

CURRICULUM VITAE (Amarjeet Kaur)

Name : Prof. Dr. AMARJEET KAUR
Date of birth : June 15, 1970
Qualifications : M.Sc. Physics (1992; Specialization : Electronics)
Department of Physics and Astrophysics, University of Delhi,
Ph.D. (1997) ; Department of Physics
and Astrophysics, University of Delhi & National Physical Laboratory, New Delhi

Ph.D. Thesis : Mechanism of Charge Transport in Polypyrrole, Poly
(N-methyl pyrrole) and Poly (N-methyl pyrrole-Pyrrole)

Patents : **Granted: 7 (Including one German & one U.S. Patent)** (Annexure I)

Research publications in : **83** (Annexure I)

International refereed journals

Employment : **Teaching and Research**

Present Post : Professor

Research Experience : 28years

Teaching Experience : 27years

Address of the Institution : Department of Physics and Astrophysics, University of Delhi,
Delhi 110007, India

Ph.D. Thesis supervision : 16 (11 awarded ; 05undergoing)

M.Phil. Thesis : 01(+other M.Sc. and M.Tech. Dissertations)

Research projects : 05 (External Funding Agencies) +08(Annual R & D grant of DU)

Research Work includes

- Fabrication and study of light emitting devices based on conducting polymers (Research pursued in University of Massachusetts, UMass, Lowell, USA)
- Synthesis of materials and fabrication of flexible electrochromic windows for smart building applications
- Design of nanostructured conducting polymers, graphitic materials, composites, etc ., for gas sensing applications
- Fabrication and characterization of Schottky junctions on conducting polymers..
- Study of charge transport in manganite thin films.
- Biomedical applications of conducting polymers.
- Study of effect of Swift heavy ions on charge transport properties of conducting polymers.
- Synthesis, fabrication and study of charge transport in organic solar cells applications.
- Synthesis, characterization and study of charge transport in different polymeric systems.

Recent research interest

- Organic light emitting devices.
- Polymeric photovoltaic cells based on conjugated polymers which can provide a better alternative for developing low cost solar cells. (Organized Indo-German workshop on Advanced materials for Future Energy Requirements (WAMFER 2012))
- Organic Electrochromic windows
- Preparation and characterization of nanostructures of conducting polymers
- Gas sensing applications of conducting polymers (pursued some characterization with Kelvin Probe Force Microscopy, in collaboration with Max Planck Institute of Polymer Research, Germany)

Academic scholarships / Awards:

- Recipient of BOYCAST fellowship of Department of Science and Technology, New Delhi (pursued research in University of Massachusetts, USA in field of polymeric OLEDs , for six months in the year 2000).
- Awarded by the committee for the meetings of Nobel Laureates Lindau and Department of Science and Technology (DST), Govt. of India, to attend the *meeting with Nobel Laureates in Physics at Lindau, Germany in June 2001*. Attended same meeting on special invitation by Nobel Laureate Committee, in June2009
- Invited by Duetsche Forschungs gemeinschaft (DFG), Germany, to visit various premier research institutes in Germany in June2001.
- Recipient of the award of "VISITING ASSOCIATE of CSIR" by Council of Scientific and Industrial Research, New Delhi, India in 1998(1998-2003).
- Qualified UGC-CSIR joint entrance test(NET), held in December1991
- Award of Senior Research Fellowship (September1994)
- Award of Junior Research Fellowship (September1992)

AMARJEET KAUR

PATENTS

* **A PROCESS FOR THE PREPARATION OF CONDUCTING POLYMERIC MEMBRANE AND A CONDUCTING POLYMERIC MEMBRANE PREPARED THEREBY USEFUL AS A FILTER FOR CAPTURING VIRUSES IN POTABLE LIQUIDS,**

R. Singh, S. Chandra, H. Singh, **Amarjeet K. Narula** and S. Broor,
Indian Patent No.: **215049** granted on February 20,2008

* **A CONDUCTING POLYMER MEMBRANE AND A PROCESS FOR THE PREPARATION OF THE SAME MEMBRANE,**

R. Singh, S. Chandra, H. Singh, **Amarjeet K. Narula** and S. Broor,

1. **RomaniapatentNo. : 120690 dated September 28,2007**
2. **Germany Patent No. 19914200 dated May18,2006**
3. **United States Patent, No.6,156,202, dated Dec. 5, 2000.**
4. **Pakistan Patent, No.1,36,850, dated April 27, 2002.**
5. **Bangladesh Patent No. BD10032/6dated July 25,2001.**
6. **Malaysia Patent No. 116022 dated October 31,2003.**

Research Publications in Refereed Journals

84. Low Frequency AC Conduction and Dielectric Spectroscopy Investigations on Graphene Oxide Using Dielectric Modulus Approach

Ramesh Kumar and Amarjeet Kaur , *Diamond and Related Materials* (2021) under revision.

83. One-pot wet chemical synthesis of reduced graphene oxide-zinc oxide nanocomposites for fast and selective ammonia sensing at room temperature

Sitakshi Gupta, C. Ravikant and Amarjeet Kaur, *Sensors and Actuators A* (2021) In Press

82. Highly efficient dark to transparent electrochromic electrode with charge storing ability based on polyaniline and functionalized nickel oxide composite linked through a binding agent Monika Jamdegni and Amarjeet Kaur, *Electrochimica Acta* 331(2020) 135359.

Impact Factor- 6.21

81. Role of polarity of surfactants on the morphology of electrochemically synthesized polyaniline nanostructures: Towards faster and efficient electrochromic response

Monika Jamdegni and Amarjeet Kaur, *Thin solid films* 714 (2020) 138373 (1-14). *Impact Factor-* 2.03

80. Chemiresistive gas sensors based on thermally reduced graphene oxide for sensing sulphur dioxide at room temperature

Ramesh Kumar and Amarjeet Kaur

Diamond and Related Materials 109 (2020), 108039 (1-7)(*Impact Factor-* 2.340)

79. Electrochromic behavior of highly stable, flexible electrochromic electrode based on covalently bonded polyaniline-graphene quantum dot composite

Monika Jamdegni and Amarjeet Kaur, *J. Electrochem. Soc.* 12 (2019)H502-H509.

Impact Factor- 3.72

78. Study of polyaniline and functionalized ZnO composite film linked through a binding agent for efficient and stable electrochromic applications

Monika Jamdegni, Sandeep Kaur and Amarjeet Kaur, *Electrochimica Acta* 252 (2017) 578–58.

Impact Factor- 6.21

77. Highly stable surfactant assisted polyaniline nanostructures with enhanced electroactivity Monika Jamdegni and Amarjeet Kaur , *AIP Conf. Proc.* 1728 (2016) 020418-1-5.

76. Fabrication of chemiresistive gas sensors based on multistep reduced graphene oxide for low parts per million monitoring of sulfur dioxide at room temperature

Ramesh Kumar, D.K. Avasthi, Amarjeet Kaur, *Sensors and Actuators B* 242 461–468 (2017)

ISSN 0925-4005 *Impact Factor* 7.100

75. Flexible Room Temperature Ammonia Sensor Based on Highly Transparent and Conducting Polyaniline

Lalit Kumar, Ishpal, Amarjeet Kaur S. Annapoorni, *Sensors and Actuators B* 240 408–

416(2017) ISSN 0925-4005, *Impact Factor* 7.100

74. **Surfactant assisted polyaniline nanofibres—Reduced graphene oxide (SPG) composite as electrode material for supercapacitors with high rate performance**
Deepika Jain, S.A Hashmi, Amarjeet Kaur, *Electrochim. Acta* **222** 570–579 (2016) ISSN 0013-4686 *Impact Factor* 6.21

73. **Effect of charge carrier transport on sulfur dioxide monitoring performance of highly porous polyaniline nanofibres**
Vishal Chaudhary, HK Singh and Amarjeet Kaur, *Polym. Int.* online Dec2016 DOI 10.1002/pi.5311 ISSN 0959-8103, *Impact Factor* 2.574

72. **Surfactant directed polyaniline nanostructures for high performance sulphur dioxide chemiresistors:effect of morphologies, chemical structure and porosity**
Vishal Chaudhary, Amarjeet Kaur *RSC Advances* 2016, 6, 95349 (2016) ISSN 2046-2069 *Impact Factor* 3.289

71. **Charge transport mechanism of thermally reduced graphene oxide and their fabrication for high performance shield against electromagnetic pollution**
Ramesh Kumar, S.K. Dhawan, H.K. Singh Amarjeet Kaur, *Mater. Chem. and Phys.* **180**, 413-421 (2016) ISSN 0254-0584 *Impact Factor* 2.101

70. **Enhanced and selective ammonia sensing of reduced graphene oxide based chemoresistive sensor at room temperature**

Ramesh Kumar and Amarjeet Kaur
AIP Conference Proceedings **1728**, 020156:1-4 (2016); doi: 10.1063/1.494620770

69. **Highly Stable Surfactant Assisted Polyaniline Nanostructures With Enhanced Electroactivity**
Monika Jamdegni and Amarjeet Kaur *AIP Conference Proceedings* **1728**, 020418:1-5 (2016); doi: 10.1063/1.4946469

68. **Sensing of Ammonia at Room Temperature by Polypyrrole-Tin Oxide Nanostructures: Investigation by Kelvin Probe ForceMicroscopy**
Amarjeet Kaur and Ramesh Kumar *Sensors and Actuators A* **245** (2016) 113–118 *Impact Factor* 2.904

67. **Enhanced room temperature sulphur dioxide sensing behaviour of in-situ polymerized polyaniline-tungsten oxide nanocomposite possessing honeycomb morphology, Vishal Chaudhary, Amarjeet Kaur *RSC Advances* *RSC Adv.*, **5**, 73535-73544(2015) *Impact Factor* 3.070**

66. **Solitary surfactant assisted morphology dependent chemiresistive polyaniline sensors for room temperature monitoring of low ppm sulphurdioxide,**

Vishal Chaudhary, Amarjeet Kaur *Polymer International*, **64**, 1475–1481 (2015) *Impact Factor 2.574*

65. Charge transport mechanism of hydrazine hydrate reduced graphene oxide

Ramesh Kumar, Amarjeet Kaur *Instt. Engg. Techn. Circuit Devices and Systems IET Circuits, Devices & Systems*, Doi: 10.1049/iet-cds.2015.0034.

64 Enhanced and selective ammonia sensing behaviour of poly(aniline co-pyrrole) nanospheres chemically oxidative polymerized at low temperature

Vishal Chaudhary, Amarjeet Kaur *J. Industrial and Engg. Chem.* **26**, 143–148 (2015) *Impact Factor 5.278*

63. Low Frequency and Temperature Dependent Spectroscopic Studies of Polypyrrole Nanoparticles

Ishpal Rawal, Amarjeet Kaur, *Phil. Mag. B* **95**, 1399–1413 (2015) *Impact Factor 1.632*

62. Enhanced Photoelectrical Conductivity of Poly (3-Hexylthiophene) by Incorporation of ZnS Nanoparticles

Beerandra Singh, Amarjeet Kaur *Synth. Met. (Elsevier)* **195**, 306-311 (2014) *Impact Factor 3.286*

61. Microstructure, Magnetism And Magnetotransport of Epitaxial $\text{Sm}_{0.45}\text{Nd}_{0.08}\text{Sr}_{0.47}\text{MnO}_3$ Thin Films

M K Srivastava, Sandeep Singh, P K Siwach, K K Maurya, V P S Awana, Amarjeet Kaur and H K Singh *Mat. Res. Exp.* (IOP) **1**, 016110 (1-17)(2014)

60. Effect of Anionic Surfactant Concentration on the Variable range Hopping Conduction in Polypyrrole Nanoparticles

Ishpal Rawal, Amarjeet Kaur, *J. Appl. Phys.* AIP- 115, 043717 (1-6)(2014) *Impact Factor 2.2864*

59. Photoelectrical, Optical and Transport properties of Poly (3-Hexylthiophene) (P3HT) - Zinc Sulfide (ZnS) hybrid nanocomposites

Beerandra Singh, Amarjeet Kaur *J. Appl. Phys.* **116**, 063709 (1-7)(2014) *Impact Factor 2.286*

58. Vibration Spectroscopy for the Investigation of Ammonia gas sensing Mechanism in polypyrrolenanostructures

Ishpal Rawal, Kiran Sehrawat and Amarjeet Kaur, (*Vibrational Spectroscopy*)(Elsevier) 74,64–74, 2014

57. Synthesis of mesoporous polypyrrole nanowires / nanoparticles for ammonia gas sensing application

Ishpal Rawal, Amarjeet Kaur
Sensors and Actuators A 203, 92-102 (2013) (Elsevier) ISSN 0924-4247 Impact Factor 2.2904

56. Investigation of charge transport properties in conducting polyaniline and its copolymer with 3-aminobenzenesulfonic acid for their application as antistatic encapsulation material blended with LDPE

Amarjeet Kaur, Ritu Saharan, S.K. Dhawan
Polymer International (Wiley) DOI 10.1002/pi.4495 2013 ISSN 0959-8103

55. Spectroscopic and electrical sensing mechanism in oxidant mediated polypyrrolenano fibers/nanoparticles for ammonia gas

Ishpal and Amarjeet Kaur
J. Nanoparticle Research (Springer) 15, 1637 :1-14 (2013) ISSN 1388-0764. Impact Factor 2.132

54. Spectroscopic investigation of ammonia gas sensing mechanism in polypyrrolenano tubes/nanorods

Ishpal and Amarjeet Kaur
J. Appl. Phys. 113, 094504:1-11 (2013) ISSN 0021-8979.

53. Comparative Study of magnetic and magnetotransport properties of $\text{Sm}_{0.55}\text{Sr}_{0.45}\text{MnO}_3$

M.K. Srivastava, Sandeep Singh, P.K. Siach, Amarjeet Kaur, V.P.S. Awana, K.K. Maurya and H.K. Singh *AIP Advances* 3, 052118 :1-13 (2013) ISSN 2158-3226

52. Low frequency alternating current conduction and dielectric relaxation in polypyrrole irradiated with 100 MeV swift heavy ions of silver (Ag^{8+})

Amarjeet Kaur, Anju Dhillon, and D.K. Avasthi
Materials Chemistry and Physics (Elsevier B.V.) 140, 472-477 (2013) ISSN 0254-0584. Impact Factor 3.408

51. Impact of strain on metamagnetic transitions in $\text{Sm}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$ thin films

M. K. Srivastava, Amarjeet Kaur, K. K. Maurya, V. P. S. Awana, and H. K. Singh
Appl. Phys. Lett (AIP) 102, 032402 : 1-5 (2013) 52 ISSN 0003-6951. Impact Factor 3.397

50. Tuning of EMI shielding properties of polypyrrole nanoparticles with surfactant concentration

Amarjeet Kaur, Ishpal and S.K. Dhawan *Synth.Met.* (Elsevier) **162**, 1471- 1477 (2012)ISSN 0379-6779.

49 **First order phase transition in $\text{Sm}_{0.53}\text{Sr}_{0.47}\text{MnO}_3$**

M.K. Srivastava, M.P. Singh, **Amarjeet Kaur** and H.K. Singh

AIP Conf. Proc. **1447**, 125-126 (2012) ISSN 1551-7616

48. **Carrier Localization and out of plane anisotropic magnetoresistance in $\text{Nd}_{0.55-x}\text{Sm}_x\text{Sr}_{0.45}\text{MnO}_3$ thinfilms**

M.K. Srivastava, A. Kaur and H.K. Singh, *Appl. Phys. Lett.*(AIP) **100**, 222408 :1-4: (2012)

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47. **Impact of substrate on magnetic phase coexistence in bicritical $\text{Sm}_{0.53}\text{Sr}_{0.47}\text{MnO}_3$ thinfilms**

M.K. Srivastava ,M.P. Singh, P.K. Siwach, **Amarjeet Kaur**, F.S. Razavi& H.K. Singh

Solid State Commun. (Elsevier)**152** 138–141 (2012) ISSN 0038-1098

46. **Electrochemical and chemical investigations of the co-polymers of 3-aminobenzenesulfonic acid with aromatic amines for their application in electrochromic devices**

R.Saharan, **Amarjeet Kaur** and S. K. Dhawan

J. Appl. Electrochem.(Springer) **42**, 225- 32(2012) ISSN 0021-8979.

45. **Modifications induced in poly (3-hexylthiophene) due to swift heavy ion beam of 100MeV silver(Ag^{8+})**

Amarjeet Kaur, Anju Dhillon, G.B.V.S.Lakshmi, Y.K.Mishra, D.K.Avasthi *Materials Chemistry and Physics* (Elsevier B.V.) **131**. 436-442 (2011) ISSN0254-0584.

44. **Low field anisotropic colossal magnetoresistance in $\text{Sm}_{0.53}\text{Sr}_{0.47}\text{MnO}_3$ thinfilms**

M. K. Srivastava, M. P. Singh, **Amarjeet Kaur**, F. S. Razavi, and H. K. Singh

J. Appl. Phys. (USA) **110**, 123922-5 (2011) ISSN 0021-8979.

43. **Huge anisotropic magnetoresistance in epitaxial $\text{Sm}_{0.53}\text{Sr}_{0.47}\text{MnO}_3$ thinfilms**

M. K. Srivastava, **Amarjeet Kaur**, and H. K. Singh

AIP Conf. Proc. **1349**, 703-704 (2011); doi: 10.1063/1.3606052© 2011 ISSN 1551-7616

42. **Hole transport mechanism in organic/inorganic hybrid system based on in- situ grown CdTe nanocrystals in poly(3-hexylthiophene),**

MohdTaukeer Khan, **Amarjeet Kaur**, S. K. Dhawan and S. Chand,

J. Appl. Phys. (AIP) **109**, 114509 :1-5 (2011) ISSN 0021-8979.

41. **In-Situ growth of CdTe nanocrystals in P3HT matrix for photovoltaic application**

MohdTaukeer Khan, **Amarjeet Kaur**, S. K. Dhawan and S. Chand,

J. Appl. Phys.(AIP) **110**, 044509 :1-7 (2011). *Selected for Virtual Journal of Nanoscale Science & Technology Vol 24, Issue 11, (2011)* ISSN 0021-8979.

40. **Impact of Growth Conditions on the nature of magnetism and magnetotransport of $\text{Sm}_{0.55}\text{Sr}_{0.45}\text{MnO}_3$ thin film**
M. K. Srivastava, P. K. Siwach, **Amarjeet Kaur**, and H. K. Singh
IEEE Transaction on Magnetics **47** 2486-89 (2011) ISSN 0018-9464.
39. **Enhanced ferromagnetic and metal insulator transition in $\text{Sm}_{0.55}\text{Sr}_{0.45}\text{MnO}_3$ thin films: role of oxygen vacancy induced quenched disorder**
M. K. Srivastava, P. K. Siwach, **Amarjeet Kaur** and H. K. Singh,
Appl. Phys. Lett. (AIP) **97**, 182503-1-3 (2010) ISSN 0003-6951.
38. **Electrical and morphological properties of poly(3-hexylthiophene) irradiated with 100 MeV silver ions**
Anju Dhillon, **Amarjeet Kaur**, D.K. Avasthi
Thin Solid Films (Elsevier), **519**, 998-1002 (2010) ISSN 0040-6090.
37. **Effect of thickness on magnetic phase coexistence and electrical transport in $\text{Nd}_{0.51}\text{Sr}_{0.49}\text{MnO}_3$ films"**
R. Prasad, M. P. Singh, P. K. Siwach, **Amarjeet Kaur**, P. Fournier and H. K. Singh,
Appl Phys A (Springer) **99**, 823-29 (2010) ISSN 0947-8396.
36. **Effect of cadmium sulphide quantum dots processing and post thermal annealing on P3HT/PCBM photovoltaic device,**
M. Taukeer Khan, R. Bhargava, **Amarjeet Kaur**, S. Chand and S.K. Dhawan,
Thin Solid Films (Elsevier) **519** 1007-1011 (2010) ISSN 0040-6090.
35. **Experimental investigations of semi-crystalline plasma polymerized polypyrrole for surface coating**
Anju, **Amarjeet Kaur**, D. K. Avasthi and A. K. Srivastava
Progress in Organic Coatings (Elsevier) **69**, 396-401 (2010) ISSN 0300-9440.
34. **Experimental investigations of semi-crystalline plasma polymerized poly(3-octylthiophene)**
Amarjeet Kaur, Anju, D.K. Avasthi, and A.K. Srivastava
Thin Solid Films (Elsevier) **519**, 1003-06 (2010) ISSN 0040-6090
33. **Electrical, optical and hole transport mechanism in thin films of poly(3-Octylthiophene-co-3-hexylthiophene) : Synthesis and characterization,**
M. Taukeer Khan, M. Bajpai, **Amarjeet Kaur**, S. K. Dhawan, and S. Chand,
Synthetic Metals (Elsevier) **160**, 1530-1534 (2010) ISSN 0379-6779.
32. **Effect of 100 MeV swift heavy ions (silver (Ag^{8+})) on morphological and electrical properties of polypyrrole**
Amarjeet Kaur, Anju Dhillon and D. K Avasthi
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31. **Comparative study of transport properties of compressively strained epitaxial and polycrystalline $\text{La}_{0.88}\text{Sr}_{0.12}\text{MnO}_3$ thinfilms**
R. Prasad, M.P. Singh, W. Prellier, P.K. Siwatch , R. Rawat, **Amarjeet Kaur**, and H.K. Singh,
Physica Status Solidi (b)(WILEY-VCH), 246, 1662-1673 (2009) ISSN 1521-3951.
30. **Thickness dependent transport properties of compressively strained $\text{La}_{0.88}\text{Sr}_{0.12}\text{MnO}_3$ ultrathinfilms**
R. Prasad, H.K. Singh, M.P. Singh, W. Prellier, P.K. Siwatch and **Amarjeet Kaur**,
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29. **Mechanism of charge transport in various conducting polymers based Schottky junctiondiodes,**
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28. **Effect of large compressive strain on low field electrical transport in $\text{La}_{0.88}\text{Sr}_{0.12}\text{MnO}_3$ thinfilm**
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J. Phys. D **40** (IOP) ,2954-60 (2007) ISSN 0022-3727.
27. **Low frequency ac conduction and dielectric relaxation behavior of solution grown and uniaxially stretched poly(vinylidene fluoride) films**
R. Singh, J. Kumar, R.K. Singh, **Amarjeet Kaur**, R.D.P. Sinha and N.P. Gupta
Polymer (Elsevier) **47**, 5919-5928 (2006) ISSN 0032-3861.
26. **Mechanism of dc electrical conduction and human endothelial cell proliferation in polypyrrole/sodium nitrate membrane•**
Ramadhar Singh, Jitendra Kumar, **Amarjeet Kaur**, K.L. Yadav, R. Bhattacharyya, Ejaz Hussain and Sher Ali
Polymer (Elsevier) **SHORT COMMUNICATION 47**, 6042-6047 (2006) ISSN 0032-3861.
25. **AC conductivity and dielectric relaxation behaviour of solution grown polyvinylidene fluoridefilms**
R. Singh, R.D.P. Sinha, **Amarjeet Kaur** and J. Kumar
Ferroelectrics **329**, 91-99 (2005) ISSN 0015-0193.
24. **Effect of thermal annealing on surface morphology and physical properties of poly(3- octyl thiophene) solution castfilm**
R. Singh, J. Kumar, Amarjeet Kaur, **K.N. Sood, R.C. Rastogi**
Polymer (Elsevier) **46**, **9126-32** (2005) ISSN 0032-3861.
23. **Mechanism of charge transport in polypyrrole-heparin**

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22. **Mechanism of dc conduction in poly (3-methylthiophene)**

R. Singh, **Amarjeet Kaur, K.L. Yadav and D. Bhattacharya,**
Current Appl. Phys.(Elsevier) 3, **235-238 (2003)** ISSN 1567-1739.

21. **Design and development of organic light emitting**

diodes Amarjeet Kaur

Current Appl. Phys. (Elsevier), 3, **215-218 (2003)** ISSN 1567-1739.

20. **Voltage tunable multicolor light emitting diodes based on a dye doped polythiophenederivative,**

Amarjeet Kaur, Mario J. Cazeca, S. Sengupta, J. Kumar and S.K. Tripathy,
Synthetic Metals (Elsevier), 126, **283-288 (2002)** ISSN 0379-6779.

19. **Indium/Polypyrrole (polypyrrole derivatives) Schottky junctions Amarjeet Kaur and R.Singh,**

J. Macromol. Sci.: Pure and Appl.Chem. (Taylor and Francis), **A38,** 1329-1336 (2001) ISSN 1060-1325.

18. **Enhanced electroluminescence of urethane containing processable polythiophene derivative by addition of dye molecules,**

Amarjeet Kaur, M.J. Cazecca, K.G. Chittibabu, J. Kumar and S.K. Tripathy
2000 Fall Meeting Symposium Proceedings : Organic Electronic and Photonic Materials and Devices.

17. **Dielectric and piezoelectric properties of PbTiO₃/PVDF and BaTiO₃/PVDF composites,**

K.L. Yadav, **Amarjeet K. Narula, R.D.P. Sinha, R. Singh and S. Chandra,**
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16. **Direct current conductivity studies on poly(3-methylthiophene),**

K.L. Yadav, **Amarjeet K. Narula, R. Singh and S. Chandra,**
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15. **Effect of synthesis temperature and doping level on conductivity and structure of poly(3-methylthiophene),**

Amarjeet K. Narula, R. Singh, K.L. Yadav, K.B. Ravat and S. Chandra,
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14. **Mechanism of electroluminescence in dye doped thiophene based conjugated Polymer**
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13. **Low frequency ac conductivity and dielectric relaxation in poly(N-methyl pyrrole),** Amarjeet K. Narula, R. Singh and S.Chandra,
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12. **Low frequency alternating current conduction and dielectric relaxation in poly(vinylidene fluoride-chlorotrifluoroethylene)copolymer,** Amarjeet K. Narula, R. Singh, R.D.P. Sinha and S. Chandra,
Proc. International Conference & Exhibition on Ultrasonics (ICEU-99), Vol. 2 pp. 444-447.
11. **Mechanism of dc conduction and its correlation with electron spin resonance data of polypyrrole,**
R.Singh, Amarjeet K. Narula and S. Chandra,
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10. **Charge transport in aluminum/polypyrrole (polypyrrole derivatives) Schottky junctions,**
Amarjeet K. Narula, R. Singh and S. Chandra,
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9. **Polaronic hopping conduction in poly(N-methyl pyrrole-pyrrole) copolymer,**
R. Singh, Amarjeet K. Narula, R.P.Tandon, A.Mansingh and S.Chandra,
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6. **Electron spin resonance and conductivity investigations in the polypyrrole family of polymers,**
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J. Appl. Phys.(USA), **81**, 3726-3728 (1997) ISSN 0021-8979.

5. **Correlation between dielectric relaxation and dc electrical conduction in polypyrrole**

R. Singh and Amarjeet K. Narula,

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