

## CURRICULUM VITAE



**Name** : **DR. TANUSRI PAL**  
**Designation** : **Associate Professor**  
**Department of Physics**  
**Midnapore College (Autonomous)**  
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**Education Qualification** : **M.Sc., Ph.D**(Title of Thesis: Growth and characterization of nonlinear optical crystals derived from L-Arginine in pure and mixed form of its complexes.),NET, JEST

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**Date of Joining** : 24/04/2017

➤ **Area of Teaching:**

- i) Classical mechanics
- ii) Quantum mechanics
- iii) Solid state physics
- iv) Nuclear physics

➤ **List of research papers published:**

- R Synergistic effect of Zinc Selenide - Reduced Graphene Oxide towards enhanced solar-light-responsive photo current generation and photocatalytic 4-Nitrophenol degradation, K. Chakraborty, S. Chakrabarty, T. Pal and S. Ghosh, *New J. Chem.*, 41, 4662 - 4671 (2017).
- Reduced Graphene Oxide-CdS Nanocomposite with Enhanced Photocatalytic 4-Nitrophenol Degradation, K.Chakraborty, S. Ibrahim, P. Das, S. Ghosh and T. Pal, *AIP Conf. Proc.* **1832**, 050077 (2017).
- Solution Processable RGO-CdZnS Composite for Solar Light Responsive Photocatalytic Degradation of 4-Nitrophenol, S. Ibrahim, K.Chakraborty, T. Pal and S.Ghosh, *AIP Conf. Proc.* **1832**, 050005 (2017).
- Reduced Graphene Oxide - Zinc Phthalocyanine Composites as Fascinating Material for Optoelectronic and Photocatalytic Applications, P. Das, K. Chakraborty, S. Chakrabarty, S. Ghosh and T. Pal, *ChemistrySelect*, **2**, 3297 – 3305 (2017).
- Reduced Graphene Oxide – Zinc Sulfide Composite for Solar Light Responsive Photo Current Generation and Photocatalytic 4-Nitrophenol Reduction, S. Ibrahim, S. Chakrabarty, S. Ghosh and T. Pal, *ChemistrySelect*, **2**, 537 –545 (2017).
- Photo Current Generation in RGO - CdS Nanorod Thin Film Device, K. Chakraborty, S. Chakrabarty, S. Ibrahim, T. Pal and S. Ghosh, *AIP Conf. Proc.* **1731**, 080052 (2016).

- AC Conduction and Time–Temperature Superposition Scaling in a Reduced Graphene Oxide–Zinc Sulfide Nanocomposite, K. Chakraborty, P. Das, S. Chakraborty, T. Pal and S. Ghosh, *Chem. Phys. Chem.* **17**, 1518–1523 (2016).
- UV-assisted Synthesis of Reduced Graphene Oxide Zinc Sulfide Composite with Enhanced Photocatalytic Activity, K. Chakraborty, S. Chakraborty, P. Das, S. Ghosh and T. Pal, *Mater. Sci. Eng. B*, **204**, 8-14 (2016).
- Opto-electronic Transport Properties of Graphene Oxide Based Devices P. Das, S. Ibrahim, K. Chakraborty, S. Ghosh and T. Pal, *AIP Conf. Proc.* **1665**, 110048 (2015).
- Photocurrent Generation and Conductivity Relaxation in Reduced Graphene Oxide Cd<sub>0.75</sub>Zn<sub>0.25</sub>S Nanocomposite and its Photocatalytic Activity, S. Chakraborty, K. Chakraborty, A. Laha, T. Pal and S. Ghosh, *J. Phys. Chem C*, **118**, 28283–28290(2014).
- Morphology Dependent Photoinduced Electron Transfer from N,N-Dimethylaniline to Semiconductor Cadmium Sulphide, S. Chakraborty, H. Kaur, T. Pal, S. Kar, S. Ghosh and S. Ghosh, *RSC Adv.* **4**, 35531-35540 (2014).
- Electrical Conductivity And Luminescence Properties of Two Silver(I) Coordination Polymers with Heterocyclic Nitrogen Ligands, A. Rana, S. K. Jana, T. Pal, H. Puschmann, E. Zangrando and S. Dalai, *J. Solid State Chem.* **216**, 49–55 (2014).
- One Pot Synthesis of RGO/PbS Nanocomposite and its Near Infrared Photoresponse Study, S. Ghosh, T. Pal, D. Joung and S. I. Khondaker, *Appl. Phys. A*, **107**, 995-1001 (2012).
- High Performance Organic Phototransistor Based on Regioregular Poly(3-hexylthiophene), T. Pal, M. Arif and S. I. Khondaker, *Nanotechnology*, **21**, 325201 (2010).
- Reduced Graphene Oxide/Copper Phthalosyanine Composite and its Optoelectrical Properties, A. Chunder, T. Pal, S. I. Khondaker and L. Zhai, *J. Phys. Chem. C*, **114**, 15129-15135 (2010).
- Dislocation Structure and Micro Hardness of L-Arginine Perchlorate Single Crystal, T. Mallik, T. Pal and T. Kar, *Indian J. Phys.* **83**, 1395-1406 (2009).
- Simple Solvothermal Route to Synthesize S-Doped ZnO Nanorods and ZnS/ZnO Core/Shell Nanorods, S. Kar, P. Dutta, T. Pal and S. Ghosh, *Chem. Phys. Lett.* **473**, 102-107 (2009).
- Study of Intramolecular Charge Transfer of Michler's Ketone using Time Dependent Density Functional Theory, T. Pal, M. Paul and S. Ghosh, *J. Mol. Struct. - THEOCHEM*, **860**, 8-12 (2008).
- Studies on Mechanical Properties of a New Organic Nonlinear Optical Crystal, T. Pal and T. Kar, *Mater. Sci. Eng. A*, **437**, 235-239 (2006).
- Studies on Surface Micromorphology and Growth Mechanism of Nonlinear Optical Crystal: L-Arginine Hydrochlorobromo Monohydrate, T. Pal and T. Kar, *J. Cryst. Growth*, **289**, 202-206 (2006).
- Studies on Growth Defects and Mechanical Properties of Nonlinear Optical Crystal: L-Arginine Hydrofluoride, T. Pal and T. Kar, *J. Cryst. Growth*, **276**, 247-252 (2005).
- Optical, Mechanical and Thermal Studies of Nonlinear Optical Crystals L-Arginine Acetate, T. Pal and T. Kar, *Mater. Chem. Phys.* **91**, 343-347 (2005).
- Studies of Microhardness Anisotropy and Young's Modulus of Nonlinear Optical Crystal L-Arginine Hydrochlorobromo Monohydrate, T. Pal and T. Kar, *Mater. Lett.* **59**, 1400-1404 (2005).

- Morphology, Crystal Structure, Thermal and Spectral Studies of Semiorganic Nonlinear Optical Crystal LAHCIBr, T. Pal, et.al, *Cryst. Growth Des.* **4**, 743-747 (2004).
- Vickers Microhardness Studies of L-arginine Halide Mixed Crystals, T. Pal, TanusreeKar, *Mater.Sci. Eng. A*, **354**, 331-336(2003).
- Synthesis, Growth, and Characterization of L-Arginine Acetate Crystal: A Potential NLO Material, T. Pal, et.al, *Cryst. Growth Des.* **3**, 13-16 (2003).
- Growth and Characterization of Nonlinear Optical Material, LAHCIBr - A New Member of L-arginine Halide Family, T. Pal, et.al, *J. Cryst. Growth*, **235**, 523-528 (2002).
- Single Crystal Growth and Characterization of the Nonlinear Optical Crystal L-arginine Hydrofluoride, T. Pal and T. Kar, *J. Cryst. Growth*, **234**, 267-271 (2002).

➤ **Presentation in International Symposium:**

- i) Photo transistor based on nano structured regioregular poly(3-hexylthiophene) presented at 'APS March Meeting' organized by American Physical Society, **Portland, Oregon, USA from March 15 - 19, 2010.**
- ii) Photoresponse study in poly (3-hexylthiophene)/CdZnSn nanocomposite field effect transistors, presented at 'Nano Florida 2009' Organized by Nano Science Technology Center, University of Central Florida, Orlando 32826, USA, from September 25 - 27, 2009.
- iii) Growth and characterization of L-arginine acetate crystal presented at 'International School on crystal Growth of Technologically Important Electronic Materials', held at University of Mysore, Mysore, India from January 20-28, 2003.

➤ **Current & Completed Sponsored Project:**

- i) Development of Graphene-Quantum Dot Nano Composites for Optoelectronic Applications., Department of Science & Technology (DST), Government of India, 2012 – 2015, Rs. 25,44,000/-
- ii) To study the photo current generation in different nano composite materials, University Grant Commission (UGC), Government of India, 2014 – 2016, Rs. 4,80,000/-

➤ **Associated with any other Organization:**

Life Member: Indian Association for the Cultivation of Science

Life Member: Indian Association of Physics Teachers

➤ **Professional Recognition, Awards, Fellowships Received:**

- i) Visiting Scientist, NanoScience Technology Center, University of Central Florida, Orlando, Florida, USA for the period May 2009 to May 2010.
- ii) Junior Research Fellowship and Senior Research Fellowship from Indian Association for

the Cultivation of Science (IACS),Jadavpur, Kolkata 700032, WB, India.

- iii) University Gold Medal and JanardanGhorai Memorial Endowment Medal for securing 1<sup>st</sup> Class First in M. Sc. Examination 1999.
- iv) National scholarship for obtaining better marks in B.Sc. in 1998.

