

CURRICULAM VITAE

Name: Prof. Siddhartha Sankar Nath
Father's Name: Late Upendra Chandra Nath
Mother's Name: Sujala Rani Nath
D.O.B : 29th January, 1976
Gender: Male
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Nationality: Indian
Present position: Principal, Cachar College, Silchar, Assam, India
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Academic Qualification:

Examination Passed	University/ Board	Year of Passing	Div / Class
HSLC (10 th)	TBSE	1990	I
H.S. (+2 Stage)	TBSE	1992	I
B. Sc (Hons).	NEHU	1995	1 st Class 1 st
M. Sc (Electronics)	Guwahati University	1997	1 st Class 1 st
P.G. Dip. in Instrumentation.	Guwahati University	1999	1 st Class 1 st
M. Tech.	WBUT	2015	I

in Electronics & Comm. Engg (Micro Electronics & VLSI)			
Ph.D in Nanotechnology	Tezpur University	2004	-
NET (Electronics)	UGC	2005	-

Teaching and Research Experience: More than 15 years

No. of Ph. D students supervised: 10.

No of M. Phil students supervised 03

Research Projects:

S.No.	Title	Agency	Period	Grant/ Amount Mobilised (Rs. In Lakh)
1.	SHI irradiated II-VI semiconductor quantum dots....light emitting device.	IUAC	3years (Jan2012- Jan2015)	6.75
2.	Preparation of II-VI semiconductor quantum dots...second harmonic generation.	SERB (DST)	3years (July2012- July2015)	20.04
3.	Development and commissioning of SODAR system(North-East India)	SAMEER, Mumbai.	2years (March2013- March2015)	41.69
4.	Application of innovative(RF+HOT air)technology for processing of agro products.	SAMEER, Mumbai.	2years (March2013- March2015)	38.42

Book published:

1. Name of the Book: Synthesis of semiconductor quantum dots and their applications.
Authors: S S Nath. Publishers: *LAP LAMBERT Academic Publishing AG & Co. KG, Germany.*
2010, ISBN: 978-3-8383-6106-2. Authored by S S Nath

2. Name of the Book: Preparation of quantum dots and their uses in electronics and optics.
Authors: Gautam Gope, D Chakder, S S Nath. Publishers: VDM Verlag Dr. Muller GmbH & Co. KG, Germany. 2010, ISBN: 978-3-639-20197-0. Authored by G Gope and S S Nath

List of Publications

Peer reviewed journals (with ISSN no): 100

Conference Proceedings: 32

(Peer Reviewed Journals with ISSN nos)

2021

1. A.Ganguly, S.S.Nath, V.M. Srivastava, Swift Heavy Ion Irradiated SnO₂ Quantum Dots Based Nano Light Emitting Device, Optoelectronics and Advanced Materials- Rapid Communications: Vol-15, No 3-4, PP 120-123, 2021.
2. A.Ganguly, S.S.Nath, V.M. Srivastava. Comparative Analysis of ZnO quantum dots synthesized on PVA and PVP Capping matrix. *Nanosistemi, Nanomateriali, Nanotehnologii*, Vol.19(2), 2021 (accepted) [SCOPUS]
3. Nandita Dutta, K Dutta Choudhury, M dutta Choudhury, S S Nath, Hydro power Generation : A case Study of Sonbeel, *International . J. Innovation In Engineering and Tech.*, Vol. 13, Issue 4, pp 045-050

2020

4. Pijush C Dey, Birson Ingti, Amitabha Bhattacharjee, Manabendra Dutta Choudhury, Ratan Das, Siddhartha S Nath; Enhancement of antibacterial activity of synthesized ligand-free CdS nanocrystal due to silver doping; *J. Basic Microbiology*; doi: 10.1002/jobm.202000296, pp -1-36, 2020. I.F 1.909.
5. A. Ganguly, S.S.Nath. Mn-doped quantum dots as sensitizers in solar cells. *Material Science and Engineering: B*, 2020, Vol.- 225, p.114532.[SCI]. I.F- 4.706

6. A. Ganguly, **S.S.Nath**, V.M. Srivastava. Enhanced Efficiency In Swift 100 MeV Ni Ion Irradiated Zns Quantum Dot Sensitized Solar Cell” ; *Chalcogenide Letters*, Vol. 17, No. 10, Oct. 2020. [SCIE]. I.F- 0.97

2019

7. A. Ganguly, **S.S Nath**, and M. Choudhury. Effect of Cu Doping and Ion Irradiation of PbS Quantum Dots and their Applications in Solar Cells. *IET Optoelectronics*. Vol. 13, Issue 3, June 2019, pp. 113 – 117. [SCI]. I.F- 1.667
8. A. Ganguly, **S. S. Nath**. Nickel doped ZnS Quantum Dots for Sensitization in Solar Cell. *J. Nanoelectron. Optoelec.* Vol. 14, No. 2, Feb. 2019, pp. 286-290. [SCIE]. IF- 1.069
9. Nandita Das, K Dutta Choudhury. M Dutta Choudhury, **S S Nath**, Hydro Power Generation: A Case Study of Sonbeel; *Int. J. Innovations in Engg. and Tech.* Vol.13, Issue 4, 2019

2018

10. A. Ganguly, **S. S. Nath**, and Madhuchhanda Choudhury. Effect of Mn Doping on Multilayer PbS Quantum Dots as Sensitized Solar Cell. *IEEE Journal of Photovoltaics*. Nov. 2018, Vol.8, No.6, pp.1656-1661. [SCIE]. **I.F-3.075**
11. A. Ganguly, **S.S Nath**, and M. Choudhury. Enhanced Efficiency in SHI irradiated CdS Quantum Dots Sensitized Solar Cell. *IEEE Photonics Technology Lett.* Oct.2018, Vol.30, Issue.19, pp.1735-1738. [SCI]. **I.F- 2.446**
12. A. Ganguly, **S.S Nath**, and M. Choudhury. Effect of Cu Doping and Ion Irradiation of PbS Quantum Dots and their Applications in Solar Cells. *IET Optoelectronics*. 2019, (accepted), [SCI] **I.F- 1.506**
13. A. Ganguly, **S.S. Nath**, and M. Choudhury. Copper Doped PbS Quantum Dots as Sensitizers for Solar Cells. *J. Nanoelectron. Optoelectron.* 2018, Vol. 13. No. 6. Pp. 906-911 [SCIE] **I.F-1.069**
14. A. Ganguly, **S.S. Nath**, and M. Choudhury. Copper Doped CdS Quantum Dots as Sensitizers for Solar Cells. *IET Micro Nano Letters*. 2018, Volume: 13, Issue- 8, Pp. 1188 – 1191 [SCIE]. **I.F-0.841**
15. A. Ganguly, **S. S. Nath**. Nickel doped ZnS Quantum Dots for Sensitization in Solar Cell. *J. Nanoelectron. Optoelec.* 2018 [SCIE]. (in press). IF- 1.069

16. A. Ganguly, **S. S. Nath**, G. Gope, M. Choudhury. A back illuminated solar cell using PbS quantum dots and sensitizers. *International Journal of Nanoparticles*. Vol.10, No. 3, 2018, pp.218-214 [SCOPUS]
17. **S. S. Nath**, A. Ganguly, G. Gope, M. R. Kanjilal. ZnS quantum dots based voltage sensing light emitting device. *IEEE Sensors Letters.*, 2018, Vol.2, Issue.3, 3501904.
18. S R Devi, **SS Nath**, BI Sharma, RK London Structural, Compositional and Optical properties of PVA Capped Nanocrystalline CdSe Thin Films Prepared by Chemical Bath Deposition. *Chalcogenide Letters* 2018, 15 (12), , 639-648

2017

19. A. Ganguly, **S. S. Nath**, G. Gope, M. Choudhury. CdS quantum dot sensitized zinc oxide based solar cell with aluminum counter electrode, *Nanosystems: Physics, Chemistry, Mathematics*, 2017, 8 (6), P. 782–786 [ESCI]
20. **S. S. Nath**, A. Ganguly, G. Gope, M. R. Kanjilal. SnO₂ quantum dots for nano light emitting devices, *Nanosystems: Physics, Chemistry, Mathematics*, 2017, 8 (5), P. 661–664 [ESCI]
21. A. Roy, **S.S Nath**; Theoretical Approach to Substantiate the Generation of Second Harmonic frequency by ZnS Quantum Dots, *International Journal of Scientific Development and Research*, Vol.2 Issue 8, (2017)
22. A. Roy, **S.S Nath**; A Comparative Study on ZnS and CdS quantum Dots prepared Through Chemical Method; *International Journal of Nanoscience and nanotechnology*, vol.8,no.1,pp73-82,(2017)
23. A. Roy, **S.S. Nath**; Theoretical Approach to Substantiate the Generation of Second Harmonic frequency by CdS Quantum Dots, *International Journal of Information Research and Review* Vol. 04, Issue, 10, pp.4619-4622, October, (2017)
24. A Roy, **S S Nath**; Theoretical Approach to Substantiate the Generation of Second Harmonic Frequency by SnO₂ Quantum Dots, *Journal of Nano Technology and Its Applications in Engineering*. Vol. 2, Issue 3, pp 1-11 (2017)
25. L Baruah and **S S. Nath** , Electroluminescence of Copper doped ZnTe Quantum Dots, *Research Inspiration*, Vol. 2, Issue-II March 2017, ISSN 2455443X, 345
26. L Baruah,, **S S Nath**, Fluorescence and Electroluminescence of CdTe Nanocrystals for nano LEDs, *International Journal of Scientific Development and Research*, I SSN: 2455-2631 July 2017 IJSDR | Volume 2, Issue 7

27. L Baruah, BI Sarma , **S S Nath** Green emission for SHI irradiated ZbTe quantum dots. *International Research Journal of Multidisciplinary Science & Technology* Volume: 02 Issue: 06 June-2017 www.irjmrs.com ISSN : 2455-930X
28. L Baruah, BI Sarma , **S S Nath** Electroluminescence for copper doped CdTe nanocomposite. *International Journal For Technological Research In Engineering* Volume 4, Issue 11, July-2017 ISSN (Online): 2347 – 4718
29. L Baruah, BI Sarma , **S S Nath** Green Luminescence of Copper doped ZnTe Quantum Dots *International Journal of Nanotechnology and Applications* ISSN 0973-631X Volume 11, Number 2 (2017), pp. 247-253
30. L Baruah, **S S Nath**, Improved luminescence of Cu doped ZnTe quantum dot irradiated with 120 MeV Fe ⁺³ ions. *Journal of Applied and Natural Sciences* (IJANS) ISSN (P): 2319-4014; ISSN (E): 2319-4022 Vol. 6, Issue 5, Aug – Sep 2017; 59-64

2015

31. Ratan Das, Sumit Sarkar, Mitu Saha, Pijush Ch. Dey, **S. S. Nath**, Two peak luminescence from linoleic acid protected gold nanoparticles, *Journal of Luminescence*. 2015 168 325-329,(Impact factor-2.68).

2014

32. Sarangthem. Ranibala Devi, N. Shubhaschandra Singh, **S. S. Nath**, Ramendu Bhattacharjee Effect of Bath Temperature on Preparation of PVA and TEA Capped CdSe Nano Crystalline Thin Films, *International Journal of Nano Science and Nanotechnology*. ISSN 0974-3081 Volume 5, Number 1 (2014), pp. 67-82
33. Ratan Das, Rupam Sen, Ashim Kalyan, Raghunandan Das, Subha Gaurab Roy, Joydeep Choudhury, B. Indrajit Sharma, R. K. Thapa, **S S Nath**, Ramendu Bhattacharjee, Lie Algebraic Study of Infra-Red Active Spectra of Single-Layer Graphene, *Polycyclic Aromatic Compounds*, 2014, 34, 214-224, (Impact factor-1.569).

2013

34. Ratan Das, **Siddhartha S. Nath**, Ramendu Bhattacharjee, Synthesis and Characterization of Linoleic Acid Capped Palladium Nanoparticles (Chapter Title), *Advanced Nanomaterials and Nanotechnology* (Book Title), *Springer Proceedings in Physics*, 2013, 143, 139-142

35. R K Nath, **S S Nath**, Effect of thickness variation on structural, optical and gas sensing properties of ZnO quantum well, *Frontier of Research in Physical Sciences*, p-153, ISBN 9788193126806
36. Ratan Das, Mitu Saha, Syed Arshad Hussain, **Siddhartha S. Nath**, Silver Nanoparticles and Their Antimicrobial Activity on a Few Bacteria, *Bio-NanoScience*, 2013, 3, 67–72.
37. L. Baruah and **S.S. Nath**, The Characterization and Synthesis of CdTe Quantum Dots in Liquid Paraffin , *J.Nanotech. Prog. Int.* (JONPI) volume 4, issue 1, 2013
38. L Baruah, **S S Nath**, Fluorescence of ZnTe Quantum Dots Prepared Through Chemical Route *Nanoscience and Nanotechnology-Asia*, 2013, 3, 000-000.
39. A. Roy, **S.S Nath**, R.Bhattacharjee ; ZnS Quantum Dots for Second Harmonic Generation, *International Journal of Nano Science and Nano Technology*, Vol.4,No.2 pp 195-200 (2013)
40. A Roy, **S. S Nath**; SnO₂ Quantum Dots for Second Harmonic Generation, *Journal of Nanotechnology Progress International*, Vol.4, issue 2 ,pp 6-9 (2013).
41. S Ranibala Devi, R K London Singh, **S S Nath**, Tea-capped CdSe nanoparticle: “Green” synthesis, characterization and optical properties *Chalcogenide Letters* Vol. 10, No. 4, April 2013, p. 151 - 158

2012

42. **R** Das, S. Gang, **S. S. Nath**, and R. Bhattacharjee, Preparation of Linoleic Acid Capped Silver Nanoparticles and Their Antimicrobial Effect, *Journal of Nanobiotechnology*, 2012, 6(2), 81–85, ISSN 1751-8741, (Impact factor-4.946).
43. S C Dey, **S S Nath**, Size dependent fluorescence of CdSe quantum dots, , *Emerging material research*, Vol. 1, pp 117-120, 2012. (**Impact Factor: 1.0**)
44. R K Nath, **S S Nath**, K Sunar, Sn doped ZnO thin films or LPG Sensor, *J. Analytical Science and Technology*, 3(1), pp 85-94, 2012.(**Impact Factor: 1.5**), ISSN 20933371
45. L Baruah, **S S Nath**, Size-Controlled Synthesis of CdS Quantum Dots in PVP Matrix, *Micro Nano System* Vol.4, Issue 1, 2012.

46. S C Dey, **S S Nath**, R Bhattacharjee Size Dependent luminescence of colloidal CdSe quantum dots, *J. Micro Nano System* Vol.4, Issue 1, 2012.
47. L Baruah, **S S Nath**, CdS quantum dots and its Optical Properties. *Assam University journal of Scie. and Tech*, 2012.
48. S. C Dey, **S. S Nath**, and R., Bhattacharjee, Violet-Blue Emitting Semiconductor LED of ZnSe Quantum Dots, *Journal of Semiconductor Technology and Science, Scholar One*, (accepted in March 2012), Impact factor= H Index 3.
49. S. C Dey, **S. S Nath**, and R Bhattacharjee, Size-dependent Photoluminescence and Electroluminescence of Colloidal CdSe Quantum Dots, *Optical Materials, Elsevier*, (accepted in March 2012), Impact factor=1.832.
50. S. C Dey, **S. S Nath**, and R Bhattacharjee, Fluorescence Study of Colloidal ZnSe Quantum Dots, *A. U. Journal of Science and Technology*, Vol. 10, No. II, p134-138, (2012).
51. R Das,L Baruah, S. C Dey, G Gope, **S. S Nath**,. and R Bhattacharjee,, Impedance Study of Micron Sized Iron and Copper Particles and Their Mixture in Paraffin, *A. U. Journal of Science and Technology*, Vol. 10, No. II, p6-9, (2012).

2011

52. S C Dey, R Das, **S S Nath**, R Bhattacharjee, Optical Properties of Colloidal CdSe Quantum Dots, *Micro and Nano Letters*, Vol. 6, Iss. 3, pp. 113–115, 2011 (Impact Factor: 1.2)
53. S C Dey, **S S Nath**, Electroluminescence of Colloidal ZnSe Quantum Dots, *Journal of Luminescence*, Vo. 131, Issue 1, pp 2707-2710, 2011 (Impact Factor: 2.686)
54. R Das, **S. S. Nath**, and R. Bhattacharjee, Luminescence of Copper Nanoparticles, *Journal of Luminescence*, 2011, 131,2703-2706, ISSN 0022-2313, (Impactfactor-2.686).
55. **S S Nath**, M.Choudhury, R K Nath, PVP embedded ZnO quantum dots for methanol sensor, *J. Nanotechnology Progress International*, Issue 4, 2011
56. R Das, S. Gang, **S. S. Nath**, and R. Bhattacharjee, Preparation and Antibacterial Activity of Silver Nanoparticles, *Journal of Biomaterials and Nanobiotechnology*, 2011, 2, 472-475, ISSN 2158-7027 ,(Impact factor-1.44).

57. R Das, **S S Nath**, Copper nanoparticles and their properties, *J Nanolife* (Accepted, 2011)
58. R Das, **S S Nath** , Preparation of Copper Nanoparticles and Their Antibacterial Activity, *Int. J. Nanoparticles* (Accepted, 2011)
59. M. Choudhury, **S S Nath**, R K Nath, ZnO:PVP quantum dot ethanol sensor, *J. Sensor Technology*, Vol. 3, 2011. (Impact Factor: 1.0)
60. **S S Nath**, G Gope, D Chakder, R Das, Improving the tuning phenomenon of CdS quantum dot by Fe⁺³ Doping, *J. Nanotechnology Progress International*, Issue 4, 2011
61. G Gope, **S S Nath**, Tuned phenomena of Mn doped CdS quantum dots, *Assam University journal of Sc. and Tech.*, 2011.
62. **S S Nath**, quantum dots as fast Photonic and Electronic switch, *Nanotrends-A journal of nanotechnology and its application*, 2011.
63. **S S Nath**, L Baruah, *ZnS quantum dots as nano electronic filters*, Assam University J. Science and Technology, 2011
64. G. Gope, **S. S. Nath**, D. Chakdar, Ratan Das, Improving the tuning phenomenon of CdS quantum dot by Fe 3+ Doping, *J. Nanotech. Prog. Int. (JONPI)*, 2011, issue 4.

2010

65. R Das, **S S Nath**, R Bhattacharjee, Linoleic acid Capped Copper Nanoparticles for Antibacterial Activity, *Journal of Bionanoscience*, Vol.4, pp 1-5, 2011(**Impact Factor: 1.17**)
66. R. Das, **S S Nath**, R Bhattacharjee, Optical Properties of Linoleic Acid Protected Gold Nanoparticles, *Journal of Nanomaterial*, Vol. 2011, p 1, 2010. (**Impact Factor: 2.0**)
67. R Das, **S. S. Nath**, G. Gope, D. Chakder, and R. Bhattacharjee, Synthesis of Silver Nanoparticles and Their Optical Properties, *Journal of Experimental Nanoscience* , 2010, 5(4), 357-362, ISSN: 1745-8099,(Impact factor-0.875).
68. R. Das, **S S Nath**, R Bhattacharjee, Preparation of Linoleic Acid Capped Gold Nanoparticles and Their Spectra, *Physica E*, Volume 43, Issue 1, November pp 224-227, 2010. (**Impact Factor: 1.5**)

69. **S S Nath**, M.Choudhury, R K Nath, G. Gope, D Chakder, Acetone Sensing of ZnO quantum dots embedded in PVA matrix, *Advanced. Science. Letter*. Vol. No. 1, p 6, 2010(**Impact Factor: 1.3**)
70. **S S Nath**, M.Choudhury, R K Nath, G. Gope, Acetone sensing property of ZnO quantum dots embedded on PVP, *Sensors and actuators B: Chemical*, Vol. 148, pp 353-357, 2010. (**Impact Factor: 3.7**)
71. **S S Nath**, M.Choudhury, R K Nath, G Gope, PVA embedded ZnO quantum dots for methanol sensing , *Nanotrends-A journal of nanotechnology and its application*, Vol 8, Issue 3, p 1, 2010
72. R Das, **S. S. Nath**, G. Gope, D. Chakder, and R. Bhattacharjee, Synthesis of Silver Quantum Dots and Their Characterizations, *Assam University Journal of Science & Technology*, 2010, 5(II), 123-125, ISSN 0975-2773.
73. S. C. Dey, Ratan Das, G. Gope, **S. S. Nath**, and R. Bhattacharjee, UV/vis spectroscopy and impedance analysis of CdSe Quantum Dots, *Assam University Journal of Science & Technology*, 2010 6(II), 1-5, ISSN 0975-2773.
74. R. Das, **S S Nath**, R Bhattacharjee, Characterization of linoleic acid protected gold nanoparticles, *Assam University journal of Sc. and Tech*. Vol.6, No 2, pp 26-29, 2010.
75. M.Choudhury, **S S Nath**, , R K Nath, G. Gope, ZnO quantum dots in SBR latex for methanol sensing, *Assam University journal of Sc. and Tech*. Vol.6, No 2, pp 46-50, 2010.
76. **S S Nath**, U Sarkar, Investigation of air refractive index profile over Silchar region to predict the propagation of radio wave, *Assam University journal of Sc. and Tech*. Vol.6, No 2, pp 117-119, 2010.
77. S. C. Dey, R Das, **S. S; Nath**,. and R, Bhattacharjee, Fluorescence Study of CdSe Quantum Dots Suspended in Liquid Paraffin, *Nano*, World Scientific Publishing Company, Vol. 5, No. 6, 2010, p357-359, **Impact factor=1.008**
78. R Das, **S. S. Nath**, R. Bhattacharjee, Characterization of Linoleic Acid Capped Copper Nanoparticles (Chapter Title), *Synthesis and Characterization of Nanostructured Materials (Book title)*, Mac Milan Publishers, 2010, 299-304, ISBN 10:0230-33193-9.
79. **S S Nath**, U Sarkar, Microwave attenuation due to dust particles, *International J. Computer Sc and Network Security*, 2010 (in press)

80. **S S Nath**, U Sarkar, Microwave attenuation due to rainfall, *International J. Wireless Communications and Networking*, 2010(Accepted).
81. S. C. Dey, Ratan Das, **S. S. Nath**, and R. Bhattacharjee, Photoluminescence of CdSe Quantum dots suspended in liquid paraffin, *Optoelectronics and Advanced materials*, 2010, 4(11), 1721 – 1723, (Impact factor-0.39).
82. R. Das, **S. S. Nath**, and R. Bhattacharjee, Synthesis of Uniform Silver Nano Particles and Their Characterization (Chapter Title). *Photonics and Quantum Structures* (Book Title), Narosa publishers, 2011, 103-107, , ISBN 978-81-8487-098-5
83. Ratan Das, **S. S. Nath**, and R. Bhattacharjee, Synthesis of linoleic acid protected copper nanoparticles and their fluorescence study, *Journal of Fluorescence*, 2010, 21, 3, 1165-1170, ISSN 1053-0509,(Impact factor-1.461).
84. R Das, S. C. Dey, G. Gope, **S. S. Nath**, and R. Bhattacharjee, Characterization of Linoleic Acid Protected Gold Nanoparticles, *Assam University Journal of Science & Technology*, 2010, 6(II), 26-29, ISSN 0975-2773.

2009

85. **S S Nath**, D Chakder, G Gope, Green luminescence of ZnS and ZnS: Cu quantum dots embedded in Zeolite matrix, *J. Appl. Phys.* Vol. 105, p 094305 2009. (**Impact Factor: 2.4**)
86. R Das, **S S Nath**, R Bhattacharjee, Preparation of Silver Nanoparticles and Their Characterization, *Azojonano- Journal of Nanotechnology*, Vol.5, p 1, 2009.
87. **S S Nath**, D Chakder, G Gope, Luminescence study of ZnS quantum dots prepared by chemical method, *J. of Dispersion Science and Technology*, Vol. 30, issue 7, p 1111, 2009. (**Impact Factor: 1.1**)
88. R K Nath, **S S Nath**, Thin dioxide based thin film ethanol sensor, prepared by spray pyrolysis method, *Sensors and materials*, Vol. 21, No 2, pp 95-104, 2009. (**Impact Factor: 1.2**)
89. R K Nath, **S S Nath**, Sn-doped Zinc Oxide Thin Films for Methanol sensor, *Sensors & Transducers Journal*, Vol. 108, issue 9, p 168, 2009,

2008

90. **S S Nath**, D Chakder, G Gope, Novel effect of 100 MeV Ni⁺⁷ ion beam on ZnS quantum dots prepared by chemical method, *The Internet journal of Nanotechnology*, Vol. 2, No.1, 2008.
91. **S S Nath**, D Chakder, G Gope , D K Avasthi, Novel effect of Swift Heavy Ion on ZnO quantum dots prepared by quenching method , *Nanotrends-A journal of nanotechnology and its application*, Vol. 3, Issue 3, p1, 2008.
92. **S S Nath**, D Chakder, G Gope, Luminescence spectroscopy of silica coated ZnS quantum dots embedded in PVA matrix, *International Journal of nanotechnology and Applications*, Vol. 2 No.1, p 47-53, 2008.
93. **S S Nath**, D Chakder, G Gope, Characterizations of CdS and ZnS quantum dots prepared via A Chemical method on SBR Latex *Azojonano- Journal of Nanotechnology*, Vol.4, pp-1, 2008.
94. **S S Nath**, D Chakder, G Gope, D K Avasthi, Effect of the 100 MeV Nickel-Ion on Silica coated ZnS Quantum Dots, *Journal of nanoelectronics and opto electronics*, Vol.3, pp1-4, 2008. **(Impact Factor: 1.4)**
95. **S S Nath**, D Chakder, G gope, R Das, D K Avasthi, Novel effect of 100 MeV Ni⁺⁷ ion on silica coated ZnS quantum dots, *Annu. Report Inter University Accelerator Center*, p 148, 2007-2008

2007-2003

96. **S S Nath**, D Chakder, G Gope, Synthesis of CdS and ZnS quantum dots and their applications in Electronics, *Nanotrends-A journal of nanotechnology and its application*, Vol 02, Issue 03, 2007
97. D Mohanta, **S S Nath**, S K Dolui, A Choudhury, DSize estimation and luminescence enhancement of II-VI semiconductor quantum dots, *Asian J. Physics*, 12, No. 1, p. 57, 2003.
98. D Mohanta, **S S Nath**, S K Dolui, N C Mishra, A Choudhury, Irradiation induced grain growth and surface emission enhancement of ZnS:Mn / PVOH semiconductor nano particles by CI⁺⁹ ion impact, *Bull. Mat. Sci.*, Vol. 26, No.3, p. 289, 2003. **(Impact Factor: 0.8)**
99. D Mohanta, **S S Nath**, S K Dolui, N C Mishra, A Choudhury, Ion irradiation

response of semiconductor nano particles embedded in polymer matrix, *Annu. Report, Nuclear Science Centre*, p-116. 2001-2002

100.D Mohanta, **S S Nath**, S K Dolui, N C Mishra, A Choudhury, Optical absorption study of 100-MeV chlorine ion irradiated hydroxyl free ZnO semiconductor quantum dots, *J. Appl. Phys.*, Vol. 92, No. 12, p.1, 2002. (**Impact Factor: 2.4**)

Conference Proceedings (30)

1. A.Ganguly, **S.S.Nath**, V.M. Srivastava, CdS Quantum Dots Based Nano Light Emitting Device, 2021 International Symposium on Devices, Circuits and Systems (ISDCS) | 978-1-6654-1478-4/20/\$31.00 ©2021 IEEE | DOI: 10.1109/ISDCS52006.2021.9397901
2. A. Ganguly, **S. S. Nath**, G. Gope, M. Choudhury, Synthesis and characterization of one pot synthesized PVA capped PbS quantum dots. *IEEE conference on Devices for Integrated Circuit (DevIC)*, 23-24 March, 2017, Kalyani, India. 978-1-5090-4724-6/17/©2017 IEEE. Pages: 141 – 143
3. Abhigyan Ganguly, Rupam Goswami, Madhuchhanda Choudhury, **Siddhartha Sankar Nath**, Simulation of CdS quantum dot sensitized ZnO based solar cell using Silvaco TCAD. *6th International Conference on 'Computing, Communication and Sensor Networks', CCSN-2017*
- 4.
5. A. Roy, **S.S. Nath**, ; *Proceedings of National Symposium on Advances in Chemical Sciences* , Organised by the Department of Chemistry, Assam University ,Silchar , on 11-12 January ,2017; with paper entitled “Cadmium Sulphide quantum dots for Second Harmonic Generation”
6. L. Baruah and **S S Nath** “Luminescence studies in swift heavy ion irradiated Cu Doped ZnTe Quantum Dots”, *National Conference on Chemical Physics*, AUS, 20-21 March, 2017.
7. A. Roy, **S.S. Nath**,; *Proceedings of National Conference on Chemical Physics*, Organised by the Department of Physics, Assam University ,Silchar , March 20-21 ,2017,with presentation entitled topic ‘ Application of ZnS quantum dots in Non-linear Optics’.

8. Electroluminescence from Copper doped Zinc Telluride Quantum Dots”; L Baruah and **S S Nath**, *Recent Advances in Nanoscience and Nanotechnology*, on 8th-9th September, 2016 NEHU, Shillong.
9. **S S Nath**, Quantum Dot for Gas Sensors and its Applications in Environmental Pollution Monitoring. *National Seminar on Emerging Environmental Issues in Today's Society With Special Reference to North East India*, Feb 22-23, 2014.
10. A. Roy, **S.S. Nath**, R Bhattacharjee ; *Proceedings of UGC Sponsored National Seminar on Advances in research in Physical Sciences*, 25-26 March ,2013 , Organised by Cachar College , Silchar in collaboration with Assam College Teachers' Association. Paper presented entitled, 'Second Harmonic Generation by Semiconductor Quantum Dots of Group II-VI Elements.'
11. L Baruah and **S S Nath** , Synthesis of CdTe Quantum Dots in Liquid Paraffin and Their Fluorescence Study”; L Baruah and S S Nath”, *National Seminar on Advances in Research in Physical Science (UGC)*, Cachar College, 25 March, 2013.
12. L Baruah and **S S Nath** , Fluorescence Study of CdTe Quantum Dots prepared in Liquid Paraffin, *International Conference on Material Science (DST, DRDO, INSA, DAE & CSIR)*, Tripura University, 21 February, 2013.
13. **Characteristic Study of CdTe Quantum Dots Prepared in Liquid Paraffin**” ; L Baruah and S S Nath”, *National Seminar on Emerging Areas of Research and Development in Chemical and Physical Science in North East India (UGC)*, Srikishan Sarda College, 16 October, 2012.
14. A. Roy, **S.S. Nath** ; *Proceedings of National Seminar on 'Current Trends in Condensed Matter Physics (CTCMP-2011)*, Presented paper entitled “ Properties of SnO₂ Quantum Dots prepared by Chemical Route ”, 3-5 February ,2011, organised by Department of Physics , Assam University , Silchar.
15. A. Roy, **S.S. Nath**, R Bhattacharjee ; *Proceedings of UGC Sponsored . National Seminar on 'Contemporary Trends of Research in Physical Sciences*, Presented paper entitled 'Optical Properties of Semiconductor Quantum Dots' February 11-12 ,2011, at Department Of Physics , Gurucharan College, Silchar .
16. A. Roy, **S.S. Nath**, R Bhattacharjee; *Proceedings of National Seminar on 'Frontiers of Research in Physics'*, 22-24 December ,2011, Organised by , Karimganj College and Department of Physics , Assam University, at Karimganj College , Karimganj

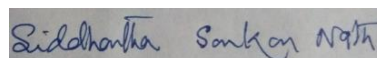
District. With paper “ Semiconductor Quantum Dots And Second Harmonic Generation”.

17. S C Dey, **S S Nath**, A Comparative Study of Fluorescence of CdSe and ZnSe quantum dots, *National Seminar on Current Trends in Condensed matter Physics* Feb 3-5, 2011, Deptt. of Physics, Assam University, Silchar.
18. M Choudhury, **S S Nath**, Application of PVP embedded ZnO quantum dots for ethanol sensing, *National Seminar on Current Trends in Condensed matter Physics* (CTCMP-2011) Organised by Department of physics, Assam University, Silchar,,Feb 3-5, 2011
19. S C Dey, **S S Nath**, A comparative Study of Absorption and Emission of CdSe and ZnSe Quantum Dots, *National Seminar on Contemporary Trends of Research in Physical Sciences* , Feb 11-12, 2011 Deptt. of Physics, Gurucharan Colege, Silchar, Assam.
20. D Chakder, G gope **S S Nath**, Ion irradiated ZnS quantum dots and their luminescence study, *International Symposium on Atomic, Molecular and optical science and high performance computing: A seamless frontier, IACS, Vedic Village, Kolkata, and Jan, 2008.*
21. D Chakder, G gope **S S Nath**, Optical properties of ZnO quantum dots and their application as optical wavelength convert, *International Symposium on Atomic, Molecular and optical science and high performance computing: A seamless frontier, IACS,Vedic Village, Kolkata, Jan, 2008.*
22. D Chakder, G gope **S S Nath**, Semiconductor quantum dots and their electroluminescence study, *International Symposium on Atomic, Molecular and optical science and high performance computing: A seamless frontier, IACS, Vedic Village, Kolkata, Jan, 2008.*
23. D Chakder, G gope **S S Nath**, Optical absorption and luminescence study of ZnS quantum dots, Nanotech 2008, *11th Annual Nanotechnology conference and trade show, Hynes Convention centre, Boston, Massachutts, Vol 3, pp 62, 2008.*
24. D Chakder, G gope **S S Nath**, Effect of swift heavy ion on CdS quantum dots embedded in PVA matrix and their applications, Nanotech 2008, *11th Annual*

Nanotechnology conference and trade show, Hynes Convention centre, Boston, Massachutts, Vol 3, pp 43, 2008.

25. D Chakder, G gope **S S Nath**, Photoluminescence study of ZnS quantum dots, *Proceedings of Material Science with Heavy Ions*, Inter University Accelerator Centre, New Delhi, Sept 17-18, 2007.
26. D Chakder, G gope **S S Nath**, Impedance study of CdS quantum dots prepared by chemical method, *Proceedings of Material Science with Heavy Ions*, Inter University Accelerator Centre, New Delhi, Sept 17-18, 2007.
27. D Chakder, G gope **S S Nath**, Synthesis of semiconductor quantum dots and their characterizations. *Proceedings of International conference on laser and nano materials*, Calcutta University, 29 Nov, 2006
28. D Chakder, G gope **S S Nath**, Ion irradiated ZnS quantum dots and their characterizations, *Proceedings of International conference on Structure and Dynamics: From Micro to Macro* Calcutta University, 15th Nov, 2006.
29. D Chakder, G gope **S S Nath**, Synthesis of Semiconductor quantum dots and their applications in optoelectronics and electronics, *Proceedings of 8th International conference on Photonics 2006*, Hyderabad University, 2006
30. D Chakder, G gope **S S Nath**, Semiconductor Quantum dots and their luminescence study, *Proceedings of International conference on Photonics 2006*, Hyderabad University, 2006.
31. D Chakder, G gope **S S Nath**, Optical absorption and luminescence study of ion irradiated ZnO quantum dots, *Proceedings of International Conference on Computers and Devices for Communication- 2006*, Radio Physics and Electronics, Calcutta University, 2006.

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