

CURRICULUM VITAE

Name : **DR. MAKHANLAL NANDA GOSWAMI**
Designation : **Assistant Professor**
Department of Physics
Midnapore College (Autonomous)
Midnapore- 721101, W.B

Educational Qualification : **M. Sc., Ph.D.**
Residential Address : Palbari, Midnapore, PachimeMedinipur, West Bengal
Contact Number : +91 9732730573
Email Id : **makhanlal@gmail.com**
Date of Joining : **12/09/2006**

➤ **Area of Teaching:**

- i) Quantum Mechanics, Thermodynamics, Statistical Mechanics,
- ii) Electrodynamics
- iii) Material Science

➤ **List of research papers published in reverse Chronology:**

- I. Enhanced dielectric and ferroelectric properties of PVDF-BiFeO₃ composites in 0-3 connectivity. Swagatika Dash, **M N Goswami**, R N P Chowdhary **Journal of Alloys and compounds**, **715 (2017) 29-36**
- II. Structural, optical, dielectric, magnetic and magnetoelectric properties of Co-doped ZnO nanoparticles Anindita Samanta, **M N Goswami**, P. K. Mahapatra **Mater Sci: Mater Electron** **27 (2016) 12271-12278**
- III. Structural, electrical and magnetic characteristics of improper multiferroic: GdFeO₃S. Sahoo, P K Mahapatra, R N P Choudhary, **M. N. Goswami** and Ashok Kumar **Mater. Res. Express** **3 (2016) 065017**
- IV. Structural and Electrical Properties of La doped BiBa (Fe_{0.6}Ti_{0.4})O₃ Composite Ceramic B S Kar, **M N Goswami**, P C Jana **Journal of Physical Sciences**, Vol. **21 (2016) 161-166**
- V. Modification of ferroelectric and resistive properties of (Bi_{0.5}Na_{0.5})(Nb_{0.5}Fe_{0.5})O₃-PVDF composite Swagatika Dash, R N P Choudhary & **M N Goswami** **J Polym Res** **22:54(2015) 1-7**
- VI. Dielectric and impedance spectroscopy of (Ba, Sm)(Ti, Fe)O₃ system in the low-medium frequency range S Sahoo, P K Mahapatra, R N P Choudhary, **M N Goswami** **J Mater Sci: Mater Electron** **26 (2015) 6572-6584**
- VII. Observation of Pronounced Electric Polarization and strong magnetization in Mn doped BiFeO₃ Nanocrystals. D. Mahesh, **M N Goswami** & S K Mandal **Advanced Science, Engineering and Medicine**; **7 (11) (2015) 952-957**
- VIII. Formation of Y- and T- junction Ge nanowires by vapor-liquid-solid mechanism K Das, A K Chakraborty, **M N Goswami**, R K Singha, ADhar, K S Coleman, S K Ray **International Journal of Nanoscience** **06(06) 2011**
- IX. Temperature dependent photoluminescence characteristics of nano-crystalline ZnO films grown by sol-gel technique. S Mandal, **M N Goswami**, K Das, ADhar, S K Ray **Thin Solid Films** **516 (2008) 8702-8706**
- X. Room temperature ferroelectric and ferromagnetic properties of xLa_{0.7}Sr_{0.3}MnO₃-(1-x)ErMnO₃ P Dey, T K Nath, **M N Goswami**, T K Kundu **Applied Physics Letters** **90 (2007)**

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- XI. Single-Step Synthesis of Ultrafine PLZT from Polymer Gel precursor: Synthesis, Consolidation and Dielectric Properties S Roy, S Bysakh, **M N Goswami**, D Jana and J Subrahmanyam **Chem. Mater.**, **19 (2007) 2622**
- XII. Optical characteristics of Er³⁺ doped Genanocrystals in sol-gel derived SiO₂ K Das, **M N Goswami**, ADhar, B K Mathur and S K Ray **Nanotechnology 18 (2007) 095704**
- XIII. Growth of Ge islands and nanocrystals using RF magnetron sputtering and their characterization K Das, **M N Goswami**, ADhar, B. K. Mathur and S. K. Ray **Nanotechnology 18 (2007) 175301**
- XIV. Temperature dependent shape transformation of Ge nanostructures by the vapor-liquid-solid method K Das, A K Chakraborty, **M N Goswami**, R K Singha, ADhar, K S Coleman, S K Ray **Journal of Applied Physics, 101 (2007) 074307**
- XV. Optical characteristics of Er³⁺ doped Genanocrystals in sol-gel derived SiO₂ K Das, **M N Goswami**, ADhar, B K Mathur and S K Ray **Nanotechnology 18 (2007) 095704**
- XVI. Growth of Ge islands and nanocrystals using RF magnetron sputtering and their characterization K. Das, **M N Goswami**, ADhar, B. K. Mathur and S. K. Ray **Nanotechnology 18 (2007) 175301**
- XVII. Temperature dependent shape transformation of Ge nanostructures by the vapor-liquid-solid method K. Das, A. K. Chakraborty, **M N Goswami**, R. K. Singha, A Dhar, K. S. Coleman, S. K. Ray **Journal of Applied Physics, 101 (2007) 074307**
- XVIII. Effects of gamma irradiation on erbium in diffused lithium niobate substrate P. Ganguly, J. C. Biswas, S. K. Lahiri, **M N Goswami**, G. A. Kumar and S. L. Sharma **Journal of Optics, 34 (2005) 145 - 152**
- XIX. Experimental Realization and Characterization of the Dispersion Compensating Optical Fiber with lower Bending Losses for DWDM Transmission in 1450 nm 1630 nm Band. P. R. Watekar, **M N Goswami**, J. C. Biswas and H. N. Acharya **Journal of Optical Communications (2005)**
- XX. Experimental realization of a novel dispersion-compensating optical fiber amplifier for simultaneous compensation of positive dispersion and losses. Pramod R. Watekar, **M N Goswami**, J. C. Biswas, H. N. Acharya and B. P. Pal. **Optical and Quantum Electronics (2005) 1 - 14**
- XXI. Effects of erbium doping depth in cladding on the performance of dispersion compensating optical fibre amplifier. Pramod R Watekar, **M N Goswami**, J C Biswas & H N Acharya. **Indian J. Engg. & Mat. Sci. 12 (2005) 17 - 23**
- XXII. The effects of an axial index dip on a low-nonlinear and nonzero-dispersion wideband optical fiber link containing an Er-doped dispersion compensating optical fiber amplifier. P.R. Watekar, **M N Goswami**, J. C. Biswas and H. N. Acharya. **J. Opt. Communications 26 (2) (2005) 61 - 65**
- XXIII. Design of Single Link Dispersion Compensating Optical Amplifiers using Petermann Spot Size Definitions and Pump Power/Er-concentration Optimization Technique. P. R. Watekar, **M N Goswami**, J. C. Biswas and H. N. Acharya. **J. Opt. Communications 25 (6) (2004) 263 - 266**
- XXIV. Charge Storage and Photoluminescence Characteristics of Silicon Oxide Embedded Ge Nanocrystal Trilayer Structures. K. Das, S. Maikap, Je-Hun Lee, **M N Goswami**, R. Mahapatra, G. S. Kar, A. Dhar, H. N. Acharya and S. K. Ray. **Applied Physics Letters 84(8) (2004) 1386 - 88**
- XXV. A Novel dispersion compensating Optical fiber amplifier: Experimental studies P. R. Watekar, **M N Goswami**, J.C. Biswas, H. N. Acharya and B. P. Pal **Journal of Optics (India) 33(4) (2004) 255 - 263**
- XXVI. Simultaneous Compensation of Dispersion and Losses Using Er-doped Double-Core Optical Fiber. P. R. Watekar, **M N Goswami**, J. C. Biswas and H. N. Acharya. **Optical and**

- Quantum Electronics 36(5) (2004) 405 – 411**
- XXVII. Synthesis of Er³⁺ and Er³⁺:Yb³⁺ doped sol-gel derived silica glass and studies on their optical properties. Dipankar Mandal, H. D. Banarjee, **M N Goswami** and H. N. Acharya **Bulletin of Material Science 27(4) (2004) 367 – 372**
- XXVIII. Photoluminescence properties of Eu³⁺-doped barium strontium titanate (Ba, Sr) TiO₃ ceramics C. B. Samantaray, **M N Goswami**, D. Bhattacharya, S. K. Ray and H. N. Acharya **Materials Letters 58 (2004) 2299–2301**
- XXIX. Er-doped concentric-cores optical fiber for simultaneous amplification and compensation of positive dispersion. P. R. Watekar, **M N Goswami**, H. N. Acharya, J. C. Biswas and B. P. Pal. **Chinese Optics Letters 02(01) (2004) 12 – 14**
- XXX. A novel design of the low non-linearity dispersion compensating optical fiber amplifier and link for DWDM transmission in the 1540 – 1580 nm band. P. R. Watekar, **M N Goswami**, J. C. Biswas and H. N. Acharya. **Journal of Optical Communications 25 (2004) 263 – 266**
- XXXI. Electron-phonon interaction assisted photoluminescence in Eu₂O₃ nanocrystals P. Mohanty, S. Ram, **M N Goswami** and H. N. Acharya. **Indian Journal of Physics 78A (2004) 239 – 242**
- XXXII. Preparation and characterization of nanocrystalline Sr_{1-x}Bi_{2+y}Ta₂O₉ powders. Asit Baran Panda, Amita Pathak, **M N Goswami**, Panchanan Pramamik. **Material Science Engineering B 97 (2003) 275 – 282.**
- XXXIII. Experimental realization of double core dispersion compensating optical fiber for S-band optical communications. P. R. Watekar, **M N Goswami**, and H. N. Acharya. **Quantum Electronics 33(6) (2003) 542 – 544**
- XXXIV. Effect of axial index dip on the characteristics of broadband dispersion compensating optical fiber. P. R. Watekar, **M N Goswami**, S. Kher, J. C. Biswas and H. N. Acharya. **Indian J. Pure & Appl. Phys. 41 (2003) 358 – 361**
- XXXV. Er-concentration/minimum pump power optimization technique for design of broadband single link using Er-doped dispersion compensating optical amplifiers. P. R. Watekar, **M N Goswami**, J. C. Biswas and H. N. Acharya. **Indian J. Engg. & Mat. Sci. 10 (2003) 27 – 32.**
- XXXVI. Studies of the emission characteristics of Erbium/Ytterbium-doped optical fibers. P. R. Watekar, J. R. Panda, **M N Goswami**, S. Kher, J. C. Biswas and H. N. Acharya. **Indian Journal of Physics 77B (4) (2003) 439 – 441**
- XXXVII. Fluorescence and SEM/EDAX studies of Erbium doped SiO₂-GeO₂ preforms processed by MCVD. P. R. Watekar, **M N Goswami**, J. C. Biswas and H. N. Acharya. **Indian Journal of Physics 76A (6) (2002) 527 – 529**
- XXXVIII. Diffuse phase transition in modified lead germanate ferroelectrics. **M N Goswami**, H. N. Acharya, R. N. P. Choudhary and P. K. Mahapatra. **Journal of Physics D: Applied Physics 34 (2001) 1 – 6. 39.** Diffuse phase transition in modified Pb₅Ge₃O₁₁ ceramics. **M N Goswami**, R. N. P. Choudhary and P. K. Mahapatra. **Phase Transition 69 (1999) 169 – 182.**
- XXXIX. Ferroelectric phase transition in modified lead germanate. **M. L. Nanda Goswami**, R. N. P. Choudhary and P. K. Mahapatra. **Ferroelectrics 227 (1999) 175 – 187.**
- XL. Dielectric and pyroelectric properties of Pb_{5-x}A_xGe₃O₁₁ (A=Ca, Sr, Ba) ferroelectrics. **M N Goswami**, R. N. P. Choudhary and P. K. Mahapatra. **Journal of Material Science Letters 18 (1999) 723 – 725.**
- XLI. Structural, dielectric and pyroelectric properties of La-doped Pb₅Ge₃O₁₁ ferroelectric. **M N Goswami**, R. N. P. Choudhary and P. K. Mahapatra. **Indian Journal of Physics 73A(4) (1999) 445 – 452.**
- XLII. Structural and electrical properties of modified lead germanate ferroelectrics. **M N Goswami**, R. N. P. Choudhary and P. K. Mahapatra. **Journal of Physics and Chemistry**

Solids 59 (1998) 1045 – 1052

- XLIII. Phase transition in $Pb_5Ge_2TiO_{11}$ ceramics. **M N Goswami**, P. K. Mahapatra and R. N. P. Choudhary. **Materials Letters 35 (1998) 329 –333.**
- XLIV. Structural and electrical properties of Zr modified $Pb_5Ge_3O_{11}$ ferroelectrics **M N Goswami**, R. N. P. Choudhary and P. K. Mahapatra. **Ferroelectrics 216 (1998) 1-10.**
- XLV. Phase transition in $Pb_5Ge_2ZrO_{11}$ ceramics. **M N Goswami**, R. N. P. Choudhary and P. K. Mahapatra. **Chemical Physic Letters 278 (4-6) (1997) 365 – 368.**
- XLVI. Structural and electrical properties of $Pb_5Ge_{2.5}Ti_{0.5}Ge_3O_{11}$ ferroelectrics. **MNGoswami**, P. K. Mahapatra and R. N. P. Choudhary. **Indian Journal of Pure & Applied Physics 35 (1997) 743 – 748.**
- XLVII. Structural and electrical properties of $TiNaMoO_4$. R. N. P. Choudhary, **M N Goswami** and S. Sharma. **Indian Journal of Pure & Applied Physics 35 (1997) 397 – 401.**
- XLVIII. Phase transition in $TiLiMoO_4$ ceramics. R. N. P. Choudhary, **M N Goswami** and S. Sharma. **Indian Journal of Physics 71A(2) (1997) 153 – 160.**
- XLIX. Successive phase transition in $TiNaWO_4$ ceramics. R.N.P.Choudhary, S.Sharma and **M N Goswami**. **Materials Letters 32 (1997) 37 – 41.**
 - L. Structural and electrical properties of $TiLiWO_4$ ceramics. R. N. P. Choudhary, S. Sharma and **M N Goswami**. **Journal of Material Science Letters 16 (1997) 908 –910.**
 - LI. Ferroelectric Phase transition in $TiKW_4$. R. N. P. Choudhary, **M N Goswami** and S. Sharma. **Ferroelectrics 200 (1997) 13 – 20.**
 - LII. Design and fabrication of low cost ferroelectric loop tracer – a noble experimental set-up. R.N.P.Choudhary, S. Bera, T. Kar and **M N Goswami**. **Physics Education (India) 14 (1997) 255 – 260.**

➤ **List of Books/chapters in book published /edited:**

- i) Goswami, M N. Dhumketu.2013
- ii) Goswami, M N. Radioactive Hazards in the context of Jadugora Uranium Mines - A Case Study. Environmental Awareness and Introspective. Midnapore. 2016. ISBN 978-93-80736-26-6

➤ **Research Interest:**

Multifunctional Materials, Nanostructured semiconductors, Photonics etc.

➤ **Associated with any other Organization:**

- i) Indian Physical Society
- ii) Indian Association of Physics Teachers
- iii) Indian Physics Association

➤ **Sponsored Project Ongoing/Completed:**

Title of the Project	Sponsored	Year	Rs. (lakh)
Preparation and characterization of Multiferroic Materials	UGC	2008-10	0.75
Preparation and characterization of glass	UGC	2014-	3.8

➤ Extracurricular Activities:

- i) Science Popularization
- ii) Development of Teaching Methodology

