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## **Dr. GRIMA DHINGRA**

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### **Qualifications:**

- **Doctorate in Physics (University of Delhi, Delhi)**  
**Title of Thesis:** *Collective Dynamics of Varying Degrees of Correlated Fluids: Liquid Metals, Dense Gaseous Nanofluid and One Dimensional Hot Plasma.*  
**Supervisors:** Prof. (Dr.) S. P. Tewari & Dr. Poonam Silotia.
- M.Sc. (Physics) from University of Delhi, Delhi with 61.2% in 2002.
- B.Sc. from M.D. University, Rohtak (Haryana) with 69.5% in 2000.
- 12<sup>th</sup> from C.B.S.E. with 69% in 1996.
- 10<sup>th</sup> from C.B.S.E. with 78% in 1994.

### **Teaching Experience:**

- Worked as Guest Lect. in Daulat Ram College, Delhi from Aug 2003- March 2004.
- Worked as Guest Lect. in Delhi College Of Engineering, Delhi from Sept 2004- Oct 2004.
- Worked as Guest Lect. in Zakir Hussain College, Delhi from Sept 2005- Oct 2005.
- Worked as Guest Lect. in S.B.I.E.T., Rohtak from Sept 2007- Dec 2008.
- Worked as Guest Lect. in Keshav Mahavidhyalya, Delhi from Nov. 2008 to Dec. 2008.
- Worked as Lect. (Physics) in C.B.P.G.E.C., Delhi from Jan 2009 to Aug. 2009.
- Worked as Assistant Professor (Physics) in Daulat Ram College, Delhi from Aug 2009 to Aug 2010.
- Working as Assistant Professorat Department of Physics, M. D. University, Rohtak from Sept 2010 till date.

### **Total teaching experience (full time) in College/ University:**

Under-Graduate:           **3.5 Years**                   Post-Graduate ~ **7 Years**

### **Field(s) of Specialization**

Condensed Matter Physics

## List of Publications:

1. **Theory of collective dynamics of liquid polyvalent metal: Hg**, *Physics Letters A*, **368**, 412 (2007).  
S. P. Tewari, **Grima Dhingra**, P. Silotia and J. Sood
2. **Temperature dependent positron annihilation in one dimensional weakly coupled one component plasma**, *Indian Journal of Pure and Applied Physics* , **45**, 768 (2007).  
S. P. Tewari, J. Sood and **Grima Dhingra**
3. **Theory of collective motion of particles of interacting gas of polyvalent mercury atoms at 3.0, 6.3 and 9.0 particles per nm<sup>3</sup>**, *Journal of Non-Crystalline Solids*, **354**, 3078 (2008).  
S. P. Tewari, **Grima Dhingra**, P. Silotia and J. Sood
4. **Wave-vector and frequency dependent Complex dielectric function and related physical properties of a weakly coupled one dimensional two-component hot plasma**, *Indian Journal of Pure and Applied Physics*, **46** 637 (2008).  
S. P. Tewari, J. Sood and **Grima Dhingra** and P. Silotia
5. **Collective dynamics of a nanofluid: fullerene**, *International Journal of Modern Physics B*, **24**, 4281 (2010).  
S. P. Tewari, **Grima Dhingra** and P. Silotia
6. **Microdynamics of a liquid monovalent metal**, *Journal of Non-Crystalline Solids*, **355**, 2522 (2009).  
S. P. Tewari, **Grima Dhingra**, P. Silotia and J. Sood
7. **Data Security using Quantum Cryptography**, *International Journal of Artificial Intelligence and Knowledge Discovery*, **1**, 9 (2011).  
**Grima Dhingra**, Sunil Maggu and Meenu Dhingra.
8. **Pronounced variation in the collective dynamics of highly correlated lightest liquid alkali metal: Lithium**, *Journal of Non-Crystalline Solids*, **357**, 3702 (2011).  
S. P. Tewari, **Grima Dhingra**, P. Silotia and J. Sood
9. **Data Security Management Using Message Encoding and Covert Communication**, *International Journal of Engineering Sciences Paradigms and Researches*, **02**, 67 (2012),  
**Grima Dhingra** and Sumity
10. **Two Layer Provision for Secure Data Transmission**, *International Journal of Engineering Sciences Paradigms and Researches*, **03**, 1(2013)  
**Grima Dhingra** and Sumity

#### **Publications in Conferences/Seminars:**

1. **A Secure Data Transmission using Quantum Cryptography**, *International Conference on Advanced Computing & Communication Technologies*, **1**, 363 (2011).  
**Grima Dhingra**, Sunil Maggu, Meenu Dhingra and Madhu Bhatia.
2. **Coherent Dynamics of Molten Potassium**, *AIP Conference Proceedings*, 1731, 110018(2016).  
S. P. Tewari, P. Silotia, **Grima Dhingra**, P. Tandon, and J. Sood

#### **Paper Presented in Conferences/Seminars/Workshop:**

1. **International Conference on Advanced Computing & Communication Technologies**, 21-22 January 2011, RG education Society, Rohtak.
2. **National conference on Advances in Chemical Sciences**, 1-2 March 2013, Chemistry Department, M. D. University, Rohtak.
3. **National Seminar on "Advancements in Material Science" (NSAIMS-2014)**, 10th March 2014, Department of Physics, A.I. Jat H.M. College, Rohtak.
4. **National Conference on "Applied Physics and Material Science"**, 5-6 February 2015, Department of Physics, M. D. University, Rohtak.

#### **Participation in Conferences/Seminars/Workshop:**

1. **Workshop on Evolving State of the Art Academic Requirements and Developing Resource Material**, 29 may 2009, C. B. P. Govt. Engineering College, Delhi.
2. **Workshop on Introduction to Fortran and C++ languages**, 28-30 October, 2011, physics department, M. D. University, Rohtak.
3. **Workshop on Material Science**, 25 march, 2011, physics department, M. D. University, Rohtak.
4. **Workshop on Semiconductor Device Fabrication and Applications**, 13 February 2012, physics department, M. D. University, Rohtak.
5. **Seminar on 'Solar cell and Photovoltaics**, 9 March 2013, physics Department, M.D. University, Rohtak.
6. **Workshop on 'Material Science: Challenges and Opportunities**, 14 March 2013, Physics department M.D.U., Rohtak.
7. **National Symposium On Electroceramics- Materials & Devices-2014** (NSD-MD-2014), 21-22 February 2014, G.V.M. Girls College, Sonapat.

**FD Programmes:**

1. **Orientation Course**, 22 December 2011-20 January 2012, UGC-Academic Staff College, B.P.S. Women University, Khanpur (Sonipat).
2. **Refresher Course**, 17 September 2013-11 October 2013, UGC-Academic Staff College, J.N.U., New Delhi.
3. **Refresher Course**, 3 August 2017-23 August 2017, UGC-HRDC, University of Jammu, Jammu Tawi.

**Research Projects**

1. **“Study of microdynamics of an alkali metal and a super-cooled liquid metal”**, U.G.C. minor research project (2012-2014).