

Summary of Research Contributions

Patents Granted	1
Patents Published (US-Two, Japanese-One)	3
Patent Filed with USPTO	1
Books Edited	1
Chapter in Handbook of Electroluminescent Materials	1
PhD Thesis Supervised	1
Papers published in various SCI Journals	50
Papers published in Virtual Journals	4
Proceedings of various National & International Conferences	66
Accepted papers in International Journal	1
Communicated papers in International Journals	3
Technical Reports submitted for Defence Research Development Organization (DRDO), India	2
General Articles (Scientific)	3

Research Publications of Dr. D. Haranath

(I) Patents Granted:

“Process for Preparation of Long Decay Luminescent Powder”

V. Shanker, H. Chander, D. Haranath, P. K. Ghosh

Indian Patent No. 225682 dated 20-11-2008

(II) Patents Published:

(i) *“Process for Preparing of Nanowires of Metal Oxides with Dopants in Lower Valence State”*

H. Chander, V. Shanker, D. Haranath, P. Sharma

US Patent No. US20090123355A1

(ii) *“Long Decay Luminescent Powder and Process for Preparation Thereof”* V. Shanker, H. Chander, D. Haranath, P. K. Ghosh

US Patent No. US20030183807A1

(iii) *“Luminescent Powder Having Long Decay Time and Method of Producing the Same”*

V. Shanker, H. Chander, D. Haranath, P. K. Ghosh

Japanese Patent No. JP2003292951

(III) Patents Filed:

(i) *“Quantum Confined Atom (QCA) based Nanomagnets”*

R. N. Bhargava, D. Haranath, A. Mehta

US Patent filed on Feb 12, 2007

(IV) Chapter in Handbook

“Electroluminescence – An Introduction”

D. Haranath, Virendra Shanker, D. R. Vij

In “The Handbook of Electroluminescent Materials”, edited by Prof. D. R. Vij, published by the Institute of Physics Publishing, U. K. (Feb, 2004) pp 1-23.

(V) Books Edited:

Edited the proceedings of International Conference on “Luminescence and its Applications” Vol. XVIII, by K. V. R. Murthy, V. Natarajan, M. D. Sastry, H. Chander, S. Chawla, D. Haranath, B. K. Gupta

(VI) Research Articles

(i) ***“Aerogel – The Lightest Solid Known”***

D. Haranath

Resonance – The Journal of Science Education, Indian Institute of Sciences, Bangalore, India, No. 11, Vol. 1, Nov. (Issue), 1996.

(ii) **“*Tuning of Emission Colors in Zinc Oxide Quantum Dots*”**

D. Haranath, Sonal Sahai, Prachi Joshi

Published in Technology Update section by <http://nanotechweb.org>, a Nanotechnology Community website from Institute of Physics (IoP) Publishing, UK. Full story of the article is available at <http://nanotechweb.org/cws/article/tech/35724>.

Also this paper was highlighted as “Research News in Applied Physics” by <http://www.verticalnews.com/article.php?articleID=772852>.

(iii) **“*Technological Development of Luminescent Materials and Devices*”**

Harish Chander, Virendra Shankar, D. Haranath

Indian Electrical and Electronics Manufactures Association (IEEMA) Journal (2007) 117-122

(V) **Technical Reports**

1. **“*Transfer of Technology Document for the Development of Luminescent Materials and Devices*”**

Harish Chander and D. Haranath

Submitted to Defence Laboratory (DRDO), Jodhpur, June-2004

2. **“*Development of Luminescent Screens*”**

Virendra Shanker, Harish Chander and D. Haranath

Submitted to Defence Laboratory (DRDO), Jodhpur, 2002

3. **“*Pre-feasibility Report on Long Decay Phosphor Developed at NPL, New Delhi*”**

Virendra Shanker, Harish Chander and D. Haranath

Submitted to National Research Development Corporation (NRDC), New Delhi, during May -2009

(VI) **Doctorial Thesis Supervision:**

“*Synthesis of Alkaline Earth Aluminate Phosphors by Various Routes and Study of Their Luminescence Characteristics*” by Ms. Pooja Sharma.

Awarded the PhD degree on 30 Jan., 2006 from Jamia Milia Islamia, New Delhi and currently working as Scientist ‘B’ at NEIST – Jorhat, Assam, since 2006. (On behalf of Dr. V. Shanker, PhD work supervision was done by me.)

(VII) **Evaluation of Doctorial Thesis:**

1. “Studies on Photostimulated Luminescent Storage Phosphors Based on Potassium and Rubidium Halides Doped with Eu^{2+} and Tl^+ Activator Ions” (April-2008)

By R. Sudarkodi @ Mohana, Supervisor: Dr. S. Nagarajan, Asst. Prof. of Physics Department of Physics, Pondicherry Engineering College, Puducherry – 605 014

2. “Studies on Preparation and (Photo)Electrochemical Characterization of Spray Deposited CdInS_4 Thin Films and Their use in Storage Cells” (Jan. – 2009)

By R. R. Sawant, Supervisor: Prof. C. H. Bhosale, Prof in Physics Department of Physics, Shivaji University, Kolhapur – 416 004, Maharashtra

(VIII) Papers Published in National/International Journals :

1. "Investigations of Quantum Confinement Effects in ZnO Quantum Dots"
D. Haranath, Sonal Sahai, Amish G. Joshi, Bipin K. Gupta and V. Shanker
Journal: Nanotechnology (IOP) (Accepted 04 Sept 2009)
2. "Photoluminescence and Electron Paramagnetic Resonance Studies of Springlike Carbon Nanofibers"
Bipin K. Gupta, V. Shanker, Manju Arora, D. Haranath
Journal: Applied Physics Letters (AIP), 95 (2009) 073115.
3. "Photoluminescence and Electron Paramagnetic Resonance Studies of Springlike Carbon Nanofibers"
Bipin K. Gupta, V. Shanker, Manju Arora, D. Haranath
Virtual Journal of Nanoscale Science & Technology (AIP), Sept. 07, 2009 issue.
Also available online at <http://www.vjnano.org>
4. "Large-Scale Synthesis, Characterization and Photoluminescence Properties of Amorphous Silica Nanowires by Thermal Evaporation of Silicon Monoxide"
Sanjay K. Srivastava, P. K. Singh, V. N. Singh, K. N. Sood, D. Haranath, Vikram Kumar
Journal: Physica E (Elsevier), 41 (2009) 1545.
5. "Development of Plasma Display Panel Phosphors at National Physical Laboratory, New Delhi"
R. S. Yadav, A. F. Khan, Harish Chander, D. Haranath, Ashish Yadav, A. K. Sharma and Santa Chawla
Journal: Indian Journal of Pure and Applied Physics, 47 (2009) 399.
6. "Swift Heavy Ion Induced Thermoluminescence Studies in Polycrystalline Aluminum Oxide"
K. R. Nagabhushana, B. N. Lakshminarasappa, D. Revannasiddaiah, D. Haranath and Fouran Singh
Journal: Indian Journal of Engineering and Materials Science, 16 (2009) 161.
7. "Controlled Surface Distribution and Luminescence of $YVO_4:Eu^{3+}$ Nanophosphor Layers"
A. F. Khan, D. Haranath, Ravishanker Yadav, Sukhvir Singh, S. Chawla, and V. Dutta
Journal: Applied Physics Letters (AIP) 93 (2008) 073103
8. "Tuning of Emission Colors in Zinc Oxide Quantum Dots"
D. Haranath, Sonal Sahai, Prachi Joshi
Journal: Applied Physics Letters (AIP) 92, (2008) 233113
9. "Gallium Doping in Transparent Conductive ZnO Thin Films Prepared by Spray Pyrolysis"
A.R. Babar, P.R. Deshamukh, R.J. Deokate, D. Haranath, C.H. Bhosale, K.Y. Rajpure
Journal of Physics D: Applied Physics 41 (2008) 135404

10. "Tuning of Emission Colors in Zinc Oxide Quantum Dots"
D. Haranath, Sonal Sahai, Prachi Joshi
Virtual Journal of Nanoscale Science & Technology (AIP), – June 23, 2008 Issue,
available online at <http://www.vjnano.org>
11. "Green Chemistry – Mediated Synthesis of Nanostructures of Long Persistent Phosphors"
Pooja Sharma, D. Haranath, Harish Chander
Journal: Applied Surface Science (Elsevier) 254 (2008) 4052
12. "Structure and Luminescence of (Zn,Mg)O:Zn²⁺ Nanophosphor Films"
D. Haranath, Harish Chander, K Jayanthi
Journal: Materials Letters (Elsevier) Vol.62, Issue 3, Feb (2008) 374
13. "Synthesis and Improved Photoluminescence of Eu:ZnO Phosphor"
R. Krishna, D. Haranath, S.P. Singh, Harish Chander, A.C. Pandey, D. Kanjilal
Journal: Journal of Material Science (Springer), Vol 42, No.24, Dec (2007) 10047
14. "Synthesis and Optical Properties of ZnO/MgO Nanocomposite"
Santa Chawla, K. Jayanthi, Harish Chander, D. Haranath, S. K. Halder, M. Kar
Journal of Alloys and Compounds 459 (2008) 457
15. "Structural, Optical and Photoluminescence Properties of ZnS:Cu Nanoparticle Thin Films as a Function of Dopant Concentration and Quantum Confinement Effect"
K. Jayanthi, S. Chawla, H. Chander and D. Haranath
Journal: Crystal Research and Technology, No. 10, 42 (2007) 976-982
16. "Swift Heavy Ion Induced Photoluminescence Studies in Aluminium Oxide"
K. R. Nagabhushana, B. N. Lakshmi Narasappa, G. T. Chandrappa, D. Haranath, Fouran Singh
Journal: Radiation Effects and Defects in Solids, No. 5, 162 (2007) 325-332.
17. "Nano-structured ZnO films by Sol-gel Process"
H. Bahadur, A. K. Srivastava, D. Haranath, H. Chander, A. Basu, S.B. Samanta, K. N. Sood, S. Chandra
Journal: Indian Journal of Pure and Applied Physics, No.4, Vol. 45 (2007) 395
18. "Bright Red Luminescence and Energy Transfer of Pr³⁺-doped (Ca,Zn)TiO₃ Phosphor for Long Decay Applications"
D. Haranath, A F Khan and Harish Chander
Journal: Journal of Physics D: Applied Physics, 39 (2006) 4956-4960
19. "Enhanced Luminescence of Y₃Al₅O₁₂:Ce³⁺ Nanophosphor for White Light Emitting Diodes"
D. Haranath, Harish Chander, Pooja Sharma and Sukhvir Singh
Virtual Journal of Nanoscale Science & Technology (AIP), – Nov. 6, 2006 Issue, 89 (2006) 173118, available online at <http://www.vjnano.org>.

20. "Enhanced Luminescence of $Y_3Al_5O_{12}:Ce^{3+}$ Nanophosphor for White Light Emitting Diodes"
D. Haranath, Harish Chander, Pooja Sharma and Sukhvir Singh
Journal: Applied Physics Letters 89, 173118 (2006)
21. "Luminescence Enhancement of $(Ca,Zn)TiO_3:Pr^{3+}$ Phosphor using Nanosized Silica Powder"
D. Haranath, A.F. Khan and Harish Chander
Journal: Applied Physics Letters 89, 091903 (2006)
22. "Technological Development of Luminescent Materials and Devices"
Harish Chander, Virendra Shankar, D. Haranath
Journal: Indian Electrical and Electronics Manufactures Association (IEEMA) Journal (2007) 117-122
23. "Role of Boric Acid in Synthesis and Tailoring the Properties of Calcium Aluminate Phosphor"
D. Haranath, Pooja Sharma, Harish Chander, Nitesh Bhalla, Anwar Ali, and S. K. Halder
Journal: Materials Chemistry and Physics (Elsevier), 101, 163-169 (2006)
24. "Surface Distribution and Photoluminescent Characteristics of Silica Capped ZnS:Mn Nanophosphor Layers"
D. Haranath, Harish Chander, Nitesh Bhalla, Pooja Sharma, K. N. Sood
Virtual Journal of Nanoscale Science & Technology – May 23, 2005 (AIP), Issue 20, 11 (2005) 201904, available online at <http://www.vjnano.org>.
25. "Surface Distribution and Photoluminescent Characteristics of Silica Capped ZnS:Mn Nanophosphor Layers"
D. Haranath, Harish Chander, Nitesh Bhalla, Pooja Sharma, K. N. Sood
Journal: Applied Physics Letters (AIP), 86 (2005) 201904. [PDF](#)
26. "TOF-SIMS and Laser SNMS investigations of Doping Levels in Nanophosphors"
B. R. Chakraborty, D. Haranath, Harish Chander, S. Hellweg, S. Dambach and H. F. Arlinghaus
Journal: Nanotechnology (IOP), 16 (2005) 1006-1015. [PDF \(719 KB\)](#)
27. "Optimization of Boric Acid Content in Developing Efficient Blue Emitting, Long Persistent Phosphor"
D. Haranath, Pooja Sharma, Harish Chander
Journal of Physics D: Applied Physics (IOP), 38 (2005) 1-5. [PDF \(92.1 KB\)](#)
28. "Controlled Growth of ZnS:Mn Nanophosphor in Porous Silica Matrix"
D. Haranath, Nitesh Bhalla, Harish Chander, Rashmi, M. Kar and Ram Kishore
Virtual Journal of Nanoscale Science & Technology – Dec. 06, 2004 (AIP), Issue 23, 10 (2004) 6700-6705, available online at <http://www.vjnano.org>
29. "Controlled Growth of ZnS:Mn Nanophosphor in Porous Silica Matrix"
D. Haranath, Nitesh Bhalla, Harish Chander, Rashmi, M. Kar and Ram Kishore
Journal of Applied Physics (AIP), No. 11, 96 (2004) 6700-6705 [PDF](#)

30. "Synthesis of Nanocrystals of Long Persisting Phosphor by Modified Combustion Technique"
Harish Chander, [D. Haranath](#), Virendra Shanker, Pooja Sharma
Journal of Crystal Growth (Elsevier), Issue 1-2, [271](#) (2004) 307-312 
31. "Rashtriya Bhoutik Prayogshala mein Deeptisheel Padharthon va Upakaranon ka Swadeshi Vikas" (In Hindi)
Harish Chander, P. K. Ghosh, V. Shanker, [D. Haranath](#) and Pooja Sharma
Journal: Bharatiya Vaignanik Evam Audhyogik Anusandhan Patrika, No. 2, Issue 12 Dec. (2004) 213-216.
32. "Tuning of Emission colours in Strontium Aluminate Long Persisting Phosphor"
[D. Haranath](#), Virendra Shanker, Harish Chander, Pooja Sharma
Journal of Physics D: Applied Physics (IOP), [36](#) (2003) 2244. [Acrobat PDF \(373 KB\)](#)
33. "Characterization of ZnS:Cu, Br Electroluminescent Phosphor Prepared by New Route"
Harish Chander, Virendra Shanker, [D. Haranath](#), Suman Dudeja, Pooja Sharma
Journal : Materials Research Bulletin (Elsevier), [38](#) (2003) 279. [PDF \(140 K\)](#)
34. "Studies on the Decay Characteristics of Strontium Aluminate Phosphor on Thermal Treatment"
[D. Haranath](#), Virendra Shanker, Harish Chander, Pooja Sharma
Journal : Materials Chemistry and Physics (Elsevier), [78](#) (2002) 6. [PDF \(96 K\)](#)
35. "Synthesis of Hydrophobic Aerogels for Transparent Window Insulation Applications"
A. Venkateswara Rao, G. M. Pajonk, [D. Haranath](#)
Journal: Materials Science and Technology, UK, [17](#) (2001) 343.
36. "Effect of Methyltrimethoxysilane as a Synthesis Component on Hydrophobicity and Some Physical Properties of Silica Aerogels"
A. Venkateswara Rao, [D. Haranath](#)
Journal : Microporous and Mesoporous Materials, Germany, [30](#) (1999) 267. [PDF \(218 K\)](#)
37. "Comparison of Some Physical Properties of Silica Aerogel Monoliths Synthesized by Different Precursors"
P. B. Wagh, R. Begag, G. M. Pajonk, A. V. Rao, [D. Haranath](#)
Journal : Materials Chemistry and Physics (Elsevier), [2333](#) (1999) 1. [PDF \(636 K\)](#)
38. "Influence of DCCAs on Optical Transmittance and Porosity Properties of TMOS Silica Aerogels"
[D. Haranath](#), A. Venkateswara Rao, P. B. Wagh
Journal of Porous Materials, USA, [6](#) (1999) 55. 
39. "Effect of Tris(hydroxymethyl)aminomethane on Hydrophobicity of Silica Aerogels"
A. Venkateswara Rao, G. M. Pajonk, P. B. Wagh, [D. Haranath](#)
Journal: Materials Chemistry and Physics (Elsevier), [55](#) (1999) 5.

40. "Influence of Temperature on the Physical Properties of TEOS Silica Xerogels"
A. Venkateswara Rao, P. B. Wagh, [D. Haranath](#), P. P. Risbud, S. D. Kumbhare
Journal: Ceramics International, Italy, No. 6, 25 (1999) 505. [PDF \(172 K\)](#)
41. "Effect of Sol-Gel Processing Parameters on Optical Properties of Silica Aerogels"
A. Venkateswara Rao, G. M. Pajonk, [D. Haranath](#), P. B. Wagh
Journal: Materials Synthesis and Processing, No. 1, 6 (1998) 37. [PDF](#)
42. "Optimization of Supercritical Drying Parameters for Transparent Silica Aerogel Window Applications"
A. Venkateswara Rao, [D. Haranath](#), G. M. Pajonk, P. B. Wagh,
Journal: Materials Science and Technology, London, 14 (1998) 1194.
43. "Influence of Molar Ratios of Precursor, Solvent and Water on Physical Properties of Citric Acid Catalyzed TEOS Silica Aerogels"
P. B. Wagh, A. Venkateswara Rao, D. Haranath
Journal: Materials Chemistry and Physics (Elsevier), 53 (1998) 41. [PDF \(719 K\)](#)
44. "Effect of Precursor, Solvent and Water Molar Ratios on Surface Area and Porosity of Tetraethoxysilane Silica Aerogels"
A. Venkateswara Rao, P. B. Wagh, G. M. Pajonk, [D. Haranath](#),
Journal: Materials Science and Technology, London, 14 (1998) 236.
45. "Effect of Catalysts and Metal Dopants on Monolithicity and Physical Properties of TEOS Silica Aerogels"
G. M. Pajonk, A. Venkateswara Rao, P. B. Wagh, [D. Haranath](#)
Journal: Materials Synthesis and Processing, USA, No. 6, 5 (1997) 403.
46. "Influence of Catalyst (Citric Acid) Concentration on the Physical Properties of TEOS Silica Aerogels"
P. B. Wagh, A. Venkateswara Rao, [D. Haranath](#)
Journal of Porous Materials, USA, 4 (1997) 295. [PDF](#)
47. "Influence of Temperature on the Physical Properties of Citric Acid Catalyzed TEOS Silica Aerogels"
P. B. Wagh, [D. Haranath](#), A. Venkateswara Rao, G. M. Pajonk
Journal: Materials Chemistry and Physics (Elsevier), 50 (1997) 76. [PDF \(578 K\)](#)
48. "Effect of Glycerol on Monolithicity, Density, Microhardness and Sintering Temperature of TMOS Silica Aerogels"
A. Venkateswara Rao, G. M. Pajonk, [D. Haranath](#), P. B. Wagh
Journal of Microporous Materials, Germany, 12 (1997) 63. [PDF \(441 K\)](#)
49. "Influence of Sol-Gel Processing Parameters on the Ultrasonic Sound Velocities in Silica Aerogels"
[D. Haranath](#), P. B. Wagh, G. M. Pajonk, A. Venkateswara Rao
Journal: Materials Research Bulletin, USA, No. 8, 32 (1997) 1079. [PDF \(761 K\)](#)

50. "Effect of Sol-Gel Processing Parameters on Thermal Properties of Silica Aerogels"
D. Haranath, G. M. Pajonk, P. B. Wagh, A. Venkateswara Rao
Journal: Materials Chemistry and Physics (Elsevier), 49 (1997) 129. [PDF \(517 K\)](#)

(IX) Papers in the Conference Proceedings:

1. "Spectrum Modification by Rare-Earth Doped High Efficiency Nanophosphor for Solar Cell Applications"
A. F. Khan, D. Haranath, R. S. Yadav, V. Dutta and S. Chawla
18th International Photovoltaic Science and Engineering Conference (PVSEC-2009) held at Kolkata during Jan. 19-23, 2009.
2. "Multifunctional Fluorescent Magnetic Nanoparticles for Bio-related Applications"
(Invited Talk)
D. Haranath and Virendra Shanker
National Conference on Recent Advances in Nanoscience and Nanotechnology (NCRANT-2008), held at Shri Shankaracharya College of Engineering and Technology, Bhilai during Jan. 12-13, 2009
3. "Development of Nanophosphors for Plasma Display Panels"
R. S. Yadav, A. Yadav, A. F. Khan, H. Chander, D. Haranath, V. Shanker and S. Chawla
International Conference on Frontiers in Nanoscience and Technology (Nano-2009) held at Cochin University of Science and Technology, Cochin, during Jan. 3-6, 2009.
4. "Luminescence Measurements" **(Invited Talk)**
D. Haranath
CSIR program on Youth Leadership in Science (CPYLS-2008) held at National Physical Laboratory, New Delhi, during Nov. 25-26, 2008.
5. "Synthesis of Intense Red-Emitting Nanophosphor by Modified Co-precipitation Technique"
D. Haranath, A. F. Khan, R. S. Yadav, V. Dutta, S. Chawla and V. Shanker
Fourteenth APAM Conference on State of Materials Research and New Trends in Materials Science (APAM-2008), ILTP Workshop on Problems of Nanoscience and Technology held at National Physical Laboratory, New Delhi, during Nov. 18-20, 2008
6. "Stable Aqueous Dispersion of ZnO Nanocrystals with Strong Green Emission"
(Invited Talk)
Sonal Sahai, Prachi Joshi, D. Haranath and Virendra Shanker
Fourteenth APAM Conference on State of Materials Research and New Trends in Materials Science (APAM-2008), ILTP Workshop on Problems of Nanoscience and Technology held at National Physical Laboratory, New Delhi, during Nov. 18-20, 2008
7. "Futuristic Applications of $Y_2O_3:Eu^{3+}$ Nanophosphors to Enhance the Efficiency of Photovoltaic Cell"
Shikha Saini, B. K. Gupta, D. Haranath, S. Chawla, H. Chander, V. Shanker
Fourteenth APAM Conference on State of Materials Research and New Trends in Materials Science (APAM-2008), ILTP Workshop on Problems of Nanoscience and Technology held at National Physical Laboratory, New Delhi, during Nov. 18-20, 2008

8. "Fluorescent and Magnetic Nanoparticles and Their Applications" (*Invited Talk*)
D. Haranath and Virendra Shanker
National Seminar on Display Phosphors and Applications (NSDPA-2008) held at Saveetha Engineering College, Chennai during Nov. 10-11, 2008
9. *राष्ट्रीय भौतिक प्रयोगशाला निमित्ताली परियोजना के तहत उद्योग जगत लिए महत्वपूर्ण प्लाज्मा प्रदर्श संदिसिशील पदार्थों का विकास*
रविशंकर, ए एफ खान, बी के गुप्ता, डी हरनाथ, शांता चावला, हरीश चंद्र, वीरेन्द्र शंकर
राष्ट्रीय संगोष्ठी पदार्थ विज्ञान-अनुसंधान और अनुप्रयोग, राष्ट्रीय भौतिक प्रयोगशाला, ४-५ सितम्बर, 2008
10. "Problems related to Phosphors for Plasma Display Panels and Studies for the Improved Phosphors"
H. Chander, S. Chawla, D. Haranath, A. F. Khan, R. S. Yadav
The 7th International Vacuum Electron Sources Conference (IVESC-2008) August 3-6, 2008
11. "Photoluminescence – Theory, Measurements and Applications" (*Invited Talk*)
D. Haranath
Workshop on Materials Characterization Techniques (WMCT-2008) held at National Physical Laboratory, New Delhi, during July 7-11, 2008
12. "Band gap Engineering and Doping of ZnO and ZnOS Nanocrystals" (*Invited Talk*)
D. Haranath, Adosh Mehta and R. N. Bhargava
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008
13. "Primary Color Emissions from Sulfide Based Quantum Confined Nanophosphors"
Sonal Sahai, D. Haranath, Prachi Joshi, Santa Chawla, Harish Chander and Bipin Kumar Gupta
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008
14. "Studies on Mesoporous SiO₂-ZnO Nanocomposite: A New Optical Material"
Prachi Joshi, Sonal Sahai, D. Haranath, Santa Chawla, Harish Chander and B. K. Gupta
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008
15. "Synthesis of YAG:Ce co-doped with Rare-Earth Ions using Different Fluxes for White LED Application"
Ashish Yadav, D. Haranath, and Santa Chawla
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008

16. "Development of Plasma Display Phosphors at National Physical Laboratory, New Delhi, India"
Harish Chander, Santa Chawla, D. Haranath, A.F. Khan and Ravi Yadav
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008
17. "Synthesis and Luminescence Properties of Silica Coated Red, Green, Blue (RGB) Phosphors Suitable for Plasma Display Panel Applications"
R.S. Yadav, A.F. Khan, Harish Chander, D. Haranath and Santa Chawla
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008
18. "Generation of White Light with YAG:Ce, Re Nanophosphor in Conjunction with Blue LED"
Tapashree Roy, Kanishka Majumdar, Ashish Yadav, D. Haranath and Santa Chawla
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008
19. "Optical Properties of Polyaniline doped with Different Concentrations of PTSA"
Manju Arora, S. K. Gupta, A. F. Khan, D. Haranath and Harish Chander
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008
20. "Swift Heavy Ion induced Thermoluminescence Studies in Polycrystalline Aluminum Oxide"
K. R. Nagabhushana, B. N. Lakshminarasappa, D. Revannasiddaiah, D. Haranath and Fouran Singh
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008
21. "Synthesis and Characterization of Eu³⁺ doped YVO₄ Phosphor Films for Solar Cell Applications"
A.F. Khan, V.Dutta, R.S. Yadav, D. Haranath, Harish Chander and Santa Chawla
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008
22. "Investigations on the Nanophosphor Cast from Natural Template: Tail of Peacock Feather"
Ashish Kumar Yadav, Bipin Kumar Gupta, D. Haranath, Santa Chawla, Harish Chander
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008
23. "Physicochemical and Optical Properties of Highly Textured Spray Deposited Ga doped ZnO Thin Films"
A R. Babar, P. R. Deshmukh, R. J. Deokate, C. H. Bhosale, D. Haranath, H.Bahadur, K. Y. Rajpure
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008

24. "Titanium Dioxide Thin Films Grown by Successive Ionic Layer Adsorption and Reaction (SILAR) Method"
U. M. Patil, K. V. Gurav, D. Haranath, H. Bahadur, and C. D. Lokhande
International Conference on Luminescence and its Applications (ICLA-2008) held at National Physical Laboratory, New Delhi, India from February 13-16, 2008
25. "Synthesis of Size Controlled ZnO" (**Best Poster Award**)
Prachi Joshi, Sonal Sahai, D. Haranath, Rachna Prasad, Seema Sood and S.P. Singh
International Conference on Nanomaterial Toxicology (ICONTOX – 2008) held at ITRC, Lucknow during 5-7 Feb., 2008
26. "Multicolour Emitting Ultrafine ZnO Nanophosphors for Display Applications"
Sonal Sahai, Prachi Joshi, D. Haranath, Santa Chawla and B. K. Gupta
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