


Name	DR. POONAM SILOTIA			
Designation	ASSOCIATE PROFESSOR			
Department	DEPARTMENT OF PHYSICS & ASTROPHYSICS			
Address (Campus)	DEPARTMENT OF PHYSICS & ASTROPHYSICS UNIVERSITY OF DELHI DELHI- 110 007			
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Education	Ph.D.			
Subject	Institution	Year	Details	
CONDENSED MATTER PHYSICS (THEORETICAL)	UNIVERSITY OF DELHI	1992	Thesis topic: ATOMIC AUTO-CORRELATION FUNCTIONS IN HIGHLY ANISOTROPIC CRYSTALS AND SIMPLE PROTEINS	
Career Profile				
Organisation / Institution	Designation	Duration	Role	
C.R.R.I.T Kanjhawala	Lecturer	1.08.85-1.07.90	Teaching and Research	
Deen Dayal Upadhyaya College	Lecturer	16.10.92-1.11.92 8.01.93-30.04.93	Teaching and Research	
Department of Physics & Astrophysics, University of Delhi	Research Associate	1.05.93-14.09.93	Research work	
Department of Physics & Astrophysics, University of Delhi	Lecturer	16.09.93-1.11.97	Teaching and Research	
Department of Physics & Astrophysics, University of Delhi	Lecturer Senior Scale	2.11.97-2.11.01	Teaching and Research	
Department of Physics & Astrophysics, University of Delhi	Reader	3.11.01-31.12.2005	Teaching and Research	
Department of Physics & Astrophysics, University of Delhi	Associate Professor	01.01.2006-till date	Teaching and Research	
Research Interests / Specialization				
CONDENSED MATTER PHYSICS (THEORETICAL):				
<ul style="list-style-type: none"> ➤ Atomic auto-correlation functions, ➤ Bose-Einstein Condensation, Fullerenes, ➤ Collective dynamics of fluids, ➤ Quantum heterostructures in external fields 				

Teaching Experience (Subjects/Courses Taught)
Twenty three years of post-graduate teaching of both 'core' and 'special' papers. Practical classes of M.Sc. Previous (Solid State Physics Lab.)
Honors & Awards
<ol style="list-style-type: none"> 1. Awarded 'Research Associateship' of UGC 1993 2. Awarded 'Research Associateship' of Department of Physics & Astrophysics, University of Delhi, Delhi.
Publications
Please see the attached list of publications
<p>Member of:</p> <ol style="list-style-type: none"> 1. Indian Association of Physics Teachers (IAPT) 2. Indian Women's Science Association (IWSA)
Other Details
<ol style="list-style-type: none"> 1. Guided and supervised students for the award of Ph.D. degree: Awarded: 06 2. Was associated with the election of office bearers of Departmental Physical Society. 3. Took Educational tours outside Delhi twice and once to NSC, Delhi 4. Coordination of the training program of Laboratory staff. 5. Warden of Rajiv Gandhi Hostel for Girls, Dhaka Hostel Complex since 30th April 2012.

LIST OF PUBLICATIONS OF DR. POONAM SILOTIA
LAST FIVE YEARS

JOURNALS:

- 2011 Sign reversal of dielectric anisotropy of ferroelectric liquid crystals doped with cadmium telluride quantum dots, Applied Physics Letters, 99, 072902 (2011).
A.Kumar, **Poonam Silotia**, A.M.Biradar.
- 2011 Pronounced variation in the collective dynamics of highly correlated lightest liquid alkali metal: Lithium, J. Non Crystalline Solids, 357, 3702 (2011).
S.P.Tewari, Grima Dhingra, **Poonam Silotia**, JyotiSood.
- 2011 Effect of laser radiation on optical properties of disk shaped quantum dot in magnetic fields, Physics letters A, 375, 3910 (2011).
Vinod Prasad, **Poonam Silotia**.
- 2011 Effect of ZnO nanoparticles on the SmC*-SmA* phase transition temperature in electroclinic liquid crystals, Journal of Applied Physics, 110, 064111 (2011).
A.Malik, A. Choudhary, **Poonam Silotia**, A. M. Biradar.
- 2011 Phonon frequency distribution function and temperature variation of Rayleigh Mossbauer scattering fraction from aligned multiwalled carbon nanotubes, J. Nanophotonics, 5, 053508 (2011).
Poonam Silotia, Seema Dabas, Aditya Saxena, S.P.Tewari.
- 2012 Anomalous low frequency dielectric relaxation in nanoparticles / isotropic fluid mixed ferroelectric liquid, Ferroelectrics, 431, 6 (2012).
Anu Malik, Gautam Singh, Jai Prakash, Prasun Ganguly,
Poonam Silotia, Ashok M. Biradar.
- 2012 Enhancing the photoluminescence of ferroelectric liquid crystals by doping with ZnS quantum dots, Appl. Phys. Lett., 100, 134101 (2012).
A.Malik, J.Prakash, A.D.Deshmukh, .D.Harnath, **Poonam Silotia**, A. M. Biradar.
- 2013 Population transfer in disk shaped quantum dot in delayed half cycle pulses and magnetic field, Journal of Computational and Theoretical Nanoscience. 10, 1429 (2013).
Vinod Prasad and Poonam Silotia

- 2013 On the thermal conductivity of single-walled carbon nanotube ropes, *Soft Nanoscience Letters*, 3,7 (2013).
P.Silotia, Seema Dabas, Aditya saxena, S.P.Tewari.
- 2014 Asymmetric effects on the optical properties of Double Quantum Well systems, *Optical Engineering*, 53, 027105 (2014).
P.Silotia , Kriti Batra and Vinod Prasad
- 2015 Multiple quantum well in static magnetic and intense laser pulses, *Physics Letters A*, 378, 3561 (2015).
Poonam Silotia, Rakesh Kumar Meena and Vinod Prasad
- 2015 Two electron quantum ring in short pulses.
Chinese Physics B, 24, 020303 (2015).
Poonam Silotia, Rakesh Kumar Meena and Vinod Prasad
- 2015 Acoustic phonon spectrum of unaligned multiwalled carbon nanotubes and zero phonon Rayleigh Mossbauer scattering, *Indian J. Phys.*, 89, 417 (2015).
Poonam Silotia, S. Dabas, A. Saxena, S.P.Tewari.
- 2016 Adsorbed molecules in external fields: Effect of confining potential, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 169, 238 (2016).
Ashish Tyagi, **PoonamSilotia**, Anjali Maan, Vinod Prasad
- 2016 Engineering optical properties of double quantum well systems, accepted for publication in *IJPAP*.
Poonam Silotia, Rajesh Giri, Vinod Prasad
- 2016 Excitation of exciton states on a curved surface, *Physics Letters A* 380, 2116 (2016).
PoonamSilotia, VinodPrasad.

PARTICIPATION IN CONFERENCES/ SYMPOSIA/ WORKSHOPS
(Both National and International)
(LAST FIVE YEARS)

- 2011 “Anomalous low frequency dielectric relaxation in nanoparticles/ isotropic fluid mixed ferroelectric liquid crystals”, *13th International Conference on Ferroelectric Liquid Crystals*, 29th August – 2nd September, Niagara Falls, Canada, (2011).

Anu Malik, Gautam Singh, Jai Prakash, **Poonam Silotia**, A. M. Biradar.

- 2011 “Nanoparticles induced alignment of ferroelectric liquid crystals”, *16th national conference on liquid crystals*, Department of Physics, University of Lucknow, India, October 26--28, (2009).
A. Kumar, T. Joshi, **Poonam Silotia** and A. M. Biradar.
- 2013 “Engineering optical properties of double quantum well systems”, (Paper presented in *International Conference in Nanoscience and Nanotechnology*, Department of Applied Physics, School of Physical Sciences, Baba Saheb Bhimrao Ambedkar University (Central University) Lucknow, U.P., India, 18-20 November 2013).
Poonam Silotia, Alok Kumar Singh Jha, Vinod Prasad (**Invited talk**).
- 2014 “Absorption spectra of two-electron quantum ring”, *National Conference on Nanotechnology and Renewable energy (NCNRE-2014)*, April 28-29 (2014), Poster presentation, Jamia Millia Islamia Central University, New Delhi.
Poonam Silotia, Rakesh Kumar Meena and Vinod Prasad.
- 2015 “Quantum heterostructures in external fields, In National Conference on *Recent Advances in Materials and Field Theory*”, Bhagwan Parshuram Institute of Technology, Delhi, GGSIP University, Delhi, December 28-29, 2015 (**Invited talk**).
- 2015 Dynamics of weakly bound atoms in the presence of two color fields and magnetic field.
Kriti Batra, Anjali Maan, **Poonam Silotia** and Vinod Prasad, National Conference on *Recent Advances in Materials and Field Theory*”, Bhagwan Parshuram Institute of Technology, Delhi, GGSIP University, Delhi, December 28-29, 2015.
- 2015 “Excitonic transitions on a curved surface in external fields, **Poonam Silotia**, R. K. Meena and V. Prasad, National Conference on *Recent Advances in Materials and Field Theory*”, Bhagwan Parshuram Institute of Technology, Delhi, GGSIP University, Delhi, December 28-29, 2015.
