**Pandey, O.P. Dr.**



**Designation:** Senior Professor

**Education**

* **Ph.D**: (Metallurgical Engineering), Indian Institute of Technology (BHU) Varanasi
* **M.Tech.**: (Materials Science and Engineering), Indian Institute of Technology (BHU)
	+ - Varanasi
* **M.Sc**: (Chemistry), Lucknow University

**Experience**

* Research Experience: 31 years.
* Teaching experience: 22 years**.**

**Research Interest:**

Undercooling, Powder Metallurgy, Rapid Solidification, Spray deposition, Heat treatment, Glass Ceramic, Magnetic Materials, Nanomaterials, composites

**Teaching Interests:**

Physical Metallurgy, Materials Science, Materials Processing, Solidification and Casting

Nano-Materials, Phase Transformation, Rapid Solidification, Powder Metallurgy, Ceramics,

Heat Treatment and Composite

 **Membership of Professional Bodies:**

* Associate Member of Indian Institute of Metals, Calcutta.
* Life member of Gold Bulletin and Gold Patent Digest, Switzerland.
* Life member of Indian Ceramic Society
* Life member of Indian Thermal Society
* Life member of Society of Indian Technical Education
* Life member of Electron Microscopic Society of India
* Life member of Punjab Academy of Science
* Life member of Materials Research Society of India
* Member of TMS Society USA
* Life member of Magnetics Society of India

**Sponsored Research:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Research Projects** | **Funding** **Agencies** | **Amount****(lakhs)** | **Institute**  | **PI/Co-PI** | **Status** |
| 1. | Microstructural Characteristics of Atomized Al-Cu -Si Alloys  | UGC(1994) | 0.16 | Thapar University | Dr. O.P. Pandey**(P.I.)** | Completed |
| 2. | Aomization and Spray – deposition of Copper base Alloys  | UGC(1998) | 0.20 | Thapar University | Dr. O.P. Pandey**(P.I.)** | Completed |
| 3. | Development of Infrastructure in the Area of High Performance Ceramics  | AICTE(1995) | 11.0 | Thapar University | Dr. O.P. Pandey**(P.I.)** | Completed |
| 4. | Processing and Properties of Spray Deposited Bearing Materials  | UGC(1996) | 7.5 0 | Thapar University | Dr. O.P. Pandey**(P.I.)** | Completed |
| 5. | Development of Electrolyte Materials for Solid Oxide Fuel Cells  | AICTE(2003) | 5.70 | Thapar University | Dr. Kulvir Singh **(P.I.)** Dr. O.P. Pandey**(Co-P.I.)** | Completed |
| 7. | Development of Sealant Materials for Solid Oxide Fuel cells  | DST,New Delhi (2006) | 25.0 | Thapar University | Dr. Kulvir Singh **(P.I.)** Dr. O.P. Pandey**(Co-P.I.)** | Completed |
| 8. | Development of High performance Commercial Bearing Materials by Spray Deposition Technique  | CSIR, New Delhi(2006) | 20.0 | Thapar University | Dr. O.P. Pandey**(P.I.)** Dr. Kulvir Singh**(Co-PI)** | Completed |
| 9. | Preparation of Strontium Hexa ferrite powders from Celestite ore and Blue Dust  | Ministry of Mines(2008) | 18.0 | Thapar University | Dr. O.P. Pandey**(P.I.)** | Completed |
| 13. | Synthesis and Characterization of Aluminium Metal Matrix Functionally Graded Armor Materials Reinforced with Zircon Sand  | DRDO,New Delhi(2009) | 20.0 | Thapar University | Dr. O.P. Pandey**(P.I.)** | Completed |
| 14. | Development of Wear Resistant Light Weight Composites by Spray Deposition Technique  | AICTE, New Delhi(2009) | 09.0 | Thapar University | Dr. O.P. Pandey**(P.I.)** | Completed |
| 15. | Preparation & characterization of La1-x AxMO3-δ and Y1-x AxMO3-δ (A= Ca, Sr; M= Ti, Nb) interconnect materials for Solid Oxide Fuel Cells | UGC,New Delhi(2009) | 05.5 | Thapar University | Dr. Kulvir Singh **(P.I.)** Dr. O.P. Pandey**(Co-P.I.)** | Completed |
| 16. | Synthesis of WC nano powder through thermo-chemical reduction and its application for the development of WC-Co composite  | DST, New Delhi(2009) | 27.0 | Thapar University | Dr. O.P. Pandey**(P.I.)** Dr. Kulvir Singh **(Co-P.I.)** | Completed |
| 19. | Effect of Capping Agents on the size and Stability of Core-Shell ZnS Nanostructures  | DRDO,New Delhi(2011) | 13.92 | Thapar University | Dr. O.P. Pandey**(P.I.)** | Near to complete |
| 20. | Corrosion Resistant behaviour of Glass –steel interface  | UGC, New-Delhi (2011) | 09.25 | Thapar University | Dr. O.P. Pandey**(P.I.)** Dr. Kulvir Singh **(Co-P.I.)** | completed |
| 22. | Study of La doped mixed conductor for solid electrolyte  | DST,New Delhi,(2012) | 34. 50 | Thapar University | Dr. Kulvir Singh **(P.I.)** Dr. O.P. Pandey**(Co-P.I.)** | Ongoing |
| 23. | Study of Alkaline earth metals substitution in Bi based mixed ion conductorfor solid oxide fuel cell application  | DRDO,New Delhi(2012) | 14.42 | Thapar University | Dr. Kulvir Singh **(P.I.)** Dr. O.P. Pandey**(Co-P.I.)** | Ongoing |
| 24 | Synthesis and Characterization of Vanadium Carbide Nanoparticles | UGC, DAE, CRS,(2012) | 7.34 | Thapar University | Dr. O.P. Pandey**(P.I.)** Dr. Kulvir Singh **(Co-P.I.)** | Ongoing |
| 25 | Development of porous aluminum foam materials for blast mitigation | DRDO ARMREB(2012) | 17.24 | Thapar University | Dr. O.P. Pandey**(P.I.)** | Ongoing |

**Fellowships:**

1. Junior Research Fellow (UGC) *School of Materials Science & Technology, I.T., B. H. U. Varanasi* from Aug 1982 to June 1984.
2. Senior Research Fellow (DST) *Deptt. Met. Engg. I.T., B.H.U., Varanasi*, from Sep 1984 to Sept 1985.
3. Senior Research Fellow (UGC) *Deptt. Met. Engg. I.T., B.H.U., Varanasi*, from Oct 1985 to May 1988.
4. Research Associate (UGC) *Deptt. Met. Engg. I.T., B.H.U., Varanasi*, from August 1988 to May 1990.
5. Research Associate (CSIR) *Deptt. Met. Engg. I.T., B.H.U., Varanasi*, from June 1990 to Oct 1992.
6. SERC Visiting Fellow (DST) *Deptt. Met. Engg. I.T., B.H.U., Varanasi*, for the Year (1996-1997).

# Invited Talk Delivered

* **Fabrication of Advance Materials by Atomization and Spray Deposition of Melt.** September 23, 2000; *Deptt of Metallurgical and Materials Engg UOR, Roorkee.*
* **Spray forming techniques for producing rapidly solidified materials.** ISTE – AICTE sponsored short-term course on *“Ferroelectric Materials: State of Art Technology (Feb.2-25, 2000)”* Feb 15, 2000, *SLIET, Longwal, Sangroor*.
* **Metallic glass- their properties and application as sensor materials** – February 15, 2000 ISTE – AICTE sponsored short term course on “Ferraelectric *Materials: State of Art Technology* (Feb.2-25, 2000)” *SLIET, Longwal, Sangroor*
* **Heat treatment of IC Engine Components,** March 1, 2000, *Workshop on Heat treatment and analysis of IC Engine* Feb28, March 1, 2000, *TCIRD, Patiala*.
* **Rapid Solidification of Metallic Materials** *–* Summer Technology Camp for B.Tech students held during July 12 to Aug. 6, 1999, *SBSCET, Ferozpur, organised by P.T.U.*
* **Processing Techniques for Metallic and Non- metallic Materials –** Workshop on Materials Processing, Characterization and Testing for Industrial Quality Control, 23-24 March, NRTC, Parwanoo, HP.
* **Heat Treatment of Materials –** Workshop on Materials Processing, Characterization and Testing for Industrial Quality Control, 23-24 March, NRTC, Parwanoo, HP.
* **Failure Analysis of Electronic Components-***AICTE Sponsored Staff Development Programme on Growth and Characterization of Semiconductor Devices 7-18 November 2005.SLIET, Longawal.*
* **Structural Variation in Materials during EDM Processes** *Seminar on Non-Traditional Machining Processes 17-3-2006 Department of Mechanical Engineering, TIET, Patiala.*
* **Role of structure in understanding the properties of materials**, *International conference on emerging trends in Mechanical Engineering (ICETME-2011), Department of Mechanical Engineering, Thapar University, Patiala, page-527.*
* **Preparation and application of WC as sensor material**, *National seminar on Physics and Technology of sensors (NSPTS-16), University TAP Society, Lucknow.*
* Many more invited talks were delivered at different forums in subsequent years at different organisation.

**Awards:**

1. Awarded the **First Prize** for one of the best paper presentation (Oral) during *National Metallurgist Day celebration and Annual Technical Meeting of the Indian Institute of Metals* held at Ranchi (Nov. 14-17, 1991).
2. **SEM micrograph** of as cast Mg-Cu alloy appeared as **cover photograph of the journal** for the paper entitled **Solidification of Undercooled Melt of Mg-Cu alloy entrapped in its Primary Phase** in *J. Materials Science* *Letter* *11(8) (1992) 1260- 1262*
3. **Best Paper Award for the year 1994** bySteel Authority of India Limited, Ranchi, Bihar for the paper entitled **Non-Equilibrium Solidification of Undercooled Melt of Ag-Cu Alloy Entrained in the Primary Phase** Metallurgical *Transaction A* *25(11) (1994) 2517-2523.*
4. **Best Paper Award in the year 1995** bySteel Authority of India Limited, Ranchi, Bihar for the paper entitled **Undercooling and Solidification of Droplets of Cu-Ag Alloy Entrained in the Primary Phase** *J. Materials Science* *30 (1995) 538-543*.
5. **Best poster award** Manoj Sharma and O.P. Pandey **Optical studies of PVP capped ZnS nanoparticles, International Symposium on Nanostructured materials: Structure, Properties and Applications,** *Kanya Maha Vidyalay, Jalandhar, Oct 28-29, 2009.*
6. **SEM** micrograph of Fe powder appeared as **cover photograph** **of the journal for the paper entitled Effect of excess samarioum oxide on the preparation of Sm2Fe17 Powder by calciothermic reduction** in *J. Materials Science Letter 15 (1996) 2088-2090.*
7. Awarded **Second Prize** for one of the paper presentation (Poster) during *National Symposium on Thermal Analysis, DDU Gorakhpur University, Gorakhpur* – March 26-27, 2000.
8. TEM micrograph of Cu precipitate of Aged HSLA Steel appeared as **Cover photograph of the journal** for the paper entitled **Aging of a copper bearing HSLA-100 Steel in** *Bulletin of Material Science (26) No 4 (2003) 441-447.*
9. Awarded **Third Prize** for the paper **Synthesis of Nano Size WC-Co composite by Carbothermic Reduction (Poster)** in ihe International Conference Metals and Alloys: Past, Present and Future (METALLO 2007) organised by IIT Kanpur 07-10 December, 2007.
10. **SEM micrograph** of spray formed AMC appeared as **cover photograph of the journal** for the paper entitled **Wear and microstructural characteristics of spray atomized zircon sand reinforced LM13 alloy**, *Materialwissenschaft und Werkstofftechnik (MATWER), (Materials Science and Engineering) 41(7) (2010) 568-574.*
11. **Best poster award** Manoj Sharma and O.P.Pandey **Sensing applications of capped ZnS nanomaterials,** *AGM of MRSI, Bhopal, 2011.*
12. **Best poster award** Gurbinder Kaur, O.P.Pandey, Kulvir Singh **Chemical compatability of borosilicate glasses with Crofer 22 APU for SOFC applications,** *AGM**Indian Ceramic Society, 19-22 December, 2011, Agra.*
13. **Best poster award** Gurbinder Kaur, O.P.Pandey, Kulvir Singh **Chemical compatability of borosilicate glasses with yttria stabilized zirconia (YSZ) for SOFC applications,** *AGM of MRSI, 13-15 Feb 2012, Patiala.*
14. **Best poster award** Samiksha Verma, Pooja Chauhan, O.P.Pandey and Puneet Sharma, **Preparation and characterization of barium hexaferrite prepared from bariummonoferrite** in 23nd Annual General Meeting of Material Research Society of India held at Thapar University, Feb13-15, 2012.

**Personal Recognition:**

1. Chaired a session in **National Seminar on Materials Science: Trends and Future (MSTF-2000)** Feb 24-25, 2000, SLIET, Longowal, Sangrur.
2. Chaired a session in **National Conference on Recent Developments in Mechanical Engineering,** Oct 31 and Nov. 1, 2003, TIET, Patiala.
3. Chaired a session in **National Conference on Application of Nanotechnology, organised by Jodhpur Engineering College and Research Centre, Jodhpur.** December 27-29, 2007.
4. Marquis Who’s who 2009 in the Academic column
5. Chaired many sessions in different National/ International conferences at different places in subsequent years.

**Employment History:**

1. Development Engineer, Department of Metallurgical Engg. B.H.U., Varansi from June 1990 to August 1990.
2. Lecturers (Materials Science), School of Basic and Applied Sciences, TIET, Patiala from Oct 1992 to Jan20, 1997.
3. Assistant Professor (Materials Science), School of Basic and Applied Sciences, TIET, Patiala from Jan20, 1997 to April 4, 2006
4. Professor, Thapar University from April 5, 2006 to April 16, 20012 (FN)
5. Adjunct Scientist TCIRD (Since 2004)
6. Senior Professor, Thapar University from April 16, 20012 (AN) till date

**Educational Development:**

* Designed different courses for UG and PG programmes of different universities (Appendix C I)
* Courses taught during last 3 years (Appendix C II)

**Extra Curricular Activities:**

1. Programme Officer National Service Scheme, Thapar Institute of Engineering & Technology, Patiala for four years.
2. Organised several tree plantation camps inside the institute and villages
3. Organised blood donation camps
4. Attended several camps outside the institute

**Name and Address of Referees:**

1. Professor S.N. Ojha, Department of Metallurgical Engineering, Institute of Technology, Banaras Hindu University, Varanasi - 221005
2. Professor K.K. Raina, Deputy Director , Thapar University, Patiala 147004
3. Dr. N. S. Mishra, Professor and Head, National Institute of Foundry & Forged Technology (NIFT), Hatia, Ranchi - 834002 Bihar
4. Professor K. Chattopadhyay, Department of Metallurgy, Indian Institute of Science, Bangalore

**Administrative:**

* Head, School of Physics and Materials Science, Thapar University, April 15, 2006 to August 7, 2011.
* Warden, PG Hostel, TIET, Patiala (3 Years) (July 2, 2000 –May 19, 2003)
* Coordinating warden, TIET, Patiala (7 Years) ( May 20, 2003- September 3, 2010)
* Programme Officer NSS (4 Years)
* Acting Head, School of Basic & Applied Sciences
* Lab In charge (6 Years and still continuing)
* Coarse Coordinator, PG Programme (3 Years)
* Work-Term In-charge, PG Programme
* Time Table In charge (3 Years)
* Member of Senate and various Committees
* Member of Research Board (More than 7 Years)
* Member of fact finding committee
* Member of institute marks grading committee
* Student counsellor of various departments
* Member of different committees of other institutions

**M.Sc./M.Tech./MDS Theses / Project Supervised:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Thesis Title** | **Name of Students** | **Year** |
| 1. | Wear characteristics of Al-Cu-Pb alloys | Manmohan Singh Dhillon | 1993 |
| 2. | Processing and properties of cemented tungsten carbide by precipitation route | Pankaj Kumar Singla | 1994 |
| 3. | Preparation of Sm-Fe-N powder by calciothermic reduction | Sanjeev Mahajan | 1994 |
| 4. | Microstructural characteristics of rapidly solidified aluminium based immisible alloys | Rakesh Kumar | 1995 |
| 5. | Microstructural characterisation of copper alloy powders used for bearing materials | Mandeep Juneja | 1997 |
| 6. | Wear characteristics of spheroidal graphite iron | Navdeep Sharma | 1998 |
| 7. | Morphology and tribological characteristics of steels | Vinay Kumar Gupta | 1998 |
| 8. | Effect of morphology of carbide on friction and wear in 0.86% plain carbon steel | Rajeev Chauhan | 1998 |
| 9. | Heat treatment and wear characteristics of eutectoid steel (normalized and annealed) | Preeti Bhasin | 1999 |
| 10. | Heat treatment and wear characteristics of eutectoid steel (quenched and tempered) | Ritu Singla | 1999 |
| 11. | Effect of curing tip distance and exposure time on microhardness of composite resins | Dr. Rajinder Kumar Bansal | 2001 |
| 12. | Studies of SiO2-Al2O3-MgO-B2O3 glasses for solid oxide fuel cell application | Neha Gupta | 2003 |
| 13. | Influence of binders on the magnetic properties of strontium ferrite and NdFeB compression bonded magnets | Himanshu Jindal | 2003 |
| 14. | Study of grain growth phenomenon in sintered soft ferrite magnets | Sameer Yadav | 2005 |
| 15 | Sintering characteristics of Al-Cu-Pb-Sn bearing alloys  | Komal Manmeet | 2005 |
| 16. | Development of aluminium based bearing alloys | Kamalpreet Kaur | 2006 |
| 17. | Studies on permeability of Mn-Zn soft ferrites on variation in its basic composition | Ishwinderpal Singh | 2006 |
| 18. | Effect of alloying elements on Al-12.6%Si eutectic alloys | Alok Jain | 2007 |
| 19. | Study of photo catalytic behaviour of TiO2 nanopowders | Anmol Rattan Singh | 2007 |
| 20. | Development and characterization of nickel free duplex stainless steel | Alok Kumar | 2007 |
| 21. | Development of solid electrolyte material based on zirconia-bismuth oxide  | Kapil Sood | 2007 |
| 22. | Synthesis and characterization of tungsten carbide nanoparticles | Ravinder Pal Singh | 2007 |
| 23. | Synthesis and characterization of Mn-Zn ferrite nanomaterials by chemical co-precipitation method | Ravi Prakash Srivastava | 2007 |
| 24. | Effect of specific surface area of in process calcined powder on electrical and magnetic properties of finished Mn-Zn ferrites | Sandeep Kumar Singh | 2008 |
| 25 | Strength and frature studies of steam turbine blade | Rahul Kaushik | 2008 |
| 26. | Synthesis of WC-nano ehaviour by reflux reaction | Raj Kumar Chopra | 2008 |
| 27. | Failure analysis of gear material | Vineet Pandey | 2009 |
| 28. | Development of low loss Mn-Zn ferrite material for high frequency applications | Karuna Sagar Chaturvedi | 2009 |
| 29 | Strength and Fracture Studies of Steam turbine Blade | Rahul Kaushik | 2009 |
| 30 | Preparation and Characterization of Sponge Iron | Arun Kumar Singh | 2009 |
| 31 | Failure Analysis of Gear Material | Vineet Pandey | 2009 |
| 32 |  Synthesis of Tungsten Carbide Nanoparticles by Reflux Reaction | Raj Kumar Chopra | 2009 |
| 33 | Development of a low loss Mn-Zn Ferrite Material for High Frequency Applications  | Karuna Sagar Chaturvedi | 2009 |
| 34 | Effect of Specific Surface Area of In-Process Calcined Powder on Electrical and Magnetic Properties of Finished Mn-Zn ferrites | Sandeep Kumar Singh | 2009 |
| 35 | Development of solid electrolyte material based on zirconia-bismuth oxide | Paramjyot Kumar Jha | 2010 |
| 36 | Spray forming and tribological behaviour of SiC particle reinforced Al-Si alloy | Ram Kishor Anant | 2010 |
| 37 | Sliding wear ehaviour of zircon sand reinforced LM13 alloy prepared by spray forming technique | Rashmi Mittal | 2010 |
| 38 | Single Phase Synthesis of Rutile Tio2 Nanoparticles | Rajani Sharma | 2010 |
| 39 | Single pot synthesis of biocompatible silver Nanocollodis | Poonam Benjwal | 2010 |
| 41 | Synthesis and photocatalytic studies of ZnO nanoparticles | Jagdeep Kaur | 2010 |
| 42 | Synthesis and photocatalytic studies of ZnO nanoparticles | Neeraj Mittal | 2010 |
| 43 | Wear characteristic of dual reinforced particles (DRP) Aluminium alloy. | Vipin Sharma | 2011 |
| 44 | Wear behaviour of dual particle size (DPS) Aluminium alloy. | Suresh singh | 2011 |
| 45 | Design of microwave sintering unit for development of Copper-chromium contact materials | Mukul Verma | 2011 |
| 46. | Wear characteristic of rutile reinforced aluminium composites. | Ravinder Singh | 2012 |
| 47. | Synthesis and Characterization of Tantalum Carbide nano particles | Navjot Kaur | 2012 |

#### Ph.D. Thesis

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Title of the thesis** | **Name of the candidate** | **Year of registration/ completion** |
| 1. | Effect of Additions on the Magnetic Properties of Strontium Ferrite Permanent Magnets  | Puneet Sharma | ***Awarded,2004*** |
| 2. | Thermomechanical Processing of HSLA Steels | Sanjay Panwar | ***Awarded, 2006*** |
| 3. | Studies of Bismuth Based Electrolytes for its applications in Solid Oxide Fuel Cells | Ravikant | ***Awarded, 2008*** |
| 4. | Development of Strontium Hexaferrite Magnets from Celestite ore and Blue dust | Rajani Kant Tiwari | ***Awarded, 2008*** |
| 5. | Studies of SiO2-BaO-ZnO-M2O3-B2O3 (M=Al, Mn, Y, La) Based Glass Sealants | Anu Arora | ***Awarded, 2009*** |
| 6. | The study of Radiation Induced Modifications in some Natural and Artificial Silicate Glasses | Amanpreet Kaur Sandhu | ***Awarded, 2009*** |
| 7. | Analysis of Surface Integrity in Electrical Discharge Machining (EDM) process for Tungsten Carbide Material | C.P.Khatter | ***Awarded, 2010*** |
| 8. | Studies of SiO2-B2O3-MgO-SrO-A2O3 (A=Y, La, Al) Based glasses for SOFC Applications | Vishal Kumar | ***Awarded, 2010*** |
| 9. | Preparation and Characterization of Tungsten Carbide Micro/Nano Composites | Akshay Kumar23-3-08 | ***Awarded, 2011******16-9-11*** |
| 10 | Capping of ZnS Nano structures ; Optical and Morphological Studies | Manoj Kumar 14-10-7Sharma 8-8-8 | ***Awarded, 2011******14-10-11*** |
| 11. | Development of Metal-matrix Composite by Rapid Solidification Process | Kamalpreet Kaur | ***Awarded, 2012*** |
| 12. | Synthesis and Characterization of Interconnect Materials: La1-x Mx TOy and Y1-x Mx TOy (M=Caor Sr; T=Ti, Nb) for SOFC | Jasmeet Kaur Gill | ***Awarded, 2012*** |
| 13. | Effect of Electrical Conductivity and Spatial Variability of Soil on Crop Productivity | Baban Kumar | ***Awarded, 2012*** |
| 14. | Investigations on Interfacial Interaction of Glass Sealants with Electrolyte and Interconnect for Solid Oxide Fuel Cells | Gurbinder Kaur  | ***Awarded, 2012*** |
| 15.  | Preparation and Characterisation of Silicate glasses for interface with steels | Bhupinder Kaur | ***Awarded, 2013*** |
| 16 | Characterization of reinforced nano Tungsten Carbide synthesised from wolframite with metal | Harjinder Singh  | ***Awarded, 2013*** |
| 17 | Effect of Gamma and Heavy ions Irradiations on the Structural and Optical Properties of Heavy metal oxide Borosilicate Glasses | Ravneet Kaur | ***Awarded, 2014*** |
| 18 | Electromagnetic Effects on Seed Germination | Tarlochan Singh Mahajan | ***Awarded, 2014*** |
| 19 | Study of wear resistant Zircon sand reinforced aluminium matrix composites | Ranvir Singh Panwar | ***Awarded, 2014*** |
| 20 | Study of Alkaline earth metals substitution for Bismuth in bismuth baed mixed ion conductors | Samita | Ongoing (2010) |
| 21 | Studies on Lanthanum based ionic conductors as electrolyte materials | Kapil Sood | Ongoing (2010)(U.R.B.1.11.2010) |
| 22 | Studies on Antimcrobial Properties of Metals and Metal Oxide Based Nanostructures | Chandani | Ongoing (2010)(U.R.B. 1.11.2010) |
| 23 | Optical and morphological study of doped Y2O3 nanostructures | Deepak Kumar | Ongoing (2010) |
| 24 | Photoluminiscence and photocatalytic studies of doped and capped ZnO and CeO2 nanomaterials | Manish Mittal | Ongoing (2010) |
| 25 | Thermal and Elastic Properties of Solids and Geophysical minerals at elevated temperature and Pressure | Sanjay Kumar | Ongoing (2010) |
| 26 | Synthesis and Characterization of vanadium carbide nanoparticles | Mani Mahajan | Ongoing (2010) |
| 27 | Preparation and characterization of Barium hexaferrite (BaFe12O19) thick film for micro/millimetre wave device application | Samiksha Kumari | Ongoing (2010) |
| 28 | Effect of grain size and Gd-Co substitution on multiferroic BiFeO3 thin films | Shivani Sharma | Ongoing (2010) |
| 29 | Synthesis and characterization of CuS modified Na2S-P2S5 glasses for solid electrolytes | Paramjyot Kumar Jha | Ongoing (2011) |
| 30 | Photocatalytic studies of undoped and doped ZnS nanostructures | Jagdeep Kaur | Ongoing (2011) |
| 31 | Synthesis of Nano transition metal carbides by solvothermal route | Gaurav Singla | Ongoing (2011) |
| 32 | Development of Aluminium Foam materials for blast mitigation | Suresh Kumar | Ongoing (2011) |
| 33 | Optical and morphological study od doped nano CeO2 | Suninderjeet kaur | Ongoing (2011) |
| 34 | Synthesis of Nano WC through reflux reactions | Loveleen Kaur Brar | Ongoing (2012) |

**Summer School / Winter School / Workshop / Conference Organised:**

1. Organised a workshop on ***Heat Treatment of Iron and Steel****s*for personnel working in industries on Dec. 21-22, 1995. In this workshop 21 participants of the cadre of General Manager to junior engineers from different industries participated.
2. Organised a ***National Conference on Materials and Related Technologies (NCMRT2003)*** on Sept. 19-20, 2003. In this conference 60 participants from all over the country presented their papers. 93 papers were received.
3. Organised a ***National Conference on Advances in Condensed Matter Physics (ACMP2005)*** on Feb. 11-12, 2005. In this conference 70 participants from all over the country presented their papers. 85 papers were received.
4. Organised a UGC sponsored Refresher Course on Recent development in Physics and Materials Science, December 12-31, 2005 (3 weeks). 35 participants from different colleges/universities/R & D organisation attended this course.
5. Organised a ***National Conference on Emerging Trends in Engineering Materials (NCETEM2007)*** on Feb. 1-3, 2007. In this conference 70 participants from all over the country presented their papers. 95 papers were received.
6. Organised a Workshop on *Emerging Trends in Nano Technology* on Nov. 20, 2007 in collaboration with Punjab Academy of Sciences, Patiala.
7. Organised Fifteenth ***National Seminar on Ferroelectrics and Dielectrics (NSFD15)*** 6-8 Nov, 2008. In this conference 60 participants from all over the country presented their papers
8. Organised ***23rd AGM of Materials Research Society of India (MRSI) Feb 13-15, 2012, Patiala***

**Summer School / Winter School / Workshop Attended:**

**Workshop:**

1. Attended a workshop-cum-seminar on **Scanning Electron Microscopy,** February 25-26, 1991, *Department of Metallurgical Engineering*, *I. T., B.H.U.* Varanasi - 221005
2. Attended a workshop on Synthesis**, Characterisation and Properties of Small Particles**, February 24-26, 1993, *School of Materials Science and Technology*, *I. T. B.H.U.* Varanasi -221005
3. Attended a workshop on **Heat Treatment and Surface Engineering of Iron and Steels (HTIS -94)** May 11-13, 1994, *National Metallurgical Laboratory*, Jamshedpur- 831007, Bihar
4. Attended a workshop on **Electron Microscopy: its application in Biological and Materials Science**, Nov 10-13, 1997 organised by *USIC*, Jadavpur University, Calcutta-700032
5. Attended a workshop on **Blood Transfusion medicine** on oct. 24, 1997 at Govt. medical College, Patiala. Sponsored by Department of Transfusion Medicine, Govt medical College, Patiala.
6. Attended national workshop on **University-Industry Interface-2001** on Feb. 20-21, 1998, at Punjab University, Chandigarh. Sponsored by AICTE.
7. Attended a workshop on **High Resolution NMR Spectroscopy of Polymers,** Dec 1-2, 2001 organised by *Department of Chemistry, IIT Delhi*
8. Attended a **user workshop** at Nuclear Science Centre New Delhi on Dec 17-18, 2004
9. Attended a **user workshop** at Nuclear Science Centre New Delhi on June 21-22, 2005
10. Attended a user workshop at Inter University Accelerator Centre, New Delhi on 7-8 July, 2008.

**Schools:**

1. **Metallurgical Failures and their Remedial Measures** from June 27, 1995 to July 11, 1995 organised by *Department of Metallurgical Engineering with QIP Centre*, University of Roorkee, Roorkee. (Two Weeks)
2. **Advanced Techniques for Characterization of Materials** from February 27, 1996 to June 11, 1996 organised by *Department of Physics,* *Indian Institute of Technology,* New Delhi. (Two Weeks)
3. **Induction Training Programme from** July 15, 1996 to August 3, 1996 organised by *Academic Staff College, Kurukshetra University*, Kurukshetra, (Three Weeks)
4. **Winter School on Industry Institute Parternership** From Feb 10–15, 1997 organized by *Thapar Institute of Engineering & Technology, Patiuala* (One Week*).*
5. Attended a panel discussion on **Science and Technology,** Nov. 25, 1997, organised by Punjab Academy of Science at Punjabi University, Patiala.
6. Attended a workshop on **Blood Transfusion Medicine** on Oct. 24, 1997 at Govt. Medical College, Patiala. Sponsored by Department of Transfusion Medicine, Govt. Medical College, Patiala.
7. Attended national conference on **University-Industry Interface-2001** on Feb. 20-21, 1998, at Punjab University Chandigarh. Sponsored by AICTE.
8. Attended international conference on **Trends in Mechanical Alloying: Science, Technology and Applications** Feb. 21-23, 2001, Hotel Amer, Jaipur.
9. Attended QIP short term course on **Nano Technology- Nanomaterials and their Applications** Feb. 21-25, 2005, QIP Center, IIT Roorkee.

**Course Materials Developed:**

1. Developed a course material on*Heat Treatment of Iron and Steels* under CEP programme. This gives the details of science and practice of Heat Treatment starting form the first fundamentals, going on to the specialised aspects and the recent developments and trends supported by appropriate case studies. The course material is most suitable for metallurgical /mechanical engineering students, personnel working in industries, research engineers, scientists and faculty members.
2. A similar course material on the topics *Heat Treatment of Non Ferrous Materials* and *Solidification and Castings of Metallic Melts*is in progress. These materials are being prepared under CEP programme.

**Book/ Monograph:**

1. [Advances in Polymeric Science](http://www.abebooks.com/servlet/BookDetailsPL?bi=7577937346&searchurl=an%3DSHISHIR%2BSINHA%252C%2BO%2BP%2BPANDEY%252C%2BVINAY%2BKUMAR%2BAND%2BPARMOD%2BKUMAR)

**Shishir Sinha, O.P. Pandey, Vinay Kumar and Parmod Kumar**

 Studium Press
   4735/22 , 2nd Floor ,
   Prakashdeep Building
   Near Punjab National Bank,
   Ansari Road,DaryaGanj,
   New Delhi -110002(INDIA)

1. Synthesis and biosensing applications of ZnS nanoparticles,

Manoj Sharma**, O.P. Pandey,**

LAP LAMBERT Academic Publishing GmbH & Co.

KG Heinrich-Böcking-Str. 6-8, 66121,

Saarbrücken, Germany (ISBN: 978-3-8484-0487-2).

1. Top of Form

#### Details of Courses taught at different levels in the institute

#### UG Level

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Subject Code** | **Subject Name** |
| 1. | ME 008 | Industrial Metallurgy |
| 2. | ME 202 | Manufacturing Technology |
| 3. | EE 019 | Electrical Engineering Materials  |
| 4. | ES 103 | Thermodynamics |
| 5. | ES 203 | Materials Science and Engineering |
| 6. | ES 206 | Electrical and Electronic Materials |

###### **PG Level**

**M.Sc (Materials Science Co-operative programme)**

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Subject Code** | **Subject Name** |
| 1. | MS 501 | Introductory Materials Science |
| 2. | MS 502 | Characterization and Evolution of Materials |
| 3. | MS 551 | Materials Processing and Manufacture |
| 4. | MS 554 | Physical Metallurgy |
| 5. | MS 651A | High Performance Ceramics |
| 6. | MS 651B | Composite Materials |
| 7. | MS 603 | Polymeric Solids |
| 8. | MS 601 | Physical Metallurgy |
| 9. | MS 653 | Amorphous and Defect Structure Solids |
| 10. | MS 652 | Materials Engineering |
| 11. | MS 653 | Mechanical Properties of Solids |
| 12. | MS 603 | Thermodynamics of Solids |
| 13. | MS 606 | Materials Science Lab I |
| 14. | MS 551 | Materials Processing and Manufacture |
| 15. | MS 555 | Materials Science Lab II |

**M.Tech. Materials Science and Engineering**

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Subject Code** | **Subject Name** |
| 1. | MS 505 | Materials Engineering |
| 2. | MS 565 | Composite Materials |
| 3. | MS 103 | Mechanical Behavior of Materials |
| 4. | MS 104 | Engineering Materials |
| 5. | MS 106 | Advanced Techniques for Materials Characterization |
| 6. | MS 112 | Nanomaterials and Nanotechnology |

**Details of Courses taught at different levels during last four years in the institute**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.No.** | **Subject Code** | **Subject** | **P.G/U.G** | **Semester** | **Year** |
| 1. | DPM001 | Materials Characterization and Measurement Techniques | PG | II | 2010-11 |
| 2. | PMM-202 | Failure analysis | PG | II | 2010-11 |
| 3. | PMM-103 | Physical metallurgy | PG | I | 2010-11 |
| 4. | PMM104 | Advance Iron and Steel Making | PG | I | 2010-11 |
| 5. | PMM-202 | Failure analysis | PG | II | 2009-10 |
| 6. | PMM-103 | Physical metallurgy | PG | I | 2009-10 |
| 7. | PMM-101 | Structure & properties of materials | PG | I | 2009-10 |
| 8. | ES-203 | Materials science & engineering | UG | I | 2009-10 |
| 9. | MS-126 | Materials processing | PG | II | 2008-09 |
| 10. | MS-121 | Physical metallurgy | PG | I | 2008-09 |
| 11. | MS-106 | Advanced techniques for material characterization | PG | II | 2007-08 |
| 12. | MS-126 | Materials processing | PG | I | 2007-08 |
| 13. | MS-104 | Engineering materials | PG | I | 2007-08 |
| 14. | MS-106 | Advanced techniques for material characterization | PG | II | 2006-07 |
| 15. | ES-203 | Materials science & engineering | UG | I | 2006-07 |
| 16. | MS-118 | Materials processing | PG | I | 2006-07 |
| 17. | ES 203 | Materials Science and Engineering | U.G. | I | 2005-06 |
| 18. | MS 104 | Engineering Materials | P.G. | I | 2005-06 |
| 19. | ES 203 | Materials Science and Engineering | U.G. | II | 2005-06 |
| 20. | MS 106 | Advanced Techniques for Materials Characterization | P.G. | II | 2005-06 |
| 21. | MS 103 | Mechanical behavior of Materials | P.G | I | 2004-05 |
| 22. | MS 104 | Engineering Materials | P.G | I | 2004-05 |
| 23. | MS 106 | Advanced Techniques for Materials Characterization | P.G | II | 2004-05 |
| 24. | MS 112 | Nanomaterials and Nanotechnology | P.G | II | 2004-05 |
| 25. | ES 203 | Materials Science and Engineering | U.G | I | 2003-04  |
| 26. | ME 008 | Industrial Metallurgy | U.G | I | 2003-04 |
| 27. | EE 019 | Electrical Engineering Materials | U.G | II | 2003-04 |
| 28. | ES 203 | Materials Science and Engineering | U.G | II | 2003-04 |
| 29. | MS 505 | Materials Engineering | P.G | I | 2002-03 |
| 30. | ES 203 | Materials Science and Engineering | U.G | I | 2002-03 |
| 31. | MS 565 | Composite Materials | P.G | II | 2002-03 |
| 32. | ES 203 | Materials Science and Engineering | U.G | II | 2002-03 |

Apart from these the entire syllabus for B.Tech (Materials Science) of Punjab Technical University was developed as an expert. The entire course curriculum for M Sc and M Tech was designed for our School at institute level for all the interdisciplinary courses serving as an expert.

**List of Publications**

1. **O.P. Pandey,** Metallic Glasses, A Review *Trans. Indian Ceramic Society, 48(5) (1989) pp 79-86.* **(Impact Factor=0.132)**
2. **O.P. Pandey,** S.N. Ojha and T.R. Anantharaman, Rapid Solidification Processing of Metallic Glass Strip by the Planar Flow Casting Technique, *Trans. Ind. Inst. Metals, 44 (1) (1991) pp 9-15.* **(Impact Factor=0.135)**
3. **O.P. Pandey,** S.N. Ojha, E.S. Dwarakadasa and T.R. Anantharaman, Rapid Casting of Aluminium Foils by Planar Flow Casting Technique, *Indian Journal of Technology, 29 (4) (1991) pp 173-178.* **(Impact Factor=0.129)**
4. **O.P. Pandey** and S.N. Ojha, Production and Characterization of Rapidly Solidified Powders of Al-Si Alloys, *Powder Metallurgy International, 23 (5) (1991) pp 291-295.* **(Impact Factor=7.2)**
5. **O.P. Pandey,** Undercooling - A General Overview *Banaras Metallurgist 11 (1991) pp 75-107.* **(Impact Factor=0.0)**
6. **O.P. Pandey,** Limestone and its Derivative for steel making A General Overview *Ecology, 6 (2) (1991) pp 23-31.* **(Impact Factor=4.69)**
7. **O.P. Pandey,** S.N. Ojha and T.R. Anantharaman, Solidification of Under-cooled Melt of Mg-Cu Alloy Entrapped in its Primary Phase, *J. Materials Science Letter, 11 (18) (1992) pp 1260 -1262.* **(Impact Factor=1.4)**
8. P. Ramachandrarao, S.N. Ojha and **O.P. Pandey**, On the Production of Fine Droplet Entrained in a Metal-Matrix, *Phil. Mag. Lett. 66 (1) (1992) pp 33-38.* **(Impact Factor=1.53)**
9. S.N. Ojha, **O.P. Pandey,** B. Tripathi, M. Kumar and C. Ramachandra, Microstructure and Wear Characteristics of an Al-4Cu-20Pb Alloy produced by Spray Deposition, *Trans. Japan Inst. Met. , 33 (5) (1992) pp 519 -524.* **(Impact Factor=0.225)**
10. **O.P. Pandey,** S.N. Ojha and S. Lele, On Spinodal Boundaries of Ag-Cu System, *Scripta Metallurica et Materiala, 29 (1993) pp 1131-1134.* **(Impact Factor=2.48)**
11. **O.P. Pandey** and R.C. Gupta, Preparation of Lime-Rich Sinter from waste Limestone chips for steel making, *Indian J. Engineering & Materials Science 1(12) (1994) pp 350-354.* **(Impact Factor=0.129)**
12. **O.P. Pandey,** N.S. Mishra, C Ramachandra, S. Lele and S.N. Ojha, Non-Equilibrium Solidification of Under-cooled Melt of Ag-Cu alloy entrained in its Primary Phase *Metallurgical Transactions, 25A (11) (1994) pp 2517-2523.* **(Impact Factor=1.389)**
13. **O.P. Pandey,** S.N. Ojha, N.S. Mishra and S. Lele, Under-cooling and Solidification of Droplets of Cu-Ag Alloy entrained in the Primary Phase, *J. Materials Science 30 (1995) pp 538-543.* **(Impact Factor=1.4)**
14. **O.P. Pandey** and S.N. Ojha, Formation and Under-cooling of Droplets in the Primary Phase of Ag-Ge Alloys, *J. Materials Science 31 (1996) 3283-3291.* **(Impact Factor=1.4)**
15. A.Verma, R.K. Sidhu, S. Mahajan and **O.P. Pandey,** Effect of excess samarium oxide on the preparation of Sm2Fe17 powder by calciothermic reduction, *J. Material Science Letter 15 (1996) 2088-2090.* **(Impact Factor=1.4)**
16. **O.P. Pandey,** S.N. Ojha and S. Lele, Thermodynamic Analysis of Ag3Ge Phase Formation, *J. Materials Science Technology 13 (1997) 524-526.* **(Impact Factor=1.198)**
17. **O.P. Pandey**, Microstructure and Wear Characteristics of Al-4.5Cu-5Pb alloy, *J. Materials Science Technology 14 (1998) 125-132.* **(Impact Factor=1.198)**
18. V.K. Gupta and **O.P. Pandey**, Wear Characteristics of Plain Carbon Steel, *Indian Journal of Engineering and Materials Science, 7 (2000) 354-360.* **(Impact Factor=0.3)**
19. Puneet Sharma, **O.P. Pandey** and Amitabh Verma, Strontium Ferrite Permanent Magnets- An Overview, *Indian Journal of Engineering and Materials Science, 7 (2000) 364-369.* **(Impact Factor=0.3)**
20. **O.P. Pandey,** Microstructural Features of Spray-deposited immiscible Bearing Alloys Al-7Sn-1.3Cu-1.3Ni, *J. Materials Science Technology 19 (2003) 437-443.* **(Impact Factor=1.198)**
21. Sanjay Panwar, D.B. Goel, **O.P. Pandey** and K. Satya Prasad, Aging of a Copper Bearing HSLA-100 Steel, *Bulletin of Materials Science 26 No 4 (2003) 441-447.* **(Impact Factor=0.584)**
22. Puneet Sharma, A. Verma, R.K. Sidhu and **O.P. Pandey,** Influence of Nd3+ and Sm3+ substitution on the Magnetic Properties of Strontium Ferrite Sintered Magnets, *J. Alloys and Compounds 361 (2003) 257-264.* **(Impact Factor=2.39)**
23. P. Verma, **O.P. Pandey** and A. Verma, Influence of metal oxides on the arc erosion behavior of silver metal oxides electrical contact materials, *J. Materials Science Technology 20 (2004) 1-4.* **(Impact Factor=1.198)**
24. Sanjay Panwar, D.B. Goel and **O.P. Pandey,** Effect of cold work and aging on mechanical properties of a copper bearing HSLA-100 steel, *Bulletin of Materials Science 28 No 4 (2005) 259-265.* **(Impact Factor=0.584)**
25. P. Verma, M. Roy, A. Verma, Vimal Bhanot and **O.P. Pandey,** Change in electrical and chemical properties of transformer oil with accelerated thermal stress and its service life, *International Journal of Condition Monitoring and Diagnostic Engineering Management (COMADEM) 8 (1) (2005) 42-48.* **(Impact Factor=0.6)**
26. Puneet Sharma, A. Verma, R.K. Sidhu and **O.P. Pandey,** Process parameter selection for Strontium ferrite sintered magnets using Taguchi L-9 orthogonal array design *J. Materials Processing and Technology, 168(1) 2005 147-151.* **(Impact Factor=1.953)**
27. Sanjay Panwar, D.B. Goel, **O.P. Pandey** and K.Satya Prasad, Effect of micro-alloying on aging of Cu-bearing HSLA-100 (GPT) steel, *Bulletin of Materials Science 29 (2006) 281-292.* **(Impact Factor=0.584)**
28. A. Singh, S. B. Narang, K. Singh, P. Sharma and **O.P. Pandey*,***Structural, AC conductivity and dielectric properties of Sr-La hexa-ferrite*, The European Physical Journal Applied Physics, 33 (2006) 189-194.* **(Impact Factor=0.756)**
29. Puneet Sharma, A. Verma, R. K. Sidhu and **O.P. Pandey,** Effect of processing parameters on the magnetic properties of strontium ferrite sintered magnets using Taguchi orthogonal array design, *Journal of Magnetism and Magnetic materials, 307 (2006) 157-164.* **(Impact Factor=1.826)**
30. Sanjay Panwar, D.B. Goel and **O.P. Pandey,** Effect of cold work and aging on mechanical properties of a copper bearing HSLA-100 (GPT) steel, *Bulletin of Materials Science 30 No 2 (2007) 73-79.* **(Impact Factor=0.584)**
31. K. Singh, Neha Gupta and **O.P. Pandey,** Effect of Y2O3 on the crystallization behavior of SiO2-MgO-B2O3-Al2O3 glasses, *Journal of Materials Science,* 42 (2007) 6426-6432. **(Impact Factor=1.4)**
32. Akshay Kumar, K. Singh and **O.P. Pandey,** Development of Nanocomposite WC-Co Materials-An Overview *Nano Science and Nano Technology- An Indian Journal* 1(2) *(2007) 59-69.* **(Impact Factor=0.0)**
33. R.K. Tiwary, S.P. Narayan and **O.P. Pandey**, Preparation of Strontium Oxide from Celestite: A review Materials *Science-An Indian Journal* 3(4) *(2007) 201-211.* **(Impact Factor=0.0)**
34. Ishwinder Pal Singh, Sameer Yadav and **O.P. Pandey**, Structural Analysis of Mn-Zn Powders prepared from indigenous and imported Mn2O3 Powders, *Materials Science- An Indian Journal 3(4) (2007) 244-248.* **(Impact Factor=0.0)**
35. S. Singh and A.K. Sandhu, S. Prasher and **O.P. Pandey,** Effect of neutron irradiation on etching, optical and structural properties of microscopic glass slide used as a solid state nuclear track detector, *Radiation Measurements* 42(8) (2007) 1328-1331. **(Impact Factor=0.861)**
36. Asmita Pandey, P. Verma and **O.P. Pandey,** Comparison of properties of silver-tin oxide electrical contact materials through different processing routes, *Indian Journal of Engineering and Materials Sciences, 15(3) (2008) 236-240.* **(Impact Factor=0.3)**
37. V.K. Gupta, S. Ray and **O.P. Pandey,** Dry sliding wear characteristics of 0.13 wt % carbon steel, *Materials Science-Poland 26(3) (2008) 617-631*. **(Impact Factor=0.364)**
38. Vishal Kumar, Anu Arora, **O.P. Pandey** and K. Singh, Studies on Thermal and Structural Properties of Glass Sealants for Solid Oxide Fuel Cell, *International Journal of Hydrogen Energy, 33* (2008) 434-438. **(Impact Factor=3.584)**
39. Ravi Kant, K.Singh and **O.P. Pandey,** Synthesis and Characterization of Bismuth Vanadate Electrolyte Material with Aluminium Doping for SOFC Application *International Journal of Hydrogen energy,* *33 (2008) 455-462.* **(Impact Factor=3.584)**
40. S.P. Lochab, N. Salah, A.K. Sandhu, S. Singh, **O.P. Pandey** and D. Kanjilal, Thermo-luminenscence of silica-based materials irradiated by thermal neutrons, *Journal of Physics D: Applied Physics, 41(6) (2008) 065103 (6pages).* **(Impact Factor=2.528)**
41. A.K. Sandhu, S. Singh, F. Singh and **O.P. Pandey,** Gamma ray induced modification of quaternary silicate glass, *Journal of Physics D Applied Physics 41(16) (2008) 16540 (6pp).* **(Impact Factor=2.528)**
42. Ravi Kant, K. Singh and **O.P. Pandey,** Effect of Cr3+ Substitution for V5+ in Bismuth Vanadate Solid Electrolyte, *Trans. Indian Ceram. Soc. 67 (2008) 21-24.* **(Impact Factor=0.135)**
43. Sameer Yadav, Ishwinder Pal Singh and **O.P. Pandey,** Compositional Study on Mn-Zn Ferrites for Low Power Loss Applications, *Transactions of Indian Ceramic Society 67 (2008) 17-20.* **(Impact Factor=0.135)**
44. R.K. Tiwary S.P. Narayan and **O.P. Pandey,**Conversion of Indian Celestite to Strontium Carbonate, *Journal of Characterization and Development of Novel Materials, 1(2) (2008) 145-158.* **(Impact Factor=0.0)**
45. R.K. Tiwary S.P. Narayan and **O.P. Pandey,**Preparation of Strontium Hexaferrite Magnets from Celestite ore and Blue Dust by Mechano-chemical Route *Journal of Mining and Metallurgy* 44(1) (2008) 91-100. **(Impact Factor=0.548)**
46. Anu Arora, A. Goel, E.R. Shaaban, K. Singh, **O.P. Pandey** and J.M.F. Ferreira,Crystallization Kinetics of BaO-ZnO-Al2O3\_B2O3-SiO2 Glass, *Physica B, Condensed Matter 403 (2008) 1738-1746.* **(Impact Factor=1.327)**
47. Anu Arora, E.R. Shaaban, K. Singh and **O.P. Pandey,**Non-Isothermal Crystallization Kinetics of ZnO-BaO-V2O5-SiO2 Glass, *Journal of Non Crystalline Solids 354 (2008) 3944-3951.* **(Impact Factor=1.597)**
48. Manoj Sharma, Sunil Kumar and **O.P. Pandey,**Photo-Physical and Morphological Studies of Organically Passivated Core-Shell ZnS Nanoparticles, *Digest Journal of Nanomaterials and Biostructures 3(4) (2008) 189-197.* **(Impact Factor=1.1)**
49. Manoj Sharma, Sunil Kumar and **O.P. Pandey,**Studies of 2-mercaptoethanol passivated ZnS core-shell nanoparticles, *Optoelectronics and Advanced Materials- Rapid Communications 2(12) (2008) 881-885.* **(Impact Factor=0.402)**
50. C.P. Khatter and **O.P. Pandey,** Effect of processing parameters on structural features of tungsten carbide after electrical discharge machining (EDM), *Tribology 2(2) (2008) 65-71*. **(Impact Factor=1.69)**
51. R.K. Tiwary S.P. Narayan and **O.P. Pandey,**Structural and magnetic properties of strontium hexaferrite derived from natural ores *Transaction of the Indian Ceramic Society, 67(4) (2008) 183-191.* **(Impact Factor=0.132)**
52. C.P. Khatter and **O.P. Pandey**, Analysis of energy distribution during electric discharge machining (EDM) of tungsten carbide, *Tribology 3(1) (2009) 677-684.* **(Impact Factor=1.743)**
53. **O.P. Pandey,** C.P. Khatter, R. Choudhary and R.K. Garg Strucrural Analysis of Electrodischarge Machined Surfaces of EN 31 tool steel, *Tribology 3(2) (2009) 74-83.* **(Impact Factor=0.135)**
54. C.P. Khatter, B.L. Sethi and **O.P. Pandey**, Failure Analysis of Cemented Tungsten Carbide Extrusion Die, *Tribology 3(2) (2009) 62-67.* **(Impact Factor=0.135)**
55. Ravi Kant, K. Singh and **O.P. Pandey,** Microstructural and Electrical behavior of Bi4V2-xCux O11-δ; (0 ≤ x ≤ 0.4), Ceramics International 35 (2009) 221-227. **(Impact Factor=1.789)**
56. Akshay Kumar, K. Singh and **O.P. Pandey,** Reduction of WO3 to nano WC by thermo-chemical reaction route, *Physica E: Low-dimensional Systems and Nanostructures 41 (2009) 677-684.* **(Impact Factor=1.522)**
57. Amanpreet Kaur Sandhu, Surinder Singh, and **O.P. Pandey,** Neutron irradiation effects on optical and structural properties of silicate glasses, *Materials Chemistry and Physics 115 (2009) 783-788.* **(Impact Factor=2.072)**
58. R.K. Tiwary, S.P. Narayan and **O.P. Pandey,** Preparation of Strontium Hexaferrite Magnets from Celestite and Iron Ore fines by Mechano-chemical Route, *Mineral Processing and Extractive Metallurgy 118(4) (2009) 201-204.* **(Impact Factor=0.0)**
59. Ravi Kant, K. Singh and **O.P. Pandey,** Effect of Ti3+ substitution for V5+ in bismuth vanadate solid electrolytes *Materials Science and Engineering B, 158 (2009) 63-68.* **(Impact Factor=1.846)**
60. A.K. Sandhu, Surinder Singh, and **O.P. Pandey,** Effect of neutron- irradiation on optical properties of SiO2-Na2O-MgO-Al2O3 glasses, *Indian Journal of Physics*, 87(7*) (2009) 985-991.* **(Impact Factor=1.785)**
61. Ravi Kant, K. Singh and **O.P. Pandey,** Ionic conductivity and Structural Properties of MnO doped Bi4V2O11 system, *Ionics, 15(5) (2009) 567-570.* **(Impact Factor=1.674)**
62. Ravi Prakash Srivastava and **O.P. Pandey,**Synthesis of Mn-Zn ferrite nano particles from pure chemicals and minerals, *Transaction of the Indian Ceramic Society, 68(4) (2009) 183-191.* **(Impact Factor=0.132)**
63. Ravi Kant, K. Singh and **O.P. Pandey,** Microstructural, thermal and conducting properties of Bi4V2-xPbx O11-δ; (0 ≤ x ≤ 0.4) compound for Solid Oxide Fuel Cell, *Physica Status Solidi A 207(2) (2010) 321-326.* **(Impact Factor=1.469)**
64. Ravi Kant, K. Singh and **O.P. Pandey,**Structural, thermal and transport properties ofBi4-x MexVx O11-δ; (Me = Ga; 0≤x≤0.4), *Ionics 16 (2010) 277-282.* **(Impact Factor=1.674)**
65. Vishal Kumar, **O.P. Pandey** and K. Singh,Structural and optical properties of Barium Borosilicate glasses, *Physica B 405 (2010) 204-207.* **(Impact Factor=1.327)**
66. Vishal Kumar, Sarita, **O.P. Pandey** and K. Singh, Thermal and physical properties of 30SrO-40SiO2-20Bi2O3-10A2O3 (A=La, Y, Al) glasses and their chemical reaction with bismuth vanadate for SOFC, *Solid State Ionics, 181 (2010) 79-85*. **(Impact Factor=2.046)**
67. K. Sood, K. Singh and **O.P. Pandey,**Synthesis and characterization of Bi-doped zirconia for solid electrolyte, *Ionics 16 (2010) 549-554.* **(Impact Factor=1.674)**
68. Vishal Kumar, **O.P. Pandey** and K. Singh,Effect of A2O3 (A=La, Y, Cr, Al) on thermal and crystallization kinetics of Borosilicate glass sealant for solid oxide fuel cells, *Ceramic International 36 (2010) 304-307.* **(Impact Factor=1.789)**
69. Anterpreet Singh, S. Bindra Narang, Kulwant Singh, **O.P. Pandey** and R. K. Kotnala*,* Electrical and Magnetic properties of rare earth substituted strontium hexaferrite*. J. Ceramic Processing Research, 11 (2) (2010) 241-249.* **(Impact Factor=0.33)**
70. Manoj Sharma, Sunil Kumar, **O.P. Pandey,** Study of energy transfer from capping agents to intrinsic vacancies/defects in passivated ZnS nanoparticles, *J. Nanopart Res., 10 (2010) 2655-2666.* **(Impact Factor=2.175)**
71. Manoj Sharma, Sukhvir Singh, **O.P. Pandey,** Excitation induced tunabe emission in chitosan capped manganese doped biocompatible ZnS nanophosphors, *Journal of Applied Physics, 107 (2010) 104319-104328.* **(Impact Factor=2.210)**
72. Akshay Kumar, K. Singh and **O.P. Pandey,** Optimization of processing parameters for the synthesis of tungsten carbide (WC) nano particles through solvo thermal route,  *Physica E 42(2010) 2477-2483.* **(Impact Factor=1.522)**
73. Vishal Kumar, **O.P. Pandey** and K. Singh, Effect of A2O3 (A = La, Y, Cr, Al) on thermal and crystallization kinetics of borosilicate glass sealants for solid oxide fuel cells, *Ceramics International 36 (2010) 1621-1628.* **(Impact Factor=1.789)**
74. Kamalpreet Kaur and **O.P. Pandey,** Wear and micro-structural characteristics of spray atomized zircon sand reinforced LM13 alloy, *Materialwissenschaft und Werkstofftechnik (MATWER), (Materials Science and Engineering) 41(7) (2010) 568-574.* **(Impact Factor=0.491)**
75. Kamalpreet Kaur and **O.P. Pandey,** Dry sliding wear behavior of zircon sand reinforced Al-Si alloy, *Tribology Letters, 38 (2010) 377-387.* **(Impact Factor=1.743)**
76. Kamalpreet Kaur and **O.P. Pandey,** Structural and age hardening characteristics of near eutectic Al-Si alloys, *International Journal of Materials Research, (formerly Z. Metallkd.) 101(9) (2010) 1158-1165.* **(Impact Factor=0.83)**
77. Kamalpreet Kaur and **O.P. Pandey,** Microstructural characteristics of spray formed zircon sand reinforced LM13 composite, *Journal of Alloys and Compounds 503 (2010) 410–415.* **(Impact Factor=2.390)**
78. C.P. Khatter and **O.P. Pandey,** Study of surface cracks on electro-discharge machined tungsten carbide cermet, *Tribology 4(4) (2010).* **(Impact Factor=1.69)**
79. G. Kaur, Manoj Kumar, Anu Arora, **O.P. Pandey** and K. Singh*,* Influence of Y2O3 on structural and optical properties of SiO2-BaO-ZnO-xB2O3-(10-x)Y2O3 glasses and glass ceramics, *Journal of Non Crystalline Solids 357(2011) 858-863.* **(Impact Factor=1.597)**
80. Akshay Kumar, K. Singh and **O.P. Pandey,** Sintering Behavior of Nanostructure WC-Co Composite, *Ceramic International 37(4)* (2011) 1415-1422. **(Impact Factor=1.789)**
81. Akshay Kumar, K. Singh and **O.P. Pandey,** Direct conversion of wolframite ore to tungsten carbide nanoparticle, *International Journal of Refractory Metals and Hard Materials 29(4))*(2011) 555-558*.* **(Impact Factor=1.858)**
82. **O.P. Pandey,** Preparation and application of WC as sensor material, *Lucknow Journal of Science, 8(1) (2011) 609-620.* **(Impact Factor=0.0)**
83. Baban Kumar S Bansod and **O.P. Pandey,** An application of hybrid clustering and neural based prediction modelling for delineation of management zone, *International Journal of Computer Science and Engineering (IJCSE) 3(2) (2011) 621-631.* **(Impact Factor=0.12)**
84. B.S. Bansod and **O.P. Pandey,** Analysis of Spatial Soil Data Based on Apparent Electrical Conductivity in Northern India Experimental Field, International Journal of Tropical Agriculture 29 (2011-2012) (3-4), 287-295. **(Impact Factor=0.0)**
85. Vishal Kumar, Rupali, **O.P. Pandey** and K. Singh, Thermal and crystallization kinetics of yttrium and lanthanum calcium silicate glass sealants for solid oxide fuel, *International Journal of Hydrogen Energy 36 (2011) 14971-14976.* **(Impact Factor=3.548)**
86. Anu Arora, K. Singh and **O.P. Pandey,** Thermal, structural and crystallization kinetics of SiO2-BaO-ZnO-B2O3-Al2O3 glass samples as a sealant for SOFC, *International Journal of Hydrogen Energy 36 (2011) 14948-14955.* **(Impact Factor=3.548)**
87. J.K. Gill, **O.P. Pandey** and K. Singh, Role of sintering temperature on thermal, electrical and structural properties of Y2Ti2O7 pyrochlores, *International Journal of Hydrogen Energy 36(2011) 14943-14947.* **(Impact Factor=3.548)**
88. Vishal Kumar, Gurbinder Kaur, **O.P. Pandey** and K.SinghChemical interaction and thermal study of calcium borosilicate glass sealants, *Physics and chemistry of glasses, 52(5) (2011) 212-220.* **(Impact Factor=0.764)**
89. Vishal Kumar, **O.P. Pandey** and K. Singh,Study on the formation of crystalline phases in lanthanum borosilicate glass, *Transaction of the Indian Ceramic Society, 70 (2011) 17-22.* **(Impact Factor=0.132)**
90. Anu Arora, Vishal Kumar, K. Singh and **O.P. Pandey,** Structural, thermal and crystallization kinetics of ZnO-BaO-SiO2-Bi2O3-Mn2O3 based glass sealants for solid oxide fuel cell, *Ceramics International 37 (2011) 2101-2107.* **(Impact Factor=1.789)**
91. Jasmeet Kaur Gill, **O.P. Pandey** and K. Singh, Ionic conductivity, structural and thermal properties of pure and Sr2+ doped Y2Ti2O7 pyrochlores for SOFC, *Solid State Sciences 13 (2011) 1960-1966.* **(Impact Factor=1.671)**
92. Jasmeet Kaur Gill, **O.P. Pandey** and K. Singh, Influence of processing conditions on the formation of Y2Ti2O7 and YTiO3 phases, *Transactions of Indian Ceramic Society 70(4) (2011) 109-114.* **(Impact Factor=0.132)**
93. S.K. Srivastava, Sanjay Kumar and **O.P. Pandey,** Relationship between Anderson –Gruneisen parameter and thermal expansivity, *High Temperatures-High Pressures 40 (2011) 161-167.* **(Impact Factor=0.6)**
94. Gurbinder Kaur, **O.P. Pandey,** K. Singh Thermodynamic stability of yttrium alkaline borosilicste glasses and their chemical compatibility with Crofer for SOFC, *J. Electrochem. Soc. 159 (3) (2012) B277-B284.* **(Impact Factor=2.588)**
95. Kamalpreet Kaur, Ramkishor Anant and **O.P. Pandey**, Tribological behaviour of SiC particle reinforced Al–Si alloy, *Tribology Letters, 44 (2011) 41-58.* **(Impact Factor=1.743)**
96. T.S. Mahajan and **O.P. Pandey,** Re –formulation of Malthus-Verhulst equation for black gram (Cicer arietinum L.) seeds pre-treated with magnetic field. *Inter. Agrophy. 25 (2011) 355-359.* **(Impact Factor=1.025)**
97. Jasmeet Kaur Gill, **O.P. Pandey,** K. Singh, Ionic conductivity, Structural and Thermal properties of pure and Ca2+ doped Y2Ti2O7 pyrochlores, *International Journal of Hydrogen Energy 37 (2012) 3857-3864.* **(Impact Factor=3.548)**
98. G. Kaur, **O.P. Pandey,** K. Singh Chemical interaction study between lanthanum based different alkaline earth glass sealants with Crofer 22 APU for solid oxide fuel cell applications, *International Journal of Hydrogen energy 37 (2012) 3883-3889.* **(Impact Factor=3.548)**
99. **Bhupinder Kaur, K. Singh** **and O.P. Pandey,** Microstructural study of Crofer 22 APU glass interface for SOFC application, *International Journal of hydrogen energy, 37 (2012) 3839-3847.* **(Impact Factor=3.548)**
100. Manoj Sharma, Tarun Jain, Sukhvir Singh, **O.P. Pandey,** Photocatalytic degradation of organic dyes under UV-Visible light using capped ZnS nanoparticles, *Solar Energy 86 (2012) 626-633.* **(Impact Factor=2.952)**
101. Suresh Kumar, Vipin Sharma, Ranvir Singh Panwar, **O.P. Pandey**, Wear Behavior of Dual Particle Size (DPS) Zircon Sand Reinforced Aluminum Alloy; *Tribol Lett 47 (2012) 231–251.* **(Impact Factor=1.532)**
102. Vipin Sharma, Suresh Kumar, Ranvir Singh Panwar, **O.P. Pandey**, Microstructural and wear behavior of dual reinforced particle (DRP) aluminum alloy composite, *J Mater Sci. 47 (2012) 6633–6646.* **(Impact Factor=1.4)**
103. Kapil Sood, K. Singh and **O.P. Pandey,** Studies on Sr substituted lanthanum indate as mixed ionic conductor, J*. Materials Science 47 (2012) 4520-4529.* **(Impact Factor=1.4)**
104. Gurbinder Kaur, **O.P. Pandey,** K. Singh, Interfacial study between high temperature SiO2-B2O3-AO-La2O3 (A= Sr, Ba) glass seals and Crofer 22 APU for solid oxide fuel cell applications, *International Journal of hydrogen energy, 37 (2012) 6862-6874.* **(Impact Factor=3.548)**
105. Gurbinder Kaur, **O.P. Pandey,** K. Singh, Optical, structural and mechanical properties of different valance cations doped bismuth vanadate oxides, *Physica Status Solidi, A 209 (2012), 1231-1238.* **(Impact Factor=1.469)**
106. Mani Mahajan, K. Singh and **O.P. Pandey,** Synthesis and Analysis of High Surface Area Vanadium Carbide, *Adv. Mater. Res. 585 (2012) 95-99.* **(Impact Factor=0.0)**
107. Kapil Sood, K. Singh and **O.P. Pandey,** AC conductivity and dielectric relaxation studies of La0.95Sr0.05GaO2.975 gallate, *Adv. Mater. Res. 585 (2012) 205-209.* **(Impact Factor=0.0)**
108. Suresh Kumar, Ranvir Singh Panwar, **O.P. Pandey**, Tribological characteristics of Aluminium tri-reinforced particles (Al- TRP) composites developed by liquid metallurgy route, *Advanced Materials Research 585 (2012) 574-578.* **(Impact Factor=0.0)**
109. Vipin Sharma, Suresh Kumar, **O.P. Pandey**, Correlation of reinforced ceramic particle’s nature and size with microstructure and wear behavior of Al-Si alloy composite, *Advanced Materials Research, 585 (2012) 564-568.* **(Impact Factor=0.0)**
110. T.S. Mahajan and **O.P. Pandey,** Magnetic-time model for seed germination. *African J. Biotech. 11 (2012) 15415-15421.* **(Impact Factor=0.0)**
111. A.K. Sandhu, S. Singh, F. Singh and **O.P. Pandey,** Optical and structural studies of swift heavy ion induced modifications in silicate glass, *Atti della Fondazione Giorgio Ronchi LXVII 2 (2012) 239.* **(Impact Factor=0.0)**
112. Gurbinder Kaur, **O.P. Pandey** and K. Singh, Effect of modifier field strength on optical, structural and mechanical properties of lanthanum borosilicate glasses, *Journal of noncrystalline solids, 358(2012) 2589-2596.* **(Impact Factor=1.59)**
113. Manoj Sharma, Tarun Jain, Sukhvir Singh, **O.P. Pandey,** Tunable emission in surface passivated Mn-ZnS nanophosphors and its application for glucose sensing, *AIP Advances 2 (2012) 012183.* **(Impact Factor=1.349)**
114. Gurbinder Kaur, **O.P. Pandey** and K. Singh, Microstructural analysis of interfaces between lanthanum contained glass and two different electrolytes for SOFC applications, *Fuel Cells 12 (2012) 739-748.* **(Impact Factor=2.364)**
115. Paramjyot Kumar Jha, Gaurav Singla, K. Singh and **O.P. Pandey,** Structural, thermal and electrical properties of (100-x) ZrO2.x.Bi2O3 compound, *Ionics, 18 (2012) 759-767.* **(Impact Factor=1.674)**
116. B.S. Bansod, **O.P. Pandey** and N.L. Rajesh, Analysis and delineation of spatial variability using geo-sensed apparent electrical conductivity and clustering techniques, *Int. J. Agric. Biol., 14 (2012) 481–491.* **(Impact Factor=0.94)**
117. Gurbinder Kaur, **O.P. Pandey** and K. Singh, Chemical compatibility between MgO- SiO2-B2O3-La2O3 glass sealant and low, high electrolytes for solid oxide fuel cell applications, *Int. J. Hydrogen Energy, 37 (2012) 17235-17244.* **(Impact Factor=3.548)**
118. Gurbinder Kaur, **O.P. Pandey** and K. Singh, Glass stability and effect if heat- treatment duration on chemical interaction between calcium lanthanum borosilicate glass sealant and electrolytes, *J. Electrochem. Soc., 159(11) (2012) F717-F724.* **(Impact Factor=2.59)**
119. Ravneet Kaur, Surinder Singh and **O.P. Pandey,** FTIR structural investigation of gamma irradiated BaO–Na2O–B2O3–SiO2 glasses*, Physica B: Condensed Matter 407 (2012) 4765–4769.* **(Impact Factor=1.327)**
120. Ranvir Singh Panwar and **O.P. Pandey,** Study of wear behavior of zircon sand-reinforced LM13 alloy composites at elevated temperatures, *J. Mat. Eng. and Performance 22(6) (2012) 1765-1775.* **(Impact Factor=0.915)**
121. Ranvir Singh Panwar, **O.P. Pandey,** Analysis of wear track and debris of stir cast LM13/Zr composite at elevated temperatures, *Materials Charaterization,* *75 (2013) 200-213.* **(Impact Factor=1.88)**
122. Suresh Kumar, Ranvir Singh Panwar, **O.P. Pandey,** Wear behavior at high temperature of dual-particle size zircon-sand-reinforced aluminum alloy composite, *Metallurgical and Materials Transactions A, 44 (2013), 1548-1565.* **(Impact Factor=1.627)**
123. **Bhupinder Kaur, K. Singh and** **O.P. Pandey,** Microstructural Analysis of Glass-steel Interface, *Surface and Coatings Tech., 217 (25) (2013) 156-161.* **(Impact Factor=1.941)**
124. B.S. Bansod and **O.P. Pandey,** An application of PCA and fuzzy C- means to delineate management zones and variability analysis of soil, *Eurasian Soil Science, 46 (2013) (5) 556-564.* **(Impact Factor=0.22)**
125. Harjinder Singh and **O.P. Pandey,** Direct synthesis of nano-crystalline tungsten carbide from scheelite ore by solid state reaction method, *Ceram. Int., 39 (2013) 785-790.* **(Impact Factor=1.789)**
126. Harjinder Singh and **O.P. Pandey,** Single step synthesis of tungsten carbide (WC) nanoparticles from scheelite ore, *Ceram. Int., 39(6) (2013) 6703-6706.* **(Impact Factor=1.789)**
127. Mani Mahajan, K. Singh and **O.P. Pandey,** Single step synthesis of nano Vanadium Carbide-V8C7 phase, *J. Hard Refract. Mater. 36 (2013) 106-110.* **(Impact Factor=1.858)**
128. Gaurav Singla, K. Singh and **O.P. Pandey,** Structural and thermal properties of in-situ reduced WO3 to W powder, *Powder Technology 237(2013) 9-13.* **(Impact Factor=2.024)**
129. Chandni ,  Nidhi Andhariya ,  **O.P. Pandey** and Bhupendra Chudasama, A growth Kinetic Study of Ultrafine Monodispersed Silver Nanoparticles, *RSC Adv., 3 (2013) 1127-1136.* **(Impact Factor=2.562)**
130. Samita Thakur, **O.P. Pandey** and K. Singh, Structural and dielectric properties of Bi1-xSrxMnO3 (0.40 ≤ x ≤ 0.55), *Ceramics Int., 39(6) (2013) 6165-6171.* **(Impact Factor=1.789)**
131. Manish Mittal, Manoj Sharma, and **O.P. Pandey,** Photocatalytic studies of crystal violet dye using Mn doped and PVP capped ZnO nanoparticles, *J. Nanoscience and Nanotec.13 (2013) 1-9.* **(Impact Factor=1.149)**
132. Gurbinder Kaur, K. Singh, **O.P. Pandey,** D. Homa, B. Scott, G. Pickrell, Structural and thermal properties of glass composite seals and their chemical compatibility with Crofer 22APU for solid oxide fuel cells applications, *Journal of Power Sources 240 (2013) 458-470.* **(Impact Factor=4.675)**
133. Gurbinder Kaur, D. Homa, K. Singh, **O.P. Pandey,** B. Scott, G. Pickrell, Simulation of thermal stress within diffusion couple of composite seals with Crofer 22APU for solid oxide fuel cells applications, *Journal of Power Sources 242 (2013) 305-313.* **(Impact Factor=4.675)**
134. Paramjyot Kumar Jha, **O.P. Pandey,** K. Singh, Structural and thermal properties of Na2S-P2S5 glass and glass ceramics, *Journal of Non-Crystalline Solids, (2013) 379 89-94.* **(Impact Factor=1.597)**
135. Paramjyot Kumar Jha, **O.P. Pandey,** K. Singh, Na2S-P2S5 Based Super-Ionic Glasses for SolidElectrolytes, *Trans. Indian Ceram. Soc., 72(1) (2013) 5-9.* **(Impact Factor=0.132)**
136. Ravneet Kaur, Surinder Singh, **O.P. Pandey,** A comparison of modifications induced by Li3+ and Ag14+ ion beam in spectroscopic properties of bismuth alumino borosilicate glass thin films, *Journal of Spectroscopy, 2013 (2013) Article ID 391428 pages (11).* **(Impact Factor=0.53)**
137. Ravneet Kaur, Surinder Singh , Kulvir Singh, **O.P. Pandey,** Effect of swift heavy ions on structural and optical properties of bismuth based alumino- borosilicate glasses, *Radiation Physics and Chemistry 86 (2013) 23–30.* **(Impact Factor=1.375)**
138. Ravneet Kaur, Surinder Singh, **O.P. Pandey,** Modifications induced in the structural and optical properties of bismuth sodium borosilicate glass thin films by 120 MeV Ag7+ ions, *Nuclear Instruments and Methods in Physics Research B 305 (2013) 51–54.* **(Impact Factor=1.266)**
139. Ravneet Kaur, Surinder Singh, **O.P. Pandey,** Gamma ray irradiation effects on the optical properties of BaO- Na2O- B2O3-SiO2 glasses, *Journal of Molecular Structure 1048 (2013) 78–82.* **(Impact Factor=1.404)**
140. Ravneet Kaur, Surinder Singh, **O.P. Pandey,** Absorption spectroscopic studies on gamma irradiated bismuth borosilicate glasses, *Journal of Molecular Structure, 1049 (2013) 386–391.* **(Impact Factor=1.404)**
141. Ravneet Kaur, Surinder Singh, **O.P. Pandey,** Influence of CdO and gamma irradiation on the infrared absorption spectra of borosilicate glass, *Journal of Molecular Structure,*  [*1049*](http://www.sciencedirect.com/science/journal/00222860/1049/supp/C) *(2013) 409–413.* **(Impact Factor=1.404)**
142. Suresh kumar, Ranvir Singh Panwar, **O.P. Pandey,** Effect of dual reinforced ceramic particles on high temperature tribological properties of aluminum composites, *Ceramics International, 39(6) (2013) 6333-6342.* **(Impact Factor=1.789)**
143. Bhupinder Kaur, K. Singh and **O.P. Pandey,** Corrosion study of SiO2-CaO-Al2O3-Na2O-TiO2 glass coating on the low carbon steel, *Surface Eng. 29 (2013) 479-483.* **(Impact Factor=1.545)**
144. Kapil Sood, K. Singh, **O.P. Pandey,** Study of the structural and electrical behavior for Ca doped LaInO3 electrolyte material, *Trans. Indian Ceram. Soc. 72 (2013) 32-35.* **(Impact Factor=0.132)**
145. Jagdeep Kaur, Manoj Sharma and **O.P. Pandey,** Effect of pH on photocatalytic activity of capped ZnS nano-particles J. Nano Sci. and NaonTech. 13 (2013) 1-11. **(Impact Factor=1.149)**
146. Mani Mahajan, K. Singh and **O.P. Pandey,**Synthesis of Vanadium Carbide Nanoparticles by Thermal Decomposition of the Precursor, *AIP Conf. Proc., 1536 (2013) 271-272.*
147. Harjinder Singh and **O.P. Pandey,** A new approach to synthesize nano WC, *AIP Conf. Proc. 1536 (2013) 75-76.*
148. Gaurav Singla, K. Singh and **O.P. Pandey,** Synthesis of Nanocrystalline Tungsten Carbide (WC) Powder, *AIP Conf. Proc. 1536 (2013) 31-32.*
149. Paramjyot Kumar Jha, **O.P. Pandey** and K. Singh, Dielectric Spectroscopy Studies of NASICON Materials, *AIP Conf. Proc. 1536 (2013) 795-796.*
150. Ranvir Singh Panwar, Suresh Kumar, and **O. P. Pandey,** Study of wear mechanism for LM13/Zr composite under dry sliding conditions at different loads, *AIP Conf. Proc., 1536 (2013) 1143-1144.*
151. Suresh Kumar, Ranvir Singh Panwar, and **O.P. Pandey,** Tribological properties of Zircon sand and Zirfloor reinforced LM13 alloy matrix composite-A comparative study, *AIP Conf. Proc. 1536 (2013) 1286-1287.*
152. Jagdeep Kaur, Manoj Sharma, and **O.P. Pandey,** Photocatalytic studies of capped ZnS nanoparticles, *AIP Conf. Proc. 1536 (2013) 81-82.*
153. Pooja Singla, Manoj Sharma, K. Singh, and **O.P. Pandey,** Synthesis and characterization of zinc doped nano TiO2 for efficient photocatalytic degradation of Eriochrome Black T, *AIP Conf. Proc. 1536 (2013) pp. 103-104.*
154. Deepak Kumar, Manoj Sharma, and **O.P. Pandey,** Luminescent properties of nano-sized Y2O3:Eu synthesized by co-precipitation method, *AIP Conf. Proc. 1536 (2013) pp. 119-120*
155. Samita Thakur, **O.P. Pandey,** and K. Singh, Electric relaxation behavior of Bi0.5Sr0.5FeO3 ceramic: An electric modulus approach, *AIP Conf. Proc. 1536 (2013) 577-578.*
156. Kamalpreet Kaur and **O.P. Pandey,** Role of ceramic particles for developing wear resistant materials, *AIP Conf. Proc. 1536 (2013) 631-632.*
157. Samiksha Verma, **O.P. Pandey,** and Puneet Sharma, Comparison between structure and magnetic properties of BaFe12O19 prepared by two different techniques, *AIP Conf. Proc. 1536 (2013) 993-994.*
158. Chandni, **O.P. Pandey** and Bhupendra Chudasama, Effect of nucleation and growth temperatures on the synthesis of monodisperse silver nanoparticles, *AIP Conf. Proc. 1512 (2013) 442-443.*
159. Chandni, **O.P. Pandey** and Bhupendra Chudasama, Single phase synthesis of highly stable copper nanoparticles, *AIP Conf. Proc. 1536 (2013) 149-150.*
160. Amandeep Singh, Manoj Sharma **O.P. Pandey** and Xueyong Wei, Highly luminescent ZnS:Mn/ZnS core shell nanoparticles for solid state lightning, *IEEE conf. Proc., (2013) 594-597.*
161. Gurbinder Kaur, **O.P. Pandey** and K. Singh, Self healing behavior of barium- lanthanum-borosilicate glass and its reactivity with different electrolytes for solid oxide fuel cells applications, *Int. J. Appl. Ceram. Technol., (2012)* DOI:10.1111/ijac.12002. **(Impact Factor=1.153)**
162. Gaurav Singla, K. Singh and O.P. Pandey, Williamson-Hall study on synthesized crystalline tungsten carbide (WC), App. Phy. A, (2013) DOI:10.1007/s00339-012-7531-0. **(Impact Factor=1.545)**
163. Suresh Kumar, Ratandeep Pandey, Ranvir Singh Panwar, and **O.P. Pandey,** Effect of Particle Size on Wear of Particulate Reinforced Aluminum Alloy Composites at Elevated Temperatures, *Journal of Materials Engineering and Performance, (2013) DOI: 10.1007/s11665-013-0642-8.* **(Impact Factor=0.915)**
164. Kamalpreet Kaur and **O.P. Pandey,** High Temperature sliding wear of Spray-formed solid lubricated Aluminium Matrix Composites, *Journal of Materials Engineering and Performance, (2013) DOI 10.1007/s11665-013-0594-z.* **(Impact Factor=0.915)**
165. Gurbinder Kaur, **O.P. Pandey,** K. Singh, Dan Homa, Brian Scott, Gary Pickrell, A review of bioactive glasses: Their structure, properties, fabrication, and apatite formation, *J. Biomedical Materials Research A, (2013) DOI10.1002/jbm.a.34690.* **(Impact Factor=2.834)**
166. B.S. Bansod and **O.P. Pandey,** Optimization of agricultural input application to enhance the crop quality and yield quantity in paddy under precision farming, *Journal of Quality Assurance and Safety of Crops & Foods (Accepted).* **(Impact Factor=0.642)**

**Conference Proceeding:**

1. O.P. Pandey and R.C. Gupta **Preparation of Lime-Rich Agglomerate from Limestone Chips for Steel Industry,** Proceeding *conference of National seminar on* ***Fine Particle Processing*** *Aug 10-11, 1986 at Deptt. of Fuel and Mineral Engg. Indian Institute of Mines, Dhanbad, pp-93-100.*
2. O.P. Pandey **Metallic glass – Its production properties and application as Sensor** **Material,** *Proceeding of Sensor-6, 4-6 March, 1999 pp-C20 Thapar Institute of Engineering & Technology, Patiala, India.*
3. O.P. Pandey**, Undercooling Measurment of Fine size droplets by Thermal Analysis Technique** – *Proceeding of the Twelfth National Symposium on Thermal Analysis, March 26-27, 2000. Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur pp 216-28.*
4. S.K. Mittal, O.P. Pandey and Pritpal Singh**, Structural studies on crystalline tin (IV) arsenoantimonats**: *National Symposium on Thermal Analysis, DDIU Gorakhpur University, Gorakhpur, March 26-27, 2000. Pp.296-299.*
5. S*anjay Panwar, D.B.Goel and O.P. Pandey* **Age Hardening in HSLA-100 (GPP) Steel-** *Proceeding of the National Seminar on Advances in Materials and Processing, Nov. 9-10, 2001, Department of Metallurgical and Materials Engineering, IIT, Roorkee.pp21-26.*
6. S*anjay Panwar, D.B.Goel and O.P. Pandey* **High Strength Low Alloy Steels: An Overview** *5th Punjab Science Congress on Science and Technology in New Millenium, Feb. 7-9 2002, TIET Patiala.*
7. Ravikant, Kulvir Singh and O.P. Pandey, **Low temperature ionic conductivity of Bisnuth Vanadate,** *International Symposium on recent advances in inorganic materials, Dec. 11-13, 2002, IIT Bombay. Mumbai, pp121-124.*
8. P*.Verma, M.Roy, A.Verma and O.P. Pandey***, Effects on Electrical Properties of Transformer Insulation Oil with Accelerated Thermal Stress,** *Proceeding of the National Conference on Power Systems and Energy Management, May 23, 2003, IET, Baddal, Ropar, pp75-80.*
9. Puneet Sharma, Amitabh Verma, R.K. Sidhu and O.P. Pandey, **Rare earth Substituted Strontium Ferrite Sintered Magnets -** *Proceeding of the National Conference on Materials and Related Technologies (NCMRT-2003), Sept. 19-20, 2003 Thapar Institute of Engineering and Technology, Patiala pp1-8.*
10. Ravi Kant, K. Singh and O.P. Pandey, **Preparation and Conductivity Measurement of Bismuth Based electrolyte for SOFC Application -** *Proceeding of the National Conference on Materials and Related Technologies (NCMRT-2003, Sept. 19-20, 2003) Thapar Institute of Engineering and Technology, Patiala pp49-53.*
11. R.K. Tiwari, R.K. Sidhu, S.P. Narayan, Puneet Sharma and O.P. Pandey, **Preparation of Strontium Hexaferrite from Strontium Sulphate and Iron Oxide -** *Proceeding of the National Conference on Materials and Related Technologies (NCMRT-2003) , Sept. 19-20, 2003 Thapar Institute of Engineering and Technology, Patiala pp128-133.*
12. Neha Gupta, Kulvir Singh and O.P. Pandey, **Development of new Sealant Material for Solid Oxide Fuel Cell Application -** *Proceeding of the National Conference on Materials and Related Technologies (NCMRT-2003) Sept. 19-20, 2003 Thapar Institute of Engineering and Technology, Patiala pp141-146.*
13. V.K. Gupta, O.P. Pandey and S Ray **Morphological and Tribological Characteristics of 0.13 wt% Carbon Steel** *Proceeding of the National Conference on Materials and Related Technologies (NCMRT-2003, Sept. 19-20, 2003, Thapar Institute of Engineering and Technology, Patiala pp264-274.*
14. P. Verma, M. Roy, A. Verma, V. Bhanot and O.P. Pandey, **Aging Studies on Kraft Insulation Paper Under Thermal and Electrical Stresses -** *Proceeding of the National Conference on Materials and Related Technologies (NCMRT-2003), Sept. 19-20, 2003 Thapar Institute of Engineering and Technology, Patiala pp306-312.*
15. Sanjay Panwar, D.B. Goel and O.P. Pandey, **Developments in High Strength Low –Alloy Steels** *Proceeding of the National Conference on Materials and Related Technologies (NCMRT-2003), Sept. 19-20, 2003 Thapar Institute of Engineering and Technology, Patiala pp239-245.*
16. Shishir Sinha, Shalini Sinha, Nidhi Rani Gupta and O.P. Pandey, **Removal of Black Sulphate from the Taxtile Waste Water- A Profile -** *Proceeding of the National Conference on Materials and Related Technologies (NCMRT-2003) , Sept. 19-20, 2003 Thapar Institute of Engineering and Technology, Patiala pp379-384.*
17. P*. Verma, M. Roy, A. Verma, V Bhanot and O.P. Pandey***, Dielectric of Partial Discharge of Transformer Insulation** *Proceeding of the National Conference on Trends in Instrumentation and Controll, Feb 5-6, 2004,, May 23, 2003, Thapar Institute of Engineering and Technology, Patiala pp 568 –574.*
18. P*. Verma, M. Roy, A. Verma, V Bhanot and O.P. Pandey***, Assessment of Transformer Insulation Paper by SEM and X-RD Techniques** *Proceeding of the 2004 IEEE International Conference on Solid Dielectrics Volume-II, July 5-9, 2004, Toulouse, France, pp657-660.*
19. Sanjay Panwar, D.B. Goel and O.P. Pandey, **Processing of High Strength Low –Alloy Steels** *Proceeding of the 18th National Convention of Metallurgical and Materials Engineers, Oct. 11-12, 2004, Jaipur.*
20. Puneet Sharma and O.P.Pandey, **Studies on Samarium Cobalt and Strontium Ferrite Hybrid Bonded Magnets** *Proceeding of the National Conference on Advances in Condensed Matter Physics (ACMP—2005) February 11-12, 2005 Thapar Institute of Engineering and Technology, Patiala pp103-110.*
21. R.K. Tiwari, O.P. Pandey and S.P. Narayan, **Preparation of Strontium Hexaferrite Sintered Magnet from Celestite and Pure Iron Oxide** *Proceeding of the National Conference on Advances in Condensed Matter Physics (ACMP—2005) February 11-12, 2005 Thapar Institute of Engineering and Technology, Patiala pp118-123.*
22. Ravi Kant, K. Singh and O.P. Pandey, **Ionic Conductivity of Cu- Substituted Bi4V2O11 Compounds** *Proceeding of the National Conference on Advances in Condensed Matter Physics (ACMP—2005) February 11-12, 2005 Thapar Institute of Engineering and Technology, Patiala pp288-293.*
23. C.P. Khatter, D.K. Shukla and O.P. Pandey, **Aalysis of Surface Integrity of EDM Process on Tool Steel (EN-31)** *Proceeding of the National Conference on Advances in Condensed Matter Physics (ACMP—2005) February 11-12, 2005 Thapar Institute of Engineering and Technology, Patiala pp343-349.*
24. Ravi Kant, Kulvir Singh and O.P. Pandey, **Synthesis and Characterization of Bismuth Vanadate Electrolyte Material with Aluminium Doping for SOFC Application**, *International Workshop on Hydrogen Energy: Production, Storage and Application,* 5-9 Nov., *University of Rajsthan,* Jaipur (2006).
25. Vishal Kumar, Anu Arora, O.P. Pandey and K. Singh, **Studies on Thermal and Structural Properties of Glasses as Sealants for Solid Oxide Fuel Cell,** *International Workshop on Hydrogen Energy: Production, Storage and Application,* *5-9 Nov., University of Rajsthan, Jaipur (2006).*
26. Ravi kant, K. Singh and O.P. Pandey, **Ionic Conductivity of BIMEVOX (ME=Cu) based Solid Electrolyte** *National Seminar on Physics and Society NREC College, Khurja April2, 2008 pp 14.*
27. Ravi Kant, K. Singh and O.P. Pandey, **Synthesis and Conductivity Measurement of Titanium-Doped Bismuth Vanadate Solid Electrolyte,** *National Conference of Emerging Trends in Engineering Materials,* *1-3 Feb., 2007*, *Thapar Institute of Engineering & Technology, Patiala.*
28. Vishal Kumar, Anu Arora, O.P. Pandey and K. Singh, **Thermal and Structural Properties of Glass Sealants for Solid Oxide Fuel Cell,** *National Conference of Emerging Trends in Engineering Materials, 1-3 Feb., 2007*, *Thapar Institute of Engineering & Technology, Patiala.*
29. Sanjay Panwar, D.B. Goel and O.P. Pandey, **Prediction of Mechanical Properties of Strain Aged Microalloyed High Strength Low Alloy Steel,** *National Conference of Emerging Trends in Engineering Materials, 1-3 Feb., 2007*, *Thapar Institute of Engineering & Technology, Patiala.*
30. Sameer Yadav, K. Sriram and O.P. Pandey, **Studies on Low Loss Manganese Zinc Ferrite Materials For Powder Application,** *National Conference of Emerging Trends in Engineering Materials, 1-3 Feb., 2007*, *Thapar Institute of Engineering & Technology, Patiala.*
31. Gaganpreet Kaur and O.P. Pandey, **Development of high Performance Commercial Aluminium Based Bearing Materials by Spray Deposition Technique,** *National Conference of Emerging Trends in Engineering Materials, 1-3 Feb., 2007*, *Thapar Institute of Engineering & Technology, Patiala.*
32. O.P. Pandey, **Development of Undercooled Structure by Thermal Analsis Technique in Ag-Ge alloy System,** *National Conference of Emerging Trends in Engineering Materials, 1-3 Feb., 2007*, *Thapar Institute of Engineering & Technology, Patiala.*
33. C.P. Khatter and O.P. Pandey, **Evaluation of Energy Distribution Parameters of Electrical Discharge Machining (EDM) for Tungsten Carbide,** *National Conference of Emerging Trends in Engineering Materials, 1-3 Feb., 2007*, *Thapar Institute of Engineering & Technology, Patiala.*
34. Kapil Sood, K. Singh and O.P. Pandey, **Development of ZrO2-Y2O3-Bi2O3 Electrolyte**, Material, *National Conference of Emerging Trends in Engineering Materials, 1-3 Feb., 2007*, *Thapar Institute of Engineering & Technology, Patiala.*
35. A.K. Sandhu, S. Singh, F. Singh and O.P. Pandey, **SHI Induced Modification of Silicate Glass: Optical and Structural Studies,** *National Conference of Emerging Trends in Engineering Materials, 1-3 Feb., 2007*, *Thapar Institute of Engineering & Technology, Patiala.*
36. Akshay Kumar, K. Singh and O.P. Pandey, **Synthesis and Characterization of Nanocomposite WC-CO Materials,** *National Conference of Emerging Trends in Engineering Materials, 1-3 Feb., 2007*, *Thapar Institute of Engineering & Technology, Patiala.*
37. Sanjay Panwar, D.B. Goel, O.P. Pandey and K. Satya Prasad, **Structure-Property Correlation in Micro- alloyed Copper Bearing HSL-100 Steel** *Proceeding of the International Conference on Microalloyed Steels:Emerging Technologies and Applications March 9-11., 2007,BESU, Sibpur, HOWRAH.*
38. A.K. Sandhu, S. Singh, F. Singh and O.P. Pandey, **Effect of High Energy Irradiation on Optical Properties of SiO2-Na2O-MgO-Al2O3 Glasses,** *15th National Symposium on Soplid Nuclear Track Detectors and Their Applications (SSNTD-15), (June 21-23, 2007, Badshahi Thaul Campus, Tehri Garhwal, Uttaranchal.*
39. A.K. Sandhu, S. Singh, F. Singh and O.P. Pandey, **Effect of Gamma Ray Induced Modifications in Silicate Glasses Used as a Track Detector,** *International conference on Condensed Matter Physics Nov. 25-28, 2007, (ICCMP-2007), Jaipur*.
40. Anu Arora, Vishal Kumar, K. Singh and O.P. Pandey, **Microstural Analysis of SiO2-BaO-ZnO-B2O3 glass** *National Conference on Application of Nanotechnology, December 27-29, 2007 organised by Jodhpur Engineering College and Research Centre, Jodhpur, pp150-153.*
41. Manoj Sharma, Sunil Kumar, Sukhvir Singh and OP Pandey, **Comparison of optical and morphological properties of uncapped and glutathione capped ZnS: Mn nanoparticles,** ICOP 2009-International Conference on Optics and Photonics CSIO, Chandigarh, India, 30 Oct.-1 Nov. 2009.
42. Jasmeet Kaur Gill, O.P. Pandey and K. Singh, , **Structural and Thermal properties of Ca2+ doped Y2Ti2O7 pyrochlores for SOFC**, International Conference on Renewable Energy held at Jaipur, 2011.
43. Bhupinder Kaur, K. Singh and O.P. Pandey, **Chemical interaction study between lanthanum based different alkaline earth glass sealants with Crofer 22 APU for solid oxide fuel cell applications,** International Conference on Renewable Energy held at Jaipur, 2011.
44. Gurbinder Kaur, O.P. Pandey and K. Singh, **Chemical interaction study between lanthanum based different alkaline earth glass sealants with Crofer 22 APU for solid oxide fuel cell applications**, International Conference on Renewable Energy held on January at Jaipur,
45. O.P. Pandey, **Role of structure in understanding the properties of materials**, International conference on emerging trends in Mechanical Engineering (ICETME-2011), Organized by Deptt of Mechanical Engineering, Thapar University, Patiala, page-527.
46. Vipin Sharma, Suresh Kumar, Ranvir Singh, O.P. Pandey, **Effect of reinforcement of coarse particles on mechanical properties of al based composite,** International conference on emerging trends in Mechanical Engineering (ICETME-2011), Organized by Deptt of Mechanical Engineering, Thapar University, Patiala, page-52
47. O.P. Pandey, **Thermal Spray Technology for near net shape fabrication of Advance Materials, *TC News Caster***, April 2000, pp. 11-12. (article)
48. O.P. Pandey, S.N. Ojha and T.R. Anantharaman **Solidification of Undercooled Ag-Ge Melt in Equilibrium with Solid Matrix** *International Conference on* ***Recent Advances in Materials and Processes*** Nov. 30 - Dec 2, 1987, Department of Metallurgical Engineering, I.T., B.H.U., Varanasi.
49. O. P. Pandey, S.N. Ojha and T.R.Anantharaman **Rapidly Solidified Powders of Al-Si Produced by Inert Gas Atomization Technique** *International Conference on* ***Rapid Solidification Processing and Technology-ICMS 89*** March 15 - 17, 1989, National Metallurgical Laboratory, Jamshedpur.
50. S.N. Ojha, S.N. Singh, O.P. Pandey and A.K. Tripathi **Scanning Electron Microscopic Studies of Gas Atomized Powders** *Workshop-cum-Seminar on* ***Scanning Electron Microscopy***  Feb 25 - 26, 1991, Department of Metallurgical Engineering, I.T., B.H.U., Varanasi.
51. O.P. Pandey, S.N. Ojha **Rapid Solidification of Highly Undercooled Melts of Cu-Ag Alloys** *National Metallurgist Day celebration and Annual Technical Meeting of the* ***Indian Institute of Metals*** held at Ranchi (Nov 14-17, 1991).
52. O.P. Pandey and R.C. Gupta **Preparation of Lime-Rich Agglomerate from Limestone Chips For. Steel Industry** *National Seminar on* ***Fine Particle Processing*** *Aug* 10-11, 1986 *at Deptt. of Fuel and Mineral Engg., Indian Institute of Mines, Dhanbad.*
53. O.P. Pandey and R.C. Gupta **Lime-Rich Briquettes for L.D. Steel making** *Annual Paper Meeting of Metallurgy and Materials Science Division, The Institution of Engineers (India), Andhra Pradesh State Centre, Visvasvarya Bhawan, Khairatabad, Hyderabad,* March 8-11, 1986
54. O.P. Pandey and S.N. Ojha **Investigation on spray Casting and Wear Characteristics of Al-Cu-Pb Alloys,** *30th National Metallurgist day and 46th Annual Technical Paper Meeting of Indian Institute of Metals, Udaipur,* November 1992.
55. O.P. Pandey **Microstructural Characteristic of Spray Deposited Al-4.5Cu-5Pb Alloy 6th** *Annual General Meeting of Materials Research Society of India, Indian Institute of Technology, Kharghpur,* Feb 1995, M.T.03*.*
56. O.P. Pandey **Metastability in Undercooled Ag-Ge System 83rd** *Indian Science Congress, Jan 3-8, 1996 Punjabi University Patiala.*
57. O.P. Pandey **Structural Modification and Wear Characteristics of some Commercial Bearing alloys by spray- forming technique**. *Tenth International Conference on Rapidly Quenched and Metastable Materials Aug. 23-27, 1999. I.I.Sc. Bangalore.pp.445.*
58. O.P. Pandey: **Microstructural characteristics of spray-deposited Commercial Bearing alloys***. TMS Fall* ***Meeting*** *Oct. 31 – Nov. 4, 1999. Omni Netherland, Plaza Hotel, Cincinnati, Ohio, USA.pp.7.*
59. O.P. Pandey, Puneet Sharma and Amitabh Verma: **Fabrication of Advance Materials by Spray Deposition of Melt**. *National Seminar on Materials Science. Trends & Future Feb. 24-25, 2000. SLIET, Longowal, Sangrur pp. PS-18.*
60. O.P. Pandey: **Undercooling Measurement of Fine Size Droplets by Thermal Analysis Technique:** *National Symposium on Thermal Analysis, DDIU Gorakhpur University, Gorakhpur, March 26-27, 2000. Pp.26.*
61. Rajinder Bansal, Bhupinder K. Padda, and O.P. Pandey, **Factors Affecting Hardness of Dental Composites,** *Fifth Punjab Science Congress: Science and Technology in New Millennium, February 7-9, 2002, Organised by TIET, Patiala PHO 64.*
62. O.P.Pandey, **Estimation of Cooling Rate by Using Heat Transfer Equation,** *National Conference on Mathetical and Statical Techniques, Dec 6-8, 2001, Organised by School of Basic and Applied Science, TIET, Patiala pp29.*
63. Puneet Sharma, O.P.Pandey, Amitabh Verma and R.K. Sidhu, **Influence of two stage Calcination on Magnetic Properties of Strontium Ferrite Powder and Sintered Magnets,** *Fifth Punjab Science Congess : Science and Technology in New Millennium, February 7-9, 2002, Organised by TIET, Patiala LC 8.*
64. Puneet Sharma, O.P. Pandey, Amitabh Verma and R.K. Sidhu **Taguchi L-9 Orthogonal Array Design for the** **Preparation of Strontium Ferrite Sintered Magnets,** *National Conference on Mathetical and Computer application in Science and Engineering, Jan 27-28, 2003, Organised by School of Mathematics and Computer Application, TIET, Patiala p34.*
65. O.P. Pandey and Kulvir Singh, **Analysis of Ag3Ge phase formation by Thermodynamic Analysis- A Legendre Polynomial Series Approach,** *National Conference on Mathetical and Computer application in Science and Engineering, Jan 27-28, 2003,, Organised by School of Mathematics and Computer Application , TIET, Patiala p34.*
66. O.P. Pandey and K. Singh, **Application of Hume-Rothery Model in Quasicrystalline Systems,** *National Conference on Mathematical and Computer application in Science and Engineering, Jan 27-28, 2003, Organised by School of Mathematics and Computer Application, TIET, Patiala p35*
67. K. Kaur and O.P. Pandey, **Effect of Immiscible Elements on Age Hardening Chateristics of Al-Si-Cu Alloys,** *International Conference on Metals and Alloys: Past, Present and Future (Metallo-2007), 07-10 Dec. 2007, Organsied by Department of Metallurgy, IIT Kanpur, Kanpur pp87.*
68. Akshay Kumar, K. Singh and O.P. Pandey, **Synthesis of Nano-Size WC-Co Composite by Carbothermic Reduction,** *International Conference on Metals and Alloys: Past, Present and Future (Metallo-2007), 07-10 Dec. 2007, Organsied by Department of Metallurgy, IIT Kanpur, Kanpur pp88.*
69. M. Sharma, G.S. Sekhon and O.P. Pandey, **Effect of Capping Agent on Stability of Nanostructure of Zn-S-An Overview** *International Conference on Metals and Alloys: Past, Present and Future (Metallo-2007), 07-10 Dec. 2007, Organsied by Department of Metallurgy, IIT Kanpur, Kanpur pp89.*
70. Anu Arora, Vishal Kumar, K.Singh and O.P. Pandey, **Microstural Analysis of SiO2-BaO-ZnO-B2O3 glass,** National Conference on Application of NanoTechnology, 27-29 Dec., 2007, Jodhpur Engineering College and Research Center, Jodhpur pp150-153.
71. R. K. Tiwary, S.P. Narayan and O.P. Pandey, **Analysis of Magnetic Properties of Strontium Hexaferrites prepared by pure chemicals and its natural ores** International Conference on Magnetic Materials and their applications for 21st centurary (MMA-21) October 21-23, 2008 at NPL, New Delhi pp65.
72. R. K. Tiwary, S.P. Narayan and O.P. Pandey, **Utilization of Celestite and Iron Ore fines for the preparation of Strontium Hexaferrites Magnets**  International Conference on Magnetic Materials and their applications for 21st centurary (MMA-21) October 21-23, 2008 at NPL, New Delhi pp185
73. Ravi Kant, K. Singh and O.P. Pandey, **Gallium doped bismuth vanadate solid electrolyte- Synthesis, Characterization and Ionic conductivities of Bi4V2-x GaxO11-δ (0≤x≤0.4)** National Seminar on Ferroelectrics and Dielectrics (NSFD15) 6-8 Nov, 2008.
74. Manoj Sharma, O.P. Pandey and G.S Sekhon**, Enhanced Optical Behaviour of Semiconducting Core-shell Nanostructures-An Analysis route** February 7-9,2008, 11th Punjab Science congress.
75. Vishal Kumar, K. Singh and O.P. Pandey, **Study of Sr based glass ceramics as a sealent for planar solid oxide Fuel cells route** February 7- 9,2008, 11th Punjab Science congress.
76. Akshay Kumar, K.Singh, and O.P. Pandey**, Synthesis of Tungsten Carbide Nano crystals by thermo chemical route** February 7- 9, 2008, 11th Punjab Science congress.
77. Manoj Sharma, G.S.Sekhon, O.P. Pandey**, Effect of PVP on stability of ZnS Quantum dots,** National Seminar on Radiation and Materials, March, 10-11, 2008 held at Deptt. of Physics, Punjabi University, Patiala.
78. Manoj Sharma, Sunil Kumar, O.P. Pandey**, Effect of different capping agent on optical studies of ZnS nanoparticles**, September 19-20, 2008 UGC Sponsored National Seminar, Smart Materials: A Future Prospective (SMFP-08).
79. Babankumar S. Bansod and O.P. Pandey, **“Study on EC mapping Systems with the help of Electronics Technologies viz GPS, GIS and EC sensor Systems”,** Technological and Institutional Innovations for Enhancing Agricultural Income, June 22-24, 2009, 9th Agricultural Science Congress University of Agricultural Science and Technology of Kashmir, Srinagar. Poster session.
80. Manoj Sharma and O.P. Pandey, **Sonochemical route for synthesis of Glutathione capped ZnS Nanostructures,** January 7-9, 2009, International conference on active smrt materials (ICASM 2009), Thiagarajar College of Engineering, Madurai, India. (S.No. SMART-367)
81. Vishal Kumar, K. Singh and O.P. Pandey, **Study on nucleation of crystalline phases in lanthanum borosilicate glass**, 28-30Jan’2009, Annual Session of Indian Ceramic Society, Jaipur. pp. 65
82. Babankumar S. Bansod and O.P. Pandey, **PXI and Lab VIEW Based Sensing and Instrumentation for Soil Properties to aid Precision Agriculture,** International Conference of Instrumentation (ICI-2009), Pune.
83. Vishal Kumar, K.Singh and O.P.Pandey, **Thermal and structural analysis of Mg based glasses as sealants for solid oxide fuel cells**, 23-24 May’2009, NIT Hamirpur. pp. 77
84. Manoj Sharma and O.P. Pandey, **Optical properties of capped ZnS nanoparticles**, 28-29October, 2009, International Symposium on Nanostructured Materials (ISNM 2009), Organised by KMV, Jalandhar. pp. 78(First Prize).
85. Babankumar S. Bansod, DHB Shashank, Ritula Thakur and O.P. Pandey, **Soil Apparent Electrical Conductivity Measurement Using Virtual Instrumentation,** 3rd International Conference on Computers and Electrical Engineering (ICCEE-2010), Chengdu, China. November 16-18, 2010.
86. Akshay Kumar, K. Singh and O.P.Pandey, **Microstructural examination of sintered nano-structured WC-Co Composite,** 22nd Annual General Meeting Of MRSI held on February 14-16, 2011 at Bhopal, page-54.
87. Babankumar Bansod, Shruti Trehan, O.P. Pandey, **An application of hybrid clustering and neural based prediction modelling for delineation of management zones,** Proceedings of National Conference on Agrionics and Food Processing Instrumentation, NCAFPI-2010, Chandigarh, 26-28 September, 2010.
88. Babankumar S. Bansod, and O.P. Pandey, **An Application of Fuzzy C-Means Based Clustering Technique in Smart Farming,** 3rd International Conference on Computers and Electrical Engineering (ICCEE-2010), Chengdu, China. November 16-18, 2010.
89. Jasmeet Kaur Gill, O.P.Pandey and K. Singh, **Structural variation in doped and undoped Y2Ti2O7 pyrochlores**, 22nd Annual General Meeting Of MRSI held on February 14-16, 2011 at Bhopal, page-78.
90. Bhupinder Kaur, K. Singh and O.P. Pandey, **A study interaction between glasses and steels**, 22nd Annual General Meeting Of MRSI held on February 14-16, 2011 at Bhopal, page-79.
91. Kapil Sood, O.P. Pandey and K. Singh, **Effect of Sr and Ca substitution on structural and conducting properties of LaInO3 systems**, 22nd Annual General Meeting Of MRSI held on February 14-16, 2011 at Bhopal, page-82.
92. Raj Kumar, Akshay Kumar, O.P. Pandey, **Reduction of WO3 to WC nano particles by reflux reaction**, 22nd Annual General Meeting of MRSI held at Bhopal, page-120.
93. Chandni, Poonam Benjwal, Nidhi Andhariya, Anjanan Vala, O.P.Pandey, Bhupendra Chudasama, **Colloidal silver nanostructures: Synthesis and Antimicrobial Activities**, 22nd Annual General Meeting Of MRSI held at Bhopal, page-93.
94. Kamalpreet Kaur and O.P. Pandey, “Wear characteristics of light weight self lubricating Al–Si composite”, in proceedings of **19th IFHTSE Congress** held at **Glasgow**, **Scotland, UK** during 17 – 20th October’11.
95. Samita, O.P. Pandey, K.Singh “**Effect of sintering temperature on structural and dielectric properties of Bi-Sr-Mn-O system” in proceedings of** International Conference on Energy Efficient Materials Manufacturing Methods & Machineries for Ceramic Industries (IC2E4MCI-11 held at Agra, during 19 - 22 December 2011.P.No 27
96. Gourav Singla, K.Singh, O.P. Pandey “ Time effect on synthesis of nanocrystalline Tungsten carbide” International Conference on Energy Efficient Materials Manufacturing Methods & Machineries for Ceramic Industries (IC2E4MCI-11 held at Agra, during 19 - 22 December 2011. P.No.18
97. Gurbinder KaurO.P. Pandey, K. Singh**, Chemical Compatibility Of Borosilicate Glasses With Crofer22apu For SOFC Applications** International Conference on Energy Efficient Materials Manufacturing Methods & Machineries for Ceramic Industries (IC2E4MCI-11 held at Agra, during 19 - 22 December 2011. P.No.17
98. Pramjyot Kumar Jha, O.P. Pandey, K.Singh” **Influence of structural and electrical properties of NASICON from new compounds** International Conference on Energy Efficient Materials Manufacturing Methods & Machineries for Ceramic Industries (IC2E4MCI-11 held at Agra, during 19 - 22 December 2011. P.No.3
99. Kapil Sood, Kulvir Singh, O.P. Pandey,**Study of the structural and electrical behavior for Ca doped LaInO3 electrolyte material** International Conference on Energy Efficient Materials Manufacturing Methods & Machineries for Ceramic Industries (IC2E4MCI-11 held at Agra, during 19 - 22 December 2011. P.No.9
100. Mani Mahajan, K.Singh, O.P.Pandey **Synthesis of Nano Vanadium Carbide by Solvothermal route** International Conference on Energy Efficient Materials Manufacturing Methods & Machineries for Ceramic Industries (IC2E4MCI-11 held at Agra, during 19 - 22 December 2011. P.No.19
101. Jagdeep Kaur, Manoj Shrma, O. P. Pandey **Synthesis And Photo-Catalytic Studies Of ZnS Nanoparticles** International Conference  on Energy Efficient Materials Manufacturing Methods & Machineries for Ceramic Industries (IC2E4MCI-11 held at Agra, during 19 - 22 December 2011. P.No.21
102. Harjinder Singh and O.P. Pandey **Nano Tungsten Carbide-Produciton Methods and Energy Issues** International Conference on Energy Efficient Materials Manufacturing Methods & Machineries for Ceramic Industries (IC2E4MCI-11 held at Agra, during 19 - 22 December 2011. P.No.1
103. Ranvir Singh Panwar and O.P. Pandey, “Synthesis and wear behavior of LM13- zircon sand composite by stir casting route” in 22nd Annual General Meeting of Material Research Society of India held at CSIR- AMPRI Bhopal, feb-2011.
104. Suresh Kumar, kamalpreet Kaur, Rashmi Mittal, O.P Pandey “ Effect of Temperature and Sn on Wear behavior of Zircon Reinforcement LM13 alloy” in 22nd Annual General Meeting of Material Research Society of India held at CSIR- AMPRI Bhopal, feb-2011
105. Babankumar S Bansod, O.P. Pandey, **Intelligent farming- an overview across the globe, Proceedings of National Conference on Agrionics and Food Processing Instrumentation,** NCAFPI-2010, Chandigarh, 26-28 September, 2010.
106. Suresh Kumar, Ranvir Singh Panwar, O.P. Pandey; **Wear behavior of Al-MMC reinforced with particles of different size and types’’** in 23nd Annual General Meeting of Material Research Society of India held at Thapar University, Feb13-15, 2012.
107. Vipin Sharma, Suresh Kumar, O.P. Pandey; **“ Microstructural correlations with the formation of mechanically mixed layer in sliding wear of LM-13 based dual reinforced particles composites,”** in 23nd Annual General Meeting of Material Research Society of India held at Thapar University, Feb13-15, 2012.
108. Gurbinder Kaur, O.P. Pandey, K. Singh, Suresh **“ Chemical compatibility of borosilicate glasses with crofer22APU for SOFC application”** in 23nd Annual General Meeting of Material Research Society of India held at Thapar University, Feb13-15, 2012.
109. Samiksha Verma, Pooja Chauhan, O.P. Pandey and Puneet Sharma, **“Preparation and characterization of barium hexaferrite prepared from bariummonoferrite”** in 23nd Annual General Meeting of Material Research Society of India held at Thapar University, Feb13-15, 2012.
110. Ranvir Singh Panwar, Suresh Kumar, O.P. Pandey; **“Microstructural study and wear behavior of LM13/10%Zr composite at elevated temperature”** in 4th National Symposium for Materials Research Scholars (MR-12) & Workshop on Advanced Characterization Techniques, May 2012 at IIT Bombay.
111. Suresh Kumar, Ranvir Singh Panwar, Vipin Sharma, O.P. Pandey, **‘‘Effect of multi reinforced particles (MRP) and single reinforced particles (SRP) on the wear behavior of aluminum matrix composites’’,** International Conference on "Material Science and Technology (ICMST2012) held at St.Thomas College, Pala.  Kottayam, Kerala during June 10-14 2012.
112. Jagdeep Kaur, Manoj Sharma, O.P.Pandey, **‘‘Synthesis and optical studies of Co –doped zinc sulphide nanoparticles”** 4th international symposium for materials research scholars (MR-12) and workshop on advanced characterization techniques held at 3-5th may 2012 at IIT Mumbai.
113. Manoj Sharma andO.P. Pandey, **‘‘Tuning emission color in capped and doped ZnS nanocrystals by changing excitation conditions’’**, International Conference on Luminescence and Its Applications (ICLA 2012), Feb 7-11, 2012. (ISBN No.8167178065).
114. Manoj Sharma, Deepak Kumar O.P. Pandey, **‘‘Effect of Eu, Tb codoping on lumniscent properties of Y2O3 nanoparticles’’,** (ICLA 2012), Feb 7-11, 2012. (ISBN No. 8167178065).
115. Amandeep Singh Pannu,Manoj Sharma, Soumen Basu, O.P. Pandey, **‘‘solar radiation assisted photo catalysis by semiconductor nanoparticles’’,** International conference on Nanomaterials and Nanotechnology (ICNANO-2011), University of Delhi, 18-21 Dec. 2011. (ISBN No: 9788192006833, eISBN No: 9788192006835).
116. Manoj Sharma and O.P. Pandey, **‘‘Excitation modulated tunable emission in chitosan capped ZnS: Mn nanophosphors at different pH’’,** International conference on Luminescence, Ann Arbor University of Michigan, USA, 27 June-2 July 2011 (Oral talk).
117. Manoj Sharma, O.P.Pandey, **‘‘Sensing applications of capped ZnS nanomaterials’’**, (2010) AGM of MRSI 2011 (**Best poster**).
118. Manoj Sharma, Tarun jain, O.P. Pandey, **‘‘Enzyme detection using DNA capped ZnS nanoparticles, Biomedical applications of nanostructured materials’’,** NANO (2010) Macmillan Publishers India Limited.
119. Manoj Sharma and O.P. Pandey, **‘‘Optical Studies of PVP capped ZnS nanoparticles, International Symposium on Nanostructured Materials: Structure, Properties And Applications’’,** KMV, Jalandhar, Oct 28-29, 2009 (**Selected as Best Poster**).
120. Manoj Sharma, Sunil Kumar, O.P. Pandey, **‘‘Enhanced luminescence behavior of semiconducting core-shell nanostructures - An Overview’’,** 11th Punjab Science Congress held at Thapar University, Patiala,7-9 Feb. 2008.
121. Babankumar Bansod, Rishemjit Kaur, Ritesh Kumar, O.P. Pandey, **‘‘An application of fuzzy C-means based clustering technique in smart farming’’,** Proceedings of National Conference on Agrionics and Food Processing Instrumentation, NCAFPI-2010, Chandigarh, 26-28 September, 2010.
122. Babankumar, Ashish, Sudeshna, O.P. Pandey, **‘‘Analysis of effect of apparent electrical conductivity on crop productivity through correlation analysis’’,** Proceedings of National Conference on Agrionics and Food Processing Instrumentation, NCAFPI-2010, Chandigarh, 26-28 September, 2010.
123. Manoj Sharma andO.P. Pandey, **‘‘Tuning emission color in capped and doped ZnS nanocrystals by changing excitation conditions’’,** International Conference on Luminescence and Its Applications (ICLA 2012), Indian Institute of Chemical Technology, Hyderabad, Organised by Luminescent Society of India, Baroda Feb 7-11, 2012. (ISBN No.8167178065) pp306
124. Manoj Sharma, Deepak Kumar O.P. Pandey, **‘‘Effect of Eu, Tb codoping on lumniscent properties of Y2O3 nanoparticles’’,** International Conference on Luminescence and Its Applications (ICLA 2012), Indian Institute of Chemical Technology, Hyderabad, Organised by Luminescent Society of India, Baroda Feb 7-11, 2012. (ISBN No. 8167178065) pp305.
125. Mani Mahajan, K. Singh and **O.P. Pandey,**Synthesis of Vanadium Carbide Nanoparticles by Thermal Decomposition of the Precursor, *AIP Conf. Proc., 1536 (2013) 271-272.*
126. Harjinder Singh and **O.P. Pandey,** A new approach to synthesize nano WC, *AIP Conf. Proc. 1536 (2013) 75-76.*
127. Gaurav Singla, K. Singh and **O.P. Pandey,** Synthesis of Nanocrystalline Tungsten Carbide (WC) Powder, *AIP Conf. Proc. 1536 (2013) 31-32.*
128. Paramjyot Kumar Jha, **O.P. Pandey** and K. Singh, Dielectric Spectroscopy Studies of NASICON Materials, *AIP Conf. Proc. 1536 (2013) 795-796.*
129. Ranvir Singh Panwar, Suresh Kumar, and **O. P. Pandey,** Study of wear mechanism for LM13/Zr composite under dry sliding conditions at different loads, *AIP Conf. Proc., 1536 (2013) 1143-1144.*
130. Suresh Kumar, Ranvir Singh Panwar, and **O.P. Pandey,** Tribological properties of Zircon sand and Zirfloor reinforced LM13 alloy matrix composite-A comparative study, *AIP Conf. Proc. 1536 (2013) 1286-1287.*
131. Jagdeep Kaur, Manoj Sharma, and **O.P. Pandey,** Photocatalytic studies of capped ZnS nanoparticles, *AIP Conf. Proc. 1536 (2013) 81-82.*
132. Pooja Singla, Manoj Sharma, K. Singh, and **O.P. Pandey,** Synthesis and characterization of zinc doped nano TiO2 for efficient photocatalytic degradation of Eriochrome Black T, *AIP Conf. Proc. 1536 (2013) pp. 103-104.*
133. Deepak Kumar, Manoj Sharma, and **O.P. Pandey,** Luminescent properties of nano-sized Y2O3:Eu synthesized by co-precipitation method, *AIP Conf. Proc. 1536 (2013) pp. 119-120*
134. Samita Thakur, **O.P. Pandey,** and K. Singh, Electric relaxation behavior of Bi0.5Sr0.5FeO3 ceramic: An electric modulus approach, *AIP Conf. Proc. 1536 (2013) 577-578.*
135. Kamalpreet Kaur and **O.P. Pandey,** Role of ceramic particles for developing wear resistant materials, *AIP Conf. Proc. 1536 (2013) 631-632.*
136. Samiksha Verma, **O.P. Pandey,** and Puneet Sharma, Comparison between structure and magnetic properties of BaFe12O19 prepared by two different techniques, *AIP Conf. Proc. 1536 (2013) 993-994.*
137. Chandni, **O.P. Pandey** and Bhupendra Chudasama, Effect of nucleation and growth temperatures on the synthesis of monodisperse silver nanoparticles, *AIP Conf. Proc.* *1512 (2013) 442-443.*
138. Chandni, **O.P. Pandey** and Bhupendra Chudasama, Single phase synthesis of highly stable copper nanoparticles, *AIP Conf. Proc.* *1536 (2013) 149-150.*
139. Amandeep Singh, Manoj Sharma **O.P. Pandey** and Xueyong Wei, Highly luminescent ZnS:Mn/ZnS core shell nanoparticles for solid state lightning, *IEEE conf. Proc., (2013) 594-597.*

# Message to Students & Community:

# Success of life is to work hard. Plan your activities as per preference and complete it in time framed model.

**Street:** PO Box No. 32

**Postcode:** 147004

**City:** Patiala

**Country:** India

**Email:**   oppandey@thapar.edu

**Located in:**