

Department of Physics

(A) Publications: 17

Research Papers Published during academic years 2010-2015

National/International Journals:

1. AK Srivastava, Samiksha Kumari and BRK Gupta, "High pressure structure Phase transition in Uranium monochalcogenides", Phase Transition, 83, 28-36 (2010).
2. Kuldeep Kholiya, Swati Verma, Kailash Pandey and BRK Gupta "High pressure behaviour of calcium chalcogenides" Physica B, 405, 2683-2686 (2010).
3. Monika Goyal and B.R.K.Gupta, "Pressure dependence of compressional behavior of single walled carbon nanotube," International Journal of Manufacturing Technology and Research, vol. 8, pp. 80-84, 2012. .
4. Monika Goyal and B.R.K.Gupta, "Pressure induced phase transition in Zinc sulfide (10 nm-ZnS) Nanocrystal," Research Journal of Recent Sciences, vol. 2, pp. 21-23, 2012.ISSN:2277-2502.: 2277 - 2502
5. Anuj Vijay. "Hartmann's equation of state for materials at extreme compression". Research J. Recent Sciences Vol. 1(2012), 365-367. ISSN:2277-2502.
6. Birbal Singh, R.P. Singh, Vikram Singh, and M. Hayakawa "On the lithosphere – atmosphere coupling of seismo-electromagnetics and identification of their sources" in the Frontier of Earthquake Prediction Studies, edited by M. Hayakawa, Nihon - Senmontosho-Shuppan, Pub. Co. Tokyo, Japan, 532-554, 2012.
7. Monika Goyal and B.R.K.Gupta, "Pressure induced phase transformation and instability of ZnS and ZnSe nanocrystals," International Journal of Emerging Technologies in Computational and Applied Sciences, vol.5 (1), pp. 430-434, 2013. ISSN: 2279-0047.
8. Anuj Vijay and V.K.Tripathy "Parametric excitation of electro-mechanical vibrations of carbon nano tube with distributed surface charge". Journal of Applied Physics 114, 204304 (2013). ISSN:1089-7550.
9. R.P. Singh and Birbal Singh "Anomalous subsurface VLF electric field changes related to India-Nepal Border earthquake (M=5.3) of 4 April 2011 and their lithosphere – atmosphere coupling observed at Mathura" in J. of Atmos. Electr., 33, 31-39, 2013.
10. Monika Goyal and B.R.K.Gupta, "Study of high pressure compression in nanomaterials," International Journal of Engineering and Technical Research, vol. 2, pp. 286-288, 2014.ISSN:2321-0869.
11. Kuldeep Kholiya, Jeewan Chandra, Monika Goyal and B.R.K.Gupta. , "Pressure induced structural phase transition and elastic properties of barium and cerium selenide", Indian J. of Materials Science, vol.10, pp. 515-521, 2014. ISSN:0974-7486.
12. Anuj Vijay "Analysis of the volume dependence of Grüneisen parameter and melting of the hcp iron". High Temperatures-High Pressures 43(2014)47. ISSN:0018-1544.
13. Monika Goyal & B.R.K.Gupta, "Analysis of compression and elasticity of the nanocrystalline cubic silicon nitride (γ - Si₃N₄) under high pressure," International Journal of Emerging Technologies in Computational and Applied Sciences, vol. 9, pp. 137 -140, 2014. (ISSN: 2279-0047).
14. Monika Goyal & B.R.K.Gupta "Pressure induced structural phase transition and elastic properties of barium and cerium selenide", Materials Science-an Indian journal, vol.10, pp. 515-521, 2014.

15. Monika Goyal & B.R.K.Gupta, "Analysis of compression and elasticity of the nanocrystalline cubic silicon nitride (γ - Si₃N₄) under high pressure," International Journal of Emerging Technologies in Computational and Applied Sciences, vol. 9, pp. 137 -140, 2014. ISSN(Print): 2279-0047
16. Neetu Sorot and B.R.K.Gupta, "Effect of temperature on thermal properties of Graphene" Oriental Journal of Chemistry, vol. 31 (03), p.1327-1330, 2015(ISSN:0970-020X).
17. Monika Goyal & B.R.K.Gupta, " Comparative study of compression in fullerenes and carbon nanotubes under high pressure, Indian J. -Materials Science, vol. 13, 359-363, 2015. (ISSN: 0974-7486).

(B) Research papers presented in various conferences during 2010-2015: 11

1. Anuj Vijay "Effect of IMPATT-diode Integration on Rectangular Patch Microstrip Antenna." in 2nd Conference during Dec.08-09, 2012 Organized by International Science Congress Association in Vrindavan.
2. R.P. Singh "On the generation and propagation mechanism of seismo - electromagnetic signals" in proceedings of DST-SERC School on Seismo-electromagnetics, 36-45, 2012.
3. Anuj Vijay "Electro-mechanical vibrations of CNTs under uniform surface charge distribution." in QIP/CEP Topical Conference on "Laser Driven Charged Particle Acceleration and Applications." during April 05-07, 2013 organised by Indian Institute Technology Delhi, New Delhi.
4. Monika Goyal and B.R.K.Gupta, "First order Structural Phase Transition in ZnO Nanostructures at High Pressure", Proceedings of the International Conference on Communication Systems and Network Technologies (CSNT-2013), IEEE Conference , pp. 807-810, April 2013, Gwalior, India.
5. Anuj Vijay "Analysis of the volume dependence of Grüneisen parameter and melting of the hcp iron.", Dec.08-09, 2013 Organized by International Science Congress Association, Coimbatore.
6. M.K.Rana, "Modified CCW Description for The Motion of Weak Cylindrical Hydromagnetic Shock in Self-Gravitating Rotating Gas", Nat. Conf. on Role of Education, Research and Technology in rural development, 83, 177(pp), (2014).
7. Anuj Vijay, "Beat Frequency Heating of a Rippled Density Plasma", National Conference on 'Materials and their Energy Applications (NCME-14)' during Dec.22-24, 2014 Organized by S S Jain Subodh PG (Autonomous) College Jaipur, India.
8. Monika Goyal, "Study of mechanical volume compression in nanomaterials under high pressure", International Conference on Multifunctional materials, Structures and Applications (ICMMSA-2014), pp. 76-78, 22-24 Dec 2014, Organized by MNNIT Allahabad, India.
9. M.K. Rana, "Plane Hydromagnetic Shock Wave Through Uniform and Non-Uniform Media", International Conference on 'Ultrasonics' during 22-24 January-2015 Organized by Department of Physics, Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur, India.
10. Anuj Vijay, "Thermal Expansivity of Ionic Solids at Different Pressures and Temperatures" National Conference on Thermo physical Properties (NCTP-2015), Dec.14-16, 2015 , MNIT Jaipur.
11. M.K.Rana, " Isothermal Propagation of Plane Hydromagnetic Shock waves," International Conference, (ISTAM-2015), MNIT Jaipur, 16-19 December, 2015.