

**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)
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. (Impact Factor: 0.423)
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      (Impact Factor : 1.5)
17. **Trace determination of copper in foodstuffs and biological samples.**  
*Analytical Letters*,42(10), April 2009, 1527- 1538      (Impact Factor : 1.030)
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)
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*  
(Impact Factor : 0.355)
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*  
(Impact Factor : 0.355)
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 4<sup>th</sup> 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 9<sup>th</sup> 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 4<sup>th</sup> National Seminar on Chemistry: An Interdisciplinary Science-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.
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**LIST OF ACADEMIC ACHIEVEMENTS OF Dr. B.S. DEHIYA (2008 onwards)**

**Paper published in International/National Journals:**

**2014**

1. "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. Impact 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-convenor, 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**” – 1<sup>st</sup> 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**” – 1<sup>st</sup> 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

1. In-situ synthesis of SnO<sub>2</sub>/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<sub>3</sub> 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
5. 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 SnO<sub>2</sub> 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
7. 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-SiO<sub>2</sub> 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 SnO<sub>2</sub> 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 SnO<sub>2</sub> nanostructures for photocatalytic degradation of 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 SnO<sub>2</sub>/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 Polonica 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 AgNO<sub>3</sub> 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 & compounds, **507** (2010) 101- 104 Impact Factor: 2.4
27. "Synthesis by wet chemical method and characterization of nanocrystalline Ag/SiO<sub>2</sub>nanocomposites" **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** International 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** International 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 International 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.Duham**, 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 & compounds, 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 Nd<sub>2</sub>O<sub>3</sub> / SiO<sub>2</sub> system by Wet Chemical Method" S.Duham and P.Aghamkar, Chinese physics Letter, 26 (2009) 016106 Impact Factor: 0.811
36. "Structural Evolution of Nanocrystalline Nd<sub>2</sub>O<sub>3</sub> supported on silica: Effect of Sintering Time" **Surender Duhan**, J.Alloys & compounds, 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 TiO<sub>2</sub>" **S. Duhan** et al, Physica B Condensed Matter, 404 (2009) 1648 Impact Factor: 1.135

#### 2008

39. "Effect of thermal annealing on Nd<sub>2</sub>O<sub>3</sub> -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 Nd<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> composite prepared by the solgel process", **S. Duhan** and P. Aghamkar, Acta Physica Polonica 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.Duham 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.
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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.
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13. Surender Duhan and Vijay Tomer, NCFM to held on 24-25, Sept.,-2012 G.V.M College (India).
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1. S. Duhan and Vijay K. Tomer, Chapter 7<sup>th</sup>: *Advance Electronics: Looking Beyond Silicon*, in: A. Tiwari, S. Valyukh (Eds), *Advanced Energy Materials*, Wiley-Scrivener Publishing, U.S.A, 2014, pp 295-326. ISBN: 9781118686294
2. S. Duhan and Vijay K. Tomer, Chapter 6<sup>th</sup>: *Mesoporous Silica: Making "Sense" of Sensors*, in: A. Tiwari, M.M. Demir (Eds), *Advanced Sensor and Detection Materials*, Wiley-Scrivener Publishing, U.S.A, 2014, pp 149-192. ISBN: 9781118773482
3. S. Duhan and Vijay K. Tomer, Chapter 11<sup>th</sup>: *Mesoporous Materials & Their nanocomposites*" in: P.M. Visakh, A. Hajipour (Eds), *Nanomaterials and Nanocomposites*, Wiley-VCH Verlag, Germany.
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