

CURRICULUM VITAE

PERSONAL DETAILS

Dr. Mudasir Hassan Dar
Assistant Professor
Department of Physics
Govt. Degree College Beerwah
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Date of appointment 16-08-2016



EDUCATION

PhD: School of Physics, Hyderabad Central University, Hyderabad, India, 500046.
Thesis Mentor: Prof. D. Narayana Rao
Dr. V. S. Ashoka.

MPhil: Department of Physics, Pondicherry Central University, Pondicherry, India, 605014.
Advisor: Dr. Alok Sharan

MSc: Department of Physics, University of Kashmir, Srinagar, J&K, 190006.

FELLOWSHIPS/AWARDS

- Qualified CSIR-NET (AIR: 90), conducted by Council of Scientific and Industrial Research (CSIR), New Delhi, India (December, 2013).
- Awarded Junior Research Fellowship through the DST sponsored India Trento project on advanced research (ITPAR Phase III) collaborative research project entitled "Green Photonics using Semiconductor nanostructures" 2014-2016.
- Best Poster Presentation award in National Seminar on Advances in Materials Sciences NSAMS-2012 held at M S University, Tirunelveli, 23-26 January 2012.

RESEARCH PUBLICATIONS:

Citations: 250

h-index: 8

i10-index 8

- 1) Nabil A Saad, **Mudasir H. Dar**, E. Ramya, Sri Ram G. Naraharisetty and D. Narayana Rao, “ Saturable and Reverse Saturable Absorption of a Cu₂O-Ag nanoheterostructure”, Journal of materials Science, DOI:10.1007/s10853-018-2811-5, Issue 1/2019
- 2) RO. MU. Jauhar, **Mudasir H. Dar**, P. Vivek, D. Narayana Rao,P. Murugakoothan, “Investigations on the growth, linear, nonlinear, dielectric tensor and thermal properties of an acidic molecule: diphenylacetic acid single crystal”, Journal of Optics DOI 10.1007/s12596-017-0418-x (2017)
- 3) V. Saikiran, **Mudasir H. Dar** and D. Narayana Rao “Femtosecond laser induced nanostructuring of graphite for the fabrication of quasi-periodic nanogratings and novel carbon nanostructures”, Applied surface science **428** (2018) 177-185. Impact factor 3.15
- 4) **Mudasir H Dar**, Nabil A Saad, Chakradhar Sahoo, Sri Ram G Naraharisetty and Narayana Rao Desai “Ultrafast laser induced reproducible nanogratings on a molybdenum surface”, Laser Physics Letters **14** (2017) 026101(5pp). Impact factor 2.39
- 5) **Mudasir H Dar**, R. Kuladeep, V. Saikiran and D. Narayana Rao “Femtosecond laser nanostructuring of titanium metal towards fabrication of low-reflective surfaces”, Applied Surface Science 371 (2016) 479–487. Impact factor 3.15.
- 6) Rajamudili Kuladeep, **Mudasir H. Dar**, K. L. N. Deepak, and D. Narayana Rao “Ultrafast laser induced periodic sub-wavelength aluminum surface structures and nanoparticles in air and liquids” Journal of Applied Physics 116, 113107 (2014). Impact factor 2.183
- 7) V. Saikiran, **Mudasir H Dar**, R. Kuladeep and Narayana Rao Desai, “Ultrafast Laser Induced Subwavelength Periodic Surface Structures on Semiconductors/Metals and Application to SERS Studies”, MRS Advances, June 2016, pp 1 – 11.
- 8) Saikiran Vadavalli, Sreeramulu Valligatla, Bharati Neelamraju, **Mudasir H. Dar**, Alessandro Chiasera, Maurizio Ferrari and Narayana Rao Desai “Optical properties of germanium nanoparticles synthesized by pulsed laser ablation in acetone” Front. Phys. Vol 2, Article 57 page 1-9.
- 9) Srinivasa Rao Allam, **Mudasir H Dar**, N Venkatramaiah, R Venkatesan, Alok Sharan. “Study of spatial rings in TPPOH₄ doped in boric acid glass” IOP Conf. Series: Materials Science and Engineering 73 (2015) 012023.
- 10) A Srinivasa Rao, **Mudasir H Dar**, N Venkatramaiah, R Venkatesan and Alok Sharan “ Third order optical nonlinear studies and its use to estimate thickness of sandwiched films of tetra-phenyl porphyrin derivatives”, Journal of Nonlinear Optical Physics and Materials, Vol. 25, No. 3 (2016) 1650039.
- 11) **Mudasir H Dar**, L. Jyothi and D Narayana Rao “Polarization controlled highly regular laser induced periodic surface structures: a look at its origin and its application towards perfect absorption of light”. Asian Journal of Physics Vol. 29, (2020) Nos 5-7, 473-481.
- 12) **Mudasir H Dar** and D Narayana Rao “ High spatial frequency laser induced periodic surface structures”. Asian Journal of Physics Vol. 30, No 12 (2021) 1683-1688.

- 13) P Babuji, Md Abu Taher, **Mudasir H Dar**, D. Narayana Rao, G. Krishna Podagatlapalli and V. Saikiran “Surface-Enhanced Raman Scattering Studies of Au-Ag Bimetallic Nanoparticles with a Tunable Surface Plasmon Resonance Wavelength Synthesized by Picosecond Laser Irradiation” *Photonics* 2023, 10 (12), 1345

LIST OF CONFERENCE PROCEEDINGS:

- 1) “Degenerate Four Wave Mixing in Porphyrin Doped Boric Acid Glass” **Mudasir H Dar**, A Srinivasa Rao, Alok Saran National Seminar on Advances in Materials Sciences NSAMS-2012 held at M S University, Tirunelveli during 23-26 January 2012 (BEST POSTER AWARD)
- 2) “Periodic sub-wavelength surface structuring on bulk Aluminum by femtosecond laser direct writing technique” **Mudasir H Dar**, R Kuladeep, D Narayana Rao POSTER presentation at DAE-National Laser Symposium-23 held at Sri Venkateswara University Tirupathi during 3-6 December 2014 (23rd DAE NLS).

BOOK/CHAPTER PUBLISHED

Title of the book	Nanomaterials Synthesis Design, Fabrication and Applications
Book / Chapter	Chapter
Name of the publisher	Elsevier Publishers
Subject area	Nanomaterials
Edition	1
Page numbers	149-199
ISBN	978012815751
Published year	2019

Area of specialization

Ultrafast optics, laser induced sub-wavelength structures, laser ablation.

Orientation/Refresher/FDP Courses Attended:

1. 72nd “General Orientation Programme for Assistant Professors” from 7th November, - 06th December, 2016 conducted at Institute of Advanced Studies in Education (IASE) in collaboration with Human Resource Development Centre (HRDC), University of Kashmir.
2. Refresher Course in Physics & Astronomy from February 17 - 29, 2020, conducted by UGC-Human Resource Development Centre (HRDC), University of Lucknow- Lucknow – 226 007, (U.P.) India
3. Participated in two weeks online certificate course on “ Numerical and Engineering Computation, Optimization for Physicists, Scientists & Engineers using Open-source-

SCILAB” Jointly organized by the electronic and ICT Academies at IIT Roorkee, MNIT Jaipur, and NIT Patna, during 21th Feb to 05th March, 2022.

4. Attended online faculty development program on **PHOTONICS** conducted by NIT Karnataka from 01-05 Feb, 2021.
5. Participated in UGC sponsored Refresher Course in “**ICT and Online Teaching (Interdisciplinary)**” conducted by UGC-Malaviya Mission Teacher Training Centre, University of Calicut from 16-01-2024 to 30-01-2024.

Teaching Experience:

08 years UG level

Mudasir Hassan Dar