for the new millennium,
12. "Dispersability of Nano- PZT powder in organic solvent systems", N. Raghu, K. Sivanandan, K.G. Vasanthakumari, S. Bhaskar Reddy and Paramanand Singh, National Seminar on Current Trends in Material Science, MG University, March 23 & 24, 2001, Kottayam.
13. "Sm³⁺ - doped lanthanide phosphate based powder phosphors", U. Rambabu, V.N. Mani and S. Buddhudu "National Seminar on Luminescence and its

- applications" (NSLA-2001)" 17-18th January 2001. Department of Physics, Osmania University, Hyderabad and BARC, Mumbai.
14. "Optical properties of (La, Y) PO₄; SM³⁺ powder Phosphors", U. Rambabu, T.L.Prakash and S. Buddhudu in "Inorganic Materials for the New Millennium" 18-19th January 2001 Organised by Materials Research Centre, IIT Madras.
 15. "Elastic behaviour of Ge⁴⁺ substituted Li-Mg ferrites", Nitendar Kumar, Y. Purushotham, P. Venugopal Reddy, Pran Krishnan and S.H. Zaidi, 10th National Symposium on Ultrasonics (X-NSU)" 15-16th March 2001 Department of Physics, Osmania University and Ultrasonics Society of India.

2001-2002

JOURNALS

1. "Thick film overlay effects on thin and thick film microstrip band pass filter", Sunit Rane and Vijaya Puri. Microelectronics Journal, 32(2001) 649.
2. "Microwave related properties of fritless Ag thick film metalisation and effect of long term air exposure", Sunit Rane and Vijaya Puri, Ind.J. of Engg. & Mater. Sci.8 (2001) 366.
3. "Optical properties of LnPO₄:Tb³⁺(Ln=Y,La and Gd) powder phosphors" U. Rambabu, D.P. Amalnerkar, B.B.Kale & S. Buddhudu, Mater. Chem. &Phys., 70(2001)1.
4. "Charge transfer complex-forming dyes incorporated in solid polymer electrolyte for optical humidity sensing", P.R. Somani, A.K. Vishwanath, R.C. Aiyer & S. Radhakrishnan, Sensors & Actuators, B20 (2001) 141
5. "Novel dye + solid polymer electrolyte material for optical humidity sensing" P.R. Somani, A.K. Vishwanath, R.C. Aiyer & S. Radhakrishnan, Org. Electronics 2(2001) 83.
6. "Microwave-solvothermal synthesis of nanocrystalline cadmium sulphide", A. Vadivel Murugan, R.S. Sonawane, B.B. Kale, S.K. Apte, Aarti V. Kulkarni, Mater.Chem & Phys, 71 (2001) 98.
7. "Synthesis and characterization of high specific capacity of PPY/LiMn₂O₄ nanocomposites as positive electrode material for 4V lithium secondary batteries", Vadivel Murugan, R.S. Sonawane, B.B. Kale, Trans SAEST,36(2001)1.
8. "Synthesis and Characterisation of new organo-Inorganic poly (3, 4-ethyl dioxy thiophene) PEDOT/V₂O₅ nanocomposite by intercalation" A. Vadivel Murugan, B.B. Kale, Chai-Won Kwon, Gay Campet. K. Vijaymohan, J. Mater. Chem,11 (2001)2470.

9. "Development of polyaniline type conducting polymers" Y.S. Negi and P.V. Adhyapak, J. Macromole, Sci-Polymer Reviews C42(2002)35.
10. "Formation of zinc-antimony based spinel phases" K.G. Vasantakumari, P.V. Divya. V. Kumar, T. Asokan, Prakash and V.C. Sethi, Atomic Spectroscopy 23(1) (2002) 32.
11. "Chemical and physical properties of tantalum powder", Y. Purushotham, T. Balajo, Arbind Kumar, R. Govindaiah, M.K. Sharma, V.C. Sethi and T.L. Prakash, Modern Physics Letters B. 15(20) (2001) 861
12. "ICP-OES determination of Ta, Nb, Fe, Ti, Sn, Mn and W in Indian tantalite niobate ore concentrate using microwave digestion", G. Anil, M. Ramanaji, M.R.P. Reddu, Arbind Kumar, T.L. Prakash and V.C. Sethi, Atomic Spectroscopy 23(1)(2002)32.
13. "Preparation of high purity tellurium by zone refining" N.R. Munirathnam, D.S. Prasad, Ch. Sudjeer, A.J. Singh and T.L. Prakash, Bulletin of Materials Science 25(2)(2002)32.
14. "Effect of Nb₂O₅ on the Elastic behaviour of PZT ferroelectric materials" Y. Purushotham, O.P. Thakur, Chandra Prakash and P. Venugopal Reddy, Modern Physics Letter B, 16(3)(2002)79.
15. "Sintering behaviour of alumina rich cordierite porous ceramics" T.D. Senguttuvan, H.S. Kalsi, S.K. Sharda, B.K. Das- Material Chemistry and Physics, 67 (2001)146.
16. "Effectiveness of anisotropic etching of silicon in aqueous alkaline solutions", P.K. Singh, R. Kumar, M. Lal, S.N. Singh and B.K. Das, Solar Energy Materials and Solar Cells, 70 (2001) 103.
17. "Preparation and characterization of Ag-added Bi_{1.84}Pb_{0.4}, Sr₂Ca_{2.2}Cu₃O_{10+x} bulk tube conductors for cryogen free superconducting magnet" S.N. Ekbote, G.K. Padam, M. Sharma, N.K. Arora, B.S. Khurana, R.C. Goel, D.K. Suri, N. Mehra and B.K. Das, Bull. Mater. Sci., 24(2001)603.
18. "Advances in ferrite technology" S. Kishore, T. Ashokan and B.K. Das- Magnetic Society of India Bulletin 22(2001) 31.
19. "Effect of particle size on thermal decomposition of lime shells: Suitability of calcined lime shell for the pollution, control and energy storage": B.B. Kale, A.N. Gokarn, In. J. Chem. Technology 9(2002) 137.

BOOKS/PROCEEDINGS

1. "Novel microwave-solvothermal synthesis of nanocrystalline cadmium sulphide for photonic applications" A Vadivel Murugan, B.B. Kale, V. Swaminathan, R.S. Sonawane, (Proceedings at SPIE vol. 4594, 65) Design, Fabrication and

Characterisation of Photonics Devices-III, International Symposium on Photonics and Applications 26-30 November 2001, Singapore.

2. "Quantum Mechanical study on the material parameter aspects of GaInAsP/InP system" V.N. Mani, Proc. 11th International Workshop on Physics of Semiconductor Devices, Physics of Semiconductors, 1(2001) 218-220, Vikram Kumar et al.(Eds.) Solid State Physics Laboratory, Delhi 11-15th December 2001.
3. "Purification of Gallium by zone-refining and its characterization", V.N. Mani, U. Rambabu and K. Balaraju, Proc. 11th International Workshop on Physics of Semiconductor Devices, Physics of Semiconductors 2(2001) 1140-1143, Vikram Kumar et al (Eds.) Solid State Physics Laboratory, Delhi 11-15th December 2001.
4. "Elastic properties of Ge substituted Li-Mg Ferrites", Nitendar Kumar, Y. Purushotham, Pran Kishan, Z.H. Zaidi and P. Venugopal Reddy, Proc.10th National Symposium on Ultrasonics, Advances in Ultrasonics. (2001) 204-207, P.Venugopal Reddy (Ed.). Department of Physics, Osmania University, Hyderabad 15-16 March 2001.
5. "Ultrasonic investigation of Ca-Zn Ferrites" Md. Abdul Malik, Y. Purushotham and P. Venugopal Reddy, Proc.10th National Symposium on Ultrasonics Advances in Ultrasonics (2001) 204-207, P. Venugopal Reddy (Ed.) Department of Physics, Osmania University, Hyderabad 15-16 March 2001.

SYMPOSIA/CONFERENCES

1. "Electrochemical Li-insertion into new Poly (3,4-ethylene dioxy thiophene) PEDOT/V₂O₅ hybrids" Chai-Won Kwon, Armel Poquet, Gay Campet, Etienne Duguet, Josik Portier, A. Vadivel Murugan, B.B. Kale, K. Vijayamohan, Published in International Symposium on Intercalation Compounds (ISIC) at Moscow in May 2001 (Li-Batt.A-17).
2. "Parameters influencing X7R behaviour in barium titanate based ceramics", V.Priyadarshini, P.A. Abraham and N. Raghu-CARTS-EUROPE, Oct.2001, Copenhagen, Denmark.
3. "Nanoparticles of CdS from sodium thiosulphate", P.K. Khanna and R.M. Gorte National Seminar on Chemical Sciences, Advancing Frontiers Organised by DDU Gorakhpur and CDRI Lucknow, India, June 3-4, 2001.
4. "Nanoparticles of Ag-Pd co-powders" P.K. Khanna, National Seminar on Chemical Sciences, Advancing Frontiers Organised by DDU Gorakhpur and CDRI Lucknow, India, June 3-4, 2001.
5. "Effect of zinc sulphide on absorption spectrum of cadmium sulphide nano particles" P.K. Khanna, Rahul Gokhale and V.V.V.S. Subbarao, National Seminar on Recent Trends in Chemistry Organised by DAV College, Kanpur, India, October 5-6, 2001.
6. "High Performance Thermotropic Liquid Crystalline Polymer Based on PET/p-HBA and HNA/p-HBA" Y.S. Negi, Materials Research Society of India [MRSI], Feb.7-9,2002, IICT & DMSRDL, Hyderabad.

7. "Characterisation of Fluorine and Non-fluorine Containing Polyimide Blends by Optical Thermal Techniques", Y.S. Negi R.K. Goyal, S.R. Damakale and P.V. Adhyapak, Materials Research Society of India [MRSI] Feb.7-9, 2002, IICT & DMSRDL, Hyderabad.
8. "On synthesis of cadmium selenide from 1,2,3-Se;emadiazole" P.K. Khanna, R.M. Gorte, R. Gokhale, V.V.V.S. Subbarao and C.P. Morley, XII Annual General Meeting MRSI, Hyderabad, Feb 7-9, 2002, Poster presentation.
9. "Composite Based on Polyaniline/Polyvinyl Alcohol Blend" Y.S. Negi, R.K. Goyal, S.R. Damakale, P.V. Adhyapak, Proc. Materials Research Society of India [MRSI-2001-02], Feb.7-9, 2002, IICT & DMSRDL, Hyderabad.
10. "Morphology and Melt Flow Properties of Nylon 12-PET/p-HBA Blend" Y.S. Negi, R.K. Goyal, S.R. Damakale and P.V. Adhyapak, Materials Research Society of India [MRSI], Feb.7-9, 2002, IICT & DMSRDL, Hyderabad.
11. "Synthesis and Characterisation of Microemulsion mediated Nanophase ZnO particles" A. Vadivel Murugan, B.B. Kale, Aarti V. Kulkarni, Lalita B. Kundem Anjanu Mitra, 4th National Symposium in Chemistry, National Chemical Laboratory, Pune, Feb. 1-3, 2002.
12. "Novel Microwave-Hydrothermal Synthesis of Nanocrystalline Molybdenum Disulphide" A. Vadivel Murugan, B.B. Kale, R.B.P. Chakkravarthy and A.B. Mandale 4th National Symposium in Chemistry, National Chemical Laboratory, Pune, Feb 1-2, 2002 (P-120).
13. "Tantalum Metallurgy- Chemical and Physical properties", Y. Purushotham, T. Balaji, Arbind Kumar and T.L. Prakash presented in 39th National Metallurgist Day & 55 Annual Technical Meeting" 18-21st November 2001 organized by The Indian Institute on Metals, Bhubaneswar Chapter, RRI (Bhu) & NALCO, Bhubaneswar.
14. "Characterization on high pure Cadmium obtained through vacuum distillation", S.T. Ali, G. Anil, M.R.P. Reddy, N.R. Munirathnam and T.L. Prakash presented in "13th Annual General Meeting of MRSI", 7-9th February 2002 organized by Materials Research Society of India, Hyderabad Chapter.
15. "Gallium based Multi-Layered Epitaxial Structures and Devices for Strategic Applications : An overview" V.N. Mani presented in "13th Annual General Meeting of MRSI", 7-9th February 2002 organized by Materials Research Society of India, Hyderabad Chapter
16. "Purification of Cadmium upto 5N+ by vacuum distillation", S.T. Ali, J.V. Rao, K.S. Verma and T.L. Prakash presented in "National conferenes on Frontiers in Materials Science and Technology". 22-23rd February 2002 organized by Materials Science Centre, IIT, Kharagpur.
17. "Tellurium purification: Various techniques and limitations", D.S. Prasad, Ch. Sudheer, N.R. Munirathnam and T.L. Prakash presented in "National conferenes on Frontiers in Materials Science and Technology". 22-23rd February 2002 organized by Materials Science Centre, IIT, Kharagpur.
18. "Application of titanium dioxide and metal tinates in electronics industry", K.R. Dayas, P. Sasidharan, P.S. Raghavan, A. Seema. I.C. Rao, presented in the

National Seminar on Challenges of Titanium Industry in India, Organised by Travancore Titanium Products Ltd., held at Trivandrum on 20th April 2002.

19. "Effect of Chemical Composition on the thermal properties of Lead oxide glasses", N. Tatke, S.K. Apte, R. Marimuthu, U.P. Mulik, B.B. Kale 4th National Symposium in Chemistry 1-3 Feb 2002 at NCL, Pune NCS-4.
20. "Hydrothermal Synthesis of Strontium carbonate Using Celestite ore and its characterization", S.S. Bodhale, S.K. Apte, R.S. Sonawane, B.B. Kale 4th National Symposium in Chemistry 1-2 Feb 2002 at NCL Pune.
21. "Electroless Nickel Plating on Stainless steel" R.A. Babhale, R.S. Sonwane, S.K. Apte and B.B. Kale 4th National Symposium in Chemistry 1-3 Feb. 2002 at NCL, Pune NCS-4.
22. "Treatment for arsenic contaminated water", U.P. Mulik and B.B. Kale : InDA Conference on "Deslination and membrane based technologies for Drinking water" held at CGCRI, Kolkota on 15-16th Feb. 2002.

2002-2003

JOURNALS

1. "Synthesis, crystal chemistry, electrical oxygen permeation and magnetic properties of $\text{LaSr}_3\text{GaFe}_2$, $\text{xCo}_x\text{O}_{10-a}$ ($0 < x < 2$ and $0 < 8 \leq 2$)" F. Prado, K. Gurunathan and A. Manthiram, J. Mater. Chem, 12(2002) 2390
2. "Feasibility study of deposition of silicon nitride films by activated reactive evaporation (ARE) process and their characterization" S.J. Patil, N.A. Kulkarni, A.S. Ethraj, R.C. Purandare, G.J. Phatak, S.K. Kulkarni and S.A. Gangal, Vacuum 65 (2002) 91.
3. "Deposition of Si films in presence of nitrogen plasma- A feasibility study" S.J. Patil, D.S. Bodas, G.J. Phatak and S.A. Gangal, Bull.Mater.Sci 25 (2002) 39.
4. "Thin film, thick film microstrip band pass filter: A comparison and effect of bulk overlay" Sunit Rane and Vijaya Puri, Microelectronics Reliability 42 (2002) 1953.
5. "Preparation of titanium (IV) oxide thin film photocatalyst by sol-gel dip coating" R.S. Sonawane, S.G.Hegde and M.K. Dongare, Mater.Chem.and Phys. 77(2002) 744.
6. "Removal of OH impurities from GeS_2 by reactive atmosphere and its preparations" B.B. Kale, A.Jha, S.K. Apte, P.V. Adhyapak and D.P. Amalnerkar, Mater. Chem. And Phys 78(2002)330
7. "Electrochemical Lithium Insertion into a Poly (3,4 Ethylene Dioxythiophene) PEDOT/ V_2O_5 Nanocomposite" A.V. Murugan, Chai-Won Kwon, Gay Campet, B.B. Kale, T. Manddathimata, K. Vijaymohanan, J. Power Sources 4613 (2002) 1.
8. "Electroplating of Tin and its alloy for Electronic packaging", K. Gurunathan, S.Joseph, D.R. Yewale, G.J.Phatak and D.P.Amalnerkar, Trans.of the SAEST, 37(2002) 127.

9. "Effects of surfactant on silver powder with respect to rheology & sintering of its thick film paste" S.B. Rane, M. Ghatpande, T.Seth,G.J. Phatak and D.P. Amalnerkar, Trans of the SAEST,37(2002) 95.
10. "Synthesis of nano powders of $(\text{Ba}_{1-x}\text{Sr}_x)\text{TiO}_3$ ", I. Packia Selvam and V.Kumar, Materials Letters 56(2002)1089.
11. "Effect of type of Solvent and dispersant on Nano PZT powder dispersion for tape casting slurry' Bhaskar Reddy, P. Paramanand Singh, N. Raghu and V.Kumar, J. Mat. Sci. , 37(2002)929.
12. "Preparation of high purity tellurium by zone refining" N.R. Munirathnam, D.S.Prasad, Ch. Sudhher, A.J. Singh and T.L. Prakash, Bull.Mater. Sci 25(2002)479.
13. "Tellurium purification: various techniques and limitations" D.S. Prasad, Ch. Sudheer, N.R. Munirathnam and T.L. Prakash, Bul.Mater.Sci., 25 (2002) 545.
14. "Preparation of cadmium upto 5N+ by vacuum distillation" S.T. Ali, J.V. Rao, K.S. Verma and T.L. Prakash. Bull Mater.Sci., 25(2002) 479.
15. "Hydriding, powder processing and dehydriding of Tantalum for capacitor applications" T. Balaji, Y.Purushotham, Arbind Kumar, R.Govindaiah, M.K. Sharma and T.L. Prakash, Metals, Materials and Processes 14(2002) 155.
16. "Sintering and electrical properties of Tantalum anodes for capacitor applications" T. Balaji, Y.Purushotham, Arbind Kumar, R.Govindaiah, M.K. Sharma and T.L.Prakash, Materials letters 56(2002) 560.
17. "Poly (3-4 Ethylene dioxythiophene)V2O5 hybrides for lithium batteries:" Chai-Won Kwon, A. Vadivel Murugan, Guy Campet, Josik Portier, B.B. Kale,K. Vijaymohanan, Jin-ho Choy, Electrochem Commun 4 (2002)170.
18. "Matrix effects of Ta in the determination of Cr, Fe, Nb, Ni and To in Tantalum powder using ICP-OES" G.Anil, M.R.P.Reddy, Arbind Kumar and T.L. Prakash , Atomic Spectroscopy 23 (2002) 119
19. "Determination of total arsenic concentration in clinical samples for epidemiological studies using ICP-MS" K. Chandra Sekhar, N.S. Chary, C.T. Kamala, M. Anupama and M.R.P. Reddy, Atomic Spectroscopy 23 (2002) 170.
20. "Analytical assessment two sequential extraction schemes for speciation of heavy metals in soils" K. Chandra Sekhar, N.S. Chary, C.T. Kamala, M. Anupama and M.R.P. Reddy, Journal of Applied Geochemistry 4(2002)409.
21. "Synthesis of Cadmium selenide by use of a selenadiazol in ethylene glycol-A greener source of selenium" P.K.Khanna, R.M.Gorte and C.P. Morley, Materials Letters 57 (2003) 1464.
22. "Nanosized silver powder via reduction of silver nitrate by sodium formaldehyde sulfoxylate in acidic pH medium" P.K.Khanna and V.V.V.S. Subbarao, Materials Letters 57(2003) 2242.
23. "Stable light emission from CdS quantum dots in DMF" P.K. Khanna, R. Gokhale and V.V.V.S. Subbarao, Materials Letters 57 (2003) 2489.
24. "Conducting polymer composites (Pan/TiO₂) as a cathode material for rechargeable battery" K. Gurnathan and D.P. Amalnerkar, Materials Letters, 57(2003) 1642.

25. "Influence of surfactants treatment on silver powder and its thick films" S.B. Rane, T. Seth, G.J. Phatak, D.P. Amalnerkar, B.K. Das, *Materials Letter* 57 (2003),1642.
26. "Highly Photoconductive a-Si-H films grown at high deposition rates by pulsing VHF 100 MHz discharges", C. Mukherjee, C. Anandan, Tanay Seth, P.N. Dixit and R. Bhattacharya, *Thin Solid Films* 423(2003) 18.
27. "Thermal degradation properties of Solid Polymer Electrolyte (PVA+H₂PO₄) methylene blue composites", P.R. Somani, R. Marimuthu, A. Kasi Viswanath and S. Radhakrishnan, *Polymer Degradation and Stability*, 79 (2003) 77.
28. "Electroless Nickel deposition on mild steel by using a new bath and its characterization", R.A. Babhale, R.S. Sonawane, S.S. Bodhale, S.K. Apte and B.B. Kale, *Ind. J. Chem. Technology*, 10 (2003) 154.
29. "Development of Hexafluorosopropylidene and Isopropylidene based Polyimides and their applications", Y.S. Negi, *Int.J. Plastic Tech.*, 6(2003) 151.
30. "Synthesis and dielectric properties of a new class of MX₆Ti₆O₁₉ (M=Ba, Sr and Ca, X=Mg and Zn) ceramics, T.M. Preethi and R. Ratheesh, *Materials Letters*, 57(2003) 2545.
31. "Application of Electrochemically Prepared Carbon Nanofibres Towards Supercapacitors", P.V. Adhyapak, M. Trupti, S. Pethkar, A.J. Chandwadkar, Y. S. Negi and K. Vijaymohan, *J. Power Sources*, 109 (2002) 105

BOOKS/PROCEEDINGS

1. "Effect of compositional homogeneity on the microwave dielectric properties of Ba(Mg_{1/3}Ta_{2/3}) O₃ ceramics" R. Ratheesh, P. Sasidharan and S.N. Potty, *Proceedings of Australian Ceramic Society meeting, Perth, Australia, 2002.*
2. "Conductive polymer/Transition metal oxide hybrid materials for Lithium batteries" C-W. Kwon, G. Campet, A.V. Murugan, B.B. Kale, K. Vijaymohan, *Mat. Res. Soc. Symp. Proc. Vol. 726 (2002) P-Q 11.7.1.11.7.6.*
3. "Carbon aerogels for water purification through capacitive deionization" P. Sasidharan, I.C.Rao, P.A. Abraham and K. Stanley Jacob, *Proc. National Seminar on PWMCAI-2003, pp 1-8, Feb 14-15,2003.*
4. "Solid state synthesis and characterization of CaRuO₃, BaRuO₃ and SrRuO₃ for resistor paste applications" K. Gurunathan, P. Hedao, N. Vyawahare, G.J. Phatak and D.P.Amalnerkar, *Proc. ISAEEST-VII, Vol.I (2002) D104-D107.*
5. "Solution route synthesis and characterization of nanocrystalline Bi₂Ru₂O₇ for resistor paste" K. Gurunathan, N. Vyawahare, V.D. Giramkar, G.J. Phatak and D.P. Amalnerkar, *Proc. ISAEEST-VII, Vol.I (2002) D108-D111.*
6. "Zone refining of cadmium and related characterization", N.R. Munirathnam, D.S. Prasad, Ch. Sudheer and T.L. Prakash, *Proceedings of Recent Developments and challenges in Physics (RDCP), University of Hyderabad, December 19-22, 2002.*

SYMPOSIA/CONFERENCES

1. "An Overview of multilayer ceramic actuator program at C-MET", N. Raghu, V. Kumar, K.R. Dayas and I.C. Rao, International Conference on Smart materials structures and systems, IISC, Bangalore, July 2002.
2. "Synthesis of cadmium selenide from 4,5,6,7,8,9-Hexahydrocyclooctane-1,2,3,-Selenadiazole-A novel source of selenium" P.K. Khanna, R.M. Gorte, R. Gokhale, V.V.V.S. Subbarao and C.P. Morley, 9th APAM International seminar on Semiconducting Materials for Thermoelectric Devices and Solar Power Engineering, IMET, RAS, MOSCOW, Russia, June 5-7, 2002.
3. "Tantatum for electronic applications-some aspects of processing", T. Balaji, Arbind Kumar and T.L. Prakash, International Conference on Non-ferrous Metals, Hyderabad, June 28-29, 2002.
4. "Stable blue and orange light emission from CdS-Polymer composite solution", P.K. Khanna, Rahul Gokhale, V.V.V.S. Subbarao, U.P. Mulik and B.K. Das, 1st International conference on Materials Processing for Properties and Performance (MP3), Singapore- August 1-3, 2002.
5. "Spinel LiMn_2O_4 cathode material prepared by acitric acid assisted sol-gel method for renewable energy storage technology", A. Vadivel Murugan, B.B. Kale, B.K. Das, Arati Kulkarni, Lalita Kunde and Neela Pavaskar, National Symposium on Recent Advances in Renewable Energy Technologies (RARE-T-2002) Shivaji University, Kolhapur, August 13-15, 2002.
6. " $\text{VO}_2(\text{B})$ as a cathode material for lithium batter" K. Gurunathan and A. Manthiram, CANCUN 2002 (XII International Mateirlas Res. Soc. Cof.) Marriott Casa Magna Cancun, August 25-29, 2002.
7. "Sol-gel synthesis of SnVO_4 for supercapacitor", K. Gurunathan and A. Manthiram, CANCUN 2002 (XII International Materials Res. Soc. Conf), Marriott Casa Magna, Cancun, August 25-29, 2002.
8. "Photocatalytic hydrogen production using transition metal on doped Bi_2O_3 semiconductor particles" K. Gurunathan, CANCUN 2002 (XII International Materials Res. Soc. Conf), Marriott Casa Magna, Cancun, August 25-29, 2002.
9. "Microsturctural and electrical studies of CaRuO_3 and SrRuO_3 for resistor paste applications", K. Gurnatha, P. Hedao, N. Vyawahare, T. Seth, D.P. Amalnerkar, CANCUN 2002 (XII International Materials Res. Soc. Conf), Marriott Casa Magna, Cancun, August 25-29, 2002.
10. "Solvent extraction of Tantalum from Indian Tantalite columbite ore", M.K. Sharma, Arbind Kumar, T. Balaji and T.L. Prakash, International Seminar on Solvent Extraction (ISSE) Bhubaneswar, September 26-27, 2002.
11. " Synthesis and characterization of ceramic composites of polypyrrole for electro-chromic display devices" K. Gurunathan, R. S. Sonwane, R. Marimuthu, U.P. Mulik and D.P. Amalnerkar, CANCUN 2002 (XII International Materials Res. Soc. Conf), Marriott Casa Magna, Cancun, August 25-29, 2002.
12. "Synthesis crystalline, electrical and oxygen permeation properties of $\text{LaSr}_3\text{GaFe}_{2-x}\text{CO}_x\text{O}_{10-8}$ ($0 < x < 2$ and $0 < 2$)", K. Gurunathan, P. Fernando and A. Manthiram, SECA-2002, Newcastle upone Tune, U.K. September 2-5, 2002.

13. "Synthesis of cadmium selenide from selenadiazol and cadmium chloride in ethylene glycol", P.K. Khanna, R.M. Gorte and C.P. Morley, 3rd International Conference on Inorganic Materials, Konstanz, Germany Sept. 7-10, 2002.
14. "CdSe nanoparticles via reduction of cadmium chloride in DMF" P.K. Khanna, R.M. Gorte, R. Gokhale, V.V.V.S. Subbarao and C.P. Morley, The International Scientific Conference on Crystallization in Naosystems, Ivanovo, Russia, September 10-12, 2002.
15. "Nanosized silver powder via reduction of silver nitrate by sodium formaldehyde syffoxylate in acidic pH medium", P.K. Khanna and V.V.V.S. Subbarao, Ist Materials Science Forum on Sustrainable Technolgoies, Ausburg, Germnay, Sept.17-19, 2002.
16. "Nanosized silver powder via formation of Tollen's reagent in acidic pH", P.K. Khanna and VVVS Subbarao, V.V.Dhapre, National Seminar on Electro and Magneto Ceramics, Devices and Systems, Shkarrao Mohite Mahavidyalaya, Akluj, Solapur, Oct.21-22, 2002.
17. "Synthesis and characterization of ferromagnetic conducting polymer nanocompsoties" K. Gurunathan and D.P. Amalnerkar, National Seminar on Electro and Magneto Ceramics, Devices and Systems, Shkarrao Mohite Mahavidyalaya, Akluj, Solapur, Oct.21-22, 2002.
18. "Effects of surfactant on silver powder with respect to rheology and sintering of its thickfilm paste", S.B. Rane, M. Ghatpande, T. Seth, G.J. Phatak and D.P. Amalnerkar, 7th Int. Sym. on Advances in Electrochemical Science & Technology, Chennai, Nov-2002.
19. "Electrochemical behavious and inorganic Nanocrystalline and hydrid Nanocrystalline electrode materials for Lithium Batteries", Cha-won Kown, chrisatine Labrugere, Guy Campet, A. Vadivel Murugun, B.B. Kale and K. Vijaymohanan, 7th International Symposium on Advances in Electrochemical Science and Technology, ISAEST-VII, Chennai, Nov 27-29, 2002.
20. "Novel Organo Inorganic Poly(3-4 Ethylene Dioxythiophene)PEDOT/V₂O₅ Nanocompsite application as high capacity cathode for rechargeable, lithium batteries", A. Vadivel Murugan, B.B. Kale, Chai-won, Kwon, Guy Campet, Josik Portier, K. Vijayamohanan and Jin-Ho Choy, 7th international symposium on Advances in Electrochemical Science and Technology, ISAEST-VII, Chennai, Nov 27-29, 2002.
21. "Nanocrystalline Bi₂Ru₂O₇ for supercapacitor applications" K. Gurunathan, D.P.Amalnerkar and A. Manthiram, 7th international symposium on Advances in Electrochemical Science and Technology, ISAEST-VII, Chennai, Nov 27-29, 2002.
22. "Synthesis crystal chemistry, oxygen permeation and properties of LaSr₃GaFe_{2-x}Co_xO_{10-d} (0 < x < s amd 0 < d < 2) for Cathode Material for Solid Oxide futel cell", K. Gurunathan, F. Prado and A. Manthiram, Seventh international symposium on Advances in Electrochemical Science and Technology, ISAEST-VII, Chennai, Nov 27-29, 2002.
23. "Wet chemistry route of LiNi_{0.82} CO_{0.15} Al_{0.03}VO₄ as a cathode material for lithium battery operating at high voltage (>4.5V)", K. Gurunathan and A,

- Manthiram, 7th international symposium on Advances in Electrochemical Science and Technology, ISAEST-VII, Chennai, Nov 27-29, 2002.
24. "Sol-gel route:synthesis of BiVO₄ as anode material for lithium battery", K. Gurunatha and A. Manthiram" 7th international symposium on Advances in Electrochemical Science and Technology, ISAEST-VII, Chennai, Nov 27-29, 2002.
 25. "Polypyrrole/Polythiophene as a supercapacitor material", K. Gurunathan and A. Manthiram, Seventh international symposium on Advances in Electrochemical Science and Technology, ISAEST-VII, Chennai, Nov 27-29, 2002.
 26. "Inorganic materials for use in high energy density batteries and capacitors for electronic applications", B.K. Das, P. Sasidharan, B.B. Kale and A.V. Murugan, International Symposium on Recent Advances in Inorganic Mateials (RAIM-2002), IIT, Mumbai, Dec 11-13, 2002.
 27. "Novel microwave-solvothermal synthesis of layers Li_xMn_{1-y}Co_yO₂ as a high capacity cathode for rechargeable lithium batteris", A.V. Murugan, B.B. Kale, B.K. Das, International Symposium on Recent Advances in Inorganic Mateials (RAIM-2002), IIT, Mumbai, Dec 11-13, 2002.
 28. "Effect of solvents on synthesis of nanosize zinc oxide", K.G.Kanade, B.B. Kale, A.V. Murugan and B.K. Das, International Symposium on Recent Advances in Inorganic Mateials (RAIM-2002), IIT, Mumbai, Dec 11-13, 2002.
 29. "Processing of semiconductor doped glasses for optical cut off filters : Growth of CdS/CdSe nanocrystals in glass matrix", B.B. Kale, S.K. Apte, S. Bodhale, R.S. Sonawane and B.K. Das, International Symposium on Recent Advances in Inorganic Mateials (RAIM-2002), IIT, Mumbai, Dec 11-13, 2002.
 30. "Thermal and optical properties of PbO-ZnO-B₂O₃ glasses", S.D. Naik, S.K. Apte and B.B. Kale, International Symposium on Recent Advances in Inorganic Mateials (RAIM-2002), IIT, Mumbai, Dec 11-13, 2002.
 31. "Phtoluminescence study of CdS nanoparticles in DMF" VVVS Subbarao and P.K. Khanna, Vth Nathional Sympoisum in Chemistry, CLRI, Chennai, Feb. 2003.
 32. "Ferromagnetic conducting polymer nanocomposites for memory devices", K. Gurunathan and D.P. Amalnerkar, XIV Annual General meeting-Novel Polymeric materials, BARC Mumbai, February 11-13, 2003.
 33. "Pani/LiMnOxyl as a cathode material for lithium battery' K. Gurunathan and A. Manthiram, XIV Annual General Meeting, Novel Polymeric Materials, BARC Mumbai, February 11-13, 2003.
 34. "Novel method for synthesis of silver selenide: A giant magneto-resistive materials", P.K. Khanna and B.K. Das, XIV Annual General Meeting, MRSI, BARC, Mumbai, feb 11-13, 2003.
 35. "Novel method for synthesis of submicron sized silver powder via reduction of silver nitrate by organics", P.K. Khanna and VVV Subbarao, XIV Annual General Meeting, MRSI, BARC, Mumbai, Feb. 11-13, 2003.

36. "Stable and orange light emission from CdS-Polymer composite solution", P.K. Khanna, Rahul Gokhale, V.V.V. Subbarao, U.P. Mulik and B.K. Das, XIV Annual General Meeting, MRSI, BARC, Mumbai, Feb. 11-13,2003.
37. "Photoelectrochemical studies Ni(II)/Bi₂O₃ photoanode in Fe(CN)₆^{3-/4-} and Na₂SO₄ electrolyte", K. Gurunathan, AFI-Gerischer Symposium on Nanostructural Semiconductor Materials and Interfaces, France, Feb. 13-15,2003.
38. "Growth of CdS nanocrystals in glass matrix and its structural and optical characterization", Sultana B. Tamboli, S.K. Apte, S.D. Naik, R.S. Sonawane, P.Y. Chaudhary and B.B. Kale, Raman Memorial Conference (RMC) at University of Pune, Feb. 22, 2003.
39. "Electrical conductivity studies of LiMn₂O₄ / carbon black composite electrode for lithium batteries", A. Vadivel Murugan, B.B. Kale, Lalita B. Kunde, Arati V. Kulkarni, Tanua, N. Sarode and Deepak D. Choughule, Raman Memorial Conference (RMC) at University of Pune, Feb. 22, 2003.
40. "Electroless plating of Cu on FR4 for microvia in electronic packaging", Supriya Ketkar, K. Gurunathan, T. Seth, G.J. Phatak, U.P. Mulik and D.P. Amalnerkar, Raman Memorial Conference (RMC) at University of Pune, Feb. 22, 2003.
41. "Electroplating of lead-free binary alloys for solder bumping in electronic packaging" Alpana Phalke, K. Gurunathan, Shany Joseph, T. Seth, G.J. Phatak, U.P. Mulik and D.P. Amalnerkar, Raman Memorial Conference (RMC) at University of Pune, Feb. 22, 2003
42. "Attempt to co-deposit quaternary lead-free solders for solder bumping applications using electroplating process". Shany Joseph, Alpana N.Phalke, T.Seth, K. Gurunathan, G.J. Phatak and D.P. Amalnerkar, Raman Memorial Conference (RMC) at University of Pune, Feb. 22, 2003.
43. "Electrical and inter-facial microstructural studies on nanocrystalline Bi₂Ru₂O₇ synthesized by co-precipitation method for resistor paste application", Nikhil Vyawahare, K. Gurunatha, G.J. Phatak and D.P. Amalnerkar, Raman Memorial Conference (RMC) at University of Pune, Feb. 22, 2003
44. "Preparation and characterization of silver-palladium co-precipitated powders for thick film conductors", Varsha Deshpande, S.B. Rane, T. Seth, G.J. Phatak and D.P. Amalnerkar, Raman Memorial Conference (RMC) at University of Pune, Feb. 22, 2003
45. "Preparation and characterization of "fritted" and "fritless" thick films of Photoconducting CdS", Nandini Ganguly, S.B. Rane and D.P. Amalnerkar, Raman Memorial Conference (RMC) at University of Pune, Feb. 22, 2003
46. "Photoimageable silver paste for next generation HMC", G. Umarji, G.J. Phatak, U.P. Mulik and D.P. Amalnerkar, Raman Memorial Conference (RMC) at University of Pune, Feb. 22, 2003.

2003-2004

JOURNALS

1. "Synthesis of cadmium selenide via reduction of cadmium chloride in DMF", P.K.Khanna, C.P.Morley, R.M.Gorte, R. Gokhale, VVVS Subbarao and C.V.V. Satyanarayana, Mater. Chem. Phys, 83 (2004) 323
2. "PVP coated nanosized silver powder", P.K.Khanna, R.Gokhale and VVVS Subbarao, J. Material Science, 39 (2004) 3773
3. "Novel synthesis of silver selenide from silver nitrate and organo-selenium compound", P. K. Khanna and B. K. Das, Materials Letters, 58 (2004) 1030
4. "Synthesis of cadmium selenide from Hepteno-1,2,3-selenadiazol and cadmium salts n Ethylene" Glycol, P. K. Khanna, R. M. Gorte, and R.Gokhale, Materials Letters, 58 (2004) 966.
5. "Photocatalytic hydrogen production using transition metal ions doped γ - Bi_2O_3 .semiconductor particles", K. Gurunathan., Int. J. Hydr. Energy, 29 (2004) 933.
6. "Effect of inorganic binders on the properties of silver thick films", S. B. Rane, M. Ghatpande, T. Seth, G.J. Phatak & D.P. Amalnerkar, J. Material Science: Materials in Electronics, 15 (2004) 103
7. "Purification of cadmium by vacuum distillation and its analysis", S.T. Ali, N.R. Munirathnam, Ch. Sudheer, R.C. Reddy and T.L. Prakash, Materials Letters, 58 (2004) 1638.
8. "Multi-element determination in gun opium by microwave digestion and inductively coupled plasma optical emission spectroscopy", R.K. Sarin, S. Srivastava, A.K. Srivastava, G. Anil and M.R.P. Reddy, Journal of Chemical Papers, 58 (2004) 155.
9. "Comparative studies of chemically synthesized polyaniline and poly(o-toluidine) doped with p-toluene sulphonic acid", Milind V. Kulkarni and Annamraju Kasi Viswanath, European Polymer Journal, 40 (2004) 379
10. "Synthesis and characterization of polyaniline doped with organic acids", Milind V. Kulkarni, Annamraju Kasi Viswanath, R. Marimuthu and Tanay Seth., Journal of Polymer Science A: Polymer Chemistry, 42 (2004) 2043
11. "Preparation characterization and microwave dielectric properties of $\text{Ba}(\text{B}_{1/2}\text{Nb}_{1/2})\text{O}_3$ [B = La, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Y, Yb, and In] ceramics", Abdul Khalam, H. Sreemoolanathan, R. Ratheesh, P. Mohanan and M. T. Sebastian, Materials Science and Engineering B 107 (2004) 264
12. "Synthesis and dielectric properties of $\text{M}_x\text{Ti}_7\text{O}_{16}$ (M = Ba and Sr; X = Mg and Zn) hollandite ceramics", V. N. Manisha, K.P. Murali, S. N. Potty, V Priyadarsini and R. Ratheesh, Bull. Mater. Sci., 27 (2004) 149
13. "Impedence spectroscopic studies on sol-gel derived subcritically dried silica aero-gels", A.A.Annapara, S.Rajesh Kumar, P.Mukundan, P.R.S.Warrier,

S.Ghosh and K.G.K. Warriar, *Acta Materialia*, 52 (2004) 369

14. "Firing and processing effects on microstructure of fritted silver thick film electrode materials for solar cells", S.B.Rane, P.K.Khanna, T.Seth, G.J.Phatak, D.P.Amalnerkar and B.K.Das, *Mater. Chem. Phys.*, 82 (2003) 237
15. "Electrochemistry of inorganic nanocrystalline electrode materials for lithium batteries", Chai-Won Kwon, S.J.Hwang, M.H.Delville, C.Labrugere, A. Vadivel Murugan, B.B. Kale, K. Vijayamohanam, Guy Campet, *Active and Passive Electronic Components*, 26 (2003) 23
16. "Synthesis and characterization of novel organo-inorganic hybrid material of poly (3,4-ethylene dioxythiophene) and phospho molybdate anion", A.Vadivel Murugan, Chai-Won Kwon, Guy Campet, B.B.Kale, *Active and Passive Electronic components*, 26 (2003) 81
17. "Purification of tellurium to 6N+ by quadruple zone refining", N.R. Munirathnam, D.S. Prasad and T.L. Prakash, *Journal of Crystal Growth*, 254 (2003) 262
18. "Studies on the oxygen pick-up of vibratory disc milled capacitor grade tantalum powder", T. Balaji , Y. Purushotham, R. Govindaiah, M.K. Sharma, Arbind Kumar and T.L. Prakash, *Modern Physics Letters B*, 17 (2003)1399
19. "Photoinduced effect in the vicinity of the smectic-C alpha-smectic-a transition", S. K. Prasad, K.L. Sandhya and Y. S. Negi, *Physical Review-E*, 67 (2003) 051701
20. "Development of thermotropic liquid crystalline polymers and their applications", Y. S. Negi and R. K. Goyal, *Review: Int. J. of Plastics Tech.*, 7 (2003) 99
21. "Development of polyimides containing hexafluoroisopropylidene and isopropylidene moieties in molecular structure and their applications", Y.S. Negi, *Int. J. Plastic Tech.*, 6 (2003) 53.
22. "Thermal Degradation properties of solid polymer electrolyte {poly(vinyl alcohol) + Phosphoric acid }/ methylene blue composites". P.R. Somani, R. Marimuthu, A. K. Viswanath. and S. Radhakrishnan, *Poly. Degradation and Stability*, 79 (2003) 77
23. "Sol-gel synthesis of nanocrystalline PZT using a novel system", K. Stanly Jacob, N. Rani Panicker, I. Packia Selvam and V. Kumar, *J. Sol-gel Sci. Tech.* 28 (2003) 289

BOOKS/PROCEEDINGS

1. "Hydrosilation of hydroxyl terminated polybutadiene at milder experimental conditions and its nanocomposite with CdS"-P.K. Khanna, R. Gokhale and V.V.V. S. Subbarao, U.P. Mulik and B.K. Das, *Proceedings of the International*

Seminar on Advances in Polymer Technology, Cochin University, APTO4, India, Jan., 16-17, 2004, pp256-261.

2. "Synthesis and characterization of gold nanoparticles in PVA"-P.K. Khanna, R. Gokhale, V.V.V.S.Subbarao, B.K. Das and C.V.V. Satyanarayana, Proceedings of the INAE Conference in Nanotechnology, ICON 2003, Chandigarh, India, Dec. 22-23, 2003, pp701-707.
3. "Nanocrystalline $\text{Bi}_2\text{Ru}_2\text{O}_7$ for supercapacitor applications", K. Gurunathan, D.P. Amalnerkar and A. Manirathnam, Proc. ISAEST-VII,2(2003) F48-F51.
4. "Wet Chemistry route synthesis of $\text{LiNi}_{0.82}\text{Co}_{0.15}\text{Al}_{0.03}\text{VO}_4$ as a cathode material for lithium battery operating at high voltage ($>4.5\text{V}$)"- K. Gurunathan and A. Manthiram, Proc. ISAEST-VII, 2(2003) F99-F101.
5. "Sol-gel route synthesis of BiVO_4 as a anode material for lithium battery"- K. Gurunathan and A. Manthram, Proc. Seventh Int. Sym. SAEST, 2(2003) F 102-F105.
6. "Polypyrrole/polythiophene as a supercapacitor material" – K. Gurunathan and A. Manthiram, Proc. ISAEST-VII, 2(2003) F52-F54.
7. "Synthesis, crystal chemistry, oxygen permeation and properties of $\text{LaSr}_3\text{GaFe}_{2-x}\text{Co}_x\text{O}_{10-\xi}$ ($0 < x < 2$ and $0 < \xi < 2$) for Cathode Material for Solid oxide fuel cell", K. Gurunathan, F. Prado, and A. Manthiram, Proc. 7th Int. Sym. SAEST,2 (2003), F59-F65.
8. "Lead Free solder bumping by electroplating process for electronic packaging", Shany Joseph, G.J. Phatak, T. Seth, K. Gurunathan, D.P. Amalnerkar and T.R. N. Kutty, Proc. IEEE TENCON 2003, 4(2003)1367-1371.
9. "Electronic packaging. A materials and process challenge", B.K. Das and G.J. Phatak, Proceedings of International Conference on Advances in Materials & Processes for Industrial Applications and Materials Show 2003, ASM International Pune Chapter, Pune, September 25-27, pp.168-176.
10. "Study on melt flow behavior of blends based on nylon 12/ PET/p-HBA (LCP)", Y. S. Negi, R. K. Goyal, and S. R. Damkale, Proc. National Seminar on Emerging Trends in Polymer Engineering [NSETPE 2004], Kottayam, March 18-19, 2004
11. "Polyaniline/polyvinyl alcohol blends and their Characterization", Y. S. Negi and P. V. Adhyapak, Proc. National Seminar on Emerging Trends in Polymer Engineering [NSETPE 2004], Kottayam, Kerala, March 18-19, 2004.
12. "Preparation and optical characterization of new poled polymer film based on m-nitroaniline (m-NA) doped polycarbonate (PC) and their application in optoelectronics", R.K. Goyal, Y.S. Negi, R.C. Aiyer and M. Islam,, Proceedings NCMA-2004, Dept. of Physics, Kurukshetra, March 11-13, 2004

SYMPOSIA/CONFERENCES

1. "Sonochemically synthesized conducting polymer / V_2O_5 nano composite cathode for lithium rechargeable batteries", A.Vadivel Murugan, B.B.Kale, G.Campet, Jin-Ho Choy and K.Vijayamohan., 1st International conference on polymer batteries and fuel cells, P-TU-081, organized by Korean Electrochemical Soc. And The Electrochemical Soc., Inc., Jeju Island, Korea, June 1-6, 2003
2. "Polythiophene-CdS nanocrystal hybrid material for solar cell application"-K. Gurunathan, S. Velumani, P.J. Sebastian, D. P. Amalnerkar and B.K. Das, CANCUN 2003, Mexico, Aug.14-18, 2003
3. "Electroless plating and electroplating of copper for microvia processes in electronic packaging", K. Gurunathan, Supriya A.Ketkar, G.J. Phatak, U.P. Mulik and D.P. Amalnerkar, CANCUN 2003, Mexico, Aug.14-18, 2003
4. "Electroplating of Tin-Bismuth and Tin-Zinc alloys for solder bumping in Electronic Packaging", K. Gurunathan, Alpana N. Phalke, S. Joseph, G.J. Phatak, T. Seth and D.P. Amalnerkar, CANCUN 2003, Mexico, Aug.14-18, 2003
5. "In-situ preparation of polyaniline-CdS nano composite from organometallic cadmium precursor"- P.K.Khanna, S.P.Lonkar, V.V.V.S. Subbarao and P.K.Girija, 2nd, MP3, IUMRS-ICAM, 2003, Kanagawa, Japan, Oct.11-13, 2003.
6. "Tuned light emission from CdS/PVA nano composite"- P.K.Khanna, Rahul Gokhale, V.V.V.S. Subbarao, P.K.Girija, and U.P.Mulik, 2nd, MP3, IUMRS-ICAM, 2003, Kanagawa, Japan, Oct.11-13, 2003
7. "Fabrication and characterization of organic-inorganic hybrid (polythiophene-CdS nanocrystal) thin film solar cells"- K. Gurunathan, S. Velumani, P.J. Sebastian, D. P. Amalnerkar and B.K. Das, International Meeting on Applied Physics (APHYS-2003) Spain, Badajoz, Oct.14-18, 2003
8. "Nanometric thin spin coated polyimide alignment layers for antiferroelectric liquid crystal cell device", Y. S. Negi, 10th National Conference on Liquid Crystals, Bangalore, Oct. 8-9, 2003
9. "Experimental investigations on the photoinduced effects near the SmecticA"- Smectic C* transition, S. K. Prasad, K.L. Sandhya, D.S. Shankar Rao and Y.S. Negi Proceeding [ABSTRACT] 10th National Conference on Liquid Crystals, Bangalore, Oct. 8-9, 2003
10. "Lead-free solder bumping by electroplating for electronic packaging"-Shany Joseph, G.J. Phatak, T. Seth, K.Gurunathan, D.P. Amalnerkar and T.R.N. Kutty, IEEE TENCON 2003, Bangalore, Oct. 14-17, 2003
11. "Microwave irradiation: a novel approach to prepare high capacity nanocrystalline $Li_{0.53} Na_{0.03} MnO_2$ cathode material for rechargeable lithium

- batteries”, A. V. Murugan B.B.Kale, Aarti V. Kulkarni, Lalita B. Kunde and N. Pavaskar, IV International High Energy Materials conference and Exhibition (HEMCE-2003), 18-20 Nov, 2003
12. “Synthesis and characterization of nano sized gamma iron oxide”, S.K.Apte, R.S.Sonawane, S.D.Naik, B.B.Kale and B.K.Das, IV International High Energy Materials conference and Exhibition (HEMCE-2003), Nov. 18-20, 2003
 13. “Effect of particle size and impurities on the electrical properties of Tantalum—a strategic refractory metal”, Arbind Kumar, R. Govindaiah, M.K. Sharma, T. Balaji, Y. Purushotham and T.L. Prakash, NMD-ATM 2003, Indian Institute of Metals, Kolkata, Nov. 14-16, 2003
 14. “Effect of hydrazine hydrate in controlling the particle size of LiMn_2O_4 prepared by solution route for lithium batteries”, A.Vadivel Murugan, B.B.Kale, Lalita B.Kunde, Aarti V.Kulkarni and N.Pavaskar Fourth International High Energy Materials conference and Exhibition (HEMCE-2003), 18-20 Nov, 2003
 15. “Aqueous tape casting route for microwave substrates”, by N. Raghu in 4th Asian Meeting on Ferroelectrics (AMF-4), held at IISc, Bangalore, Dec. 12-15, 2003
 16. “Novel synthesis of nanocrystalline PZT, N. Rani Panicker”, V. Kumar, Y. Ohya and Y. Takahashi, 4th Asian Meeting on Ferroelectrics (AMF-4), IISc., Bangalore, Dec. 12-15, 2003
 17. “Novel synthesis of nanocrystalline BS, I. Packiaselvam”, P.A. Ashita and V. Kumar, 4th Asian Meeting on Ferroelectrics (AMF-4) held at IISc., Bangalore, Dec. 12-15, 2003
 18. “Impedance Spectroscopy of AgI-CuI nanocomposite system”, S. Sankara Narayanan Potty and M. Abdul Khadar, International Conference on Nano Science and Technology, (ICONSTAT), Kolkata, Dec. 17-20, 2003.
 19. “Synthesis and characterization of nano sized gamma iron oxide” – S.K.Apte, R.S.Sonawane, S.D.Naik, B.B.Kale and B.K.Das, INAE conference in Nanotechnology, ICON 2003, Chandigarh, Dec. 22-23, 2003
 20. “Nano-size zirconia prepared via single alkali treatment”, K.G.Kanade, B.B.Kale, S.K.Apte, T.Seth, R.Pasricha and B.K.Das, INAE conference in Nanotechnology, ICON 2003, Chandigarh, Dec. 22-23, 2003
 21. “Semiconductor doped glasses: growth of CdSSe nanocrystals in silicate glass”, S. K. Apte, R. S. Sonawane, S. D. Naik and B.B. Kale, International Conference on Nanotechnology (ICON), Chandigarh, Dec. 22-23, 2003
 22. “Synthesis and characterization of nanosize γ - Fe_2O_3 ”, S. K. Apte, R. S. Sonawane, S. D. Naik, B.B. Kale and B. K. Das, International conference on Nanotechnology (ICON), Chandigarh, Dec. 22-23, 2003

23. "Effect of photoluminescence for CdS nanocrystalline material prepared by microwave-solvothermal technique", V.Saaminathan, A.Vadivel Murugan, B.B.Kale, J.Arokia Raj, International conference on Materials for Advanced Technologies (ICMAT-N-1231) by International Union of Materials Research Soc (IUMRS) and Materials Research Soc. of Singapore, (NUS), 7-12, Dec-2003
24. "Novel organo-inorganic nanocomposite materials for use in high energy density batteries for electronic applications", A.Vadivel Murugan, B.B.Kale, Chai-Won Kwon, Guy Campet and K.Vijayamohan. International Conference on Nanoscience and Technology (ICONSAT-2003) Kolkata, 17, 2003
25. "Crystal growth of CdSSe in glass", S.K Apte, R.S. Sonawane, S.D. Naik , B.B. Kale R. Pasricha and N. Pavaskar, National Seminar on Crystallography, NSC-33, NCL Pune, 8-10 Jan 2004
26. "Synthesis of soluble aromatic polyureas based on hexafluoroisopropylidene [6F] and isopropylidene [IP] group containing diamine and aromatic diisocyanates", Y.S. Negi, APT-04 {International Seminar}, 2004, Kochin Univesrity, Kochin, Jan. 16-17, 2004.
27. "Preparation of optical grade poled polymer films based on m-nitroaniline doped PMMA and their second harmonic generation for optoelectronic device applications", Y.S. Negi, R.K. Goyal, S.R. Damkale, P.V. Adhyapak, M.Islam and R.C. Aiyer, APT-04 {International Seminar, 2004, Kochin Univesrity, Kochin, Jan. 16-17, 2004.
28. "Chemistry, design and development of optical grade m-nitroaniline crystals and poled m-NA doped PMMA films and their second harmonic generation for optoelectronic device applications", Y.S. Negi, R.K. Goyal, S.R. Damkale, P.V. Adhyapak, M. Islam and R.C. Aiyer, ICOT-2004, NMU, Jalgaon, Jan. 9-11, 2004
29. "Preparation of optical grade m-nitroaniline (m-NA) and PMMA doped single crystals and their optoelectronic properties", Y.S. Negi, P.V. Adhyapak , R.K. Goyal, S.R. Damkale, M.Islam and R.C. Aiyer, APT-04 {International seminar}, Kochin Univesrity, Kochin, Jan. 16-17, 2004
30. "Characterization of high performance polymers using SEM and X-ray techniques", Y.S. Negi and Tanay Seth, Proceedings APT-04 {International seminar}, 2004, Kochin Univesrity, Kochin , Jan. 16-17, 2004
31. "Synthesis and optical properties of silver nano particles in PVA", P. K. Khanna, Rahul Gokhale, and V. V. V. S. Subbarao, VIth National Symposium in Chemistry, IIT Kanpur, February 6-8, 2004
32. "Sonochemical synthesis and characterization of Bi₂Te₃ and Ag₂Te₃ alloys", B.B.Kale, A.V.Murugan, L.B.Kunde and B.K.Das, XV AGM, MRSI, BHU, Varanasi, Feb. 9-11, 2004

33. "Electroless deposition of nickel-phosphorous and nickel-boron alloy on mild steel by using new bath", R.S.Sonawane, S.K.Apte, S.D.Naik, B.B.Kale and B.K.Das, XV AGM, MRSI, BHU, Varanasi, Feb. 9-11, 2004
34. 'A novel solution based room temperature preparation of nano sized Ag-Pd and Co powder', P.K.Khanna and B.K.Das, XV AGM, MRSI, BHU, Varanasi, Feb. 9-11, 2004.
35. "Novel organic-inorganic hybrid functional nanostructured material for the future energy storage applications", A.V.Murugan, B.B.Kale, Chai-Won Kwon, Guy Compet, K.Vijaymohan and B.K.Das, Seminar on Materials for the Future, Materials Res. Centre, Indian Institute of Science, Bangalore, March 22-23, 2004.
36. "Electroless plating of copper on FR4 substrate for microvia processes in electronic Packaging", Supriya A.Ketkar, K. Gurunathan, G.J. Phatak, U.P. Mulik and D.P. Amalnerkar, XV AGM, MRSI, BHU, Varanasi, Feb.9-11, 2004
37. "Electroplating of Tin-Copper and Tin-Silver alloys for solder bumping in Electronic Packaging", K. Gurunathan, Alpana N. Phalke, S. Joseph, G.J. Phatak, T. Seth and D.P. Amalnerkar, XV AGM, MRSI, BHU, Varanasi, Feb.9-11, 2004
38. "Co-deposition of quaternary Lead-free solders for smart sensor and packaging applications", S. Joseph, Alpana N. Phalke, K. Gurunathan, G.J. Phatak, T. Seth, D.P. Amalnerkar and T.R.N. Kutty, XV AGM MRSI, BHU, Varanasi, Feb.9-11, 2004
39. "Microemulsion mediated sonochemical synthesis and characterization of CdS nanocrystal for solar cell application", K. Gurunathan, N.P. Vyawahare and D.P. Amalnerkar, XV AGM MRSI, BHU, Varanasi, Feb.9-11, 2004.
40. "Photoimageable resistor paste in electronic packaging".V.D. Giramkar, U.P. Mulik, G.J. Phatak, K. Gurunathan and D.P. Amalnerkar, XV AGM MRSI BHU, Varanasi, Feb.9-11, 2004
41. "Photoimageable conductor composition for high density electronic packaging of smart devices and allied subsystems", Govind G. Umarji, Supriya A. Kelkar, R. Marimuthu G. J. Phatak, T. Seth, D.P. Amalnerkar and U.P. Mulik, XV AGM MRSI, BHU, Varanasi, Feb. 9-11, 2004
42. "Effect of phosphorous addition on physical and electrical properties of tantalum powder", Y. Purushotham, R. Govindaiah, Arbind Kumar and T.L. Prakash, XV AGM MRSI, BHU, Varanasi, Feb. 9-11, 2004
43. "Solvo-thermal synthesis of lead chalcogenides nano powders", P. K. Khanna V.V.V.S.Subbarao, Mangesh Wagh, Pramod Jadhav and Rina Gorte, IXth International Conference on the Chemistry of Selenium and Tellurium (ICCST-9), IIT-Bombay, Mumbai, Feb. 23-27, 2004

44. "Reduction of selenium in DMF and synthesis of silver selenide nano powder from silver nitrate", P. K. Khanna V.V.V.S.Subbarao and Rahul Gokhale, IXth International Conference on the Chemistry of Selenium and Tellurium (ICCST-9), IIT-Bombay, Mumbai, Feb. 23-27, 2004
45. "An improved and efficient synthesis of Octeno-1,4-diselenin and its Charge-transfer complexes derived from pi-acceptors", P. K. Khanna, Sandhya Vyas and Sujata Waghmare, IXth International Conference on the Chemistry of Selenium and Tellurium (ICCST-9), IIT-Bombay, Mumbai, Feb. 23-27, 2004
46. "Solution route synthesis and characterization of SrRuO₃ for supercapacitor and resistor paste applications", K. Gurunathan, N.P. Vyawahare and D.P. Amalnerkar, Raman Memorial Conference, Pune University, Feb. 26-27, 2004
47. "Removal of selenium and preparation of 7N tellurium for opto-electronic applications", N.R. Munirathnam, D.S. Prasad, J.V. Rao and T.L. Prakash, ICCST-9, IIT, Mumbai, February 23-27, 2004
48. "Conducting polyaniline as humidity sensor", Milind V. Kulkarni, Annamraju Kasi Viswanath and R. C. Aiyer, National Seminar on Physics and Technology of Sensors (NSPTS 10) Pune, March 3-6, 2004

2004-2005

JOURNALS

1. "Investigation of effect of protonic acid media on the optical and thermal properties of chemically synthesized poly(o-toluidine)", Milind V. Kulkarni , Annamraju Kasi Viswanath, R. Marimuthu and U. P. Mulik, Journal of Materials Science : Materials in Electronics, 15 (2004) 781.
2. "Effective synthesis of sub-micron size silver powder for end application in passive components" S. B. Rane, V. Deshpande, T. Seth, G.J. Phatak, D.P. Amalnerkar and B.K. Das Powder Metallurgy & Metal Ceramics, 43, 9-10 (September 2004) 437- 442
3. "Preparation and Investigation of Second Harmonic Generation (SHG) Properties of m-Nitroaniline Doped PMMA Guest-Host System for Optoelectronic Device Applications", R.K. Goyal, S.R. Damakale, P.V. Adhyapak, M. Islam, R.C. Aiyer, Y.S. Negi, International Journal of Plastics Technology, Vol. 8, 2004, 249-255.
4. "Scanning electron microscopy, Spectroscopy and Thermal studies of Polyaniline Doped with Various Sulphonic acids)" Milind V. Kulkarni and Annamraju Kasi Viswanath, Journal of Macromolecular Science, Part A- Pure and Applied Chemistry A 41, No.10 (2004) 1173.

5. "Spectroscopic, transport and morphological studies of inorganic acids doped polyaniline", Milind V. Kulkarni, Annamraju Kasi Viswanath, R. Marimuthu and Tanay Seth. Polymer Engineering and Science, 44 (2004) 1676.
6. "Preparation of Novel Optical Grade m-Nitroaniline and Polymethylmethacrylate Coated Single Crystals and Their Optical Properties", Y.S. Negi, PV. Adhyapak, S.R. Damakale, R.K. Goyal, M. Islam, R.C. Aiyer, Materials Letters, Vol. 58, 2004, 3929-3932.
7. "Production and luminescent properties of CdSe and CdS nanoparticle-polymer composites", A. V. Firth, S. W. Haggata, P. K. Khanna, S. J. Williams, J. W. Allen, S. W. Magennis, I. D.W. Samuel, and D. J. Cole-Hamilton J. Lumines., 163, 109, 2004
8. "Simple and effective synthesis of cadmium selenide" in aq. DMF, P.K.Khanna, C.P.Morley, R.M.Gorte, R. Gokhale, VVVS Subbarao and C.V.V. Satyanarayana, Mater. Chem. Phys. 323, 83, 2004
9. "PVP coated nanosized silver powder", P.K.Khanna, R.Gokhale and VVVS Subbarao, J. Mater. Science, 3773, 39(11), 2004
10. "Synthesis of fine CdS powder from direct *in-situ* reduction of sulphur and cadmium salts in aq. DMF", P.K.Khanna and V.V.V.S.Subbarao, Materials Letters, 2801, 58 2004.
11. "Polyaniline-CdS nanocomposite from organometallic cadmium precursor", P.K.Khanna, S.Lonakar, V.V.V.S.Subbarao and Ki-Won Jun, Mat. Chem. Phys. 49, 87, 2004
12. "Microwave-accelerated hydrothermal synthesis of blue white phosphor: Sr_2CeO_4 ", Y.B. Kholam, S.B. Deshpande, P.K. Khanna, P.A. Joy, H.S. Potdar, Materials Letters. 2521, 58, 2004
13. "Effect of inorganic binders on the properties of silver thick films" S.B.Rane, M. Ghatpande, T.Seth, G.J.Phatak and D.P.Amalnerkar, J. Materials Sci: Materials in Electronics, 15, 103 (2004).
14. "Compositional effects on microstructure evolution and microwave properties of silver-palladium based thick film microstrips", S. Rane, V. Deshpande, T. Seth, G. Phatak, D.P. Amalnerkar and R. Aiyer, J. Materials Sci: Materials in Electronics, 15, 11(2004), 751-755.
15. "Microwave dielectric properties of $BaO-2CeO_2-n TiO_2$ ceramics, H. Sreemoolanadhan, M.T. Sebastrian, R. Ratheesh, R. Blachnik, M. Woehlecke, B. Schneider, M. Neumann and P. Mohanan, Journal of Solid State Chemistry, 177 (2004) 3995-4000.
16. "Temperature dependent thermoelectric power of CuO, ZnO and TiO_2 substituted for PbO in eutectic Lead Vanadate glass system, K.V. Ramesh, D.L. Sastry and Y. Purushotham, International Journal of Modern Physics B 18 (2004) 3327-3341.

17. "Structural and magnetic properties of NiZn ferrites prepared by Microwave sintering Monica Sorescu, L. Diamandescu, R. Peelamedu, R. Royu and P. Yadoji, Journal of Magnetism and Magnetic Materials 279(2004) 195-201.
18. "Studies on chemically synthesized organic acid doped poly(o-toluidine)", Milind V. Kulkarni, Annamraju Kasi Viswanath, and U. P. Mulik, Materials Chemistry and Physics, 89, 1, (2005) 1.
19. "Solution route synthesis and characterization of nanocrystalline Bi₂Ru₂O₇ for usage in resistor paste application", K. Gurunathan, N. Vyawahare, G.J. Phatak and D.P. Amalnerkar, J. Material Science, Materials in Electronics, 16, 159 (2005).
20. "Materials Chemistry of 1, 2, 3, selenadazole", P.K. Khanna, Phosphorus, Sulfur and silicon and the related elements, 180(2005) 951.
21. "Colloidal synthesis of indium nanoparticles by sodium reduction method", P.K.Khanna, Ki-Won Jun, Ki Bum Hong, Jin-Ook Baeg and B.K.Das, Materials Letters, 59 (2005) 1032
22. "Synthesis of InP nanocrystals via catalytic cleavage of phosphorus carbon bond in n- trioctylphosphine (TOP) by indium nano particles", P. K. Khanna, K-W. Jun, K. B. Hong, G. K. Mehrotra, J-O. Baeg, B. K. Das, Mater. Chem. Phys. 92/1 (2005) 54.
23. "PVA stabilized gold nanoparticles by use of unexplored albeit conventional reducing agent", P. K. Khanna, R. Gokhale, V. V. V. S. Subbarao, A. K. Viswanath, B.K.Das and C.V.V. Satyanarayana, Mater. Chem Phys, 92/1(2005)229
24. "Synthesis of Ag/Pani nanocomposite via an *in situ* photo-redox mechanism", P.K.Khanna, N.Singh, S.Charan, A.K.Viswanath, Mater.Chem.Phys., 92/1(2005)214
25. "Synthesis and characterization of CaRuO₃ and SrRuO₃ for Resistor Paste", K.Gurunathan, N.Vyawahare and D.P.Amalnerkar J. Mater. Sci.: Materials for Electronics, 16(1)(2005) 47-53
26. "Novel polymer -inorganic solid-state reaction for the synthesis of CdS nanocrystallites", K.G. Kanade, R.R. Hawaldar, R. Pasricha, S. Radhakrishnan, T. Seth, U.P. Mulik, B.B. Kale & D.P. Amalnerkar, Mterials Letters, 59/5, 554 (2005).
27. "Photoimageable silver paste for high density interconnection technology", G.G. Umarji, S.A. Ketkar, G.J. Phatak, T. Seth, U.P. Mulik & D.P. Amalnerkar, Materials Letters, 59/4, 503 (2005).
28. "Synthesis of a novel photocatalyst, ZnBiVO₄ for the photodecomposition of H₂S", B.B. Kale, Jin-Ook, Baeg, Jin S. Yoo, Sang Mi Lee, Chul Wee Lee, Sang-Jin Moon and Hyunju Chang, Canadian J. Chem, 83 1-6(2005).

BOOKS/PROCEEDINGS

1. "Synthesis and Characterisation of Nanocrystalline CdS and Polythiophene for Organic-Inorganic Hybrid Thin Film Solar Cell", R. Marimuthu, K. Gurunathan, N.P. Vyawahare, U.P. Mulik and D.P. Amalnerkar, Proc. of NSSTTF (2004) 198-202.
2. "Nanosized SrRuO₃ Powder: Solution route Synthesis, Characterisation and its Use in Thick Film Resistor for Hybrid Nanoelectronics", K. Gurunathan, Ashish Baraskar, N.P. Vyawahare, R. Marimuthu and D.P. Amalnerkar, Proc. Of IINC (2004) 127-132.
3. "Preparation and Properties of Novel NLO Active m-NA Doped Recycled Polystyrene", Y.S. Negi, M.S. Sureshkumar, R.K. Goyal, M. Islam and R.C. Aiyer, Proc. National Conference on Microwave and Optoelectronics (NCMO-2004), Aurangabad, Maharashtra.
4. "Synthesis of nanosize Mn-ferrite and Mn-Zn Ferrite and their characterization", K.G. Kanade, S.K. Apte, R.S. Sonawane, D.P. Amalnerkar, B.B. Kale and B K Das, Proc., Ninth International Conference on Ferrites (ICF-9) P. 853-58, 23-27 August 2004, San Francisco.
5. "Nanosize Mn₃O₄ (Hausmannite) powder preparation by microwave for ferrites" S.D. Naik, S.K. Apte, R.S. Sonawane, B.B. Kale, N. Pavaskar and B.K. Das Proc. Ninth International Conference on Ferrites (ICF-9) 25-29, 23-27 August 2004, San Francisco.
6. "Organic Vehicle effects on devitrification of lead fress glasses used in thick film technology", Sunit Rane, Maria Prudenziati and Bruno Morten, Presented & Publsihed in IMAPS-IINC-Bangalore, Nov 27-28, 2004, pp.25-29.
7. "Properties of leadless conductive thick films made from co-precipitated silver-palladium powders", V. Deshpande, A. Kshirsagar, S. Rane, T. Seth, G.J. Phatak and D.P. Amalnerkar, Presented & Published in IMAPS-IINC Bangalore, Nov. 27-28, 2004, pp. 30-35.
8. "Effect of Glass Content Variation on Properties of Photoimageable Silver Conductor Paste", S.A. Ketkar, G.G. Umarji, G.J. Phatak, T. Seth, U.P. Mulik and D.P. Amalnerkar, Presented & Published in IMAPS India National Chapte (IINC), Bangalore, during November 27-28, 2004, pp. 43-50.
9. "Thermally Cured Silver Epoxy Paste for Microvia Applications", Harikrishna Dutt, Girish J. Phatak, U.P. Mulik and D.P. Amalnerkar, Presented & Published in IMAPS India National Chapte (IINC), Bangalore, during November 27-28, 2004, pp. 115-121.
10. "Nanosized SrRuO₃ powder: solution route synthesis, characterization and its use in thick film resistor for hybrid nanoelectronics", K. Gurunathan, Ashish Baraskar, N.P. Vyawahare, R. Marimuthu and D.P. Amalnerkar, Presented &

Published in IMAPS India National Chapter (IINC), Bangalore, during November 27-28, 2004, pp. 127-132.

11. "Perovskite Ruthenate-Based Lead Free Thick Film Resistors", Sunit Rane, Maria Prudenziati, Bruno Morten, Presented & Published in Proc. 3rd European Microelectronics and Packaging Symposium (EMAPS 2004) Prague, 16-18th June 2004, pp.277-282.
12. "Aqueous developable photoimageable silver conductor composition for high density electronic packaging", G.G. Umarji, S.A. Ketkar, G.J. Phatak, V.D. Giramkar, U.P. Mulik and D.P. Amalnerkar, Published in 28th International Conference of IMAPS Poland Chapter, Wroclaw during September 26-29, 2004 pp. 401-494, Extended paper invited in Microelectronics Reliability International journal.
13. "Microstructure Electrical properties of Perovskite ruthenate based Lead Free Thick Film Resistors on alumina and LTCC", S. Rane, B. Morten, M. Prudenziati, L/ Golonka, A. Dezdzi, presented & published in Proc. 28th Conference of Int. Microelectronics and Packaging Society (IMAPS-Poland), Wroclaw 26-29, September 2004, p. 362-365.
14. "Second Harmonic Generation in NLO Active m-Nitroaniline/Recycled Polystyrene System", M.S. Sureshkumar, R.K. Goyal, Y.S. Negi, Jagdish V. Dadge, M. Islam and R.C. Aiyer, Proceeding of International Conference on Polymers, MACRO-2004, Dec., 14-17, 2004, Trivandrum, India.
15. "Synthesis of nano-particles of silver and gold by solution methods", P.K. Khanna, International conference on business opportunities in Microsystems and nanotechnology, Feb 3-4, New Delhi, India, 2005-pp 1-5.
16. "Preparation and studies of PVA coated CdSe nanoparticles via organometallic chemistry", Yogesh Patil, Narendra Singh and P.K. Khanna, International Conference on Advances in Polymer Blends, Composites, IPNS and Gels, Macro to Nano Scales, Kottayam, Kerala, March 21-23, 2005, pp 1-8.
17. "Synthesis of Novel photocatalyst and its crystal structure", B.B. Kale, J.O. Baeg, S.M. Lee, S.J. Moon, C.W. Lee, and H. Change Meter, Res. Soc. Symp. Proc., 2005, Vol 878E, Y4.5.1.
18. "Reduction of trace oxygen by hydrogen bleeding during purification of cadmium using selective vaporization", S.T. Ali, N.R. Munirathnam, C. Sudheer, R.C. Reddy and T.L. Prakash Proceedings of International symposium on advanced materials and processing held during 6-8 Dec 2004, IIT Kharagpur, India.
19. "Effect of melt temperature, exposure time and hydrogen flow rate on deoxidation kinetics in high purity cadmium", N.R. Munirathnam, C. Sudheer, R.C. Reddy and T.L. Prakash, Proceedings of International symposium on advanced materials and processing held during 6-8 Dec 2004, IIT Kharagpur, India.

20. "Study on the impurities segregation behaviour during zone refining of indium"; V.N. Mani and K. Balaraju, Procs of 7th International Conference on Optoelectronics, fiber optics and photonics-photonics-2004, Dec. 09-11, 2004, Kochi, India, pp. 354-358.
21. "Pulsed laser deposition of pure and Al-Ga and In-doped ZnO thin films and their characterization", V.N. Mani and Li-Shing, Hsu., Procs, of 7th International Conference on Optoelectronics, fiber optics and photonics-photonics-2004, Dec. 09-11, 2004, Kochi, India, pp. 324-328.

SYMPOSIUM/CONFERENCES

1. "Optical transmission study of CdS nanoparticles doped in low melting Bi₂O₃-K₂O-ZnO-P₂O₅ glass", D.B. Raskar, S.K. Apte, S.D. Naik, R.S. Sonawane and B.B. Kale National Conference on Nanoscience and Technology (Nanosphere – 2004) 11-12 June 2004, Chennai.
2. "Visible light assisted Hydrogen production using undoped/doped γ -Bi₂O₃ semiconductor powder", K. Gurunathan and S. Velumani, 17th International Conference on ECOS-2004 to be held at Guanajuato, Mexico, during July 7-9, 2004.
3. "Effect of solvents on Sonochemical synthesis and characterization of nanocrystalline CdS powder for solar cells", K. Gurunatha, N.P. Vyawahare, D.P. Amalnerkar and B.K. Das, S. Velumani and P.J. Sebastian, XIII International Materials Research Congress, Cancun, Mexico, 22-26 August 2004.
4. "Preparation and Characterization of Polyaniline/TiO₂ composites and composite Electrodes", K. Gurunathan and D.C. Trivedi, XII international Materials Research Congress, Cancun, Mexico, 22-26 August 2004.
5. "An effective synthesis of nano crystalline InP from Na₃P", Ki Bum Hong, P.K. Khanna, Ki-Won Jun, Min-Sik Eum and Jin-Ook Baeg, KSIEC Spring Meeting, S. Korea, May 7-8, 2004.
6. "Colloidal Synthesis of PbSe Quantum Dots", Anisha Gokarna, P.K. Khanna, Ki-Won Jun, Jin-Ook Baeg and San, KSIEC Spring Meeting, S, Korea, May 7-8, 2004.
7. "Synthesis and Spectro-SHG Evaluation of Poled Organic Chromophore (m-NA) Doped in PMMA/PC/Re-PS Based Freestanding Films for Photonics", Y.S. Negi, R.K. Goyal, M. Islam and R.C. Aiyer 7th International Conference on Optoelectronics, Fiber Optics and Photonics PHOTONICS-2004, Dec. 7-11, 2004, Cochin, India.
8. "Self-assembly of nano PbS in particulate thin films by liquid-liquid interface reaction technique", R.R. Hawaldar, K.R. Patil, S.D. Sathaye, U.P. Mulik and

Dinesh Amalnerkar, National Seminar on Science and Technology of Thin Films (NSSTTF-2004), Latur, October 16-17, 2004.

9. "Novel polymer-inorganic solid-state reaction for the synthesis of CdS nanocrystallites", K.G. Kanade, R.R. Hawaldar, T. Seth, U.P. Mulik and B.B. Kale and D.P. Amalnerkar, National Seminar on Science and Technology of Thin Films (NSSTTF-2004), Latur, October 16-17, 2004.
10. "Synthesis and characterization of nanocrystalline CdS and Polythiophene for polythiophene for organic-inorganic hybrid thin film solar cell", R.Marimuthu, K. Gurunathan, N.P. Vyawahare, U.P. Mulik and D.P. Amalnerkar, National Seminar on Science and Technology of Thin Films (NSSTTF-2004), Latur, October 16-17, 2004.
11. "Effect of surfactant on sonochemical synthesis and characterization of n-CdS for solar cells", K. Gurunathan, N. Vyawahare, A. Singhal and D.P. Amalnerkar, Nanomaterials Conference held in Stanford, CT, USA, 25-26, October 2004.
12. "Some Challenges for C-MET in nano Electronics", B.K. Das, IMAPS India National Chapter (IINC), Bangalore, November 27-28, 2004.
13. "Nanoscale multilayer PbS thin films fabricated by liquid-liquid interface reaction technique for solar photovoltaic applications", R.R. Hawaldar, S.D. Sathaye, K. R. Patil, T. Seth, U.P. Mulik, G.J. Phatak and D.P. Amalnerkar, International Conference on Electrochemical Power Systems (ICEPS-2), Hyderabad, December 20-21, 2004.
14. "Microwave Synthesis and Characterisation of LiFePO_4 , Cathode Materials for Rechargeable Lithium Batteries", D.B. Raskar, S.K. Apte, S.D. Naik, S.S. Malwadkar and B.B. Kale, International conference on Electrochemical Power Systems (IEPS-2), 20-21, December 2004.
15. "Synthesis and Characteristics of Nanocrystalline $\text{LiMn}_{1-y}\text{Co}_y\text{O}_2$ Cathode Materials for Rechargeable Lithium Batteries", D.B. Raskar, S.K. Apte, S.D. Naik, S.S. Malwadkar and B.B. Kale, International conference on Electrochemical Power Systems (IEPS-2), 20-21, December 2004.
16. "CdSSe crystal growth in the silica galls: A temperature dependence study", B.B. Kale, S.K. Apte, R.S. Sonawane and S.D. Naik, 7th International Conference on Optoelectronics, Fiber, Optics and Photonics (Photonics 2004), 9-11 December 2004, Cochin.
17. "Electropolymerization in presence of surfactant and characterization of polythiophene thin films for solar cells", K. Gurunathan, R. Marimuthu, S. Velumani, J. Sebastian, U.P. Mulik and D.P. Amalnerkar, 16th AGM-MRSI meeting held at N.C.L. Pune during February 10-12, 2005.
18. "Micro-emulsion mediated sonochemical synthesis and characterization of nanosized CdSe for solar cell application", K. Gurunathan, R. Marimuthu, D.

Krishna, S.Velumani, P.J. Sebastian and D.P. Amalnerkar, 16th AGM-MRSI meeting held at NCL, Pune February 10-12, 2005.

19. "Synthesis and characterization of high surface area nanosized hydrous ruthenium oxide ($\text{RuO}_2 \cdot x\text{H}_2\text{O}$) supercapacitor application", K. Gurunathan, R. Marimuthu, N.P. Vyawahare and D.P. Amalnerkar, 16th AGM-MRSI meeting held at N.C.L., Pune February 10-12, 2005
20. "Phase separation of glass in photoimageable resistor paste", V.D. Giramkar, K. Gurunathan, U.P. Mulik, G.J. Phatak and D.P. Amalnerkar, 16th AGM-MRSI meeting held at N.C.L., Pune February 10-12, 2005
21. "Co-precipitation synthesis and characterization of nanosized CaRuO_3 , powder and its fired thick film, resistors for hybrid micro-circuits", K Gurunathan, Ashish Baraskar, R. Marimuthu and D.P. Amalnerkar, 16th AGM-MRSI meeting held at N.C.L., Pune February 10-12, 2005.
22. "Effect of additives on microstructure of electrodeposited high lead Sn-Pb films", V. Rane, K. Kulkarni, J. Wadekar, S. Joseph, K. Gurunathan, G.J. Phatak and D.P. Amalnerkar, 16th AGM-MRSI meeting held at N.C.L., Pune February 10-12, 2005.
23. "Development of plating bath for ternary Lead free solder deposition for electronic packaging applications", S. Joseph, G.J. Phatak, K. Gurunathan, T. Seth and D.P. Amalnerkar, 16th AGM-MRSI meeting held at N.C.L., Pune February 10-12, 2005.
24. "Large Scale preparation of organically capped silver nano particles", by P.K. Khanna, Shobhit Charan and Narendra Singh, 16th AGM-MRSI meeting held at N.C.L., Pune February 10-12, 2005.
25. "A novel solution method for conversion of commercial selenium powder to selenium rods via selenium nano balls', P.K. Khanna and Yogesh Patil, 16th AGM-MRSI meeting held at N.C.L., Pune February 10-12, 2005.
26. "Ag/Polyaniline nano composite via in-situ photo generation of silver nano particles for corrosion protection', by P.K. Khanna and Yogesh Patil, 16th AGM-MRSI meeting held at N.C.L., Pune February 10-12, 2005.
27. "Synthesis of nano sized silver via formation of intermediate silver citrate and its reduction by sodiumformaldehyde sulfoxylate', P.K. Khanna, Yashodhan Gokhale and Shobhit Charan, 16th AGM-MRSI meeting held at N.C.L., Pune February 10-12, 2005.
28. "One-step synthesis of nano-sized Ag-Pd co-powder", R. Warherkhar, A. Jirwankar, S. Charan and P.K. Khanna, Raman Memorial Conference, University of Pune, India, February 25-26, 2005.
29. "Preparation and studies of PVA coated CdSe nanoparticles via organometallic chemistry", Yogesh Patil, Narendra Singh and P.K. Khanna, International

Conference on Advances in Polymer Blends, Composites, IPNS and Gels; Macro to Nano Scales, Kottayam, Kerala, March 21-23,2005.

30. "Processing of conducting polyaniline-CdS nano composite by use of organometallic cadmium precursor", Narendra Singh, P.K. Khanna, M.V. Kulkarni, V.V.V.S. Subbarao, S. Lonkar and A. Kasi Viswanath, International Conference on Advances in Polymer Blends, Composites, IPNS and Gels; Macro to Nano Scales, Kottayam, Kerala, March 21-23,2005.
31. "A study on the development of polymer ceramic composite dielectric material for integral capacitor application", K.R. Dayas, A. Seema, Anju Krshina and K. Prasad, International Conference on Advances in Polymer Blends, Composites, IPNS and Gels; Macro to Nano Scales, Kottayam, Kerala, March 21-23,2005.
32. "Nanostructured CdS/CdSSe glass composite for photonic applications", S.D. Naik, S. K. Apte, R. S. Sonawane, U.P. Mulik and B.B. Kale, DST Sponsored 'National Conference on Nanoscience and Technology under NSTI 7-8 March 2005, NCL, Pune
33. "Synthesis and characterization of nano size Tantalum Oxide", B.B. Kalem Jin Ook-Berg, Sang Mi Lee, S.D. Naik, S.K. Apte, A.V. Murugan, R.S. Sonawane, 16th AFM-MRSI, 9-11 February 2005, NCL, Pune.
34. "New metal oxide photocatalysts for water splitting", Jin-Ook Baeg, B.B. Kale, Hyunju Chang, Sang-Jin Moon, The Korean Chemical Society, 2004, Fall meeting.
35. "Photoproduction of hydrogen from hydrogen sulfide using a novel ZnBiVO₄ photocatalyst", Jin Oak Beag, B.B. Kale, Sang-Jin, Moon Hyunju Chang and Chul Wee Lee, The Korean Society of Industrial and Engineering Chemistry, 2005, Sprint meeting.
36. "A study on Deoxidation kinetics During Ultrapurification of Cadmium", S.T. Ali, G. Anil, Ch. Sudheer, R. Munirathnam and T.L. Prakash, MRSI Theme Symposium on Materials for Automobile Industry (10-12 Feb. 2005) at NCL, Pune.
37. "A novel in-situ technique of ultra purification – technological perspective", S.T. Ali, R.C. Reddy, N.R. Munirathnam, Ch. Sudheer, T.L. Prakash, MRSI Theme Symposium on Materials for Automobile Industry (10-12 Feb. 2005) at NCL, Pune.
38. "Effect of liquid zone directional aspects on the ultra high purification of gallium", U. Rambabu, N.R. M. Rathnam, R.C. Reddy and T.L. Prakash, MRSI Theme Symposium on Materials for Automobile Industry (10-12 Feb. 2005) at NCL, Pune.
39. "High purity Non-ferrous Metals for Electronics-Problems and Prospects", R.C. Reddy, N.R. M. Rathnam, S.T. Ali and T.L. Prakash published in the

proceedings of the Eighth International Conference on Non Ferrous Metals – 2004, Bangalore, Held during 6-7 August 2004.

40. “Ultra-trace Analysis of High Purity electronic Materials using Radio Frequency Glow Discharge, Optical Emission Spectrometer (RF-GDOES)”, M.R.P. Reddy, G. Anil, N.R. Munirathnam, S.T. Ali, D.S. Prasad and T.L. Prakash, International symposium of Ultra Pure Materials Hyderabad during 22-23 Nov. 2004.
41. “Separation of tantalum from niobium in the preparation of high purity niobium pentoxide- A. Challenge to technologies”, Rajesh Kumar S, Anil G. Sharma M.K., Govindaiah R., Reddy M.R.P. Kumar A., and Prakash T.L., MRSI annual Meeting, Pune Feb 2005.
42. “Effect of container material interaction of physio-chemical characteristics of Tantalum”, Y. Purushotham. R. Govindaiah, M.K. Sharma, T. Balaji, Arbind Kumar and T.L. Prakash, 7th Conference of the International Academy of Physical Sciences (CONIAPS VII), December 21-23, 2004, University of Allahabad, Allahabad, India.
43. “Dielectric Formation and Electrical Characterisation of Sintered Tantalum Slugs”, Balaji T., Arbind Kumar, Govindaiah R., Purushotham Y., Sharma M.K., Prakash T.L., 16th Annual General Meeting of Materials Research Society of India (16th AGM-MRSI), February 10-12, 2005, National Chemical Laboratory, Pune India.
44. “High Purity Tellurium Production Using Dry Refining Processes”, N.R. Munirathnam, D.S. Prasad, J.V. Rao and T.L. Prakash presented in the International symposium on Ultra Pure Materials, Hyderabad 22-23, November 2004.
45. “Solder powder through close coupled atomization for microelectronic solder paste applications”, Reddy R.C. and Prakash T.L., MRSI-16 Annual General Meeting, Pune 10-12 Feb 2005.
46. “A study on the development of polymer ceramic composite dielectric material for integral capacitor application”, K.R. Dayas, A. Seema, Anju Krishna and K. Prasad, International Conference on advances in polymer blends, IPNS and gels, macro to nano scales, Mahatma Gandhi University, India, March 21-23, 2005.
47. “Effect of filler concentration on the microwave dielectric properties of PTFE/ceramic based composite substrates”, R. Ratheesh, S.N. Potty, K.P. Murali, V. Priyadarshini and P. Mohanan, International Conference on recent advances in composite materials Banaras Hindu University, Varanasi.
48. “Preparation and dielectric properties of composite substrate with varying filler concentration”, R. Ratheesh, S.N. Potty, K.P. Murali, V. Priyadarshini and P. Mohanan, Proceedings of APSYM, December 21-23, Department of Electronics, CUSAT, Kochi, p 292-295.

49. 'Multilayer ceramic actuator- a versatile device for a variety of applications', Denny P. Alappattu, G. Unnikrishnan, K.G. Vasanthakumari, K. Sasidharan and N. Raghu National Seminar on Ferroelectrics and Dielectrics (NSFD-XII), held at Delhi University on November 23rd to 25th 2004.
50. "Piezoelectric multilayer actuators- a versatile component for various automobile applications", Sasidharan K. Denny P. Alappattu, Vasanthakumari K.G., Rani Panicker N and Raghu N, 16th Annual General Meeting of Materials Research Society of India (MRSI) held at NCL, Pune on February 10th to 12th 2005.
51. "Multi layer electrostrictive actuator based on relaxor ferroelectric ceramics" Vasanthakumari K.G., Denny P. Alappattu, Sasidharan K and Raghu N., 16th Annual General Meeting of Materials Research Society of India (MRSI) held at NCL, Pune on February 10th to 12th 2005

2005-2006

JOURNALS

1. "Nanosize Mn₃O₄ (Hausmannite) by microwave irradiation method", S.K. Apte, S.D. Naik, R.S. Sonawane, B.B. Kale, Neela Pavaskar , S.K. Apte , S.D. Naik , R.S. Sonawane, B.B. Kale, Neela Pavaskar , A.B. Mandale and B.K. Das, Materials Research Bulletin 3165(2006)1-8
2. "Homogeneous growth of CdS/CdSSe Nanoparticles in glass matrix", S. K. Apte, B. B. Kale, R. S. Sonawane, S. D. Naik, S. S. Bodhale and B. K. Das, Materials Letters, Vol 60 (4) , Feb - 2006, 499-503.
3. "Nanostructured CdS/CdSSe glass composite for photonic application", S D Naik, S K Apte, R S Sonawane, U P Mulik and B B Kale, Pramana: Journal of Physic, Vol 65 (4), Oct - 2005, 707-712
4. "Temperature dependent nonlinear coefficients and second harmonic generation in quaternary glass system doped with TiO₂ ", J. W. Dadge, S. K. Apte, S. D. Naik, B. B. Kale, R. C. Aiyer, Journal of Optoelectronics and Advanced Materials , Vol 8 (1) ,Feb 06 , 368-371
5. "Microstructure and electrical properties of 'pre-sintered bismuth Ruthenate-glass composite based thick film paste for resistor applications", M. V. H. Rao, V. D. Giramkar, G. J. Phatak, D. P. Amalnerkar, K. S. Sastri and V. N. Krishnamurthy, Int. J. Electronics, 92, No. 8 (2005) pp. 451-466.
6. "Structural and Electrical Properties of Perovskite Ruthenate-based Lead-Free Thick Film Resistors on alumina and LTCC", S. Rane, M. Prudenziati, B. Morten, L. Golonka, A. Dziezic, J. Material Science: Mat. in Electronics, 16, 10, (October 2005) 687-691.
7. "CaRuO₃-based 'Green' Thick Film Resistors", Sunit Rane, Maria Prudenziati, Bruno Morten, J. Active & Passive Devices, 1, 2 (2005) 123-135.
8. "Preparation of High Performance Composites Based on Aluminum nitride/Poly(ether-ether-ketone) and Their Properties", R. K. Goyal, A. N. Tiwari, and Y. S. Negi, European Polymer Journal, 2005; 41(9): 2034-2044.

9. "High Performance Polymer Composites on PEEK Reinforced with Aluminum oxide", R. K. Goyal, Y. S. Negi, and A. N. Tiwari. Journal of Applied Polymer Science, 2006; 100(6): 4623-4631.
10. "Self-assembly of nanostructured PbS for solar photovoltaic applications" , R.R. Hawaldar, K.G. Kanade, K.R. Patil, S.D. Sathaye, U.P. Mulik and D.P. Amalnerkar, Materials Chemistry and Physics 91(2,3),447-453(2005)
11. "Synthesis and characterization of Ag/PVA nanocomposite by chemical reduction method" P.K. Khanna, Narendra Singh, Shobhit Charan, V.V.V.S. Subbarao, R. Gokhale and U.P. Mulik, Materials Chemistry and Physics 93(1),117-121(2005).
12. Properties of leadless conductive thick films of co-precipitated silver-palladium powders, V. Deshpande, A. Kshirsagar, S. Rane , T. Seth, G. J. Phatak, U.P. Mulik and D. P. Amalnerkar, Materials Chemistry and Physics 93(2,3),320-324(2005)
13. Growth of PbS Nanopyramidal Particulate Films for Potential Applications in Nano - antennas and Quantum-dot Photovoltaics, Ranjit Hawaldar, Uttamrao Mulik, Kashinath Patil, Renu Pasricha, Shivaram Sathaye, Aaron Lewis and Dinesh Amalnerkar, Materials Research Bulletin, Volume 40, Issue 8, 11 August 2005, Pages 1353-1360
14. An Aqueous Developable Photoimageable Silver Conductor Composition for High Density Electronic Packaging, G.G. Umarji, S.A. Ketkar, G.J. Phatak, V.D. Giramkar, U.P. Mulik and D.P. Amalnerkar, Microelectronics Reliability Vol 45/12 pp 1903-1909(2005)
15. Self-assembled Nanocages of Anthracene by Liquid-Liquid Interface Recrystallization Technique, Ranjit Hawaldar, Sandesh Jadkar, Bharat Kale, Uttam Mulik , Shivram Sathaye and Dinesh Amalnerkar, Chemistry Letters , 35, 26-28(2006)
16. Materials Chemistry of 1,2,3-selenadiazoles, P.K.Khanna, Phosphorus, sulfur and silicon, 180 (2005) 951
17. Direct synthesis of nano-crystalline silver from the reaction between silver carboxylates and n-trioctyl phosphine, S. Charan, N. Singh, P. K. Khanna, K. R. Patil, J. Nanoscience and Nanotechnology, 6, 1-8, 2006
18. Tuned Optical Properties of *in-situ* synthesized m-NA doped Ag/PVA nano-composites, P. V. Adhyapak, P. K. Khanna, J. W. Dadge, R. C. Aiyer, J. Nanoscience and Nanotechnology, 6, 1-8, 2006
19. One step synthesis of TOP capped PbSe pyramidal nano-crystals, P.K. Khanna, K-W Jun, Anisha Gokarna, Jin-Ook Baeg and Sang Il Seok, Mater. Chem Phys, 154, 96, 2006

20. Synthesis of InP nano-crystals from indium chloride and sodium phosphide by solution route, Ki-Won Jun, P. K. Khanna, Ki-Bum Hong, Jin-Ook Baeg, Yung-Doug Suh, Mater. Chem Phys., 494, 96, 2006
21. The processing of CdSe/Polymer nano-composites *via* solution organometallic chemistry, Narendra Singh, P. K. Khanna, Yogesh Patil, Sunil Lonkar, A. Satyanarayana Reddy, and A. Kasi Viswanath, Mater. Chem Phys, 288, 97, 2006
22. Synthesis β -Ag₂Se from organo-selenium precursor and silver nitrate in DMF via simultaneous reduction of selenium and silver salt, P. K. Khanna, N. Singh, Shobhit Charan, and K. R. Patil, Materials Letters, 2080, 87, 2006
23. Synthesis of HCl doped polyaniline-CdS nano-composite by use of organometallic cadmium precursor, P.K.Khanna, M. V. Kulkarni, Narendra Singh, V.V.V. S. Subbarao, S. Lonkar and A. K. Viswanath, Mater. Chem. Phys., 24, 95 2006
24. Spectroscopic, Thermal and Electrical properties of Sulphonic acids doped poly (o-Anidine) and their application as humidity sensor. Milind V. Kulkarni and Annamraju Kasi Viswanath, Sensors and Actuators B. Chemical 107 (2005) 791.
25. Synthesis, characterization and morphology of p-toluene sulphonic acid doped polyaniline: A material for humidity sensing application, Milind V. Kulkarni, Annamraju Kasi Viswanath, R.C. Aiyer and P.K. Khanna.
26. Investigation of spectroscopic and thermal properties of poly (o-toluidine) doped with polymeric acids, Milind V. Kulkarni, Annamraju Kasi Viswanath and P.K. Khanna.
27. Synthesis and characterization of poly (N-methyl aniline) doped with Sulphonic acid: Their application as Humidity Sensor. Milind V. Kulkarni, Annamraju Kasi Viswanath and P.K. Khanna, International Journal of Polymeric Materials 55(2006) 1-12.
28. Synthesis and characterization of poly (o-anisidine) doped with polymeric acids. Milind V. Kulkarni, Annamraju Kasi Viswanath and P.K. Khanna, International Journal of Polymeric Materials 55(2006) 1-12.
29. Single step polymerization of conducting poly (o-toluidine) doped with camphor sulphonic acid; Synthesis and Characterisation, Milind V. Kulkarni, Annamraju Kasi Viswanath and P.K. Khanna, Journal of Polymer Engineering, 26(2006) 487.
30. Synthesis and humidity sensing applications of conducting Poly (N-methyl aniline) doped with different acids, Milind V. Kulkarni, Annamraju Kasi Viswanath and P.K. Khanna, Sensors and Actuators B Chemical 115(2006) J 40.

31. Synthesis and characterization of Conducting Polyaniline doped with polymeric acids, Milind V. Kulkarni, Annamraju Kasi Viswanath and P.K. Khanna, Journal of Macromolecular Science Part A Pure and Applied Chemistry, 43 (2006) 759.
32. Blue luminescence from the InGaN multiple quantum wells, Annamraju Kasi Viswanath, J.I. Lee, S.T. Kim, G.M. Yang, H.J.Lee, D. Kim, Physica.E.25(2005) 390.
33. Synthesis and characterization of organic-inorganic poly (3,4-ethylenedioxythiophene) PEDOT/MoS₂ Nanocomposite via in situ oxidative polymerization, A. Vadivel Murugan, Annamraju Kasi Viswanath, Journal of a. Materials Research 21, (2006) 112.
34. Enhanced double-layer capacitance behavior and electrical conductivity in layered poly (3,4-ethylenedioxythiophene) based nanocomposite, A. Vadivel Murugan, Annamraju Appl. Phy. Lett. 87 (2005)243511.
35. Photoluminescence properties of nanocrystalline ZnS on nanoporous silicon. A. Vadivel Murugan, Annamraju Kasiviswanath, Journal of Materials Science 41(2006) 1459.
36. Electrochemical properties of microwave irradiated synthesis of poly (3,4 ethylenedioxythiophene)/V₂O₅ nanocomposites as cathode materials for rechargeable lithium batteries. A Vadivel Murugan, Electrochimica Acta, 50(2005) 4627
37. Comparison of different soft chemical routes synthesis of nanocrystalline LiMn₂O₄ and their influence on its physicochemical properties, A. Vadivel Murugan, et.al, Journal of Solid State Electrochemistry, 10(2005) 104.
38. Control of nano CdS morphology via simple microwave solvothermal route, A. Vadivel Murugan, et al, Journal Materials Science-Materials in Electronics, 16(2005)295.
39. Entrapment of poly (3-4-ethylenedioxythiophene) between VS₂ layers to form a new organo-inorganic interactive nanocomposite, A. Vadivel Murugan, M. Ustin, M.J. Delville, G. Campet, K. Vijaymohan, Journal of Materials Chemistry, 15(2005) 902.
40. Electrochemical studies of poly (3,4- ethylenedioxythiophene) PEDOT/VS₂ nanocomposite as a cathode material for rechargeable lithium batteries. A. Vadivel Murugan, C.S. Gopinath, K. Vijayamohan, Electrochemistry Communications, 7(2005)213.
41. Synthesis of nanocrystalline anatase TiO₂ Microwave Hydrothermal method. A. Vadivel Murugan, V. Samuel and V. Ravi Materials Letter, 60(2006) 479.
42. Preparation of Nanocrystalline Ferroelectric BaBi₄Ti₄O₁₅ by Pechini method. A. Vadivel Murugan, S.C. Navale and V. Ravi, Materials Letter, 60(2006) 1791.

43. Preparation of nanocrystalline $\text{Mg}_4\text{Nb}_2\text{O}_9$ by citrate gel method. A. Vadivel Murugan, A.B. Gaikwad, V. Ravi, Bull Mater. Sci. 29(2006) 7.
44. Methods to synthesize FeTiO_3 Powders J. Mona, S.N. Kate, A.B. Gaikwad, A. Vadivel Murugan, V. Ravi, Chemical Materials Letters 60(2006) 1425.
45. A co-precipitation technique to prepare BiNbO_4 , MgTiO_3 and $\text{Mg}_4\text{Ta}_2\text{O}_9$ powders. A. B. Gaikwad, S.C. Navale, V. Samuel, A. Vadivel Murugan, V. Ravi, Materials Research Bulletin 41 (2006) 347.
46. A co-precipitation technique for the preparation of ferroelectric $\text{BaBi}_2\text{Ta}_2\text{O}_9$, S.R. Dhage, R. Pasricha, A. Vadivel Murugan, V. Ravi, Materials Chemistry and Physics 98(2006) 344.
47. Co-precipitation Synthesis in presence of surfactant and characterization of nanosized CaRuO_3 Powders and its application in Fired Thick Film Resistors in Nanoelectronics, K. Gurunathan, Ashish Baraskar, R. Marimuthu and D.P. Amalnerkar, Mater. Letter 59,19-20 (2005) 2555-2562.
48. Electrochemical co-deposition of Ternary Sn-Bi-Cu films for solder Bumping Applications; Shany Joseph, Girish J. Phatak, K. Gurunathan, Tanay Seth, D.P. Amalnerkar and T.R.N. Kutty J. Applied Electrochem. 36(2006) 907-912.
49. Zone refining of cadmium and its related characterization, N.R. Munirathnam, D.S. Prasad, Ch. Sudheer, J.V. Rao and T.L. Prakash, Bulletin of Materials Science, Vol. 28/3 (2005)
50. Segregation behaviour of trace metal impurities during ultra high purification of gallium by horizontal zone refining, U. Rambabu, N.R. Munirathnam, R.C. Reddy and T.L. Prakash, Indian J of Pure and Applied Physics 43 (2005) 783.
51. Purification and Analysis of High Purity HCl and HNO_3 by Sub-Boiling, Distillation and ICP-OES for Semiconductor Applications, G. Anil, M.R.P. Reddy, Ch. Sudheer, N.R. Munirathnam and T.L. Prakash, Accepted, Journal of Atomic Spectroscopy, Vol 27 (1), January/February 2006.
52. Method of preparation and characterization of high purity tellurium oxide for optoelectronic and nuclear medicine applications, N.R. Munirathnam, S. Rajeshkumar, D.S. Prasad, Ch. Sudheer and T.L. Prakash, Metals, Materials and Processes Vol 17(2) (2005).
53. Purification of Tellurium by single-run multiple vacuum distillation technique S.T. Ali, D.S. Prasad, N.R. Munirathnam and T.L. Prakash, 'Separation and Purification Technology' Vol 43 (2005), 263-267
54. Purification of tellurium upto 5N by vacuum Distillation, D.S. Prasad, N.R. Munirathnam, J.V. Rao and T.L. Prakash, 'Materials Letters' Vol 59 (2005) 2035-38.

55. High Purity tellurium production using dry refining processes, N.R. Munirathnam, D.S. Prasad, J.V. Rao and T.L. Prakash, Bulletin of Material Science, Vol 28(4) (2005) 309-311.
56. Determination of trace impurities in tantalum and its related compounds using solvent extraction and inductively coupled plasma optical emission spectrometer, G. Anil, M.R.P. Reddy and T.L. Prakash, Journal of Analytical Chemistry, Vol. 61, N-7, 641-643, 2006.
57. Preparation of high purity Tantalum compounds from Indian Tantalite-Columbite Ore. M.K. Sharma, T. Balaji, R. Govindaian, Arbind Kumar and T.L. Prakash, Metals Materials and Processes 17(2005) 99.
58. Profiling of selenium removal in hydrogen ambient zone refined tellurium bar using RF-GDOES, G. Anil, M.R.P. Reddy, D.S. Prasad, S.T. Ali, N.R. Munirathnam and T.L. Prakash, Modern Physics Letters B(2005) (In press)
59. Novel synthesis of nanocrystalline BST, I. Packia Selvam, P.A. Shita and V. Kumar, Ferroelectrics, 324 (2005) 31-35.
60. Novel synthesis of nanocrystalline PZT, N. Rani Panicker, V. Kumar, Y. Ohya and Y. Takahashi, Ferroelectrics, 325 (2005) 49-54.
61. One-step synthesis of Nanocrystalline PZT, N. Rani Panicker, V. Kumar, Jorphin Joseph and I. Packia Selvam, J. Ceram. Soc. Jpn., 113, 12 (2005) 784-787.
62. Chemical-solution deposition of $(\text{Ba}_{1-x}\text{Sr}_x)\text{TiO}_3$ thin films and characterization" V. Kumar, I. Packia Selvam, K. Sivanandan, M.A. Vahab and A.K. Sinha, J. Am. Ceram. Soc., Jpn., 89, 3 (2006) 1136-39.
63. Preparation Characterization and dielectric properties of $\text{Ba}_{3-x}\text{Sr}_x\text{M}_4\text{Ti}_4\text{O}_{21}$ ($\text{M}=\text{Nb, Ta and Od}''\text{xd}''3$) ceramics S. Rajesh, S. Nivas Babu, S.N. Potty and S. Ratheesh, Mater. Lett., 60 (2006) 2179.

BOOKS/ PROCEEDINGS

1. Annamraju Kasi Viswanath, Photoluminescence and Ultrafast phenomena in III-V Nitride Quantum Structure, Handbook of Semiconductor Nanostructures and Nano-devices, Edt, A.A. Balandin, K.L. Wang, Vol.I, Pages 1-74, 2006, American Scientific Publishers.
2. Vadivel Murugan et al Organic-Inorganic Poly (3,4-ethylenedioxythiophene)/ V_2O_5 and Polypyrrole/ $^{3-}\text{Fe}_2\text{O}_3$ Nano-Hybrids as Lithium Insertion Electrodes Electrochemical Studies of Batteries – Book, pp-115-146, ISBN 1-59454-329-1 @ 2005 Nova Science Publishers, Inc 400, Oser Ave, Suite 1600, Hauppauge, New York, USA.
3. Piezoelectric and Electrostrictive Multilayer Actuators- K G Vasanthakumari, A.P. Denny, K. Sasidharan, G. Unnikrishnan and N. Raghu, Proceedings of

ISSS International conference on Smart Materials Structures and Systems, IISC, Bangalore, July 28-30, 2005.

4. Advanced Polymer Composites for Electronics Applications, R. K. Goyal, A. N. Tiwari, U. P. Mulik, and Y. S. Negi, Proc. of Indo-Singapore Symposium On Advanced Functional Materials [AFMS-2006], Organized by MRSI Mumbai Chapter, IIT Bombay, Institute of Materials (East Asia) and Materials Research Society of Singapore, Feb. 24-26, 2006, IIT Bombay, India.
5. Nanocomposites of Poly (ether ether ketone)/Al₂O₃ for Electronics Applications, R. K. Goyal, A. N. Tiwari, U. P. Mulik, and Y. S. Negi, Proc. of International Conference on Advanced Materials Design and Development [ICAMDD-2005], Organized by Indian Institute of Technology Kharagpur, India and Georgia Institute of Technology Georgia, Atlanta, December 14-16, 2005, Goa Marriott Resort, Goa, India.
6. Low Cost Polyvinyl alcohol/2-Methyl-4-nitroaniline Composites (Guest-Host System) for Optoelectronics Devices, R. K. Goyal, S.R. Damkale, U. P. Mulik, Y. S. Negi, J. W. Dadge and R.C. Aiyer, Proceeding of National Symposium and Conference on Solid State Chemistry and Allied Areas (ISCAS 2005), Organised by Goa University and Indian Association of Solid State Chemists and Allied Scientists, December 1-3, 2005, Goa, India.
7. Recycled Polystyrene/2-Methyl-4-nitroaniline Composites for Optoelectronics Applications, R. K. Goyal, R. M. Gorte, U. P. Mulik, Y. S. Negi, J. W. Dadge and R.C. Aiyer, Proceeding of National Symposium and Conference on Solid State Chemistry and Allied Areas (ISCAS 2005), Organised by Goa University and Indian Association of Solid State Chemists and Allied Scientists, December 1-3, 2005, Goa, India.

SYMPOSIA/CONFERENCES

1. Synthesis and characterization of Nano CdS/PEDOT thin films as a diode V. Saaminathan, V.R, Rajmohan, A. Vadivel Murugan, 207th ECS Meet Abstr-Electrochemical Soc., 501(2006) 67.
2. Organic-Inorganic Nanocomposite Electrode Materials obtained from the Intercalation of Highly conducting Poly (3,4-ethylenedioxythiophene) Nanosheets between MS₂ Layers (M=Mo,V) A. Vadivel Murugan et l., 109th ECS Meet Abstr-Electrochemical Soc., 601 (2006) 273.
3. Nanohybrid Materials based on Transition Metal Oxides and Conducting Polymers toward the modification of Electrochemical properties, A. Vadivel Murugan, et.al 209th ECS Meet Abstr-Electrochemical Soc. 601 (2006) 251.
4. Study of Stencil Printed Solder Bump Process for Electronic Packaging, J. M. Wadekar, K. V. Kulkarni, V. R. Deshpande, V. A. Rane, V. D. Giramkar, Shany Joseph, G. J. Phatk, U. P. Mulik and D. P. Amalnerkar, ISSS International Conference on Smart Materials, Structures and Systems, IISc, Bangalore, 28-30 July 2005.

5. Glass Frit Content – Property Correlation in Thick Films of Photoimageable Silver Conductor Paste, S. A. Ketkar, G. G. Umarji, G. J. Phatak, T. Seth, U. P. Mulik and D. P. Amalnerkar, Int. Union of Materials Research Society (IUMRS) Conference, Singapore, 3-8 July 2005.
6. Physical and Compositional Properties of Electrodeposited High Lead Sn-Pb films for Solder Bump Application, V. A. Rane, S. L. Chaudhari, V. R. Deshpande, J. M. Wadekar, Shany Joseph, K. Gurunathan, T. Seth, G. J. Phatak and D. P. Amalnerkar, XIV Int. Material Research Congress -2005, Cancun, Mexico, 21-25 August, 2005.
7. Effect of Bump Metallurgy on the Shear Strength of Ball Grid Arrays Prepared by Attachment Process, J. M. Wadekar, S. L. Chaudhari, V. R. Deshpande, V. A. Rane, V. D. Giramkar, Shany Joseph, G. J. Phatak, U. P. Mulik and D. P. Amalnerkar, IMAPS India conference – 2005 (IINC-2005), IIT Bombay, Mumbai, Dec. 20-21, 2005.
8. Integrated Electronic Packaging using Low Temperature Co-fired Ceramic Technology, Girish Phatak, Conference on Emerging Trends in Materials and Advanced Manufacturing Processes, (Materials Show – 2005) Pune, Organized by ASM International, Pune Chapter, Feb. 23-24, 2006.
9. Study of AlN Nano-powder synthesized by Transferred Arc type Thermal Plasma Reactor, M.D. Shinde, A.S. Rana, Tanay Seth, V.B. Raut, D.P. Amalnerkar, Naveen Kulkarni, Indrani Bananerjee, Soumen Karmokar, S.V. Bhoraskar and A.K. Das, National Conference on Nanomaterials and Applications, Amity Institute of Nanotechnology, Noida, 27-28 May 2005 (Awarded the Second prize for oral presentation)
10. Lead-free Photoimageable Silver Conductor Paste Formulation for High Density Electronic Packaging S.A. Ketkar, G. Umarji, J. D. Ambekar, G.J Phatak, U.P.Mulik and D.P. Amalnerkar, IUMRS-ICMAT 2005 held in Singapore during 3-8 July 2005.
11. Photoimageable Thick Film Integrated heaters for Gas Sensor Applications, Supriya A. Ketkar, Yogesh Bavaskar, Govind G. Umarji, Sunit B. Rane, Girish J. Phatak, Rohini C. Aiyer, Dinesh P. Amalnerkar and Uttam P. Mulik, Paper presented in 11Th National Seminar on Physics and Technology of Sensors , organised by University of Pune, Feb.27-Mar.1, 2006
12. Pseudonano Clusters of Anthracene by Liquid-Liquid Interface Thin Film Formation Technique, Ranjit Hawaldar, R Marimuthu, A.Funde, K.G.Kanade, S.D. Sathaye, K.R. Patil, U. P. Mulik, Dinesh Amalnerkar, Poster presented in the IUMRS-ICMAT 2005 held in Singapore during 3-8 July 2005
13. Reduction of silver salts by tri-octylphosphine: Synthesis of re-dispersible crystalline silver nano-particles, P. K. Khanna, Narendra Singh, Shobhit Charan and K. R. Patil, International Conference on Nanoscience and Nanotechnology, IIT Delhi, ICONSAT 2006, March 16-18, 2006
14. Tuned optical properties and light emission from quantum dots of CdS in polymethyl methacrylate (PMMA), N. Singh, P. Adhyapak and P. K. Khanna, 17th MRSI, Lucknow, Feb.13-15, 2006

15. Nanotechnology via solution chemistry, Shobhit C. and P.K. Khanna, 17th MRSI, Lucknow, Feb.13-15, 2006
16. Optically transparent TiO₂/PVA nano-composite: synthesis and characterization, P.K. Khanna, Shobhit C. and N. Singh, 17th MRSI, Lucknow, Feb.13-15, 2006
17. Novel method of preparation of Pd/PAni nanocomposite by direct in-situ reduction of PdCl₂ by Emeraldine base, Deepti Kulkarni Shobhit Charan and P.K. Khanna, Raman memorial conference, Feb 24th-25th, 2006, Pune University, India
18. One step fabrication of selenium rods by solution method, Gita lakhan, Shobhit Charan, and P.K. Khanna, Raman memorial conference, Feb 24th-25th, 2006, Pune University, India
19. A novel low temperature preparation of nano sized silver-palladium alloy, Shobhit Charan and P. K. Khanna, National Symposium and Conference on Solid Chemistry and Allied Areas, Goa University, Goa, December 1-3, 2005
20. Effect of organic chromophore on optical properties of Ag/PVA nano-composite, P. V. Adhyapak, P. K. Khanna, J. W. Dadge, R. C. Aiyer, National Symposium and Conference on Solid Chemistry and Allied Areas, Goa University, Goa, December 1-3, 2005
21. Quantum dots of CdS in polymethyl methacrylate (PMMA): synthesis and tuning of optical properties , Narendra Singh and P. K. Khanna, National Symposium and Conference on Solid Chemistry and Allied Areas, Goa University, Goa, December 1-3, 2005
22. Tuned optical properties of quantum dots of CdS in polymethyl methacrylate (PMMA) , Narendra Singh and P. K. Khanna, International Congress on nanotechnology, (ICNT) USA,, San Francisco, Airport Marriott Hotel, Oct.31-Nov.4, 2005
23. One-step synthesis of morphologically challenging TOP capped PbSe pyramidal nano crystals, P.K. Khanna, Shobhit Charan, Ki-Won Jun, Anisha Gokarna and Sang Il Seok, First International Conference on Advances in Optical Materials (AIOM), Tucson, Arizona, USA, October, 12-16, 2005
24. Synthesis, Characterization and NLO Properties of m-NA Doped Ag/PVA Nanocomposite, P. V. Adhyapak, P. K. Khanna, J. W. Dadge, R. C. Aiyer, National Conference on Optics and Related Phenomen, Kollam, India, August 29-30, 2005
25. Tuning of morphology of Selenium by solvothermal method, Yogesh Patil and P K Khanna, China *NANO 2005* Beijing, June 9-11, 2005
26. In situ synthesized quantum dots of CdS in polymethyl methacrylate (PMMA) for light emission properties: changing the optical properties of semiconductor at will?, Narendra Singh and P. K. Khanna, National Conference on Nanotechnology, Noida, New Delhi, May 27-28, 2005
27. Organically capped soluble silver nano-particles for opto-electronic applications, Shobhit Charan, Narendra Singh, P.K.Khanna, National Conference on Nanotechnology, Noida, New Delhi, May 27-28, 2005

28. MoO₃ doped glass nanocomposite and its optical characterization, S. D. Naik, S. K. Apte, R.S. Sonawane, B. B. Kale ISCAS , Goa University Dec 2005
29. LiFePO₄ by microwave: A cathode material for Lithium rechargeable batteries D. B. Raskar, S. K. Apte, S. D. Naik and B. B. Kale, ISCAS , Goa University , Dec. 2005
30. CdS/CdSSe glass nano - composite for photonic application. S. K. Apte, S. D. Naik, R.S. Sonawane, B. B. Kale, National Conference on Optics and related Phenomenon, Jyothirgamaya-05, Dept of physics Shri Narayana College, Kollam , 20-30 August 2005
31. Optical properties of CdS Nanocrystals embedded in phosphate glass: A prospective glass for photonic application, R. S. Sonawane, S. K. Apte, S. D. Naik, D. B. Raskar, B. B. Kale, National Conference on Optics and related Phenomenon, Jyothirgamaya-05, Dept of physics, Shri Narayana College, Kollam, 20-30 August 2005
32. Novel Nanocrystalline ZnBiVO₄: A novel Photocatalyst for hydrogen generation under visible light photocatalyst. B. B. Kale, Jin-Ook Baeg, , S. K. Apte, R.S. Sonawane, S. D. Naik, SARNaM Review Meeting , Bhabha Atomic Research Centre Mumbai, 26-28 April, 2006.
33. Synthesis and characterization of Organic-Inorganic conducting polymer based Nanocomposite Materials for electrochemical Power Sources, 17th Annual General Meeting, theme symposium on BiO, Biomedical and natural materials, Materials Research Society of India, MRSI, February 13-15, 2006, University of Lucknow, India (GC, Jain Memorial Prize Lecture)
34. Novel Organic-Inorganic, Poly (3,4-ethylenedioxythiophene) based Nanohybrid Materials for rechargeable lithium batteries and supercapacitors. 3rd International Conference on Materials for Advanced Technologies 2005 (ICMAT-2005) International Union of Materials Research Society (IUMARS) 3-8 July 2005, Singapore, Symposium P, Materials for rechargeable batteries, Hydrogen Storage and Fuel Cells, (Oral presentation PA-11-OR37).
35. Synthesis and Characterization of nano CdS-PEDOT thin films as a diode, Symposium Nanotechnology of the 207th meeting, Quebec City, Canada, May, 15-20 (2005) Oral presentation.
36. CdS thick Film processed from Nanocrystalline CdS: Synthesis and Characterization. K. Gurunathan, Ashish Singhal, R. Marimuthu and D.P. Amalnerkar. Paper presented by poster in Nano-2005 held at Mepco engineering college, Sivakasi, TN during July 15-17,2005
37. Polythiophene-CdSe Nanorod Hybrid for Thin Film solar cells K. Gurunathan, D. Krishna, R. Marimuthu, S. Velumani, P J Sebastian, U.P. Mulik and D.P. Amalnerkar.

38. Electrodeposited Hybrid thin film of Polythiophene-CdS nanorod for solar cell applications K. Gurunathan, R. Marimuthu, S. Velumani, P.J. Sebastian, U.P. Mulik and D.P. Amalnerkar, Paper presented for presentation in Cancun 05 held at Cancun, Mexico during August 21-25, 2005.
39. Organic-Inorganic Hybrid Plastic Photovoltaic cells K. Gurunathan, R. Marimuthu, S. Velumani, P.J. Sebastian, U.P. Mulik and D.P. Amalnerkar, Paper presented in Cancun 05 held at Cancun, Mexico during August 21-25, 2005.
40. Microscopic (SEM, TEM & HRTEM) characterization of Microemulsion-mediated Nanosized CdS Powder, K. Gurunathan, R. Marimuthu, S. Velumani, P.J. Sebastian, U.P. Mulik and D.P. Amalnerkar, Paper presented in Cancun 05 held at Cancun, Mexico during August 21-25, 2005.
41. Atomic Force Microscopic Characterization of Fired Thick Film Resistor based on n-CaRuO₃ in Nanoelectronics, K. Gurunathan and D.P. Amalnerkar. Paper presented in Cancun 05 held at Cancun, Mexico during August 21-25, 2005.
42. Nano-crystalline CaRuO₃; Synthesis, Characterization and its Application in Electronic packaging, K. Gurunathan, A. Baraskar, R. Marimuthu and D.P. Amalnerkar. Paper presented in Cancun 05 held at Cancun, Mexico during August 21-25, 2005.
43. Processing of cadmium from Metallurgical to electronic Grade and its Characterization has been accepted for presentation in MRSI 2006 at Lucknow held during February 13-15, 2006.
44. Simple and low-cost apparatus for ultra purification of cadmium, S.T. Ali, R.C. Reddy, N.R. Munirathnam, Ch. Sudheer, G. Anil and T.L. Prakash, poster presentation in MRSI 2006 at Lucknow held during February 13-15 2006.
45. Production and Characterization of Gas Atomized Solder Powders, R.C. Reddy, A. Chandraprakash and T.L. prakash, MEEMA-2005, Hyderabad 203 Sept. 2005.
46. Studies on Gas Atomization of Solder Powders for Electronic Applications, R.C. Reddy A. Chandraprakash and T.L. prakash, NMD-ATM-2005 organized by IGCAR 12-13 Nov 2005 at IITM Chennai.
47. Effective Distribution coefficient of impurities during zone refining of Te-some studies, D.S. Prasad, N.R. Munirathnam, J.V. Rao and T.L. Prakash, Poster presentation, MRSI-2006 at Lucknow, 13-15 February 2006.
48. Optical parameters for synthesis of TeO₂ for radio pharmaceuticals, N.R. Munirathnam, R. Bhuvances and T.L. Prakash, presented in 59th Annual Technical Meeting, 15-16 Nov 2005, IIT Madras.

49. Synthesis and characterization of high purity gallium oxide spinel shape structures by U. Rambabu, N.R. Munirathnam and T.L. Prakash, presented in FDM-NMD-ATM 2005 organized by IGCAR 12-13 Nov 2005 at IIT-M Chennai.
50. Ion Beam deposition and post annealing studies of FePt nanlayers, T. Balaji, Chih-Huang Lai, Arbind Kumar and T.L. Prakash, Poster presentation MEMA-2005, 2-3 Sept., 2005 Hyderabad.
51. Improvement of capacitance of Tantalum powder by thermal and physical powder processing techniques, Arbind Kumar, T. Balaji, R. Govindaiah, Y. Purushotham and T.L. Prakash, Oral presentation, NMD-ATM 2005, 15-16, Nov. 2005 Chennai.
52. Quality improvements in Tantalum powder by Automation of Sodium Reduction System, Y. Purushotham, K. Ravindranath, Arbind Kumar and T.L. Prakash, Oral presentation, NMD-ATM 2005, 15-16, Nov. 2005 Chennai.
53. Electrical characterization of Tantalum anodes, T. Balaji, Arbind Kumar, R. Govindaiah, N. Parsuram, Y. Purushotham and T.L. Prakash, Poster presentation MEMA-2005, 2-3 Sept., 2005 Hyderabad.
54. Separation of hafnium and zirconium through solvent extraction and preparation of high purity hafnium oxide from zirconium raffinate, M.K. Sharma, S. Rajesh Kumar, M.R. P. Reddy, A. Chaudhary, Arbind Kumar, T.L. Prakash, Poster presentation, PMAI-2006, 23-24 January 2006 Hyderabad.
55. Studies on the improvement of flow properties of capacitor grade Tantalum powder, T. Balaji, Arbind Kumar, R. Govindaiah, N. Parasuram, Y. Purushotham and T.L. Prakash, Poster presentation, PMAI-2006, 23-24 January 2006, Hyderabad.
56. Low temperature synthesis of niobium carbide from oxalate precursor, T. Satish Kumar, K. Srinivas, Ch. Sudheer, S. Rajesh Kumar, Arbind Kumar and T.L. Prakash, Poster presentation, PMAI-2006, 23-24 January 2006, Hyderabad.
57. Preparation and characterization of high purity niobium pentoxide-Issues and Challenges, S. Rajesh Kumar, T. Satish Kumar, Ch.Sudheer, Arbind Kumar and T.L. Prakash, Poster presentation, PMAI-2006, 23-24 January 2006, Hyderabad.
58. Effect of Sodium reduction temperature on physical and electrical properties of Tantalum metal powder, Y. Purushotham, R. Govindaiah, M.K. Sharma, T. Balaji, Arbind Kumar and T.L. Prakash, Poster presentation, PMAI-2006, 23-24 January 2006, Hyderabad.
59. Multilayer electrostrictive actuator based on relaxor ferroelectric ceramics, K.G. Vasanthakumari, P. Denny, Alappattu, K. Sasidharan, G. Unnikrishnan

and N. Raghu, National Conference on Science & Technology of Advanced Materials (STAM-05), Pondicherry Engineering College, July 27-29, 2005.

60. Synthesis and characterization of PVDF-PZT-5H Composites Seema, K.R. Dayas, B. Praveenkumar and D.K. Kharat in National Seminar on Advances in Electroceramics NSAE-2006 at Armament Research and Development Establishment, Pune.
61. Development of polymer-ceramic piezo composites and study of its characteristics, A. Seema, V.P. Archana and K.R. Dayas National Conference on Science & Technology of Advanced Materials (STAM 05), Pondicherry Engineering College, July 27-29, 2005.
62. Poster presentation in Structure and dielectric properties of $Ba_{2-x}Sr_xTi_9O_{20}$ V. Priyadarsini, K.P. Murali, S.N. Potty, R. Ratheesh in National Seminar on Modern Trends in Material Science (NSMTMS-2005) held at Department of Physics, University of Calicut.
63. Impedance Spectroscopic analysis of Polyethylene oxide based nano composite solid electrolytes, Sankara Narayanan Potty, Ratheesh R. Murali K.P., Priyadarsini V. at International Conference on nano Science and Technology (ICONSAT-2006) held at IIT, Delhi.
64. Effect of Particle size on the microwave dielectric and mechanical properties of PTFE-Ceramic based composite substrates filler concentration on the microwave dielectric properties of PTFE/ceramic based composite substrates, R. Ratheesh, S.N. Potty, K.P. Murali, V. Priyadarshini and P. Mohanan, International conference on optoelectronic materials and thin films for advanced technology (OMTAT 2005) held at Cochin University of Science and Technology on October 24-27, 2005.
65. PTFE based composites for high speed Microwave packaging, S. Nivas Babu, S. Rajesh, K.P. Murali, V. Priyadarsini, S.N. Potty and R. Ratheesh Progress in electromagnetic research symposium PIERS-2005 held at Hangzhon, China, during August 22-26, 2005.
66. Development of Polyethylene Oxide based nanocomposite solid electrolytes, S.N. Potty, K.P. Murali and R. Ratheesh in XVIII Kerala Science Congress held at Trivandrum.

2006-2007

JOURNALS

1. Effect of glass content variation on the properties of photoimageable silver conductor Paste., S.A. Ketkar, G.G. Umarji, G.J. Phatak, J.D. Ambekar, U.P. Mulik and D.P. Amalnerkar Materials Chemistry and Physics, 96,145 (2006).
2. Lead-Free Photoimageable Silver Conductor Paste Formulation for High Density Electronic Packaging., S.A. Ketkar, G.G. Umarji, G.J. Phatak, J.D.

- Ambekar, I.C. Rao, U.P. Mulik and D.P. Amalnerkar, *Material Science and Engineering: Part B*, 132, 215 (2006).
3. Glass Frit Content – Property Co-relation in Thick Films of Photoimageable Silver Conductor Paste., S.A. Ketkar, G.G. Umarji, G.J. Phatak, T. Seth, U.P. Mulik and D.P. Amalnerkar. *Material Science and Engineering: Part B*, 132, 197 (2006).
 4. Nanoscale Multilayer PbS Thin films Fabricated by Liquid-Liquid Interface Reaction Technique for Solar Photovoltaic Applications. R.R. Hawaldar, G.G. Umarji, S.A. Ketkar, S.D. Sathaye, U.P. Mulik & D.P. Amalnerkar. *Material Science and Engineering: Part B*, 132, 170 (2006).
 5. Photoinduced-hydrophilicity of titanium dioxide thin films prepared by cathodic Electrodeposition. S. Karuppuchamy, J.M. Jeong, D.P. Amalnerkar, H. Minoura *Vacuum*, 80, 494 (2006).
 6. Nano-CdS by polymer –inorganic solid-state reaction: Visible light pristine photocatalyst for Hydrogen generation K.G. Kanade, Jin-Ook Baeg, U.P. Mulik, D.P. Amalnerkar, B.B. Kale. *Materials Research Bulletin*, 41/12, 2219 (2006).
 7. Surface modified BaTiO₃ thick film resistors as H₂S gas sensors. G.H. Jain, L.A. Patil, M.S. Wagh, D.R. Patil, S.A. Patil & D.P. Amalnerkar, *Sensors and Actuators B*, 117, 159 (2006).
 8. Temperature dependant non- linear coefficients and second harmonic generation in quaternary glass system doped with TiO₂. J. W. Dadge, S. K. Apte, S. D. Naik, B. B. Kale and R. C. Aiyer *J. Optoelectronics and Advanced Materials*, 8(1), 2006, 368
 9. Improved and efficient synthesis of bis(cycloocteno)-1,4-diselenin in high boiling solvents. P.K. Khanna, Sandhya M. Vyas and Narendra Singh, *J. Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry*, 787-91, 36, 2006.
 10. Unusual formation of nano-particles of CdO and Cd (OH)₂ from the reaction of dimethyl cadmium with DMF. Narendra Singh, Shobhit Charan, K. R. Patil, A. K. Viswanath and P. K. Khanna, *Materials Letters*, 3492-3498, 60, 2006
 11. Synthesis and humidity sensing applications of conducting poly(N-methyl aniline) doped with different acids. M. V. Kulkarni A. K. Viswanath and P. K. Khanna, *Sensors and Actuators B Chemical*, 140, 115(1), 2006
 12. Investigation of spectroscopic and thermal properties of poly(o-toluidine) doped with polymeric acids, M. V. Kulkarni A. Kasi Viswanath and P. K. Khanna, *J. Macromolecular Science Part A, Pure and Applied Chemistry*, 197, 43, 2006
 13. Photoluminescence studies of Europium doped yttrium oxide nanophosphor prepared by microwave hydrothermal method. A.V. Murugan, A. Kasi

- Viswanath, V. Ravi, B.A. Kakade, and V.Saaminathan, Applied Physics Letters 89, 123-120 (2006)
14. Highly efficient organic –inorganic PEDOT – MoO₃ Nanocomposite electrode for electrochemical supercapacitor. A.V. Murugan, A. Kasi Viswanath, C. S. Gopinath and K. Vijayamohanan, J. Appl. Phys. 100, 074319 (2006)
 15. Europium doped lanthanum oxide nanowhiskers: microwave hydrothermal synthesis, characterization and photoluminescence properties. A.V. Murugan, A. Kasi Viswanath, V. Ravi, B. A. Kakade, and V.Saaminathan J. Phys. D Appl. Phys. 39, 3974 (2006)
 16. Nanostructured Thin films of Anthracene by Liquid-Liquid Interface Recrystallization Technique. R.R.Hawaldar, A.M.Funde, D.Bhange, V.Ramaswamy, S.R.Jadkar, S.D.Sathaye, U.P.Mulik, D.P.Amalnerkar. Solid State Phenomena, 119, 27 (2007)
 17. Synthesis of CdS Nanocrystalline in Polymer Matrix: Sui-generis Approach. K.G. Kanade, R.R.Hawaldar, U.P. Mulik, B.B. Kale, D.P.Amalnerkar, Solid State Phenomena, 119, 21 (2007)
 18. Microwave Assisted Semi-solvothermal Synthesis of Nanocrystalline Barium Titanate. J.M.Lee, D.P.Amalnerkar, Y.K.Hwang, S.H.Jhung, J.S.Hwang, J.S.Chang, J. Nanosci. Nanotechnology, 7 (5), 1 (2007).
 19. Swift Morphosynthesis of Hierarchical Nanostructures of CdS via Microwave induced Semisolvothermal route. D.P.Amalnerkar, H.Y.Lee, Y.K.Hwang, D.P.Kim, J.S.Chang J. Nanosci. Nanotechnology, 7(11), (2007).
 20. Thick Film NTC Thermistor for wide range of temperature sensing. S.Jagtap, S.Rane, U.P.Mulik and D.P.Amalnerkar Microelectronics International, 24(2), 7(2007)
 21. Microstructure and electrical performance of eco-friendly thick film resistor compositions fired at different conditions. A. Kshirsagar, S. Rane, U. Mulik and D. Amalnerkar, Materials Chem. & Physics 101 (2007) 492-498.
 22. Perovskite Ruthenate-Based Lead Free Thick Film Resistors Sunit Rane, Maria Prudenziati, and Bruno Morten Materials Lett. 61, 2 (2007) 595-599
 23. Synthesis of nanosize necked structure of γ and α Fe₂O₃ and its photo catalytic activity. S. K. Apte, S. D. Naik, R. S. Sonawane, B. B. Kale, and Jin Ook Baeg, J. Amer. Ceramic Soc., 90, 2 (2007) 412
 24. Self-assembled aligned Cu doped ZnO nanoparticles for photocatalytic hydrogen production under visible light irradiation, K. G. Kanade, B. B. Kale, Jin-Ook Baeg, Sang Mi Lee, Chul Wee Lee, Sang-Jin Moon, Hyunju Chang, Materials Chemistry and Physics 102 (2007) 98-104.
 25. Single mode wave guide properties of m-NA doped Au/PVA nano-composites:

- Synthesis, characterization and studies. P. V. Adhyapak, Narendra Singh, Anu Vijayan, R. C. Aiyer, P. K. Khanna, *Materials Letters*, 61 (2007) 3456-61,.
26. Studies on chemically deposited CuInSe₂ thin films. R. H. Bari, L. A. Patil, P. S. Sonawane, M. D. Mahanubhav, V.R. Patil and P.K. Khanna, *Materials Letters*, 61 (2007) 2058-2061,.
 27. Novel High Performance Al₂O₃/Poly(ether-ether-ketone) Nanocomposites for Electronics Applications. R.K. Goyal, A.N. Tiwari, U.P. Mulik, and Y.S. Negi *Composites Science and Technology*, 67, (2007) 1802-1812.
 28. Effect of aluminum nitride on thermo mechanical properties of high performance PEEK, *Composites: Part A*; R.K. Goyal, A.N. Tiwari, U.P. Mulik, and Y.S. Negi, *Applied Science and Manufacturing*, 38 (2007) 516-524.
 29. Thermo mechanical properties of high performance PEEK composites reinforced with aluminum oxide. R.K. Goyal, A.N. Tiwari, U.P. Mulik, and Y.S. Negi, *J. Applied Polymer Science*, 104 (2007) 568-575.
 30. Anisotropic Linear Thermal Expansivity of Poly(ether-ether-ketone). R.K. Goyal, A.N. Tiwari, U.P. Mulik, and Y.S. Negi, *European Polymer J*, 104 (2007) 568-575.
 31. Luminescence and Ultrafast phenomena in InGaN multiple quantum wells A.Kasi Viswanath, J.I. Lee, S.T. Kim, H.J. Lee, G.M. Yang, and D. Kim *Thin Solid Films* 515, (2007) 4401.
 32. Effect of multi pass, zone length and translation rate on segregation of impurities during zone refining of tellurium. D.S. Prasad, N.R. Munirathnam, J.V.Rao and T.L. Prakash *Materials Letters* 60 (2006) 1875-79.
 33. A novel in-situ technique of ultra purification of cadmium for electronic Applications, S.T.Ali, R.C.Reddy, N.R. Munirathnam, Ch.Sudheer, G.Anil, T.L. Prakash *Separation and Purification Technology* 52 (2006) 288-94.
 34. Reduction of trace oxygen by hydrogen leaking during selective vaporization to produce ultra-pure cadmium for electronic applications. S.T.Ali, N.R.Munirathnam, Ch.Sudheer, R.C.Reddy, M.R.P.Reddy, T.L. Prakash, *Materials Letters* 61 (2007) 1512 – 1516.
 35. Profiling of selenium removal in hydrogen ambient zone refined tellurium bar using RF-GDOES G.Anil, M.R.P.Reddy, D.S.Prasad, S.T.Ali, N.R.Munirathnam and T.L.Prakash *Materials Characterization* 58 (2007) 92-95.
 36. Dielectric formation and electrical characterization of sintered tantalum slugs R.Govindaiah, T.Balaji, Arbind Kumar, N.Parasuram, Y.Purushotham, M.K.Sharma, T.L.Prakash *Modern Physics Letters B* 21 (2007) 123-128.
 37. Sol- Gel Synthesis of PZT-Glass Nanocomposites Using a Simple System and characterization. V. Kumar, AshaT. Achuthan, K.Sivanandan, P.V.Divya and

- K.P. Rema, *Int. J. Appl. Ceram. Technol.*, 3 (2006)345-352.
38. Crystallisation studies and properties of $(\text{Ba}_{1-x}\text{Sr}_x)\text{TiO}_3$ in borosilicate glass. P.V. Divya and V. Kumar *J.Am.Ceram.Soc.* 90, (2007) 472-476
39. Preparation and dielectric characteristics of $\text{Ba}(\text{MxTi}_{1-x})\text{O}_3$. V.Kumar, I. Packia Selvam, K. Jithesh and P.V. Divya, *J. Phys.D: Appl. Phys.*,40 (2007) 2936- 2940
40. Sol-gel synthesis and non-linear optical transmission in $\text{Zn}_{1-x}\text{MgxO}$ thin films. C.S. Suchand Sandeep, Reji Philip, R. Satheeshkumar and V. Kumar, *Appl. Phy. Lett.* 89, (2006) 063102
41. Dispersion, rheology and aqueous tape casting of alumina – zirconia composites. Balakrishnan Jisha, B. Krishnan, R.P.N. Panicker and R. Natarajan. *Advances in Applied Ceramics*, Vol 106 (3), (2007) 128-134.
42. Study of PVDF-PZT- 5H composites prepared by hot press and tape casting techniques. A. Seema, Justin M. Varghese and K.R. Dayas, *Journal of Applied Polymer Science* 106 (1) 146-151 (2007).

BOOKS/ PROCEEDINGS

1. Single mode wave guide fabricated from m-NA doped Au/PVA nano-composites, P. V. Adhyapak, Anu Vijayan, R. C. Aiyer, P. K. Khanna International Conference on Recent Trends in Nanoscience & Technology – 2006 (ICRTNT-06), Jadhavapur, India, 7-9th Dec, 2006, pp 21-24.
2. Synthesis and Characterization of copper nanoparticles, Marimuthu R, Gaikwad S., Singh N, Adhyapak P.V, Gurunathan K, and P. K.Khanna, International Conference on Recent Trends in Nanoscience & Technology – 2006 (ICRTNT-06), Jadhavapur, India, 7-9th Dec, 2006, pp 24-27.
3. Top-down' method for generation of re-dispersible silver nano-particles, Recent Trends in Nanomaterial Science P. K. Khanna, Shobhit Charan, Narendra Singh and Sham Deshmukh, Proc. Seminar on Recent Trends in Nanomaterial Science, Academy for Science, Technology and Communication, Hyderabad, India, 26th August, 2006, pp 7-11.
4. Novel synthesis of nano-sized Metal Phosphides Narendra Singh and P. K. Khanna, Proc. Seminar on Recent Trends in Nanomaterial Science, Academy for Science, Technology and Communication, Hyderabad, India, 26th August, 2006, pp 31-35,
5. Synthesis and characterization of nano-particles of anatase TiO_2 and its transparent film in PVA Shobhit Charan, Narendra Singh, Rahul Jain and P. K. Khanna, Proc. Seminar on Recent Trends in Nanomaterial Science, Academy for Science, Technology and Communication, Hyderabad, India, 26th August, 2006, pp 40-44.
6. Eco-friendly thick film temperature sensors based on semiconducting

electroceramics S. Jagtap, S. Rane, U. Mulik, D. Amalnerkar , 12th NSPTS, BARC, Mumbai (March 2007) pp. 131-133.

7. Preparation of cristobalite and study of its reinforcing characteristics in hydroxy terminated polydimethyl siloxane, Justin M. Varghese, A. Seema, K.R. Dayas and K.M. Chandran, Proc. of Second International conference on Recent Advances in Composite Materials, New Delhi, Feb 20-23, 2007, PP 548-552.

SYMPOSIA/CONFERENCES

1. Photocatalytic hydrogen production from H₂S by using CuNi_{0.67}Sb_{0.30}Sn_{0.03} O₂ delafossite semiconductor photocatalyst. K. Gurunathan, Jin-Ook Baeg, Sang Mi Lee, Sang-Jin Moon and Hyunju Chang. Paper presented by poster in Korean Soc. Indus. & Engg. Chemistry conference to be held at Chonbuk National University, Jeongju, S. Korea, May 12-13, 2006.
2. Novel Nanocrystalline ZnBiVO₄: A novel Photocatalyst for hydrogen generation under visible light photocatalyst, B. B. Kale, Jin-Ook Baeg, S. K. Apte, R.S. Sonawane, S. D. Naik SARNaM Review Meeting, Bhabha Atomic Research Centre Mumbai, 26-28 April 2006.
3. Synthesis of Q-semiconductor glass nanocomposite for photonic applications, S. K. Apte, Sonali D. Naik, R.S. Sonawane, M. V. Kulkarni and B. B. Kale International Seminar on "Nanotechnology": Perspective and Prospects, TIFR, Mumbai, 25-26 May 2006.
4. Synthesis and characterization of novel Nanocrystalline Zinc-Bismuth oxide visible light photocatalyst, B. B. Kale, J. O. Baeg, Milind V. Kulkarni, S. K. Apte, R.S. Sonawane and Sonali D. Naik International Seminar on "Nanotechnology": Perspective and Prospects, TIFR, Mumbai, 25-26 May 2006.
5. Preparation of Q-CdS phosphate glass, Sonali D. Naik, R.S. Sonawane S. K. Apte, D. B. Raskar, R. D. Bolade and B.B.Kale, National symposium on science and technology of Glass / glass ceramics (NSGC- 06) BARC Mumbai, 15-16 Sept. 2006
6. CdSSe quantum dots in glass for photonic application, S. K. Apte, Sonali D. Naik, R.S. Sonawane R. D. Bolade and B. B. Kale, National symposium on science and technology of Glass / glass ceramics (NSGC- 06) BARC Mumbai, 15-16 Sept. 2006
7. Synthesis of CdSe quantum dots and characterization of CdSe- Polythiophene blends for Hybrid Solar cells, K. Gurunathan, R. Marimuthu, P.K. Khanna, U.P. Mulik, S. Velumani and P.J. Sebastian, Paper presented in International Conference on Nanomaterials for Electronics (ICNME-2006) held at Pune, India, November 27-29, 2006.
8. Solution route synthesis and characterization of nanocrystalline SrRuO₃ and its use in Thick Film resistor for Hybrid Nanoelectronics, K. Gurunathan, R.

- Marimuthu and D.P. Amalnerkar. Paper poster presented in International Conference on Nanomaterials for Electronics (ICNME-2006) held at Pune, India, November 27-29, 2006.
9. Nanocrystalline CdS thin films formed by chemical batch deposition for solar cell applications. Luis Ixtlilco, P.J. Sebastian, J. Pantoja, K. Gurunathan, R. Marimuthu., paper presented in International Conference on Nanomaterials for Electronics (ICNME-2006) held at Pune, India, November 27-29, 2006.
 10. Nearly monodisperse quantum dots of ZnSe: Synthesis and characterization, S. Rao, N. Singh, K. Gurunathan, T.L. Prakash, P. K. Khanna., Paper presented in International Conference on Nanomaterials for Electronics (ICNME-2006) held at Pune, India during November 27-29, 2006.
 11. Nanoparticles of metals for electronics and optoelectronics: The Chemistry and Nanotechnology., D. Kulkarni, N. Singh, S. Desmukh, S. Gaikwad, P.V. Adyapak, K.Gurunathan, R. Marimuthu, P. K. Khanna. Paper presented in International Conference on Nanomaterials for Electronics (ICNME-2006) held at Pune, India, November 27-29, 2006.
 12. CdS quantum dots (Q-dot) glass nanocomposite, S. K. Apte, Sonalli D. Naik, R.S. Sonawane, R.D. Bolade and B. B. Kale, International Conference on Nano-Materials for Electronics (ICNME-06) Pune, November 27-29, 2006.
 13. Synthesis and Characterization of Polyaniline/ γ -Fe₂O₃ Magnetic Nanocomposite, A.L. Burgute, M. Kashid, M. V. Kulkarni, R.D. Bolade, S. D. Naik, S. K. Apte, R. S. Sonawane, S. Ogale and B. B. Kale. International Conference on Nano Materials for Electronics (ICNME-06). Pune, November 27-29, 2006.
 14. Nanosized ruthenium based ternary oxides for hybrid microcircuits. K. Gurunathan, R. Marimuthu and D.P. Amalnerkar, Paper presented as poster in National conference on Smart Electroceramics-2007 (NCSE-2007) held at C-MET, Thrissur, March 8-9, 2007.
 15. Formulation of silver thick film conductive pastes for LTCC. J. A. Bangali, S. D. Jagtap, V. A. Rane, S. B. Rane, G. J. Phatak and S. A. Gangal, Proc. 12th National Seminar on Physics and Technology of Sensors (NSPTS-12), March 7-9, 2007, BARC, Mumbai, pp. 221.
 16. Eco-friendly thick film temperature sensors based on semiconducting electroceramics S. Jagtap, S. Rane, U. Mulik, D. Amalnerkar, 12th NSPTS, BARC, Mumbai (March 2007).
 17. Novel Interfacial Polymerization of Polyaniline: Synthesis and Characterization, M. V. Kulkarni, S. K. Apte, R. D. Bolade, S. D. Naik, R.S. Sonawane, B. B. Kale and T. L. Prakash., Second International Conference on Electro active Polymers: Materials and Devices (ICEP- 2007) Goa, Feb.19-24, 2007.
 18. Single mode wave guide properties of m-NA doped Au/PVA nano-composites:

Synthesis, characterization and studies, P. V. Adhyapak, Narendra Singh, Anu Vijayan, R. C. Aiyer, P. K. Khanna International Conference on Nanomaterials for Electronics (ICNME-2006), Nov. 27-29, 2006, C-MET, Pune, India.

19. Synthesis of re-dispersible quantum dots of CdSe and PbSe derived from octeno-1,2,3-selenadiazole, Shobhit Charan, Narendra Singh, P. K. Khanna, R. Pasricha and K. R. Patil, Self-assembly Routes for Nanotech Materials(SARNaM-06), April 26-28, 2006, organized by Bhabha Atomic Research Centre, Mumbai, India.
20. Polycarbonate/Exfoliated Graphite Nanocomposites for Electronic Applications, R. K. Goyal, G. G. Umarji and U. P. Mulik., Presented in International Conference on Nanomaterials for Electronics (ICNME-2006), Organized by Centre for Materials for Electronics Technology, Pune, India, November 27-29, 2006.
21. A Facile Synthesis of Conductive Poly (methyl methacrylate)/Exfoliated Graphite Nanocomposites, R. K. Goyal, G. G. Umarji and U. P. Mulik, Presented in International Conference on Nanomaterials for Electronics (ICNME-2006), Organized by Centre for Materials for Electronics Technology, Pune, India, November 27-29, 2006.
22. Simple and Low-cost Apparatus for Ultra-Purification of Cadmium S.T.Ali, R.C.Reddy, N.R.Munirathnam, Ch.Sudheer, G.Anil and T.L.Prakash 17th AGM-MRSI, 13-15 February 2006, Lucknow.
23. Preparation of capacitor grade niobium metal powder by magnesium vapor reduction of niobium pentoxide T. Satish kumar, S. Rajesh Kumar, R. Govindaiah and T.L. Prakash NMD-ATM 2006, Jamshedpur,13-16 November 2006,
24. A new synthesis technique for preparation of tantalum carbide from oxalate Precursor, Ch. Sudhir, T.Satish kumar, Arbind Kumar, T.L. Prakash and S. Rajesh Kumar NMD-ATM 2006, , Jamshedpur,13-16 November 2006.
25. Preparation of niobium metal powder for capacitor applications T. Satish Kumar, S. Rajesh Kumar, T. Balaji and T.L. Prakash International Symposium for Research Scholars on Metallurgy, Materials Science & Engineering, Chennai,18-20 December, 2006.
26. Powder metallurgy of niobium for electronic applications-Role of precursors T.Satish Kumar, S. Rajesh Kumar, Ch. Sudhir, T. Balaji, M.R.P. Reddy and T.L. Prakash, PM-07, International conference on emerging solutions through powder metallurgy for automotive and engineering industry & the 33rd Annual Technical Meeting of PMAI, Noida, 9-11 February 2007.
27. Tantalum niobium carbide-synthesis and characterization S. Rajesh Kumar, T. Satish kumar, Arbind Kumar, Ch. Sudheer, G. Anil, Y. Purushotham and T.L. Prakash, PM-07, International conference on emerging solutions through

powder metallurgy for automotive and engineering industry & the 33rd Annual Technical Meeting of PMAI, Noida, 9-11 February 2007,.

28. Synthesis and characterization of high purity hafnium metal powder – Indian perspective Y.Purushotham, R.Govindaiah, T.Balaji, S.Rajesh Kumar, Arbind Kumar, M.K.Sharma, M.R.P.Reddy and T.L.Prakash, PM-07, International conference on emerging solutions through powder metallurgy for automotive and engineering industry & the 33rd Annual Technical Meeting of PMAI, Noida 9-11 February 2007,.
29. A study on Oxygen contamination of solder powders for Micro-Soldering and related applications, R.C.Reddy, B.Shiva Kiran, V.C.Sethi and T.L.Prakash, PM-07, International conference on emerging solutions through powder metallurgy for automotive and engineering industry & the 33rd Annual Technical Meeting of PMAI, 9-11 February 2007, Noida.
30. Ultra high purification of gallium through multi-step process for its opto-electronics device applications, U. Rambabu, N. R. Munirathnam and T. L. Prakash, 18th AGM-MRSI, New Delhi 12-14 February 2007,.
31. Segregation behaviour of impurities during zone refining of Cadmium D.S.Prasad, U.Jemima, N.R.Munirathnam and T.L.Prakash 18th AGM-MRSI, New Delhi, 12-14 February 2007.
32. Preparation of high pure MoO₃ from Molybdenum metal powder U.Jemima, S.Rajesh Kumar, N.R.Munirathnam, T.L.Prakash NCSE-2007, National Conference on Smart Electroceramics, Thrissur, 8-9 March 2007.
33. Preparation of BaTiO₃ based inorganic-organic hybrid by sol-gel method for PCB applications N. C.Pramanik & Sang Il Seok, National Conference on Smart Electroceramics (NCSE 2007), Thrissur, March 08-09, 2007
34. Preparation of resorcinol-formaldehyde aerogels and carbon aerogels by high temperature supercritical drying technique, C. Rajesh, K. Stanly Jacob, P. A. Abraham, R. C. Reddy, R. Ratheesh and N. C. Pramanik National Conference on Smart Electroceramics (NCSE 2007), Thrissur, March 08-09, 2007.
35. Preparation of silicon boron oxycarbides (SiBOC) for oxidation resistance application by sol-gel method M. N. Muralidharan, K. Stanly Jacob, P. A. Abraham, R. C. Reddy, R. Ratheesh and N. C. Pramanik National Conference on Smart Electroceramics (NCSE 2007), Thrissur, March 08-09, 2007
36. Fabrication of alumina filled PTFE as flexible substrates for microwave circuit applications, K.P. Murali, S. Rajesh, Om Prakash, A. R. Kulkarni and R. Ratheesh, ICRAACM 2007, New Delhi
37. Fabrication of nano-silica filled PTFE as flexible substrates for microwave circuit applications, K.P. Murali, S. Rajesh, Om Prakash, A. R. Kulkarni and R. Ratheesh, ISRS 2006, IIT Madras, Chennai

38. Effect of particle size on the microwave dielectric properties of silica filled PTFE substrates. K. P. Murali, S. Rajesh, S. N.Potty, Om Prakash, A. R. Kulkarni and R. Ratheesh. MMA- 2006, Finland, June 2006
39. Effect of silane coating on the dielectric and mechanical properties of ceramic filled PTFE based substrates, K.P.Murali, S.Rajesh, V.Priyadarsini, S.N.Potty, R.Ratheesh and P.Mohanan, APSYM 2006, CUSAT, Kochi
40. Effect of filler size on the electrical conductivity of poly ethylene oxide based nanocomposite solid electrolytes, Sankara Narayanan Potty, Ratheesh, Ravendran, Murali.K.P and V. Priyadarsini, Eighth International Conference on Nanostructured Materials (NANO2006), Indian Institute of Science, Bangalore
41. Effect of thermal processing conditions on the electrical characteristics of NTC chip thermistors for automobile applications. Justin M. Varghese, A. Seema and K. R. Dayas., National Conference on Smart Electroceramics, Thrissur, India, March 8-9, 2007,.
42. Synthesis and characterization of PVDF-PZT- 5H Composites. , A. Seema, K.R. Dayas, B. Praveenkumar and D.K. Kharat, National Seminar on Advances in Electroceramics NSAE-2006 at Armament Research and Development Establishment, Pune, May – 2006.
43. Influence of process parameters on tape casting of NTC thermistor composition Prasanth.N.P, Syed Ibrahim, Prasad.K, Bindu Krishnan, Seema Ansari, K.R.Dayas National Seminar on smart electroceramics, Thrissur March 8, 2007

2007-2008

JOURNALS

1. Ethanol gas sensing properties of Al₂O₃-doped ZnO thick film resistor, D.R.Patil, L.A.Patil & D.P.Amalmerkar, Bull.Mater.Sci, 30, 6 (2007) 553.
2. Hyper rayleigh scattering in CdS nanoparticles grown in PPS polymer, J.W. Dadge, K.G.Kanade , B.B. Kale, D.P. Amalnerkar and R C Aiyer, Journal of Optoelectronics and Advanced Materials, 9, 7 (2007) 2200-04.
3. Rose-red color oxynitride Nb₂Zr₆O_{17-x}N_x: A visible light photocatalyst to Hydrogen production, K.G. Kanade, Jin-Ook Baeg, B.B.Kale, , Sang Mi Lee, Sang-Jin Moon, Chul Wee Lee, and Hyun-ju Chang , International Journal of Hydrogen Energy, 32, 18 (2007) 4678-84.
4. Confinement of nano CdS in designated glass: A novel functionality of quantum dot-glass nanosystem in solar hydrogen production, Bharat B. Kale, Jin-Ook Baeg, Sanjay K. Apte, Ravindra S. Sonawane, Sonali D. Naik, and Kashinath R. Patil, J. Materials Chemistry, 17 (2007) 4297.

5. Reduction of transition metal salts by SFS: Synthesis of copper and silver sulphides, P.K.Khanna, J. Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry, 37 (2007) 805-08.
6. Light emitting CdS quantum dots in PMMA: Synthesis and optical studies, P. K. Khanna, N. Singh, J. Luminescence, 174 (2007) 474-82.
7. Synthesis of nano-sized PbSe from octeno-1,2,3-selenadiazole, P. K. Khanna, N. Singh, S. Charan, A. K. Viswanath and K. R. Patil, Materials Research Bulletin, 42 (2007) 1414–1421.
8. CdS/polyaniline nano-composites: synthesis and characterization, N. Singh, M. V. Kulkarni, S. Lonkar, A. Kasi Viswanath, P.K.Khanna, J. Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry, 37 (2007) 153–159.
9. One-step preparation of nano-sized Ag-Pd co-powder and its alloy formation at low temperature, P. K. Khanna, N. Singh, D. Kulkarni, R. Marimuthu, S. Charan, K.R.Patil, G. H. Jain, J. Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry, 37 (2007)1–9.
10. Synthesis of nano-particles of anatase TiO₂ and preparation of its optically transparent film in PVA, P. K. Khanna, N. Singh and S. Charan, Materials Letters, 61 (2007) 4725–4730.
11. Synthesis and Characterization of copper nanoparticles, P. K. Khanna, S. Gaikwad, P.V. Adhyapak, N. Singh, R. Marimuthu, Materials Letters, 61, (2007) 4711-4714.
12. Nano-sized HgSe powder: single-step preparation and characterization, N. Singh, K. R. Patil, P. K. Khanna, Mater. Sc. Engg. B: 142, (2007) 31-36.
13. Nearly Mono-disperse Quantum Dots of ZnSe: Synthesis and Characterization, K. Srinivas Rao, N. Singh, K. Gurunathan, R. Marimuthu, N. R. Munirathanam, T. L. Prakash, P. K. Khanna, J. Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry, 37, 6 (2007)1-3.
14. An effective source of phosphorus for synthesis of nano-sized InP, Narendra Singh and P. K. Khanna, J. Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry, 37, 5 (2007) 367–371.
15. Tuned light emission from nanoparticles of cadmium chalcogenides and Nano-structures in indium nitride, Ge Cheng, Pascal André, Andrea F, Firth, P. K. Khanna, Wuzong Zhou, Ifor D. W. Samuel and David J. Cole-Hamilton, J. Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry, 37, 5 (2007) 309–313.
16. Water based simple synthesis of re-dispersible silver nano-particles, P. K. Khanna, N. Singh, D. Kulkarni, S. Deshmukh, S.Charan, P.V. Adhyapak, Materials Letters, 61 (2007) 3366-70.

17. Visible light active pristine and Fe³⁺ doped CuGa₂O₄ spinel photocatalysts for solar hydrogen production, K. Gurunathan, Jin-Ook Baeg, Sang Mi Lee, E. Subramanian, Sang-Jin Moon, and Ki Jeong Kong, *Int. J. Hydrogen Energy* 33 (2008) 2646-2652.
18. Facile single-step technique for simultaneous In-situ fabrication of Ag/Ag₂S-polymer nanocomposites via PPS cyclization route, S. Waghmare, M. Shinde, R.Gholap, N.K.Rao, T.Seth and D.P.Amalnerkar, *Chemistry Letters*, 37,2 (2008) 2.
19. Synthesis and characterization of Nanocrystallined Zirconia by hydrothermal Method, K.G. Kanade, J.O. Baeg, S.K. Apte, T. L. Prakash, B.B. Kale, *Mat. Res. Bull.* 43, (2008), 723-729.
20. Preparation and optical study of CdS nanocrystals embedded phosphate glass, R. S. Sonawane, S. K. Apte, S. D. Naik, D. B. Raskar, B.B.Kale; *Materials Research Bulletin* 43 (2008) 618–624.
21. Effect of Surfactant on the bath stability and electrodeposition of Sn-Ag-Cu films, Shany Joseph and Girish Phatak, *Surface & Coatings Technology*, 202 (2008) 3023-3028.
22. XPS and AFM investigations on silver-based photoimageable thick film system, G.Umarji, S.Ketkar, R.Hawaladar, S.Gosavi, K.R.Patil, U.P.Mulik and D.P.Amalnerkar, *Microelectronics International*, 25,1(2008) 46.
23. Preparation, characterization and non-linear optical properties of pristine m-Nitroaniline (m NA) and its recycled polystyrene (Re-PS) coated single crystals, P.V. Adhyapak, M.Islam, R.C.Aiyer, U.P.Mulik, Y.S.Negi and D.P.Amalnerkar, *J.Crystal Growth*, 310 (2008) 2923.
24. Thermal expansion behavior of high performance PEEK matrix composites, R.K. Goyal, A.N. Tiwari, U.P. Mulik, and Y.S. Negi, *Journal of Physics D: Applied Physics*; 41 (2008) 085403.
25. High performance nanocomposites for tribological applications: preparation and characterization, R.K. Goyal, A.N. Tiwari, and Y.S. Negi, *Materials Science and Engineering: A* 2008; 486: 602-610.
26. Potential applications of Polystyrene in optoelectronics, *Progress in Rubber, M.S. Sureshkumar, R.K. Goyal, and Y.S. Negi, Plastics and Recycling Technology*, 24 (2008) 53-72.
27. Synthesis of oleic acid capped copper nanoparticles *via* reduction of copper salt by SFS, P. K. Khanna, Trupti S. Kale, Mushtaq Shaikh, N. Koteswar Rao and CVV Satyanarayana, *Mater. Chem. Phys.*, 21-25, 110, 2008.
28. Structure-property relation in Mn³⁺- doped PZT, K.P. Rema and V. Kumar, *J.Am.Ceram.Soc.*91, (2008) 164-168.

29. Preparation and dielectric characteristics of nanocrystalline $Ba(M_xTi_{1-x})O_3$, V.Kumar, I. Packiaselvam, K. Jithesh and P.V. Divya, J. Phys.D: Appl. Phys.40, (2007) 2936.
30. Crystallisation studies and dielectric properties of $(Ba_{0.70}Sr_{0.30})TiO_3$ in aluminosilicate glass, P.V. Divya and V. Kumar, J. Phys.D: Appl. Phys. 40, (2007) 7804-7810.
31. Preparation, Characterization and dielectric properties of temperature stable PEEK/SrTiO₃ composites for microwave substrates applications, V.S. Nisa, S. Rajesh, K.P. Murali, V. Priyadarsini, S.N. Potty and R. Ratheesh, Composite Science & Technology, 68,1, (2008) 106-112.
32. Microwave dielectric properties of rutile filled PEEK composites, S. Rajesh, K.P. Murali, V. Priyadarsini, S.N.Potty, R.Ratheesh and P. Mohananan , Polymer-Plastic Technology and Engineering, 47,3, (2008) 242-246.
33. Microstructural, electrical and reliability aspects of chromium doped Ni-Mn-Fe-O NTC thermistor materials, Justin M. Varghese, A. Seema and K. R. Dayas, Materials Science and Engineering B,149, 1 (2008) 47-52.
34. Synthesis and Characterization of crystallizable anorthite based glass for LTCC application, C.J. Dileep Kumar, E.K. Sunny, N. Raghu, N. Venkataramani and A.R. Kulkarni, J. of Am. Cer. Society, 91, 2, (2008) 652.
35. Ligand dependent particle size-control of PbSe quantum dots, I.-C. Baek, S. I. Seok, B. Y. Ahn, S. Jana, N. C. Pramanik, M. A. Lim, C. J. Lee and Y. J. Jeong, J. Colloid Interface Sci., 310 (2007) 163-166.
36. High dielectric constant inorganic-organic hybrid materials prepared with sol-gel derived crystalline BaTiO₃, N. C. Pramanik and S. I. Seok, Japanese J. Appl. Phys., 47 (2008) 531-537.
37. Effect of reactant concentration and OH⁻ ions on the formation of nanocrystalline BaTiO₃ in solution, N. C. Pramanik, S. I. Seok and B. Y. Ahn, Mater. Res. Bull., 42 (2007) pp.497-504.
38. The wet-synthesis of redispersible crystalline BaTiO₃ in organic medium, N. C. Pramanik, S. I. Seok, and B. Y. Ahn, J. Alloy Compd., 449 (2008) pp.77-81.
39. Optical fibre based humidity sensor using Co-polyaniline clad, A.Vijayan, M Fuke, R.Hawaldar , M. Kulkarni, D.P. Amalnerkar and R.C Aiyer, Sensors and Actuators, B: Chemical 129, 1 (2008)106.
40. In house development of co- friable thick film silver conductor for LTCC application Sweta Jagtap, Varsha Deshpnde, Vivek Rane, Sunit Rane ,Grish Phatak and D.P.Amalnerkar, Journal of Material Sci.: Materials in Electronics, 19, 6 (2008) 522 -27.

41. Effect of phosphorus addition on physical and electrical properties of tantalum powder Y. Purushotham, R. Govindaiah, Arbind Kumar and T.L. Prakash, *Modern Physics Letters B* 21 (2007) 1431-1435.
42. Determination of ultra-trace concentrations of elements in high purity tellurium by radio frequency glow discharge optical emission spectrometer (RF-GD-OES) – G. Anil, M. R. P. Reddy, S. T. Ali, N. R. Munirathnam and T. L. Prakash; *Annali Di Chimica*, 97 (2007) 1039-1046.
43. Effect of tantalum addition on anatase phase stability and photoactivity of aqueous sol-gel derived mesoporous titania, K.V. Baiju, P. Shajesh, W. Wunddrlich, P. Mukundan, S. Rajesh Kumar and K.G.K. Warriar, *Journal of Molecular Catalysis A: Chemical* 276 (2007) 41-46.
44. Effect of aging temperature on the porosity characteristics of subcritically dried silica aerogels, S. Smitha, P. Shajesh, S. Rajesh Kumar, P. Krishna Pillai and K.G.K. Warriar, *Journal of Porous Materials* 14, (2007) 1-6.
45. Line selection and evaluation of radiofrequency glow discharge atomic emission spectrometry in the determination of trace amounts of niobium in electron beam melted tantalum sheet, G. Anil, MRP Reddy, S. Rajesh Kumar, N.R. Munirathnam and T.L. Prakash, *Atomic Spectroscopy*, 29, 1 (2008) 16-20.
46. Profiling of selenium removal in hydrogen ambient zone refined tellurium bar using RF-GDOES. G. Anil, M.R.P. Reddy, D.S. Prasad, S.T. Ali, N.R. Munirathnam, T.L. Prakash, *Materials Characterization* 58 (2007) 92-95.
47. Reduction of trace oxygen by hydrogen leaking during selective vapourization to produce ultrapure cadmium for electronic applications, S. T Ali, N. R. Munirathnam, Ch. Sudheer, R. C Reddy, M.R.P. Reddy and T. L Prakash, *Materials Letters* 61, 7(2007) 1512-1516.
48. Issues and challenges in the preparation of niobium for strategic applications T Balaji, R Govindaiah, Arbind Kumar, S Rajesh Kumar and T Satish submitted to *Journal Modern Physics Letters B* (2007)

BOOKS/PROCEEDINGS

1. Polymer-semiconductor nano-composites thin films for field emission displays, A.V. Kukhta, E.E. Kolesnik, S.A. Vorobyova, A.I. Lesnikovich, A. Kudlash, P.K. Khanna, *Proceed of the 27th International display research conference*, Moscow, Sept. 18-20, 2007 pp 334-36.
2. Green synthesis of surface capped metals nano-particles: The Chemistry and the Nanotechnology, P.K. Khanna, *Proceed. Of the National Conference on Nanomater. & Nanotech.*, University of Lucknow/MRSI, Lucknow, India, pp17-19, Dec. 8-10, 2007
3. Chloramphenicol stabilized silver nanoparticles for antibacterial activity against salmonella species, Sharvil S. Patil, Mithun V. Varghese, Ravindra. S. Dhumal,

A. R. Paradkar, P. K. Khanna, Proceed. Of the National Conference on Nanomater. & Nanotech., University of Lucknow/MRSI, Lucknow, India, pp98-100, Dec. 8-10, 2007

4. Quantum dot synthesis of ZnS for Organic-Inorganic hybrid for Solar Cell
K. Gurunathan, S.S. Murthy, R. Marimuthu, P. K. Khanna, D. P. Amalnerkar
Proc. ICAMA-2007, pp.01-07
5. The effect of grain size on the properties of eco-friendly thick film NTC thermistors, S.Jagtap, A. Jadhav, S. Rane, S. Gosavi, R. Aiyer, and D. Amalnerkar, 13th NSPTS, Department of Electronics Science, University of Pune, March 3-5, 2008 p-18-1-2.
6. H₂ gas sensing properties of spin coated SnO₂ thin film, S. F. Bamsaoud, S. B. Rane, R. C. Aiyer, 13th NSPTS, Department of Electronics Science, University of Pune, (March 2008), p. 19-1-3.

SYMPOSIA/CONFERENCES

1. Nanostructured nacked α and γ Fe₂O₃, S.K. Apte, R.S. Sonawane, S.D. Naik, M.V. Kulkarni and B.B. Kale. International conference on advanced materials and applications (ICAMA-2007), held at Shivaji University, Kolhapur, India, November 15-17, 2007.
2. Synthesis and characterization of polyaniline-V₂O₅ nanocomposites, R.S. Diggikar, M.V. Kulkarni, S. K. Apte, R.S. Sonawane, S.D. Naik, J.D. Ambekar and B.B. Kale International conference on advanced materials and applications (ICAMA-2007), held at Shivaji University, Kolhapur, India, November 15-17, 2007.
3. Studies of dodecyl benzene sulphonic acid doped conducting polypyrrole. R. Mourya, M.V. Kulkarni, P. Pawar, R. Bolade, S.D. Naik, S.K. Apte, R.S. Sonawane and B.B. Kale. International conference on advanced materials and applications (ICAMA-2007), held at Shivaji University, Kolhapur, India, November 15-17, 2007.
4. Confinement of nano CdS/CdSSe (quantum dots) in designated glass for photonic application. S.K. Apte, S.D. Naik, J.D. Ambekar, R.S. Sonawane, R. Marimuthu, M.V. Kulkarni and B.B. Kale. International conference on advanced materials and applications (ICAMA-2007), held at Shivaji University, Kolhapur, India, November 15-17, 2007.
5. Synthesis and characterization of chemically synthesized Polyaniline using Triton – X, R. Mourya, R. Bolade, M.V. Kulkarni, S.D. Naik, S.K. Apte, R.S. Sonawane, J.D. Ambekar and B.B. Kale. International conference on advanced materials and applications (ICAMA-2007), held at Shivaji University, Kolhapur, India, November 15-17, 2007.
6. Effect of Glass composition and firing cycle on crystallization of photoimagable resistos. V.D. Giramkar, B.B. Kale, G.J. Phatak, U.P. Mulik and D.P. Amalnerkar. International conference on advanced materials and applications

(ICAMA-2007), held at Shivaji University, Kolhapur, India, November 15-17, 2007.

7. Photocatalytic Hydrogen generation by H_2S splitting using oxynitride $Nb_2Zr_6O_{17-x}N_x$ visible light photocatalyst. K.G. Kanade, B.B. Kale and Jin-Ook Baeg International conference on advanced materials and applications (ICAMA-2007), held at Shivaji University, Kolhapur, India, November 15-17, 2007.
8. Nanocrystallined Zirconia by hydrothermal method. K.G. Kanade, Lates ikam, S.K. Apte, D.P. Amalnerkar and B.B. Kale International conference on advanced materials and applications (ICAMA-2007), held at Shivaji University, Kolhapur, India, November 15-17, 2007.
9. Effect of precursors on electrical and gas H_2 sensing properties of sol gel synthesized Mndoped ZnO nano-particles. Yogesh S. Sonawane, R. Marimuthu, B.B. Kale R.C. Aiyer, Proceedings 13th National Seminar on physics and Technology of Sensors (13th NSPTS), Centre for Sensor Studies, Department of Electronic Science, University of Pune, Pune, March 3-5, 2008. (Page No. C-17-2).
10. The effect of grain size on the properties of eco-friendly thick film NTC thermistors, S.Jagtap, A. Jadhav, S. Rane, S. Gosavi, R. Aiyer, and D. Amalnerkar, 13th NSPTS, Department of Electronics Science, University of Pune, March 3-5, 2008.
11. H_2 gas sensing properties of spin coated SnO_2 thin film, S. F. Bamsaoud, S. B. Rane, R. C. Aiyer, 13th NSPTS, Department of Electronics Science, University of Pune, (March 2008).
12. Formulation of silver thick film conductive pastes for LTCC, J. A. Bangali, S. D. Jagtap, V. A. Rane, S. B. Rane, G. J. Phatak and S. A. Gangal, Proceedings of 12th National Seminar on Physics and Technology of Sensors (NSPTS-12), March 7-9, 2007, BARC, Mumbai.
13. Feasibility study of production of high purity niobium powder by hydriding and dehydriding method M. Sankar, R G Baligidad, R Govindaiah, T Balaji and Arbind Kumar, DMRL, Hyderabad Technical Report 2007.
14. Synthesis and characterization of Quantum dots of CdS by Sonochemical route for Solar cell application, K. Gurunathan, R. Marimuthu, Rajib Lochan Panda, P. K. Khanna, D. P. Amalnerkar, XVI International Materials Research Congress, , Cancun, Mexico October 28-Nov.1, 2007
15. Quantum dot synthesis of ZnS for Organic-Inorganic hybrid for Solar cell, K. Gurunathan, S.S. Murthy, R. Marimuthu, P. K. Khanna, D. P. Amalnerkar, International conference on Advanced Materials & Applications, Shivaji University, Kolhapur, November 15-17, 2007.

16. Preparation and Properties of Polystyrene/Expanded Graphite Nanocomposites, Goyal R.K, Umarji G.G, Mulik U.P., 10th International Conference on Advanced Materials (IUMRS-ICAM 2007), Organized by MRSI, IISc and JNCASR Bangalore, October 8-13, 2007.
17. Preparation and Properties of Guest-Host System Based on 2-Methyl-4-nitroaniline and Polyvinyl alcohol, Goyal R.K, Subhangi S.R, Negi Y.S, Mulik U.P., Aiyer R.C., 10th International Conference on Advanced Materials (IUMRS-ICAM 2007), Organized by MRSI, IISc and JNCASR Bangalore, October 8-13, 2007.
18. Novel High Performance Polymer Matrix Composites for Electronics Substrates (ORAL), Goyal RK, Tiwari AN, Mulik UP, Negi YS. 10th International Conference on Advanced Materials (IUMRS-ICAM 2007), Organized by MRSI, IISc and JNCASR Bangalore, October 8-13, 2007.
19. Mn-Co-Ni-Cu lead free thick film NTC thermistor for humidity sensing application, S.Jagtap, S. Rane, S. Gosavi, D. Amalnerkar, Raman memorial Conference, Department of Physics, University of Pune (Feb. 2008).
20. High performance Poly(ether-ether-ketone) composites ,R. K. Goyal A. N. Tiwari, and Y. S. Negi., International Conference on Advances in Polymer Science and Technology (POLY-2008), Organized by Asian Polymer Association and IIT Delhi, January 28-31, 2008.
21. Preparation of conductive adhesives using silver metal powder for electronics applications, J. D. Ambekar, M.V. Kulkarni, S. K Apte, S. D. Naik, R. S. Sonawane, U. P. Mulik, D. P. Amalnerkar, and B.B. Kale, MRSI, Trivendrum 14-16 Feb 2008.
22. Synthesis and Characterization of Lead free X-ray absorbing glasses, A.V. Thorat, R. D. Bolade, T. P. Bhirud S. K Apte, M.V. Kulkarni, S.D. Naik, R. S. Sonawane, J. D. Ambekar and B.B. Kale MRSI, Trivendrum 14-16 Feb 2008.
23. Synthesis and Spectroscopic Studies of Water Soluble Conducting Polyaniline M.V. Kulkarni, S. K Apte, S.D. Naik, R. S. Sonawane, J. D. Ambekar and B.B. Kale MRSI, Trivendrum, 14-16 Feb 2008.
24. Chloramphenicol stabilized silver nanoparticles for antibacterial activity against salmonella species, Sharvil S. Patil, Mithun V. Varghese, Ravindra S. Dhumal, A. R. Paradkar, P. K. Khanna, National Conference on Nanomater. & Nanotech, University of Lucknow/MRSI, Lucknow, India, Dec. 8-10, 2007.
25. Electrodeposited Thin film of Polythiophene-Nano CdS hybrid for Solar Cell, K. Gurunathan, N. A. Jadhav, R. Marimuthu, D. P. Amalnerkar, National convention of electrochemists (NCE-14) held at IGCAR, Kalpakkam during 6&7 December, 2007.
26. Synthesis and Characterization of BaSO₄-Polyvinyl alcohol Nanocomposite U. V. Kawade, N. A. Dhamdhare, R. P. Panmand, S. S. Warule, M.V. Kulkarni, S. K Apte, S.D. Naik, R. S. Sonawane, J. D. Ambekar and B.B. Kale MRSI, Trivendrum 14-16 Feb 2008.

27. Preparation of TiO₂ doped phosphate glass and its optical characterization, Sonali D. Naik, Sanjay K. Apte, Ravindra S. Sonawane, Milind V. Kulkarni, J. D. Ambekar, Bharat B. Kale MRSI, Trivendrum, 14-16 Feb 2008.
28. Synthesis method dependent electrical and gas sensing properties of Cu doped ZnO nano-particles. Yogesh S. Sonawane, J.D. Ambekar, B.B. Kale, R.C. Aiyer, NSPTS, 3-5 March 2008.
29. Effect of precursors on electrical and gas sensing properties of sol gel synthesized Mn doped ZnO nano-particles Yogesh S. Sonawane, J.D. Ambekar, B.B. Kale, R.C. Aiyer 13th National Seminar on physics and Technology of Sensors (NSPTS) 3-5 March 2008.
30. Synthesis and Characterization of Camphor sulphonic acid doped Conducting Poly (N-Ethyl aniline), M.V. Kulkarni, S.K. Apte, R.S. Sonawane, S.D. Naik, J.D. Ambekar and B.B. Kale, International Conference on Electroactive Polymer (Poly2008) January 2008, IIT Delhi.
31. Effect of mNA on the optical properties of TiO₂ Nano-particles, Jagdish Jawalkar, Priyesh More, Khanna P.K., Raman Memorial Conference, University of Pune, Feb. 24, 2008.
32. Synthesis of re-dispersible capped copper nanoparticles Priyesh More, Jagdish Jawalkar, P. K. Khanna, Raman Memorial Conference, University of Pune, Feb. 24, 2008.
33. Synthesis of re-dispersible capped copper nanoparticles, P. K. Khanna, Priyesh More, Jagdish Jawalkar, 19th MRSI-AGM, Trivendrum, Feb. 14-16, 2008.
34. Drug loaded Silver nanoparticles as an antibacterial agent against drug resistant *Salmonella* species, Sharvil S. Patil, Mithun V. Varghese, Ravindra. S. Dhumal, P. K. Khanna 19th MRSI-AGM, Trivendrum, kerala, Feb. 14-16, 2008.
35. Development of silver thick film pastes for surface conductors in LTCC applications, J.A. Bangali, V. A. Rane, S. B. Rane, G. J. Phatak and S. A. Gangal, National Seminar on Recent Advances in Sensors and Instrumentation (NSRASI-07), S. M. Mahavidyalaya, Akulj, October 15-16, 2007.
36. High purity gallium (99.9999 %) for Opto and Micro electronic device applications, U. Rambabu and T L Prakash, 19th Annual General Meeting of MRSI-2008 - Materials for hostile environments, Thiruvananthapuram, 14-16 February 2008.
37. Fine refining of gallium through selected wet and dry techniques for III-V compound semiconductor applications, U. Rambabu, N.R.Munirathnam and T.L.Prakash, International Conference on Advanced Materials and Composites (ICAMC 2007), organized by NIIST, CSIR, Thiruvananthapuram during Oct. 24-26, 2007.
38. Purification of cadmium by selective volatilization in the presence of its oxide, K.S.Rao, N.R.M. Rathnam. D.S.Prasad and T.L. Prakash, IUMRS-ICAM 2007, 10th International Conference on Advanced Materials, October 8-13, 2007, Bangalore.

39. Wet chemical synthesis of lithium niobate from oxalate precursor, S. Rajesh Kumar, T. Satish Kumar, Sai Rama Krishna and T.L. Praksh, IUMRS-ICAM 2007, 10th International Conference on Advanced Materials, October 8-13, 2007, Bangalore.
40. Synthesis and Characterization of Nanocrystalline Lithium Tantalate from Oxalate Precursor, T. Satish Kumar, S. Rajesh Kumar, Ch. Sudheer, K. Bharathi and T. L. Prakash, International conference on Advanced Materials and composites (ICAMC 2007), Thiruvananthapuram, 24-26 October, 2007.
41. Synthesis of alkali metal niobates, T. Satish Kumar, S. Rajesh Kumar, Ch. Sudhir and T.L. Prakash, National seminar on Characterization of transport properties of semiconductors, S.V. College, Suryapet, 17-18 August 2007 .
42. Effect of acid concentration on the solvent extraction of hafnium, zirconium, iron and titanium from zirconium effluents, MRP Reddy, S. Rajesh Kumar, Usha, Honey, R. Govindaiah, A. Chaudhury, R.C. Reddy, Arbind Kumar and T.L. Prakash, 19th Annual General Meeting of MRSI-2008 - Materials for hostile environments, Thiruvananthapuram, 14-16 February 2008.
43. Sintering characteristics and electrical properties of magnesium reduced niobium metal powder, S. Rajesh kumar, T. Satish, R. Govindaiah, T. Balaji, M. Lakshipati Rao, Arbind Kumar and T.L. Prakash, 19th Annual General Meeting of MRSI-2008- Materials for Hostile Environments, Thiruvananthapuram, 14-16 February 2008.
44. Material issues in the production of hafnium for space applications, Y. Purushotham, R. Govindaiah, S. Rajesh Kuamr, M.R.P. Reddy, Arbind Kumar, and T.L. Prakash, 19th Annual General Meeting of MRSI-2008 - Materials for Hostile Environments, Thiruvananthapuram, 14-16 February 2008.
45. Solvent extraction of zirconium raffinate for the recovery of hafnium --some studies on distribution ratios - R C Reddy, M R P Reddy, R Govindaiah, R Gurumurthy, B Sushrutha, S Sowmyasree, Arbind Kumar & T L Prakash; 19th Annual General Meeting of Materials Research Society of India (MRSI AGM-2008), February 14-16, 2008, Trivandrum, India.
46. Studies on Recovery of hafnium from zirconium plant waste by solvent extraction; R C Reddy, R Govindaiah, M R P Reddy, Arbind Kumar & T L Prakash, NMD-ATM-2007, Mumbai, 14-16 November, 2007.
47. Profiling of selenium removal in hydrogen ambient zone refined tellurium bar using RF-GDOES. G. Anil , M.R.P. Reddy, D.S. Prasad, S.T. Ali, N.R. Munirathnam, T.L. Prakash Materials Characterization 58 , 92-95, 2007.
48. Sol-gel preparation of carbon aerogels for electronic applications, N. George, N. C. Pramanik, P. A. Abraham and N. Rani Panicker, International Conference on Advanced Materials (ICAM 2008), Kottayam, India (February 18-21, 2008).

49. Poly ethylene oxide based polymer-ceramic nanocomposite solid electrolytes: Effect of molecular weight of polymer, Sankara Narayanan Potty, I Packia Selvam and A K Sivadasan, International Conference on Nanoscience and Technology (ICONSAT 2008), Chennai, February 27-29, 2008

2008-2009

JOURNALS

1. "Study on microhardness, dynamic mechanical, and tribological properties of PEEK/Al₂O₃ composites", R. K. Goyal, A. N. Tiwari, U.P. Mulik and Y. S. Negi., Journal of Applied Polymer Science 110 (2008) 3379-87.
2. "Preparation, characterization and electrical properties of spinel type environment friendly thick film NTC thermistors", Shweta Jagtap, Sunit Rane, Suresh Gosavi and Dinesh Amalnerkar, J. European Ceramic Soc. 28 (2008) 2501-07.
3. "Silver thick film pastes for low temperature co-fired ceramics: impact of glass frit variation", Jayashri Bangali, Sunit Rane, Girish Phatak and Shashikala Gangal, Soldering and Surface Mount Technology, 3 (2008) 41-46. Highly Commended Paper.
4. "Effect of ink organics on cambering of an Ag-metallized low temperature co-fired ceramics", (LTCC), Jayashri Bangali, Sunit Rane, Girish Phatak and Shashikala Gangal, J. Materials Science: Materials in Electronics, 20, 5 (2009) 455-60.
5. "Ruthenium dioxide doped manganite-based NTC thermistors for low resistance applications", Shweta Jagtap, Sunit Rane, Suresh Gosavi, Dinesh Amalnerkar, Microelectronics International, 26, 2 (2009) 19-23.
6. "Electrical and Humidity characterization of m-NA doped Au/PVA nanoparticles", M.V. Fuke, P.V. Adhyapak, U.P. Mulik, D.P. Amalnerkar and R.C. Aiyer, Talanta, 78 (2009) 590.
7. "Thermal, mechanical, and dielectric properties of polystyrene/expanded graphite nanocomposites", R.K Goyal, P.A. Jagadale and U.P. Mulik, Journal of Applied Polymer Science 111 (2009) 2071-77.
8. "Uncapped Silver nano particles synthesized by CD arc thermal Plasma technique for conductor paste formulation", M. Shinde, A. Pawar, S. Karmakar, T. Seth, V. Rauth, S. Rane, Sudha Boraskar and D.P. Amalnerkar, Journal of Nanopart Res, in press
9. "Influence of hydrogen dilution on structural, electrical and optical properties of hydrogenated nanocrystalline silicon (nc-Si:H) thin films", prepared by plasma enhanced chemical vapor deposition (PE-CVD), A.M. Funde, Nabeel Ali Bakr, D.K. Kamble, R.R. Hawaldar, D. P. Amalnerkar and S.R. Jadkar, Solar Energy Materials and Solar Cells 92, (2008) 1217.

10. "Concurrent in situ formation of Ag/Ag₂S nanoparticles in polymer matrix by facile polymer-inorganic solid state reaction", S. Waghmare, M. Shinde, R.Gholap, N.K.Rao, R. Hawaldar, U.P. Mulik and D.P.Amalnerkar, *Journal of Nano Research*, 5 (2009) 143.
11. "Synthesis and characterization of polyaniline-crooked gold nanocomposite with reduced conductivity", R.Hawaldar, M.V. Kulakarni, S.Jadkar, U.Pal and D.P.Amalnerkar, *Journal of Nano Research*, 5 (2009) 79.
12. "Influence of argon flow on deposition of hydrogenated nanocrystalline Silicon (nc-Si:H) films by plasma chemical vapor deposition", A.M. Funde, N.A.Bark. K.D.Diwate, D.K. Kamble, R.R Hawaldar, D.P.Amalnerkar and S.R.Jadkar, *Journal of Nano Research*, 5 (2009) 185.
13. "CdS/CdSSe quantum dots in glass matrix", R.S. Sonawane, S.D. Naik, S. K. Apte, M. V. Kulkarni ,B. B. Kale, *Bulletin of Materials Science*, 31 (2008) 1-5.
14. "Ag-polyaniline nanocomposite cladde planar optical waveguide based humidity sensor", Madhavi V. Fuke, Anu Vijayan, Prajakta Kanitkar, Milind Kulkarni, B.B. Kale and R.C. Aiyer, *Journal of Materials Science: Materials in Electronics*, 20 (2009), 695-703.
15. "Rapid phase -controlled microwave synthesis and optical properties of tetragonal and cubic β -In₂S₃ dandelion flowers", Sonali Naik, Tushar Jagdale, Sanjay Apte, Ravindra Sonawane, Milind Kulkarni, Shankar Patil, Satish Ogale, and Bharat Kale, *Chemical Physics Letters*, 452 (2008) 301.
16. "N:TiO₂ nanoparticle based visible light photo-catalyst by modified peroxide sol-gel method" Tushar C. Jagadale, Shrikant P. Takale ,Ravindra S. Sonawane, Hrushikesh M. Joshi, Shankar I. Patil, Bharat B. Kale, Satishchandra B. Ogale , *J. Physical Chem. C*, 112 (2008) 14595-602.
17. "Electrical and gas sensing properties of self-aligned copper-doped zinc oxide nanoparticles",Yogesh S. Sonawane, K.G. Kanade, B.B. Kale, R.C. Aiyer , *Materials Research Bulletin* 43 (2008) 2719–26.
18. "Solar energy in production of L-glutamate through visible light active photocatalyst-redox enzyme coupled bioreactor", Chan Beum Park, Sahng Ha Lee, Esakkiappan Subramanian, Bharat. B. Kale, Sang Mi Lee and Jin-Ook Baeg, *Chem. Commun*, (2008) 5423–25.
19. "Effect of reducing agent on the synthesis of nickel nanoparticles", P. K. Khanna, Priyesh V. More, Jagdish P. Jawalkar and B. G. Bharate, *Mater. Lett*, 63 (2009) 1384–86.
20. "Solid state synthesis and room temperature magnetic properties of iron phosphide nano-particles", N. Singh and P. K. Khanna, *J. Nanoparticle Research*, 11(2009) 491-97.

21. "Synthesis and Antibacterial Studies of Chloramphenicol Loaded Nano-silver against *Salmonella typhi*", Sharvil S. Patil, Ravindra S. Dhumal, Mithun V. Varghese, Anant R. Paradkar and P.K. Khanna, *Synthesis and Reactivity in Inorganic, Metal-Organic, Nano-Metal Chemistry*, 39(2009) 65-72.
22. "An innovative method for effective micro mixing of CO₂ gas during synthesis of nano calcite crystal using sonochemical carbonization", S.H. Sonawane, S.R. Shirsath, P. K. Khanna, S Pawar, C.M. Mahajan V. Paithankar, V. Shinde and C V. Kapadnis, *Chemical Engineering Journal*, 143(2008) 308-13.
23. "Near band-gap emission from CdSe nano-crystals synthesized from direct reaction of cadmium acetate and octeno-1,2,3-selenadiazole", P. K. Khanna, *J. Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry*, 38 (2008) 409-13.
24. "Fabrication of selenium rods by solution method", Yogesh Patil and P K Khanna, *J. Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry*, 38(2008) 518-23.
25. "Synthesis and characterization of myristic acid capped silver nano-particles", P.K.Khanna, D. Kulkarni, R. Beri, *J. Nanoparticle Research*, 10(2008)1059-62.
26. "Reduction of PdCl₂ by Emeraldine Base; synthesis of palladium nano-particles", P.K.Khanna, D. Kulkarni, *J. Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry*, 38(2008) 629-33.
27. "Determination of oxygen in high purity cadmium by radio frequency glow discharge optical emission spectrometry", G. Anil, M.R.P. Reddy, S.T. Ali, N.R. Munirathnam and T.L. Prakash, *Atomic spectroscopy*, 29 (2008) 90-92.
28. "Effect of Ar/Ar-H₂ plasma arc melting on Cu purification", J.-W. Lim, M.-S. Kim, N.R.Munirathnam, M.-T. Le, M. Uchikoshi, K. Mimura, M. Isshiki, H.-C. Kwon, G. S. Choi, *Materials Transactions*, 49 (2008) 1826-29.
29. "Determination of Effective distribution coefficient of impurities during zone refining of tellurium", D.S.Prasad, N.R.Munirathnam, J.V.Rao and T. L. Prakash, *International Journal of Modern Physics B* 22 (2008) 2583-88.
30. "Purification of gallium from Indian raw materials sources from 4N/5N to 6N5 purity", U.Rambabu, N.R.Munirathnam and T. L. Prakash, *Materials Chemistry and Physics*, 112 (2008) 485.
31. "A modeling approach for purification of group III metals (Ga and In) by zone refining", K. Ghosh, V. N. Mani and S.Dhar, *J.Appl. Phys.*, 104 (2008) 1-8.
32. "Preparation of Pure Crystalline Indium and its Characterization", V. N. Mani, K.Ghosh and K. Balaraju, *Materials Science Research* , 5 (2008) 89-94.
33. "Study on the segregation characteristics of impurities in gallium and its ultra purification by multi-pass zone refining", K. Ghosh, V. N. Mani, S.T. Ali and

- M.R.P.Reddy and K.Balaraju, *Metals Materials and Processes* 20 (2008) 153-60.
34. "A Computational Study and Experimental Validation of the Zone-Refining Process for Ultra-Purification of Gallium for Opto-Electronics Applications", K. Ghosh, V.N.Mani and S.Dhar, *Transactions of the Indian Institute of Metals* 61 (2008) 1-6.
 35. "Numerical study and experimental investigation of zone refining in ultra high purification of gallium & its use in the growth of GaAs epitaxial layers", K. Ghosh, V.N.Mani and S.Dhar, *J.Cryst.Growth* 311 (2009) 1521-28.
 36. "Concentration Behavior of Non-Metallic Impurities in Cu Rods Refined by Argon and Hydrogen Plasma-Arc Zone Melting", G.M.Lalev, J.-W.Lim, N.R.Munirathnam, G.-S.Choi, M.Uchikoshi, K.Mimura, M. Isshiki, *Materials Transactions*, 50 (2009) 618-21.
 37. "Quality improvements in tantalum powder by automation of sodium reduction system", Y.Purushotham, K.Ravindranath, Arbind Kumar, R.Govindaiah and T.L.Prakash, *International Journal of Refractory Metals & Hard Materials* 27 (2009) 571-576.
 38. "Crystallization and oxidation resistance properties of boron modified silicon oxycarbides derived from polymeric precursors by sol-gel method", M. N. Muralidharan, N. C. Pramanik, P. A. Abraham, K. Stanly Jacob and N. Rani Panicker, *Mater. Lett.* 62 (2008) 2547-50.
 39. "Preparation of $Ba_xSr_{1-x}TiO_3$ ($x=0\sim 1$) nanoparticles by wet-chemical decomposition of Ti-complex and study their dielectric properties", by N. C. Pramanik, N. Anisha, P. A. Abraham and N. Rani Panicker, *J. Alloys and Compd.*, 476 (2009) 524-28.
 40. "Functionalized graphene sheet- Poly(vinylidene fluoride) conductive Nanocomposites", Seema Ansari and Emmanuel P. Giannelis, *Journal of Polymer Science Part B: Polymer physics*, 47(2009) 888-97.
 41. "Polydimethylsiloxane-Cristobalite Composite Adhesive System for Aerospace Application", A. Seema, Justin M. Varghese and K. R. Dayas, *Polym. Adv.Technol.* 20 (2009) 459-65.
 42. "Tape casting of Nickel manganite NTC ceramics for chip Thermistors", N.P.Prasanth, Justin.M.Varghese, K. Prasad, Bindu Krishnan, A. Seema, K.R.Dayas, *J. Mater. Sci: Mater Electron*, 19 (2008)1100-04.
 43. "Ni-Mn-Fe-Cr-O Negative Temperature Coefficient Thermistor Compositions: Correlation between Processing Conditions and Electrical Characteristics", K. R. Dayas, Justin M. Varghese and A. Seema, *J Electroceram* 22 (2009) 436-41.

44. "Preparation and microwave characterization of PTFE/PEEK Blends", Rajani K.V., S.Rajesh, K.P. Murali, P.Mohan and R.Ratheesh, Polymer Composites 30 (2009) 296-300.
45. "Preparation, Structural and Microwave dielectric Characterization of $Ba_{3-x}Sr_xYNb_3O_{12}$ ($x=0, 1, 2, 3$) Ceramics", S.P. Sithara, S.Rajesh, K.V.Rajani, K.P. Murali, R.Ratheesh, Scripta Materialia 59 (2008) 424.
46. "Comparison of Alumina and Magnesia filled PTFE composites for microwave substrate Applications", K.P. Murali, S. Rajesh, Om Prakash, A. R. Kulkarni, R. Ratheesh, Materials Chemistry and Physics, 113,1 (2008), 290-95.
47. "Fabrication and Tunable Dielectric Properties of $(Ba_{0.70}Sr_{0.30})TiO_3$ - Glass Based Thick Film Capacitors", P.V. Divya, D. Ambika, Dhanya Krishnan, K. Sivanandan and V.Kumar, Int. J. Appl. Ceram. Technol. 6 (2009) 231-35.
48. "Fabrication and Transverse Piezoelectric Characteristics of PZT Thick-film Actuators on Alumina substrates", K. Sivanandan, Asha T. Achuthan, V. Kumar, Isaku Kanno, Sensors and Actuators A, 148 (2008) 134-37.
49. "Influence of filler on the sintering mechanism of crystallizable anorthite based Glass-ceramic systems", C. J. Dileep Kumar, E. K. Sunny, N. Raghu, N. Venkataramani and A.R. Kulkarni, J. Am. Ceram. Soc. 92 (2009) 595-600.
50. "Dispersion and Rheological Characterization of TiO_2 Tape Casting Slurry", K. V. Arunkumar, Rani N. Panicker, K. G. Vasanthakumari, Mathew Satheesh, N. Raghu and N. V. Unnikrishnan, Int. J. Appl. Ceram. Technology, (2009)1-7.

BOOKS/PROCEEDINGS

1. "Development of new environmentally sustainable thick film resistors with low TCR", Shweta Jagtap, Sunit Rane, Dinesh Amalnerkar, Proc. Int. Conference on Emerging Microelectronics and Interconnection Technology (EMIT-08), Bangalore, Dec. 15-18, 2008.
2. "Silver-palladium thick film conductors for LTCC applications", J. A. Bangali, S. B. Rane, G. J. Phatak, Proc. Int. Conference on Emerging Microelectronics and Interconnection Technology (EMIT-08), Bangalore, Dec. 15-18, 2008.
3. "High-density Lead-free Solder bumps for Electronic packaging", Shany Joseph and Girish Phatak, Proc. Int. Conference on Emerging Microelectronics and Interconnection Technology (EMIT-08), Bangalore, Dec. 15-18, 2008.
4. "Phase separation in Photoimageable resistors and its control", V. D. Giramkar, B. B. Kale, G. J. Phatak, U. P. Mulik and D. P. Amalnerkar, Proc. Int. Conference on Emerging Microelectronics and Interconnection Technology (EMIT-08), Bangalore, Dec. 15-18, 2008.
5. "90Pb/10Sn Electroplated Solder bumps optimization for BGA application", S. G. Kulkarni, V. A. Rane, Shany Joseph, Vijaya Giramkar, Varsha Chaware and

G. J. Phatak, Proc. Int. Conference on Emerging Microelectronics and Interconnection Technology (EMIT-08), Bangalore, Dec. 15-18, 2008.

6. "Effect of sacrificial material on open cavity and buried passive components in LTCC", V.A.Chaware, V.A.Rane, S.G.Kulkarni, V.D.Giramkar, S. Joseph and G.J.Phatak, Proc. Int. Conference on Emerging Microelectronics and Interconnection Technology (EMIT-08), Bangalore, Dec. 15-18, 2008.
7. "Gas Sensing performance of pure and modified SrTiO₃ thick film resistors", D. D. Kajale, V. B. Gaikwad, P. K. Khanna, G. H. Jain, Proceedings of 3rd International Conference on Sensing Technology, Nov. 30-Dec. 3, 2008, Taiwan, pp422-25.
8. "Effect of Nano Ag on Gas sensing performance of ZnO thick films", M. K. Deore, V. B. Gaikwad, G. H. Jain, P. K. Khanna, Proceedings of 3rd International Conference on Sensing Technology, Nov. 30-Dec. 3, 2008, Taiwan , pp547-51.
9. "Synthesis and characterization of high purity hafnium metal powder – Indian perspective", Y.Purushotham, R.Govindaiah, T.Balaji, S.Rajesh Kumar, Arbind Kumar, M.K.Sharma, M.R.P.Reddy, and T.L.Prakash, Powder Metallurgy for Automotive and Engineering Industries, P.Ramakrishnan (Editor), Narosa Publishing House Pvt.Ltd.,(2009) 143-147.

SYMPOSIA/CONFERENCES

1. "Study of thermally sensitive semiconducting powder material for lead free thick film composite NTC thermistors", Ramakant Sharma, Shweta Jagtap, Sunit Rane, Suresh Gosavi, Uttamrao Mulik and Dinesh Amalnerkar, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace & Defence Applications (SAMPADA-2008) Pune, Dec. 8-12, 2008.
2. "An investigation on ZnO based thick film 'Solar blind' photoconductor for 'green' electronics", Govinda Lakhota, Govind Umarji, Shweta Jagtap, Sunit Rane, Uttamrao Mulik and Dinesh Amalnerkar ,2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
3. "Vapour Phase Synthesis of Nanopowders by Thermal Plasma", Varsha B. Raut, Tanay Seth, Amol Pawar, Manish D. Shinde and Dinesh P. Amalnerkar, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
4. "Electrical characterization and humidity sensing properties of m-NA doped Au/PVA nanocomposites", P. V. Adhyapak, M. V. Fuke, R. C. Aiyer, U. P. Mulik and D. P. Amalnerkar, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.

5. "Preparation, characterization and photocatalytic activity of TiO₂ towards methylene blue degradation", S. S. Arbut, R. R. Hawaldar, U. P. Mulik, D. P. Amalnerkar, B. N. Wani, S. B. Waghmode, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
6. "Synthesis and characterization of conducting polyaniline ink for Flexible electronics applications", Milind V. Kulkarni, S. K. Apte, R.S. Sonawane, S. D. Naik and B.B. Kale, 3rd International Conference on Electroactive Polymers: Materials and Devices (ICEP-2008), Jaipur, Oct.12-17, 2008.
7. "Hierarchical Nanostructured BaBi₂S₄ with nanorods and urchin shaped Flower morphology", Ujjwala Kawade, Sonali Mahapure, Milind V. Kulkarni, Rajendra Panmand, S. K. Apte, U. P. Mulik and B.B. Kale, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
8. "Ferric oxide Quantum dots in Phosphate glass and its Magneto-optics characteristics", Sanjay K Apte, Sunil N. Garaje, Ganapathy Kumar, Milind V Kulkarni, Satish M. Mahajan and B.B.Kale, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
9. "Synthesis and characterization of Tremella-like Polyaniline-V₂O₅ nanocomposite nanosheets", Mohini A. Jagtap, Milind V. Kulkarni, Ujjwala V. Kawade, Sanjay K. Apte and Bharat B. Kale, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
10. "Studies on Bi₂S₃ doped Phosphate glass nanocomposite", Rajendra Panmand, Milind V. Kulkarni, Ujjwala V. Kawade, Sanjay K. Apte and Bharat B. Kale, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
11. "Synthesis and characterization of Bi₂S₃ Nanocrystals in Phosphate glass", R.P. Panmand, U.V. Kawade, S. K Apte, M. V. Kulkarni, and B.B. Kale and S. W. Gosavi. International seminar on science and technology of glass materials (ISSTGM-2009), , Nagarjun University, Nuzvid, Andhra Pradesh, March 16-17, 2009.
12. "Polymer embedded CdS Nanocrystallites: A environmental Visible light Photocatalyst to Hydrogen", Kaluram G. Kanade, J.D. Baeg, Uttam P. Mulik, Bharat B.Kale and Dinesh P. Amalnerkar, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
13. Controlled growth of ZnO Nanostructures by Hydrothermal assisted Sonochemical method, Sambhaji S. Warule, Nilima S. Chaudhari, Bharat B. Kale and Mahendra A. More, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.

14. Synthesis of ZnS Nanowire bundles and its optical properties ,Rohini D.Bolade , Sanjay K. Apte, Sunil G. Garaje, R. P. Panmand and Bharat B. Kale, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
15. Synthesis of Nanostructured ZnIn₂S₄ with Marigold flower morphology, Nilima S. Chaudhari, Tejasri P. Bhirud, Shital B. Thorat, Ravindra S. Sonawane and Bharat B. Kale, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
16. “Synthesis and Characterization of Nanocrystalline Mn_xTiO₂: An environmental visible light driven photocatalyst to oxidation of Organic dyes”, Prasad Chaudhari, Prachi R. Gaikwad, Dhanjay V.Jagtap, Kaluram G. Kanade and Bharat B. Kale, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
17. “Controlled sized and self aligned Nanocrystalline oxide Semiconductor materials: An efficient photocatalysts to Hydrogen generation”, Kaluram G. Kanade, J.D. Baeg and Bharat B. Kale, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
18. “Hydrogen generation by Solar light driven novel Nanocrystalline Zinc Bismuth Vanadate photocatalyst”, B. B. Kale, Jin-Ook Beag, S. K. Apte, R. S. Sonawane, M. V. Kulkarni, J. D. Ambekar and R. Marimuthu, 19th National Symposium on Catalysis ' Catalyst for sustaianable energy and chemicals' (CATSYMP-19) NCL Pune, Jan.2009.
19. “One-Pot Synthesis of Cobalt and Nickel nanoparticles”, Priyesh More, Jagdish Jawalkar, B.G. Bharate and P.K. Khanna, 2nd Int. Symp. on Advanced Materials and Polymers for Aerospace and Defense Applications (SAMPADA-2008) Pune, Dec. 8-12, 2008.
20. “A Novel single source precursor for CdSe quantum dots”, P.K. Khanna, Rahul Shewate, Priyesh More, B.G. Bharate, R.K. Beri and A.K. Vishwanath, 2nd Int. Symp. on Advanced Materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
21. “Green synthesis of “Magic-sized” CdSe quantum dots, Rupinder Beri and P.K.Khanna, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
22. “Synthesis of Magnesium carbonate (MgCO₃) nanoparticles using Sonochemical carbonization”, S. H. Sonawane, S. P. Meshram and P.K. Khanna, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications (SAMPADA-2008) Pune, Dec. 8-12, 2008.

23. "Fabrication of photoactive TiO₂/PMMA films, Priyesh More, Ritesh Kumar", Yogesh Patil, S.H.Sonawane and P.K.Khanna, 2nd Int. Symp. on Advanced materials and Polymers for Aerospace and Defence Applications , (SAMPADA-2008) Pune, Dec. 8-12, 2008.
24. "Sono-chemical synthesis of γ -iron oxide nano-particles", Tushar Rastogi and P. K. Khanna, DAE-BRNS International Symposium on Materials Chemistry (ISMCM-2008), Bhabha Atomic Research Centre, (BARC), Mumbai, Dec. 2-6, 2008.
25. "Synthesis of uncapped silver nanoparticles using DC arc plasma technique: Study of change of plasma gas on morphological properties", Manish Shinde, Amol Pawar, Soumen Karmakar, Ramkrishna Gholap, Tanay Seth, Varsha Raut, Sudha Bharaskar and Dinesh Amalnerkar, International Conference on Biomedical Engineering & Nanotechnology (ICBENT-2008) Kolhapur, Oct. 21-23, 2008.
26. "Microwave assisted semi-solvothermal synthesis route for the synthesis of hierarchical nanostructures of CdS", Amol Pawar, Manish Shinde, V. Sreeja, Tanay Seth, Varsha Raut, H S Poddar and Dinesh Amalnerkar, International Conference on Biomedical Engineering & Nanotechnology (ICBENT-2008) Kolhapur, Oct. 21-23, 2008.
27. "Large scale synthesis of Palladium nano-particles at ethanol/water refluxing temperature: synthesis of Ag-Pd alloy via palladium seeds", P.K.Khanna and B.G.Bharate, International Conference on Biomedical Engineering & Nanotechnology (ICBENT-2008) Kolhapur, Oct. 21-23, 2008.
28. "Magnetic nickel nanoparticles: effect of reducing agent on the synthesis, Priyesh More, Jagdish Jawalkar, B. G. Bharate, and P. K. Khanna, International Conference on Magnetic Materials & their Applications for 21st Century MMA 21, NPL, New Delhi, Oct. 21 -23, 2008.
29. Phase characterization and electrical evaluation studies on alkali metal niobates, T.Satish Kumar, S.Rajesh Kumar, T.Balaji and T.L.Prakash, International Conference on Recent Changes in Nano Materials (ICRNM-2008) Hyderabad, Dec. 19-20, 2008.
30. Ultra purification of Cadmium from Indian Resource: some studies, D.S.Prasad, N.Murali Babu, N.R.Munirathnam and T.L.Prakash, International conference on Powder Metallurgy -PM 09, Goa, Feb.16-18, 2009.
31. "Synthesis and characterization of CaWO₄: Ag powders for Electronics display, U. Rambabu, N. R. Munirathnam and T. L. Prakash, International conference on Powder Metallurgy - PM09, Goa, Feb.16-18, 2009.