Prof. Ashok K sharma

(Representative Publications and Conferences)

- 1. Studies on Nanocomposites of Polyaniline Using Different Substrates.

 American Journal of Polymer Science. 2015, 1-6, 5(1A), DOI: 0.5923/s.ajps.201501.01
- 2. Oxidative Synthesis and Electrochemical studies of Poly(aniline-co-pyrrole)-Hybrid Carbon Nanostructured Composite Electrode Materials for supercapacitor.

Advanced Materials Letters, 2015, 6(5), 414-420 (Impact factor: 1.93)

1. Improved microwave shielding properties of polyaniline grown over three-dimensional hybrid carbon assemblage substrate .

Applied Nanoscience sept. 2014, 5, 635-644, DOI: 10.1007/s13204-014-0362-x, (Springer).

2. Development and Properties Study of Microstructure Silver-doped Silica Nanocomposites by Chemical Process.

Journal of Alloys and Compounds, 2014, 583, 550-553, DOI: 10.1016/j.jallcom.2013.09.018

(Impact factor: 2.726)

(Impact Factor: 0.423)

3. Biocompatible Smart Matrices Based on Poly (3, 4- ethylene dioxythiophene) - Poly (N-isopropyl acrylamide) Composite.

Int. J. of Polymeric Materials & Polymeric Biomaterials, 2014, 64(7), 333–337. DOI:10.1080/00914037.2014.945204 (Impact factor: 2.784)

4. *p*-toluene sulfonic acid doped polyaniline carbon nanotube com-posites: synthesis via different routes and modified properties

J. Electrochem. Sci. Eng.3 (2013), 47-56, DOI: 10.5599/jese.2013.0029

5. Influence of poly(N-isopropylacrylamide)-CNT-polyaniline three-dimensional electrospun microfabric scaffolds on cell growth and viability.

Biopolymers 99(5), (2013), 334-41. DOI: 10.1002/bip.22170 (Impact Factor: 2.88)

6. Characterization of Chemically deposited Polyaniline-co-Polypyrrole over Multiwalled Carbon Nanotube

Proceedings of Fifth ISEAC Triennial International Conference on Advances and recent Trends in Electrochemistry (ELAC- 2013) ,Jan.16-20, 2013(ISBN: 978-81-901950-5-8).

7. Fabrication of conducting electrospun nanofibers scaffold for three-dimensional cells culture.

*International Journal of Biological Macromolecules,51(2012),627–631, DOI:10.1016/j.ijbiomac.2012.06.014).

*(Impact Factor: 2.68)

8. 2,6-Bis(4-sulpho-1-hydroxy-2-naphthylazo)pyridine: Spectrophotometric Reagent for the Trace soft Determination of Zinc in Biological Samples.

Res. J. Chem. Environ 2012,16(4), 68.

9. Characterization of Poly (aniline-co-pyrrole)/Carbon Nanotube Composites Prepared via In-situ Chemical, Mechanical Mixing and Microwave Assisted Methods of Polymerization.

**Advances in Polymer Science and Technology: An International Journal, 2012; 2(4): 39-42, 06 October 2012

(Impact Factor: 1.19)

10. Solvent tuned PANI-CNT Composites as Advanced Electrode Materials for Supercapacitor application.

Adv. Mat. Lett. 2012, 3(2), 82-86

DOI: 10.5185/amlett.2012.1315

(Impact Factor: 1.9)

11. Pseudo capacitive Studies of Polyaniline-Carbon Nanotube Composites as Electrode Material for Supercapacitor.

Analytical Letters, April 2012, 45, 1–11, DOI: 10.1080/00032719.2012.680057) (Impact Factor: 1.030)

12. Conducting Polymer Carbon Composites: Synthesis and Applications

Proceedings of Discussion Meet on Electrochemistry and its Applications December 7-10, 2011 (DM-ISEAC-2011) pp-208. (ISBN: 978-81-901950-3-4).

- 13. Spectrophotometric Determination of silver with 1-(2-Quinolylazo)-2,4,5-trihydroxybenzene. *J. Ind. Council Chem.*, 2011, 28(2) 118-21.
- 14. 1-(2-Quinolylazo)-2,4,5-trihydroxybenzene as Spectrophotometric Reagent for Micro-determination of Palladium(II).

Der Pharma Chemica, 2011, 3(6) 70-74.

15. Electro-synthesis and characterization of polyaniline nanofibrils as electrode material for supercapacitors.

Proceedings of 4th ISEAC Triennial International Conference on ElectroAnalytical Chemistry and Allied topics (ELAC -2010), March 16-18, 2010. ISBN No: 978-81-901950-2-7.

16. An Efficient Synthesis of Polypyrrole/carbon Fibre Composite Nano-thin Films.

Int. J. Electrochem. Sci., 4 (2009) 1560 – 1567

17. Trace determination of copper in foodstuffs and biological samples.

Analytical Letters, 42(10), April 2009, 1527-1538

(Impact Factor : 1.030)

(Impact Factor : 1.5)

18. A Rapid Spectrophotometric Method for Trace Determination of Zinc.

Food Analytical methods, 2 (4), 2009, 311-316, (DOI: 10.1007/s12161-009-9083-2) (Impact Factor: 1.956)

19. Spectrophotometric Trace Determination of Iron in Food, Milk and Tea Samples using a New Bis-azo Dye as Analytical Reagent.

Food Analytical methods, 2(3) 2009, 221-225 (DOI 10.1007/s12161-008-9054-z) (Impact Factor: 1.956)

20. Polypyrrole/carbon composite electrode for high-power electrochemical capacitors.

Electrochimica Acta, 52(4) Dec. 2006, 1727-1732. (Impact Factor: 4.504)

21. Synthesis of polypyrrole and carbon nano-fiber composite for the electrode of electrochemical capacitors.

Material Letters, 60(13-14), June 2006, 1697-1701. (Impact Factor: 2.489)

- 22. Heterobimetallic penta and hexa-coordinated organotin (IV) complexes at different temperatures

 *Indian Journal of Chemistry 2008, 47A58-61 (Impact Factor: 0.628)
- 23. A bis-azo dye as a chromogenic reagent for determining traces of copper in foodstuffs, blood Sera and body tissues

J. Indian Chem. Soc.2006, 83, 97-100, (Impact Factor: 0.251)

24. An Efficient Synthesis of Hydroxy Flavones.

Indian Journal of Heterocyclic Chemistry 2005, 14, 275-76,

(Impact Factor: 0.251)

(Impact Factor : 0.355)

(Impact Factor : 0.355)

25. Reaction of Lead(II) with 2,6-Bis(1-hydroxy-2-naphthylazo)pyridine as a Spectrophotometric Determination of Phosphate and Citrate.

Asian Journal of Chemistry 2003, 15(3 &4),1699-1702

- 26. Synthesis and Analytical Applications of a New Heterocyclic Bis-Azo Dye:2,6-Bis(7-Hydroxyacenaphthyl-8-azo)pyridine

 Asian Journal of Chemistry 2003, 15(2),1069-1074 (Impact Factor: 0.355)
- 27. Synthesis and Analytical Studies of a New Bis-Azo Dye: 2,6-Bis(9-hydroxyphenanthryl-10-azo)pyridine.

Asian Journal of Chemistry 2003, 15(1),185-190

- 28. invited lecture entitled, "Nano-structured Conducting Polymer based Electrodes for Energy Storage Devices" conference on "International Symposium on Advanced Polymeric Materials 2014 (ISAPM 2014)", held at Putra World Trade Centre, Kuala Lumpur, Malaysia, 14 15 May 2014.
- 29. Invited lecture entitled, "Green Electrochemical Energy Storage Systems: From Research to Products" conference on "International conference on chemical education" held at Institute of Ceylon, Colombo, SriLanka 03-04 April, 2014.
- 30. Presentation on "Synthesis and Characterization of Conducting Polymer Composites for Electrochemical Capacitors" at International Conference, Indian Council of Chemists at Bangkok, June 2011.
- 31. Invited Talk entitled, "Conducting Polymer Composites as Electrode Material for SuperCapacitors" in the International Conference held at University of Jinan, Republic of China, May 13-16, 2011
- 32. Paper entitled "Polypyrrole Coated Composite Electrode for Electrochemical Capacitors" at International Conference in National University of Singapore, February 2006.
- 33. Invited Talk entitled "Nano-Composites as Advanced Electrode Materials for Electrochemical Energy Storage" in the International Conference on "Nanoscience and Technology (NanoSciTech-2014)" held at Panjab University, Chandigarh, February 13-15, 2014.
- 34. Invited Talk entitled, "Nanostructured Conducting Polymer Composites as Advanced Electrode Materials for Energy Storage Devices", in International Conference Aligarh Nano IV International 2014" 8-10 March 2014.
- 35. Invited Talk entitled, "Conducting Polymer Nano-Composite Electrode for Supercapacitors "in the International Conference on "Nanoscience and Nanotechnology (ICNN-2013)" held at BBA Central University, Lucknow, November 18-20, 2013.
- 36. Invited Lecture entitled, "Conducting polymer carbon composite electrode for supercapacitor application" in International Conference (ICNANO-2011), University of Delhi, December 13-16, 2011.
- 37. Presentation, "Polymer Nano-composite Electrode Material for Electrochemical Capacitors "in 4th International Conference on Electroactive Polymers: Materials and Devices (ICEP-2010), November 21-26, 2010, Surajkund, Faridabad, India

- 38. Invited Lecture entitled, "Spectrophotometric Trace Determination of Mercury(II) and Thiosulfate ions in aqueous solutions" at International Conference Green Technologies for Greener Environment (GTGE-2010), CCS University, Meerut, Jan. 27-30, 2010
- 39. Invited Lecture entitled, "Nano-composite based SuperCapacitors: A new kind of Energy Storage Devices" in the International Conference on "Intelligent Systems", IISKT, Klawad, Jagadhari, February 18-20, 2011.
- 40. Invited Talk entitled, "Preparation and Electrochemical investigations of conducting polymer Nano-Composites" in International Conference on Green Technologies for Environmental Rehabilitation (GTER-2012), Gurukul Kangri University, Haridwar, February 11-13, 2012.
- **41.** Invited Lecture entitled, "Graphene Supercapacitors: The Technology for Future Energy Storage Application, in (CONIAPS XVII) on "Emerging Trends in Physical Sciences & Technology" during January 16-18, 2015. at Rajasthan University Jaipur.
- **42.** Invited Lecture entitled,"Conducting Polymeric Composite Electrode Materials and Applications" in 9th National Conference on 'Solid State Chemistry and Allied Areas (ISCAS-2015) organized at at Conference Centre of Delhi University from May, 8-10, 2015.
- 43. Invited Lecture entitled, "Recent Trends in energy Conversion and Storage Materials and systems" in National Conference on "Green Nanotechnology" (GRNATE-2014) at Chandigarh University, Mohali, Punjab, June 05-06, 2014.
- 44. Invited Talk entitled, "Tailoring Covalently Modified Carbon Matrix Interface for Enhanced Electrical Properties" in National Conference "on Advances in Chemical & Environmental Sciences", ARYA P.G. COLLEGE, PANIPAT February 27-28, 2014.
- 45. Invited Talk entitled, "Electrochemical Energy Storage: Challenges and Solutions" conference on "Emerging trends in Chemistry" (NSETC-2014), A.I. Jat H.M. College, Rohtak from March 12 & 13, 2014.
- 46. Invited Lecture entitled, "Nano-structured Composites as Electrode Materials for Green Energy Storage Systems" in National Symposium on 'Chemistry and Environment", Banaras Hindu University, Varanasi, March 15-16, 2013.
- 47. Invited Lecture entitled in Pre-PhD workshop at National University, Jaipur, October 28, 2013.
- 48. Invited Lecture entitled, "Electrochemical investigations of well coated carbon Fiber-conducting polymer Nanocomposites" in Professor Ram Chand Paul National Symposium on 'Emerging Areas in Chemistry', Department of Chemistry, Panjab University, Chandigarh, February 24-25, 2012.
- 49. Invited Lectures entitled, "Green Energy Storage Systems based on Conducting Polymers for Advanced Power Applications "in UGC sponsored Refresher Course, Panjabi University, Patiala, December 12, 2012
- 50. Invited Lecture entitled in Professor Ram Chand Paul National Symposium On 'Emerging Areas in Chemistry', Department of Chemistry, Panjab University, Chandigarh, March 5-6, 2010.
- 51. Invited Lecture entitled in 4th National Seminar on Chemistry: An Interdisciplinary Sciene-2012 (NSCIDS-2012), Department of Chemistry, Panjabi University, Patiala, February 15-16, 2012.
- 52. Invited Lectures entitled, "Green Energy Storage Systems based on Conducting Polymers for Advanced Power Applications" in AICTE sponsored Workshop, North Maharashtra University, Jalgaon, June 15-30, 2012
- 53. Invited Talk entitled, "Nano-structured Materials for Energy Conversion and Storage Devices" in Conference "Global Challenges: Role of Science & Technology in Giving their Solution-2012", TITS, Bhiwani, March 03-04, 2012
- 54. Invited Lecture entitled, "Conducting Polymer based Nano-composites for Energy Storage Devices" in National Conference on "Chemistry in Our Lives", Arya P.G. College, Panipat, February 4-5, 2012.

- 55. Invited Lecture entitled, "Nano-Composites as Advanced Electrode Materials for Energy Storage Devices" in National Conference, NRS Government College, Rohtak, February 8-9, 2012.
- 56. Invited Lecture at Chemistry Department, AIJHM College, Rohtak, March 2012.
- 57. Invited Lecture in NSRANE-2011, Bahal Engineering College, Bhiwani, November 19, 2011.
- 58. Invited Lecture entitled, "Electrochemical investigations of well coated carbon Fiber-conducting polymer Composites" in conference on "6th National Conference on Thermodynamics of Chemical and Biological Systems" under the auspices of The Indian Thermodynamics Society to celebrate International Year of Chemistry 2011, M.D University, Rohtak, November 2-4, 2011.
- 59. Invited Lecture in National Seminar cum Workshop, TITS, Bhiwani, May 21, 2011.
- 60. Invited Lecture entitled, "Electrochemical SuperCapacitors: The Green Energy Storage Devices" in UGC sponsored National Seminar on "Chemistry in Our Lives" at S.D. P.G College, Ambala Cant., March 23, 2011
- 61. Invited Lecture entitled, "Carbon Conducting Polymer nano-composites for Energy Storage In SuperCapacitors" National Conference on Green Chemistry, MMH College, Ghaziabad, January 22-23, 2011
- **62.** Invited Lecture entitled in UGC sponsored Refresher Course at Panjabi University, *Patiala*, *December* 11, 2010.
- 63. Invited Lectures in HEC, Haryana sponsored Refresher Course at NRS Government College, Rohtak, May 05-25, 2008
- 64. Resource person, EDUSAT programme for Degree Colleges, Government of Haryana.

LIST OF ACADEMIC ACHIEVEMENTS OF Dr. B.S. DEHIYA (2008 onwards)

Paper published in International/National Journals:

2014

 "Development And Properties Study Of Microstructure Silver-Doped Silica Nanocomposites By Chemical Process" Surender Duhan, Vijay K. Tomer, A.K.Sharma, B.S.Dehiya, J. Alloys & Compounds, 583 (2014) 550 Impact Factor: 2.4

2013

- 2. "Microstructure and Photo-catalytic Dye Degradation of Silver- Silica Nano-composites Synthesised by Sol-Gel Method" Surender Duhan, B.S.Dehiya and Vijay Tomer, Advanced Materials Letter 4(4), 2013, 317-322. lmpact Factor: 1.4
- **3.** "Thermal And Optical Properties Study Of Silver Nanoparticles Doped In Silica Film On Glass Substrate As A Function Of Annealing Behaviour" Surender Duhan, **B.S.Dehiya**, A.K.Sharma and Vijay Tomer, Journal of Integrated Science and Technology, 2013.

2012

4. "Structural Study of Iron Oxide Nanoparticle Synthesis by Chemical Coprecipitation Technique", Surender Duhan and B. S. Dehiya, International Journal of Phys. Chem. And Mat. Sciences (ISSN:: 2278-683X):, Vol. 1, No. 2, 2012.

Papers presented in Conferences:

2013:

1. "Modeling of Discontinuous Yielding in High Temperature Creep Deformation of a Cryomilled Al-Ti Nanocomposite", **B.S. Dehiya** et al, National Conference on Engineering Materials, DCRUST, Murthal, Haryana (2013)

2012:

1. "Solar Panels: New Techniques Coupled With Different Manufacturing Processes (Review)", D. Ahuja, N. Bhoria, **B.S. Dehiya** and D.P Tiwari, National Conference on Solar Power NCSP 2012, 29-30 March, **2012**, Bharatpur (Raj.).

Book Chapter:

1. "Psychology and Metrics in Engineering Education", **B. S. Dehiya** and K. K. Malhotra, *University Administration and System in India*, Eds. R S Jaglan and K P Narwal, I.K. Publishing House Pvt Ltd, **2012**.

Conferences Organized:

- 1. National Conference on Physics of Engineering Materials (NCPEM-2013), DCRUST organizing committee member.
- 2. Co-convener, DCR Chair's "Three-day National Conference and Field Observations on Climate Change and its Impacts on Water Resources and Agricultural Productivity" from 20-22 February 2013.
- 3. Co-Coordinator, **One Day National Workshop on Water Resources and Sustainable Development**, Supported by WAPCOS, Govt. of India, held on 17 October **2012**.

- 4. Coordinator, RS and GIS Seminar (Dr Vinay Sehgal, IARI, Pusa, Delhi) under DCR Chair and COP1 Sep. 2012.
- 5. Co-convener, Add-on Course on "Climate Change Adaptation: Technology and Sustainable Development" by DCR Chair, DCRUST 2013.
- 6. Coordinator of COP-1: UGC's Career Oriented Programme's Certificate Course in "Remote Sensing and GIS" 1st batch completed in **2013**.
- 7. Co-coordinator of COP-2: UGC's Career Oriented Programme's Certificate Course in "Energy Conservation and Tapping of Renewable Energy Sources" 1st batch completed in 2013.

Articles under Preparation / Revision:

- 1. B.S. Dehiya, J.R. Weertman and M.J. Luton, *Dislocation Density-Based Constitutive Model for the High Temperature Mechanical Behaviour of a Cryomilled Al-Ti Composite*, Communicated.
- 2. B. S. Dehiya and J R Weertman, *High Temperature Creep Strength and Stability in a Cryomilled Al-Ti Alloy*, Paper under revision.
- 3. B.S. Dehiya, "India's Water Scenario: Variables and Solutions", Proceedings of National Conference on Sustainable Development, DCR Chair, DCRUST, Murthal, Haryana.

LIST OF PUBLICATIONS OF DR. SURENDER DUHAN

Published Papers:

Paper presented in International/National Journals:

2015

 In-situ synthesis of SnO₂/SBA-15 hybrid nanocomposite as highly efficient humidity sensor, Vijay K. Tomer and S. Duhan, Sensors and Actuators B: Chemical, 212, (2015) 517,

Impact factor 4.2

2. Nano titania loaded mesoporous silica: preparation and application as high performance humidity sensor, Vijay K. Tomer and S. Duhan, Sensors and Actuators B: Chemical, 220, (2015) 192,

Impact factor 4.2

3. Highly sensitive and stable relative humidity sensors based on WO_3 modified mesoporous silica, Vijay K. Tomer and S. Duhan, Applied Physics Letters, 106 (2015) 063105

Impact Factor 3.7

4. Mn loaded mesoporous silica nanocomposite: a highly efficient humidity sensor, Vijay K. Tomer, S. Duhan, P.V. Adhyapak, I.S. Mulla, Journal of the American Ceramics Society, 98 (2015) 741 Impact factor 2.6

- Effect of in-situ loading of nano Titania particles on structural ordering of mesoporous SBA-15 framework, Vijay
 K. Tomer, S. Jangra, R. Malik, S. Duhan, Colloids and Surfaces A: Physicochemical and Engineering Aspects,
 Impact factor: 2.8
- **6.** "Surfactant assisted Hydrothermal Synthesis of porous 3-D hierarchical SnO2 Nanoflowers for photocatalytic degradation of Rose Bengal" Ritu Malik, Vijay K. Tomer, Pawan S. Rana, S.P. Nehra and Surender Duhan, Materials Letter, 154 (2015) 124

Impact factor: 2.5

- A novel highly sensitive humidity sensor based on ZnO/SBA-15 hybrid nanocomposite, Vijay K. Tomer, S.P. Nehra, S. Duhan, Journal of the American Ceramics Society, Accepted, (2015)
 Impact factor 2.6
- **8.** One pot synthesis of mesoporous ZnO-SiO₂ nanocomposite for room temperature relative humidity sensor, Vijay K. Tomer, S.P Nehra, S. Duhan, Colloids and Surfaces A: Physicochemical and Engineering Aspects, Accepted (2015)

Impact factor 2.8

- **9.** Effect of annealing temperature on the photocatalytic performance of SnO₂ nano- flowers towards degradation of Rhodamine B, Ritu Malik, Vijay K. Tomer, P. S. Rana, S.P. Nehra, S. Duhan, Advanced Science, Engineering and Medicine, 7 (2015) 448
- **10.** One-pot hydrothermal synthesis of porous SnO₂ nanostructures for photocatalytic degradation or organic pollutants, Ritu Malik, Vijay K. Tomer, P. S. Rana, S.P. Nehra, Surender Duhan, Energy and environment focus, 4 (2015) 340

2014

11. "Development and properties Study of microstructure Silver-doped Silica Nanocomposites by Chemical Process" **Surender Duhan,** Vijay K. Tomer, A.K.Sharma and B.S.Dehiya, J. Alloys & compounds, 583 (2014) 550

Impact Factor: 2.726

12. Humidity sensing properties of Ag-doped mesoporous silica SBA-15 nanocomposites prepared via hydrothermal process, Vijay K. Tomer, P.V. Adhyapak, **Surender Duhan**, I.S. Mulla, Microporous and Mesoporous 197, (2014) 140-147

Impact factor: 3.5

13. One Pot Direct Synthesis of Mesoporous SnO₂/SBA-15 nanocomposite by Hydrothermal Method, Vijay K. Tomer, R.Malik, Suman Jangra and Surender Duhan, Materials Letter, 132, (2014) 228-230 Impact factor: 2.5

14. Biocompatible Smart Matrices Based on Poly (3, 4- ethylene dioxythiophene) - Poly (N-isopropyl acrylamide) Composite, A.K.Sharma, Yashpal Sharma, **Surender Duhan**, International Journal of Polymeric Materials and Polymeric Biomaterials, (In press-2014)

Impact factor: 2.78

2013

- **15.** Microstructure and Photo-catalytic Dye Degradation of Silver- Silica Nano-composites Synthesised by Sol-Gel Method "Surender Duhan, B.S.Dehiya and Vijay Tomer, Advanced Materials Letter 4(4), 2013, 317-322. Impact Factor: 1.4
- **16.** Growth of Silver Nanoparticles on silica Matrix: Study by X-ray photoelectron spectroscopy, X-ray diffraction and TEM "Surender Duhan", M.Singh Nano Science & Nanotechnology-An Indian Journal, 2013, 1, 9.
- **17.** Thermal and optical properties study of silver nanoparticles doped in silica film on glass substrate as a function of annealing behaviour "**Surender Duhan**, B.S.Dehiya, A.K.Sharma and Vijay Tomer", Journal of Integrated Science and Technology, 2013.

2012

- **18.** "Microstructure and surface morphology of nanocrystalline silver Silicates" **Surender Duhan**, Acta Physica Polinica A 121 (2012). Impact Factor:0.53
- **19.** "Development of silver -silica nanocomposite for Novel Humidity sensing application" **Surender Duhan,** Indian Journal of Applied Research Vol.1, Issue 5 (2012) 220.
- **20.** "Development of silver doped nanocomposite using solgel technique" Surender Duhan, Sunita Devi and M.Singh Nano Science & Nanotechnology-An Indian Journal 6 (3) 2012.
- **21.** "Formation and characterization of magnetite nanoparticles prepared by the co-precipitation method Surender Duhan, Sunita Devi and M.Singh, Materials Science-An Indian Journal 8 (8) 2012.
- **22.** Structural Study of Iron Oxide Nanoparticles Synthesis by Chemical Co-Precipitation Technique, **Surender Duhan** and B.S. Dehiya International Journal of Phys. Chem. and Mat. Sciences Vol. 1; No. 2: 2012.

2011

- **23.** "Preparation and Development of Silver-Silica Nanocomposites by Sol-Gel Protocol Method" Surender Duhan and Sunita Devi, International Journal of Basic and Applied, Research, Vol. 01 (2011) 5.
- **24.** "Optical Properties Study of Colloidal Silver Nanoparticles at Different AgNO₃ Concentration synthesis by Chemical Reduction Method" Surender Duhan, Nano Science & Nanotechnology: An Indian Journal 5(1), 2011, 28.
- **25.** "Annealing behavior of silver nanoclusters embedded in silica matrix by chemical process" Surender Duhan 'Purva Mimaansa: A Multi-disciplinary Research Journal'2(2011)23.

2010

- **26.** "Preparation and characterization of sol-gel derived silver-silica nanocomposites" **Surender Duhan**, N.Kishore, and P.Aghamkar, J.Alloys & coumpounds, **507** (2010) 101- 104 Impact Factor: 2.4
- 27. "Synthesis by wet chemical method and characterization of nanocrystalline Ag/SiO₂nanocomposites" Surender Duhan, Sunita Devi & Mahesh Srivastava Indian Journal of Pure and Applied Physics, 48 (2010) 271 Impact Factor: 0.854
- **28.** "Synthesis and structural characterization of Iron oxide-silica nanocomposites prepared by the solgel method." Sunita Devi and **Surender Duhan** Inernational J. Electronics Engg. 2 (2010) 89 Impact Factor: 0.5
- **29.** "Formation and structural characterization of nanocrystalline neodymium silicates prepared by the solgel process" Sunita Devi, Sunil Kumar, **Surender Duhan** Inernational J. Electronics Engg.2 (1) (2010) 205 Impact Factor: 0.5

- **30.** "Synthesis of composite based on nano sized silver particles hosted on silica networks" **Surender Duhan**, Sunita Devi ,Sunil Kumar Inernational J. Electronics Engg. 2 (1) (2010) 225 Impact Factor: 0.5
- **31.** "Steady-state and transient Raman gain in magnetoactive narrow band-gap semiconductors" M. Singh, S.Redhu, **S. Duhan**, R.S.Pandey, Optics & Laser Technology, 202 (2010) 42. Impact Factor: 1.365

2009

- **32.** "Effect of growth temperature on the structural of Nd-doped silica prepared by the chemical method" P.Aghamkar, **S.Duhan**, N.Kishore and Bhajan Lal, Material Chemistry and Physics vol.114 (2009)103-106 Impact Factor: 2.072
- **33.** "Influence of temperature and time on Nd doped silica powder prepared by the solgel process". **S. Duhan,** P. Aghamkar and Bhajan Lal. J.Alloys & coumpounds, 474 (2009) 301. Impact Factor: 2.4
- 34. "Synthesis by Wet Chemical Method and Characterization of Nanocrystalline Nd Doped in silica host matrix "
 Surender Duhan, Sunita Devi and M. Singh, J.Rare earth 27 (2009) 83. Impact Factor: 1.363
- **35.** "Interfacial reactions and cubic neodymium oxide formation in low dispersed Nd₂O₃ SiO₂ system by Wet Chemical Method" S.Duhan and P.Aghamkar, Chinese physics Letter, 26 (2009) 016106 Impact Factor: 0.811
- **36.** "Structural Evolution of Nanocrystalline Nd₂O₃ supported on silica: Effect of Sintering Time" **Surender Duhan**, J.Alloys & coumpounds, 478 (2009) 777 Impact Factor: 2.4
- **37.** "Effect of Sintering Time on Particle Size of Rare Earth Compounds (R = Nd) Prepared by Wet Chemical Method" **Surender Duhan**, Indian Journal of Pure and Applied Physics, Vol 47 (2009) 872. Impact Factor: 0.854
- **38.** "Dielectric properties and conductivity enhancement on heat treatment of bismuth silicate glasses containing TiO₂" **S. Duhan** et al, Physica B Condensed Matter, 404 (2009) 1648 Impact Factor: 1.135

2008

- **39.** "Effect of thermal annealing on Nd₂O₃ -doped silica powder prepared by the solgel process" P. Aghamkar, S. **Duhan**, M. Singh, N. Kishore and P.K. Sen, Journal of Sol-Gel Science & Technology 46(2008)17 Impact Factor: 1.660
- **40.** "Influence of temperature and time on Nd₂O₃–SiO₂ composite prepared by the solgel process", **S. Duhan** and P. Aghamkar, Acta Physica Polinica A Vol.113 (2008) 1671 Impact Factor: 0.53
- **41.** "Synthesis and characterization of neodymium oxide in silica matrix by Solgel protocol Method" S. Duhan P. Aghamkar and M. Singh ,Physics Research International (2008) 237023, 2008.
- **42.** "Enhancement of Second- and Third-Order Nonlinear Optical Susceptibilities in Magnetized Semiconductors" M.Singh, P.Aghamkar and S.Duhan Chinese physics letter, 25 (2008) 3276 Impact Factor: 0.811
- **43.** "Nonlinear optical parameters of magnetoactive semiconductor-plasmas" M. Singh, D. Joseph and **S. Duhan**, International Journal of Modern Physics B Vol. 22, No. 22 (2008) 3877-3887, **2007** Impact Factor: 0. 4
- **44.** "Nonlinear optical parameters of Raman scattered mode in weakly polar magnetized semiconductor-plasma" M Singh, P Aghamkar & **S. Duhan,** Indian Journal of Pure and Applied Physics. 45 (2007) 893-899. Impact Factor: 0.854
- **45.** "Steady-state and transient Brillouin gain in magnetoactive narrow gap semiconductors", Semi. Sc. & Tech., P.Aghamkar, M. Singh, N. Kishore, **S. Duhan** and P.K. Sen, 22 (2007) 1 Impact Factor: 1.921

Paper presented/submitted in Conferences:

- 1. "Solgel synthesis of Neodymium doped silica nanoclusters", S. Duhan, P. Aghamkar, N. Kishore, M. Singh, D. Sharma, M. Sapra and S. Rohilla, *Photonics* 2006, Hyderabad, Dec. 2006.
- 2. "Synthesis and Characterization of Nd₂O₃/ SiO₂ Nanocomposites", **S. Duhan**, P. Aghamkar, **M. Singh** and N. Kishore, *51*th *DAE Solid State Symposium*, Barkahtullah University Bhopal, Dec. 2006.
- 3. "Synthesis and Characterization of AgNO₃ Nanocomposites" **S. Duhan**, M. Singh and P. Aghamkar, 2nd National Conference on Condensed Matter and Material Physics, Jaipur.

- 4. "Neodymium Ion Dopant Effects on the Phase Transformation in Sol-gel Derived Silica Nanostructures", S. **Duhan**, M. Singh and P. Aghamkar, *MNNA-2006*, Delhi Univ., Delhi.
- "Embedded of Neodymium Oxide Nanoclusters in Silica", S. Duhan, P. Aghamkar, M. Singh and N. Kishore, ICONO/LAT-2007, Vol.6732, Proceedings of SPIE, 0277-786X, v. 6732 Minsk, Belarus, ISSN 0277-786X, ISBN 9780819468901 Published by, P.O. Box 10, Bellingham, Washington 98227-0010 USA
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