

Name of the Teacher : **ASHISH TYAGI**
Department : **PHYSICS**

LIST OF PUBLICATIONS

In Peer Reviewed Journals:

- “Controlling rotational dynamics and alignment of molecule by infrared laser pulse”, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 102 (2013), 120-127.
- “Dynamics of orientation of adsorbed polar molecules in static electric and laser field”, *Molecular Physics*, 112 No. 12 (2013) 1651-1658.
- “Pulse train induced rotational excitation and orientation of a polar molecule”, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 129 (2014), 193 – 200.
- “Adsorbed molecules in external fields: Effect of confining potential”, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 169 (2016), 238-245.
- “Effect of aligning pulse train on the orientation and alignment of a molecule in presence of orienting pulse”, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 173 (2017), 13-18.
- “Field-free molecular orientation by delayed elliptically polarised laser pulses”, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 188 (2018), 268-275.
- “Rotational Excitation of Diatomic Molecule: Time Dependent Study”, *Acta Physica Polonica, A*, 133, 5 (2018), 1266-1273.
- “Thermal behaviour of hindered rotor in static electric and laser field”, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 240 (2020) 118538.
- “Orientation and Alignment dynamics of polar molecule driven by shaped laser pulses”, *Spectrochimica Acta Part A: Molecular and Biomolecular*

Spectroscopy, 2021 Jul 15; 256:119663. ISSN No. 1386-1425 (print), 1873-3557 (online)

Full Paper in Conference Proceedings:

- **“Linear and Nonlinear Optical Absorption co-efficients and refractive index changes in a multiple quantum well with delta doping”, in National Conference on Recent Advances in Materials and Field Theory (NCRAMFT-2K15), held on Dec. 28-29, 2015, sponsored by GGSIP University & organized by Bhagwan Parshuram Institute of Technology, Delhi, ISSN No. 978-93-5254-054-9**
- **“Photoionization of Hydrogenic Impurity in spherical quantum dot in absence of Guassian potential”, in National Conference on Recent Advances in Materials and Field Theory (NCRAMFT-2K15), held on Dec. 28-29, 2015, sponsored by GGSIP University & organized by Bhagwan Parshuram Institute of Technology, Delhi ISSN No. 978-93-5254-054-9**
- **“Nanotechnology: Emerging Frontiers and Applications (NEFA2017)” held on Jan. 30-31, 2017 at Department of Chemistry, University of Delhi ISSN No. 978-93-81129-26-5**
- **Presented one paper in the invited talk titled: “Photo-excitation of weakly confined atoms in magnetic fields” and three posters titled “Optical properties of coupled delta doped nano-rods in magnetic fields”, “Orienting adsorbed molecules in static fields : Effect of confining potential”, and “Effect of orienting pulse on alignment of molecule due to pulse train” in the 4th International Conference on “Current Developments in Atomic, Molecular, Optical & Nano Physics with Applications (CDAMOP)”, held on March 11-14, 2015, organized by Department of Physics & Astrophysics, University of Delhi.**
- **Presented two papers in National Conference on Recent Advances in Materials and Field Theory (NCRAMFT-2K15) held on Dec. 28-29, 2015 organised by Bhagwan Parshuram Institute of Technology, Delhi.**