PROF. S. S. ISLAM

NAME	:	**Prof. S. S. Islam**
DESIGNATION	:	**Professor & Ex-Director** Centre for Nanoscience and Nanotechnology Jamia Millia Islamia (A Central University) Jamia Nagar, New Delhi-110025
CONTACT NO.	:	**+91 (11) 26987153**
EMAIL ID	:	sislam@jmi.ac.in
NATIONALITY	:	**INDIAN**
DATE OF BIRTH	:	November 28, 1959

1. QUALIFICATIONS : **M.Sc. DEA (M. Phil), Ph.D.**

- **Ph.D.** in **Material Science** in 1989 from **University of Paris (6), France.**
- **DEA (M.Phil.)** in **Material Science** in 1987 from **University of Paris (6), France**.
- **M.Sc.** in **Physics** (Specl. **Radio Physics & Electronics**) in 1981 from **Burdwan University, West Bengal, India**.

AWARDS/FELLOWSHIPS

- Awarded **Indian National Scholarship** from 1976 to 1981.
- Awarded **French Govt. Fellowship** for Higher studies in **University of Paris, France** from 1984 to 1989.
- Awarded **Post Doctoral Fellowship** for research at **Max Planck Institute**, Stuttgart, **Germany** from 1989 to 1990.

2. FIELD OF SPECIALIZATION : **Material Science, Nanoscience & Nanotechnology**

3. RESEARCH EXPERIENCE : **35 (Thirty-five) Years**

I. Joined the Laser Technology Research Programme, Physics Department Indian Institute of Technology- Delhi as a Research Scholar from Jan.1, 1984 to Aug. 31, 1984.

II. Joined the Solid State Physics Laboratory in University of Paris (6), Paris, France to pursue Ph.D. from Oct. 8, 1984 to August 31, 1989.

III. Joined the Laser Technology Research Programme, Physics Department Indian Institute of Technology- Delhi, as a senior Scientific Officer for Conducting Research from Jan. 19, 1990 to Sept. 25, 1990.

IV. Joined the Faculty of Engineering & Technology, Jamia Millia Islamia University as a Lecturer in Physics on Sept. 25, 1990 till Jan. 19, 1996; and carried on teaching & research.
V. Joined M.Sc. (Electronics) Programme in Faculty of Engineering & Technology, Jamia Millia Islamia University as Reader in Electronics on Jan. 20, 1996 and carried on teaching & research.
VI. Joined M.Sc. (Electronics) Programme in Faculty of Engineering & Technology, Jamia Millia Islamia University as a Professor in Electronics on Jan. 10, 2005 and carried on teaching & research.
VII. Joined as a Professor in Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, March 14, 2016.

4. TEACHING EXPERIENCE : 33 (Thirty-three) Years

I. Engaged Graduate classes in University of Paris (6), France from 1984 to 1989.
II. Engaged Graduate classes from 1991 to 1994 in F/O Engg. & Technology, JMI.
III. Engaged post Graduate classes in F/O Engg. & Technology, JMI from 1994 to 2015.
IV. Engaging post Graduate classes in Centre for Nanoscience and Nanotechnology, JMI from 2015 till date.

5. EMPLOYMENT RECORD

I. Joined Laser Technology Research Programme in Indian Institute of Technology, Delhi as a senior Scientific Officer from Jan. 19, 1990 to Sept. 25, 1990.
II. Joined as a Lecturer in Physics in Faculty of Engg. & Technology, Jamia Millia Islamia, New Delhi, India from Sept. 26, 1990 to Jan. 19, 1996.
III. Joined as a Reader in Electronics & Coordinator of M.Sc. (Electronics) Programme in Faculty of Engg. & Technology, Jamia Millia Islamia, New Delhi, India in Jan. 20, 1996.
IV. Joined as a Professor in Electronics in Faculty of Engg. & Technology, Jamia Millia Islamia, New Delhi, India in Jan. 10, 2005.
V. Joined as a Professor in Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, March 14, 2016.

6. POSITIONS HELD

- **Programme Coordinator**, M.Sc. Electronics programme from 1994 to 1999.
- **Head,** Department of Applied Sciences & Humanities from 2005 to 2011.
- **Programme Coordinator,** M.Sc. Electronics programme from 2003 to 2005.
- **Director,** Centre for Nanoscience and Nanotechnology from 2015 to 2019.
- **DRC,** Department of Physics, Jamia Millia Islamia from 2020 till date.
- **Board of Studies Member**,

(a) Department of Applied Science and Humanities, Jamia Millia Islamia, New Delhi from 1990 to 2005
(b) Dept. of Applied Physics, Aligarh Muslim University, U.P. from 2015 till date
(c) Special Centre for Nanoscience, Jawaharlal Nehru University, New Delhi from 2019 till date
(d) Centre for Theoretical Physics, Jamia Millia Islamia, New Delhi from 2018 till date.

7. Title of Ph.D. Thesis : *Fabrication and characterization of all solidstate lithium batteries using layered compounds as cathode*.

Name of Supervisor - **Prof. M. Balkanski**
Laboratoire de Physique des Solides
Univ. of Paris (6)
Place Jussieu, cedex -05, Paris, France.

8. PROJECTS UNDER SUPERVISION

I. M.Sc. (Electronics) Programme under COSIST -**Emerging Area sponsored by U.G.C.**, India in 1994 (Rs.80.0 lakh) - *completed*.

II. **Modernisation of Electronics Laboratory sponsored by AICTE**, India in 1995 (Rs.05.0 lakh) – *completed*.

III. **Modernisation of Microprocessors Laboratory sponsored by AICTE**, India in 1997(Rs.. 05.0 lakh) – *completed.*

IV. R & D project on '**Spectroscopic characterization of semiconductor nano-structure fabricated by photoinduced electrochemical etching'** sponsored by Department of Science and Technology, Ministry of Science & Technology, Govt. of India (Rs. 17.42 Lakh) – *Completed.*

V. R & D project on '**Investigation of Photoluminescence quenching mechanism in functionalized porous silicon for organic vapour sensing'** sponsored by Department of Science & Technology (DST), Govt. of India (Rs. 36.85 lakh) – *Completed.*

VI. R & D part project on '**Raman Investigation of Carbon Nanotubes for Gas Sensing Applications**' sponsored by CARS(DRDO), Govt. of India (Rs.19.8 lakh) – *Completed.*

VII. R & D project on '**Raman and Photoluminescence Investigation of Nanostructured porous silicon for sensing chemical and biological species**' sponsored by Department of Information & Technology (DIT), Nanotechnology Division, Govt. of India (Rs. 100.39 lakh) – *Completed.*

VIII. R & D project on '**Development of Carbon Nanotube based Gas Sensor**' sponsored by Department of Information & Technology (DIT), Nanotechnology Division, Govt. of India (Rs. 452.7 lakh) – *completed.*

IX. R & D project on '**Investigation of Photoconductive response of indigenously grown ceramic/CNT composite film for the application of optical detector**' sponsored by Department of Science & Technology (DST), Govt. of India (Rs. 44.27 lakh) – *completed.*

X. R & D project on '**Investigation of optical properties of CNTs composite films for the application of Optical detector**' sponsored by U.G.C., Govt. of India (Rs. 14.75 lakh) – *completed.*

XI. R & D project on '**Investigation and fabrication of humidity sensor based on electrochemical anodization technique for defence applications**' sponsored by DRDO, Govt. of India (Rs. 91.464 lakh) – completed.

XII. R & D project on '**Physical basis of domain engineering in piezoelectric single crystals of PMN-PT family and lead-free piezoceramics**' sponsored by DST, Govt. of India (Rs. 36.835 lakh) – *on going*.

XIII. R & D project on '**Electrochemically Lithiated Nanosheet wrapped Si nanoparticles for high performance for battery anodes**' sponsored by DST(SERB), Govt. of India (Rs. 52.25 lakh) – *on going*.

9. Ph.D. SUPERVISION (Annexure-B)

- Ph.D. Awarded : 15 Students
- Ph.D. Pursuing : 07 Students
- Ph.D. Co-Supervision : 03 completed; 04 pursuing

10. PUBLICATIONS

(a) Book – 03 (Three)

- Authored one book entitled "**Semiconductor Physics and Devices**" published by ***Oxford University Press,*** India, 2006.
- Edited Conference Proceedings entitled "**International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016)**" published by ***Bharti Publications***, India, 2016.
- Edited Conference Proceedings entitled "**International Conference on Advanced Materials (ICAM-2019)**" published by ***Bharti Publications***, India, 2019.

(b) Research Papers – 280 (Two Hundred Eighty)

11. Conference(s)/Workshop(s) Organized:

(a) Convened an international conference entitled "**International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016)**" from 4-5 November 2016.

(b) Organized **GIAN** programme entitled "**New Methods for the Production and Chemical Manipulation of 2D Nanomaterials and Carbon Nanotubes**" from 20-30 March 2017.

(c) Convened an international conference entitled "**International Conference on Advanced Nanomaterials (ICAM-2019)**" from 6-7 March 2019

12. PATENT(S) : 06 (SIX)

(a) US Patent (Patent) :02 (Two)

1. Patent entitled "A Process For Making Alumina Gas Indicator Using Single Wall Carbon Naotubes/Alumina Composite Thick Film".
   Inventors: Prabhash Mishra, **S. S. Islam**, K. Sengupta
   US Patent Publication No. 20140131201 A1.
2. Patent entitled "A compact thermal reactor for rapid growth of high quality carbon nanotubes (CNT%s) produced by chemical process with low power consumption".
   Inventors: Prabhash Mishra, **S. S. Islam**
   U.S. Patent Application No. 14/721,284.

(b) Indian Patent (Filed): 05 (Five)

1. Patent entitled "A process for making Ammonia gas indicator using Single wall carbon nanotube/Alumina composite thick film fabricated by gel cast Technique".
   Inventors: Prabhash Mishra, **S. S. Islam**, K. Sengupta

Patent Application No. # 3505/DEL/2012 dated 12.11.2012.

2. Patent entitled "A process for making MWCNTs based NH_3/NO_2 gas sensor made thereof".
   Inventors: Prabhash Mishra, **S. S. Islam**
   Patent Application No. LSD/CVD13023/08192/2013.
3. Patent entitled "Design and Development of thermal reactor for rapid growth of carbon".
   Inventors: Prabhash Mishra, **S. S. Islam**
   Patent Application No.3457/DEL/2013 dated 27.11.2013.
4. Patent entitled "An improved process for the preparation of functionalized porous silicon exhibiting highly sensitive and selective response to moisture"
   Inventors: Saakshi Dhanekar, **S. S. Islam**
   Patent Application No. 2459/DEL/2012, dated 07/08/2012.
5. Patent entitled "'Process for RH as well as Trace level moisture Detection by Engineering Pore Morphology design"
   Inventors: Kusum Sharms, Noor Alam, **S. S. Islam**
   Patent dated 22/08/2019.

(c) Patents Submitted To Deity for consideration: 02(Two)

1. Patent entitled "Process for the growth of Carbon nanotubes without Metal catalyst''
   Inventors: Prabhash Mishra, **S. S. Islam**.
2. Patent entitled 'A method for lithography as well as metal catalyst free patterned growth of CNTs at low temperature'
   Inventors: Nishant Tripathi, Prabhash Mishra, and **S. S. Islam**.

13. PROTOTYPE SENSOR DEVICE: 01 (One)

1. Developed Prototype sensor device and offered to Ministry; available 'Online' in 'youtube' (http://www.youtube.com/watch?v=cUsVIiPqllk).

14. TECHNOLOGY TRANSFER:

Indigenously developed low cost, simple and highly efficient CVD equipment for carbon nanotube growth.
'EOI' sought in official Tender, dated 10.11.2014.

15. LIST OF PUBLICATIONS	**–**	**Annexure-A**
Total no. of Publications	-	280 (Two Hundred Eighty)
Journals	-	145 (One Hundred Forty-Five)
Conferences/Workshops	-	135 (One Hundred Thirty-Five)

16. Membership: 02 **:** 1. Semiconductor Society of India.
2. Electron Microscope Society of India (EMSI).

17. Recent Invited Talk/Participation: 06 (Six)

1. Invited talk at IV International Conference "Information Technology and Nanotechnology (ITNT-2018)" held at Samara State University, Samara, Russia on 24-27 April 2018.
2. Invited talk at international conference "ICRANN" held at JNU, New Delhi on 19th December 2016.
3. Invited talk at IISER, Pune on 17th April 2015.
4. Invited talk at Centre for Nanoscience and Nanotechnology, JMI, New Delhi on 14th March 2015.
5. National Conference on Nanotechnology and renewable energy (NCNRE -14), April 28-29, 2014, JMI, New Delhi.
6. National Conference on Bioelectronics & Biomedical Technology, Jan. 29-30th, 2013, Jamia Hamdard, New Delhi.
7. National Conference on Advanced Trends in Nanoscience & Nanotechnology (ATNN – 14), Feb. 25, 2013, JMI, New Delhi.
8. National seminar on Frontiers of Condensed Matter Physics, March 27, 2010, AMU, Aligarh.

18. Training Programme: 02 (Two)

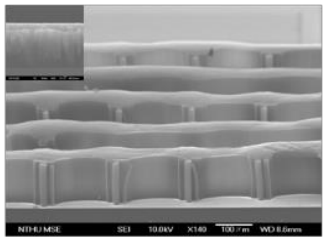
1. Undergone Training course on NOVA NANO SEM (Electron Microscope) at the FEI Nano Port in Eindhoven, Netherlands, June 10-12, 2013.
2. Undergone Training course on Bruker FTIR Model Vertex 70V with IR Microscope Hyperion 2000 at NSRL-JMI, New Delhi, Dec. 14-15, 2011.

19. A. Work depicting 'Ultrafast quantum thermometer' appeared in various National dailies including The Hindu on 28th April, 2019.
https://www.thehindu.com/sci-tech/science/jamia-team-develops-ultrasensitive-quantum-thermometer/article26966629.ece

19. B. Work depicting 'Development of highly sensitive sensor that detects drug resistant leukemia' appeared in various National dailies including The Hindu on Sept.,2019.
https://www.thehindu.com/sci-tech/science/a-sensitive-sensor-detects-drug-resistant-leukemia/article29477753.ece

20. Design and Development work at Nano-Sensor Research Laboratory: 12 (Twelve)

1. Designed and Developed LPCVD for Growth of Vertically aligned patterned structure of CNTs.

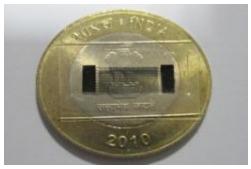
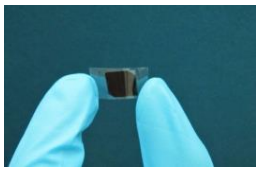
2. Designed CNTs based sensor for measuring toxic gases.

Designed and developed CNT based sensor with high resolution and high sensitivity for detection of NH_3 and NO_2 gases.

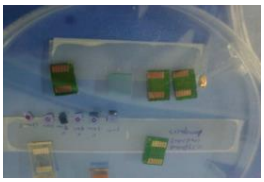
3. Testing and optimization of sensor parameters in presence of toxic gases.

   Developed a setup for impedance spectroscopy (Keithley 4200) to analyse the sensitivity, reproducibility, response time (90s), Maximum detecting conc. (ppm), temp. drift (˚C/ppm), Zero Drift (ppm), temp. Range (˚C), measurement range for CNTs gas sensor.

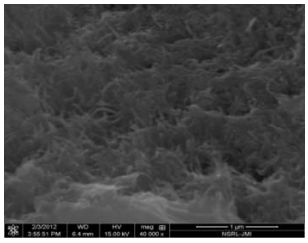
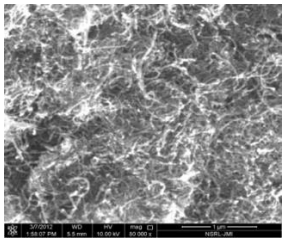
4. Developed a Transparent and Flexible CNTs based sensor.


5. Developed CNTs as Three terminal active Device (MOSFET).



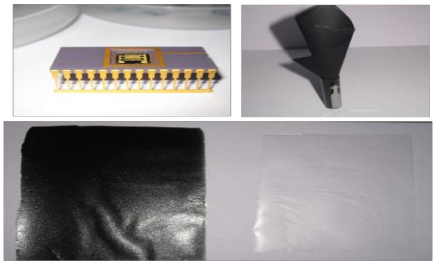

6. Developed CNT- Ceramic nanocomposite.

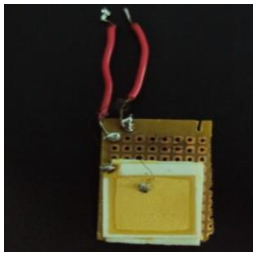



7. Developed CNT-ceramic composite based Temperature Sensor

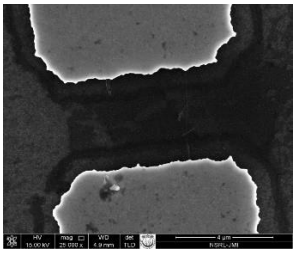
8. Developed a CNT based nanocomposite tape with high surface area (gel cast).

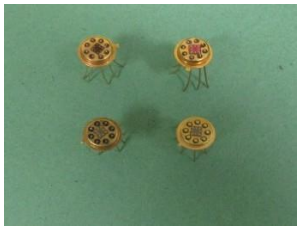
9. Developed Ceramic based Highly Sensitive Humidity Sensor (using sol-gel Technology).



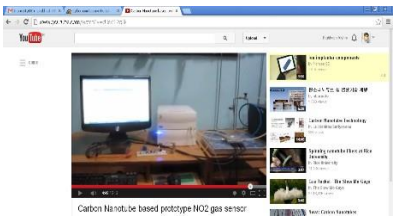


10. Dielectrophoresis deposition and Alignment of Single-Walled Carbon nanotube.
11. Laboratory packaged Prototype





12. Prototype Sensor : Developed (YouTube link : http://youtu.be/cUsVIiPqllk http://www.youtube.com/watch?v=cUsVIiPqllk&feature=youtu.be).



21. e-Learning: 02 (Two)

1. M-1.1, e-Pathshala, 08/05/18, https://epgp.inflibnet.ac.in/view_s.php?category=1852

2. M-1.1, e-Pathshala, 09/05/18, https://epgp.inflibnet.ac.in/view_s.php?category=1676

ANNEXURE-A

LIST OF PUBLICATIONS: 280 (Two Hundred Seventy-Eight)

Journals : 145 (One Hundred Forty Three)

2021

1. Interface Kinetics Assisted Barrier Removal in Large Area 2D-WS2 Growth to Facilitate Mass Scale Device Production, Abid, Poonam Sehrawat, Christian M Julien, **S. S. Islam, Nanomaterials, MDPI,** 11.1 (2021): 220. https://doi.org/10.3390/nano11010220.
2. E-textile based wearable thermometer from WS2-quantum dots, Abid, Poonam Sehrawat, CM Julien, **S. S. Islam, Nanotechnology**, 32.33 (2021): 335503. https://doi.org/10.1088/1361-6528/abfe8f.
3. Recent trends in silicon/graphene nanocomposite anodes for lithium-ion batteries, Poonam Sehrawat, Abgeena Shabir, Abid, CM Julien, **S. S. Islam, Journal of Power Sources**, 501 (2021): 229709, https://doi.org/10.1016/j.jpowsour.2021.229709.

2020

4. Nanostructured Graphene Oxide-Based Hybrids as Anodes for Lithium-Ion Batteries, Poonam Sehrawat, Abid Abid, **S. S. Islam**, Alain Mauger, and Christian M. Julien, *C* **Journal of Carbon Research, MDPI** 2020, *6* (81). https://doi:10.3390/c6040081.
5. WS_2 Quantum Dots on e-Textile as a Wearable UV Photodetector: How Well Reduced Graphene Oxide Can Serve as a Carrier Transport Medium? Abid, Poonam Sehrawat, C. M. Julien, **S. S. Islam**, **ACS Applied Materials & Interfaces**, 12.35 (2020): 39730-39744. https://doi.org/10.1021/ac sami.0c08028.
6. Avenue to Large-Scale Production of Graphene Quantum Dots from High-Purity Graphene Sheets Using Laboratory-Grade Graphite Electrodes, Sakshi Kapoor, Aaruni Jha, Hilal Ahmad, **S. S. Islam**, **ACS Omega**, 5.30 (2020): 18831-18841. https://doi.org/10.1021/acsomega.0c01993.
7. Reversible synthesis of GO: role of differential bond structure transformation in fine-tuning photodetector response, Abgeena Shabir, Abid, Poonam Sehrawat, C.M. Julien, **S. S. Islam,** IOP Nanotechnology, https://doi.org/10.1088/1361-6528/aba4cb.
8. New Concept in Humidity Sensing: Role of Molecular Brownian Energy and Probabilistic Mean Free Path to differentiate RH- and Trace Level Detection, Kusum Sharma, Noor Alam, and **S. S. Islam**, ACS Applied Materials and Interfaces, 12.13 (2020): 15855-15866. https://dx.doi.org/10.1021/acsami.9b22563.
9. Inter-dependency between surface morphology and sensitive low RH detection: exploration of an intricate mechanism to extend the lower detection limit, Kusum Sharma, Noor Alam, **S. S. Islam**, **RSC Nanoscale Advances**, 2 (2020): 2564-2576. https://dx.doi.org/10.1039/D0NA00047G.
10. Improved Ion-Diffusion Assisted Uniform Growth of 1D CdS Nanostructures Enhanced

Optical and Energy Storage Properties, Sakshi Kapoor, Hilal Ahmad, C. Julien, **S. S. Islam**, Applied Surface Science, 512 (2020): 145654. https://dx.doi.org/10.1016/j.apsusc.2020.145654.

11. Self-standing MWCNTs based gas sensor for detection of environmental limit of CO_2, Zohauddin Ahmad, Samrah Manzoor, Mohammad Talib, **S. S. Islam**, Prabhash Mishra, Materials Science and Engineering: B, 255 (2020): 114528. https://doi.org/10.1016/j.mseb.2020.114528.

12. Nano-moles detection of tumor specific biomarker DNA for colorectal cancer detection using vertically aligned multi-wall carbon nanotubes based flexible electrodes, Payal Gulati, Prabhash Mishra, Manika Khanuja, Jagriti Narang, **S. S. Islam**, Process Biochemistry, 90 (2020): 184-192. https://doi.org/10.1016/j.procbio.2019.11.021.

2019

1. Vertically aligned multi-walled carbon nanotubes based flexible immunosensor for extreme low-level detection of multidrug resistant leukemia cells, Payal Gulati, Prabhjot Kaur, MV Rajam, Tapasya Srivastava, Prabhash Mishra, **S. S. Islam,** Sensors and Actuators B: Chemical, 301 (2019): 127047. https://doi.org/10.1016/j.snb.2019.127047.
2. Crystal Growth and Basic Transport and Magnetic Properties of $MnBi_2Te_4$, Poonam Rani, Ankush Saxena, Rabia Sultana, Vipin Nagpal, **S. S. Islam**, S Patnaik, VPS Awana, Journal of Superconductivity and Novel Magnetism, 32.12 (2019): 3705-3709. https://doi.org/10.1007/s10948-019-05342-y.
3. Nanowire based size-dependent Photoluminescence and Raman studies of N type porous silicon etched under illumination of varying wavelengths, Mohd. Zaid, Abid, **S. S. Islam**, Mohd. Mudassir Husain, International Conference on Power Electronics, Control and Automation (ICPECA), IEEE, 205 (2019): 978-1-7281-3958 6. https://doi.org/10.1109/ICPECA47973.2019.8975664.
4. Synthesis of highly reproducible CdTe nanotubes on anodized alumina template and confinement study by photoluminescence and Raman spectroscopy, Sakshi Kapoor, Hilal Ahmad, Christian M Julien, **S. S. Islam,** Journal of Alloys and Compounds, 809 (2019): 151765. https://doi.org/10.1016/j.jallcom.2019.151765.
5. Graphene Quantum Dot Arrays: Pros and cons of photodetection in the Coulomb blockade regime, Abid, Poonam Sehrawat, **S. S. Islam**, Carbon, 149 (2019): 499-511. https://doi.org/10.1016/j.carbon.2019.04.082.
6. Broadband photodetection in wide temperature range: Layer-by-layer exfoliation monitoring of WS_2 bulk using microscopy and spectroscopy, Abid, Poonam Sehrawat, **S. S. Islam**, Journal of Applied Physics 125.15 (2019): 154303. https://doi.org/10.1063/1.5080922.
7. Broadband photodetector based on 3D architect of MoS_2-PANI hybrid structure for high photoresponsive properties, Nahid Chaudhary, Manika Khanuja, **S. S. Islam**, Polymer, 165 (2019): 168-173. https://doi.org/10.1016/j.polymer.2019.01.028.
8. Improvements in the Performance of a Visible–NIR Photodetector Using Horizontally Aligned TiS_3 Nanoribbons, M Talib, R Tabassum, Abid, **S. S. Islam**, Prabhash Mishra, ACS Omega, 4.4 (2019): 6180-6191. https://doi.org/10.1021/acsomega.8b03067.

9. Wide Range RH Detection with Digital Readout: Niche Superiority in Terms of Its Exceptional Performance and Inexpensive Technology, Manju Pandey, Kusum Sharma, **S. S. Islam**, Advances in Materials Physics and Chemistry 9 (2019): 11-24. https://doi.org/10.4236/ampc.2019.92002.
10. An ultrafast quantum thermometer from graphene quantum dots, Poonam Sehrawat, Abid, **S. S. Islam**, Nanoscale Advances, 1.5(2019): 1772-1783. https://doi.org/10.1039/C8NA00361K.
11. Temperature and electric field treatment of the rhombohedral PMN-PT single crystals, X Liu, AD Ushakov, Y Zhao, AA Esin, AR Akhmatkhanov, X Wei, Z Xu, Manika Khanuja, **S. S. Islam**, V Ya Shur, Ferroelectrics, 541.1 (2019): 66-73. https://doi.org/10.1080/00150193.2019.1574645.
12. Current-mode biquad filter using CNTFET-based ZC-CITA, Laxya Singla, Dinesh Prasad, Prof Mainuddin, **S. S. Islam**, Indian Journal of Pure & Applied Physics (IJPAP), 57.2 (2019): 90-94.
13. Influence of growth temperature on titanium sulphide nanostructures: from trisulphide nanosheets and nanoribbons to disulphide nanodiscs, M Talib, R Tabassum, **S. S. Islam**, Prabhash Mishra, RSC Advances, 9.2 (2019): 645-657. https://doi.org/10.1039/C8RA08181F.

2018

1. Leukemia biomarker detection by using photoconductive response of CNT electrode: Analysis of sensing mechanism based on charge transfer induced Fermi level fluctuation, Payal Gulati, P Kaur, M.V Rajam, T Srivastava, MA Ali, Prabhash Mishra, **S. S. Islam**, Sensors and Actuators B: Chemical, 270 (2018): 45-55. https://doi.org/10.1016/j.snb.2018.05.019.
2. Single-wall carbon nanotube based electrochemical immunoassay for leukemia detection, Payal Gulati, P Kaur, M.V Rajam, T Srivastava, Prabhash Mishra, **S. S. Islam**, Analytical biochemistry, 557 (2018): 111-119. https://doi.org/10.1016/j.ab.2018.07.020.
3. A comparative study of structural and electrical properties in lead-free BCZT ceramics: influence of the synthesis method, I Coondoo, N Panwar, D Alikin, I Bdikin, **S. S. Islam**, A. Turygin, V.Y Shur, A.L Kholkin, Acta Materialia, 155 (2018): 331-342. https://doi.org/10.1016/j.actamat.2018.05.029.
4. Hydrothermal synthesis of MoS_2 nanosheets for multiple wavelength optical sensing applications, Nahid Chaudhary, Manika Khanuja, **S. S. Islam**, Sensors and Actuators A: Physical 277 (2018): 190-198. https://doi.org/10.1016/j.sna.2018.05.008.
5. Tunable growth of single-wall CNTs by monitoring temperature increasing rate, Nishant Tripathi, V. Pavelyev, **S. S. Islam**, International Nano Letters, 8.2 (2018): 1-9. https://doi.org/10.1007/s40089-018-0233-7.
6. Preconcentration and speciation of arsenic by using a graphene oxide nanoconstruct functionalized with a hyperbranched polyethyleneimine, Hilal Ahmad, K Umar, SG Ali,

Priyanka Singh, **S. S. Islam**, HM Khan, Microchimica Acta, 185.6 (2018): 290. https://doi.org/10.1007/s00604-018-2829-z.

7. Reduced graphene oxide based temperature sensor: Extraordinary performance governed by lattice dynamics assisted carrier transport, Poonam Sehrawat, Abid, **S. S. Islam**, and Prabhash Mishra. Sensors and Actuators B: Chemical, 258 (2018): 424-435. https://doi.org/10.1016/j.snb.2017.11.112.
8. A multi-prong approach towards the development of high performance Temperature sensor using MWCNTs/Al_2O_3 composite film, Poonam Sehrawat, Abid, **S. S. Islam**, Prabhash Mishra, and Manika Khanuja. Materials Research Bulletin, 99 (2018): 1-9. https://doi.org/10.1016/j.materresbull.2017.10.045.
9. Reduced graphene oxide (rGO) based wideband optical sensor and the role of Temperature, Defect States and Quantum Efficiency, Abid, Poonam Sehrawat, **S. S. Islam**, Prabhash Mishra & Shahab Ahmad, Scientific Reports: Nature, 8 (2018): 1-13. https://doi.org/10.1038/s41598-018-21686-2.
10. Spectroscopic investigation (FT-IR, FT-Raman), HOMO-LUMO, NBO, and molecular docking analysis of N-ethyl-N-nitrosourea, a potential anticancer agent, Priyanka Singh, **S. S. Islam**, Hilal Ahmad, and A. Prabaharan. Journal of Molecular Structure, 1154 (2018): 39-50. https://doi.org/10.1016/j.molstruc.2017.10.012.
11. Development of highly sensitive optical sensor from carbon nanotube-alumina nanocomposite free-standing films: CNTs loading dependence sensor performance Analysis, Abid, Poonam Sehrawat, **S. S. Islam**, Payal Gulati, M Talib, Prabhash Mishra, and Manika Khanuja. Sensors and Actuators A: Physical, 269 (2018): 62-69. https://doi.org/10.1016/j.sna.2017.10.062.

2017

1. A Highly sensitive nitrogen dioxide gas sensor using horizontally aligned SWCNTs employing MEMS and dielectrophoresis methods, Rana Tabassum, V. S. Pavelyev, A. S. Moskalenko, K. N. Tukmakov, **S. S. Islam**, and Prabhash Mishra. IEEE Sensors Letters, 2.1 (2017): 1-4. https://doi.org/10.1109/LSENS.2017.2784960.
2. Synthesis of carbon nanotubes using green plant extract as catalyst: unconventional concept and its realization, Nishant Tripathi, Vladimir Pavelyev, and **S. S. Islam**. Applied Nanoscience, 7.8 (2017): 557-566. https://doi.org/10.1007/s13204-017-0598-3.
3. Enhancement in alcohol vapor sensitivity of Cr doped ZnO gas sensor, MM Hassan, W Khan, Prabhash Mishra, **S. S. Islam**, AH Naqvi. Materials Research Bulletin, 93 (2017), 391-400. https://doi.org/10.1016/j.materresbull.2017.05.019.
4. CNFET Based Voltage Differencing Transconductance Amplifier, D Prasad, **S. S. Islam**. IOP Conference Series: Materials Science and Engineering, 225.1 (2017): 012253. https://doi.org/10.1088/1757-899X/225/1/012253.

5. Low power low voltage CNTFET-based current differencing buffered amplifier, IEEE, D Prasad, **S. S. Islam**. 4th International Conference on Signal Processing and Integrated Networks (SPIN), (2017): 115-120. https://doi.org/10.1109/SPIN.2017.8049927.
6. Efficient PL Emission from p-type Porous Silicon: A Comparative Study for Selection of Effective Anodization Parameters, Saakshi Dhanekar, **S. S. Islam**, Silicon, 10.3 (2017) 1-6. https://doi.org/10.1007/s12633-016-9522-9.
7. Magnetic Fe_3O_4@ poly (methacrylic acid) particles for selective preconcentration of trace arsenic species, Hilal Ahmad, Akil Ahmad, **S. S. Islam**, Microchimica Acta, 184.7 (2017) 2017-2014. https://doi.org/10.1007/s00604-017-2214-3.
8. Synthesis of Carbon Nanotubes for Device Applications, KA Shah, FA Najar, SMA Andrabi, **S. S. Islam**, Asian Journal of Chemistry, 7.8 (2017): 879.
9. A new approach for orientation-controlled growth of CNTs: an in-depth analysis on the role of oxygen plasma treatment to catalyst, Nishant Tripathi, **S. S. Islam**. Applied Nanoscience, 123.3 (2017): 1-5. https://doi.org/10.1007/s13204-017-0549-z.
10. Copper-doped modified ZnO nanorods to tailor its light assisted charge transfer reactions exploited for photo-electrochemical and photo-catalytic application in environmental remediation, Sonal Singh, Ravi Pendurthi, Manika Khanuja, **S. S. Islam**, Suchitra Chauhan. Applied Physics A, 123.3 (2017): 184. https://doi.org/10.1007/s00339-017-0806-8.
11. Identification and origin of visible transitions in one dimensional (1D) ZnO nanostructures: Excitation wavelength and morphology dependence study, Arpit Baral, Manika Khanuja, **S. S. Islam**, Rishabh Sharma, B.R. Mehta. Journal of Luminescence, 183 (2017): 383-390. https://doi.org/10.1016/j.jlumin.2016.11.060.
12. Cold Wall CVD (CWCVD) in the Synthesis of Few Layered Graphene on Ni, Mohammad Faisal, Sudipta Bhattacharyya, Pika Jha, Anil Agarwal, P. K. Chaudhury, **S. S. Islam**, and M. Husain. (2017).
13. Aspect ratio dependent photo induced antimicrobial and photocatalytic organic pollutant degradation efficiency of ZnO nanorods, Rishabh Sharma, Manika Khanuja, **S. S. Islam**, Uma, Ajit Varma. Research on Chemical Intermediates, 43.10 (2017): 5345-5364. https://doi.org/10.1007/s11164-017-2930-7.
14. Critical role of the coupling between the octahedral rotation and A-site ionic displacements in PbZrO3-based antiferroelectric materials investigated by *in situ* neutron diffraction, Teng Lu, Andrew J Studer, Dehong Yu, Ray L Withers, Yujun Feng, Hua Chen, **S. S. Islam**, Zhuo Xu, Yun Liu, Physical Review B, 96.21 (2017): 214108. https://doi.org/10.1103/PhysRevB.96.214108.
15. Controlled and selective growth of 1D and 3D CdTe nanostructures through a structurally engineered porous alumina template for enhanced optical applications, Harsimran Singh Bindra, Subish John, Somnath C Roy, Om Prakash Sinha, **S. S. Islam**, Journal of The Electrochemical Society, 165.4 (2017): H3061. https://doi.org/10.1149/2.0091804jes.

2016

1. Optical measurement of trace level water vapours using functionalized porous silicon: selectivity studies, Saakshi Dhanekar, Indu Sharma, and **S. S. Islam**, RSC Advances,6.76 (2016): 72371-72377. https://doi.org/10.1039/C6RA12669C.
2. Carbon nanotubes in Li-Ion Batteries: A Review, Poonam Sehrawat, C. Julien, **S. S. Islam**, Materials Science & Engineering B, 213 (2016): 12-40. https://doi.org/10.1016/j.mseb.2016.06.013.
3. Optimization of Porous Anodic Alumina Nanostructure for Ultra High Sensitive Humidity Sensor, Kusum Sharma, **S. S. Islam**, Sensors and Actuators B: Chemical 237 (2016): 443-451. https://doi.org/10.1016/j.snb.2016.06.041.
4. Gel-cast—A promising technique to develop highly sensitive temperature sensor, Poonam Sehrawat, **S. S. Islam**, Materials Research Bulletin, 80 (2016): 72-79. https://doi.org/10.1016/j.materresbull.2016.02.030.
5. Resistive sensing of gaseous nitrogen dioxide using a dispersion of single-walled carbon nanotubes in an ionic liquid, Prabhash Mishra, VS Pavelyev, R Patel, **S. S. Islam**, Materials Research Bulletin, 78 (2016): 53-57. https://doi.org/10.1016/j.materresbull.2016.02.016.
6. Morphology dependent PL quenching of multi-zone nanoporous silicon: Size variant silicon nanocrystallites on a single chip, Saakshi Dhanekar, **S. Safiul Islam**, C.M. Julien, Mauger, Materials and Design, 101 (2016): 152–159. https://doi.org/10.1016/j.matdes.2016.03.161.

2015

1. Highly efficient Ceramic-SWCNT based free standing films for gas sensing application, Prabhash Mishra, **S. S. Islam**, Materials Science in Semiconductor Processing, 40 (2015), 276-284. https://doi.org/10.1016/j.mssp.2015.05.047.
2. Precise control over physical characteristics of Carbon Nanotubes by differential variation of Argon flow rate during Chemical Vapor Deposition processing: A systematic study on growth kinetics, Nishant Tripathi, Prabhash Mishra, Bipin Joshi, **S. S. Islam**, Materials Science in Semiconductor Processing, 35 (2015): 207–215. https://doi.org/10.1016/j.mssp.2015.03.014.
3. Porous Silicon Surface Stability Studies by Thermal Treatment of Forming Gas, Gunjan Aggarwal, **S. S. Islam**, Sensors & Transducers, 195.12 (2015): 25. https://doi.org/10.1007/s10934-013-9742-y.
4. Spectroscopic analysis of multi-walled carbon nanotube–alumina composite films: Optimization of Temperature coefficient of resistance and thermal hysteresis for thermal sensor applications, Poonam Sehrawat, Prabhash Mishra, **S. S. Islam**, Materials Science in Semiconductor Processing, 31 (2015): 116–123. https://doi.org/10.1016/j.mssp.2014.11.028.
5. Role of defect density in optimizing MWCNT-polymer composite sensor performance: Tuning of its acceptable limit by acid treatment condition, Sakshi Sharma, **S. S. Islam**,

Poonam Sehrawat, Sukhvir Singh, Science of advanced materials, Sharma, 7.7 (2015): 1341-1350. https://doi.org/10.1166/sam.2015.2050.

6. Fine tuning control on CNT diameter distribution, length and density by using thermal CVD growth at atmospheric pressure: An in depth Analysis on the Role of flow rate and flow duration of acetylene (C_2H_2) gas, Nishant Tripathi, Prabhash Mishra, Harsh, **S. S. Islam**, Applied Nanoscience 5.1 (2015): 19-28. https://doi.org/10.1007/s13204-013-0288-8.
7. Role of Annealing Temperature on Morphology of Alumina Thin Film Prepared by Wet-Chemical Method, Manju Pandey, Prabhash Mishra, MP Singh, **S. S. Islam**, 186.3 (2015): 173-176.

2014

1. Catalyst free, excellent quality and narrow diameter of CNT growth on Al_2O_3 by a thermal CVD technique, Nishant Tripathi, Prabhash Mishra, Bipin Joshi, **S. S. Islam**, Physica E: Low-dimensional Systems and Nanostructures, 62 (2014): 43-47. https://doi.org/10.1016/j.physe.2014.04.011.
2. MWCNT-conducting polymer composite based ammonia gas sensors: A new approach for complete recovery process, Sakshi Sharma, Sahir Hussain, Sukhvir Singh, **S. S. Islam**, Sensors and Actuators B: Chemical, 194 (2014): 213-219. https://doi.org/10.1016/j.snb.2013.12.050.
3. Development of MWCNTs based wide band photodetector in the visible range: Wavelength and power dependent response studies, Prabhash Mishra, Harsh, **S. S Islam,** Appl. Phys. A. 117.3 (2014): 1119-1123. https://doi.org/10.1007/s00339-014-8586-x.
4. Effect of Growth Temperature on the Diameter Distribution and Yield of Carbon Nanotubes, Environmental Science and Engineering, Nishant Tripathi, Prabhash Mishra, Harsh, **S. S. Islam**, (2014): 645-646. https://doi.org/10.1007/978-3-319-03002-9_164.
5. Phase transformation-dependent sensing performance of multi-walled carbon nanotube–alumina nanocomposite-based gas sensors, Sakshi Sharma, **S. S. Islam,** Materials Science in Semiconductor Processing, 27 (2014): 63–70. https://doi.org/10.1016/j.mssp.2014.06.003.
6. Thermal carbonization of nano-porous silicon: Formation of Carbon Nanofiber without metal catalyst, Gunjan Aggarwal, Prabhash Mishra, Bipin Joshi and **S. S. Islam**, Pramana, 83 (2014): 427-434. https://doi.org/10.1007/s12043-014-0773-y.
7. Purification and Dispersion of Chemically Functionalized SWNTs by Using Dimethylformamide Solution, Prabhash Mishra, Poonam Sehrawat, Nishant Tripathi, **S. S. Islam**, Adv. Sci. Lett. 20.7 (2014): 1545-1547. https://doi.org/10.1166/asl.2014.5558.
8. Development of commercial trace moisture sensor: A Detailed Comparative Study on Microstructural and Impedance Measurements in Two Phases of Alumina, Manju Pandey, Prabhash Mishra, Dedulal Saha, K. Sengupta, **S. S. Islam**, Journal of Electronic Materials Letters, 68.2 (2013): 317-323. https://doi.org/10.1007/s13391-013-2196-1.

9. Fabrication of SWCNTs based flexible, Trace level NO_2 gas sensor using spray coating technique, Prabhash Mishra, Neha Tabassum, Choksh Bhola, Vaibhav Sharma, Kamran Zaidi, Manish Gupta, Harsh, **S. S. Islam**, Environmental Science and Engineering, (2014): 669-670. https://doi.org/10.1007/978-3-319-03002-9_171.
10. Porous Silicon myoglobin Immunosensor, Vinita Kumari, Payal Gulati, Prabhash Mishra, and **S. S. Islam**, Adv. Sci. Lett., 20.7 (2014): 1574-1577. https://doi.org/10.1166/asl.2014.5596.
11. A Systematic Study on Growth of CNTs with Liquid Chemical Salts as Catalysts: A Fine Control on Orientation of CNTs, Nishant Tripathi, Prabhash Mishra, Bipin Joshi, **S. S. Islam,** Adv. Sci. Lett., 20.7 (2014): 1612-1615. https://doi.org/10.1166/asl.2014.5554.
12. Fe dopants enhancing ethanol sensitivity of ZnO thin film deposited by RF magnetron sputtering, M Mehedi Hassan, Wasi Khan, A.H. Naqvi, Prabhash Mishra, **S. S. Islam**, Journal of Materials Science, 49.18 (2014): 6248-6256. https://doi.org/10.1007/s10853-014-8349-2.
13. Investigation of thermal stability studies of MWCNT-conducting polymer-based composites for heat sensing application, Sakshi Sharma, **S. S. Islam**, International Journal of Enhanced Research in Science Technology & Engineering, 6 (2014): 54-60.
14. Reagentless Porous Silica Based Electrochemical Urea Biosensor, Tanu Bhardwaj, Prabhash Mishra, **S. S. Islam** and Vinita kumara, International Journal of Engineering Research & Technology. 3 (2014): 3241.
15. Porous silicon surface stability: a comparative study of thermal oxidation techniques, Gunjan Aggarwal, Prabhash Mishra, Bipin Joshi, Harsh, **S. S. Islam**, J Porous Mater, 21.1 (2014): 23-29. https://doi.org/10.1007/s10934-013-9742-y.

2013

1. Surface modification of MWCNTs by O_2 plasma treatment and its exposure time dependent analysis by SEM, TEM and vibrational spectroscopy, Prabhash Mishra, Harsh and **S. S. Islam**, Superlattices and Microstructures, 64 (2013): 399–407. https://doi.org/10.1016/j.spmi.2013.10.010.
2. Transfer of microstructure pattern of CNTs onto flexible substrate using hot press technique for sensing applications, Prabhash Mishra, N.H Tai, **S. S. Islam**, Materials Research Bulletin, 48.8 (2013): 2804-2808. https://doi.org/10.1016/j.materresbull.2013.04.021.
3. Trace level ammonia sensing by SWCNTs (network/film) based resistive sensor using a simple approach in sensor development and design, Prabhash Mishra, Harsh, **S. S. Islam**, International Nano Letters, 3 (46): (2013). https://doi.org/10.1186/2228-5326-3-46.
4. Multi-Walled Carbon Nanotube/Alumina Composite: Synthesis, Characterization and Its Promising Application for Ammonia Detection, Sakshi Sharma, Shahir Hussain, K. Sengupta, **S. S. Islam**, Energy and Environment Focus (American Scientific Publishers), 2.2 (2013): 149-156. https://doi.org/10.1166/eef.2013.1042.

5. Investigation of effects produced by chemical functionalization in single-walled and multi-walled carbon nanotubes using Raman spectroscopy, S Hussain, K Shah, **S. S. Islam,** Materials Science-Poland 31.2 (2013): 276-280. https://doi.org/10.2478/s13536-013-0102-z.
6. Nanoporous Alumina (γ- and α-phase) Gel Cast Thick Film for the Development of Trace Moisture sensor, Manju Pandey, Prabhash Mishra, Dedulal Saha, K. Sengupta, Kiran Jain, **S. S. Islam,** J Sol-Gel Sci Technol, 68 (2013): 317–323. https://doi.org/10.1007/s10971-013-3171-x.
7. Polymer Optimization for the Development of Low Cost Moisture Sensor Based on Nanoporous Alumina Thin film, Manju Pandey, Prabhash Mishra, Debdulal Saha, **S. S. Islam,** Journal of Advanced Ceramics, 2.4 (2013): 341-346. https://doi.org/10.1007/s40145-013-0081-x.
8. Study of chemically functionalized carbon nanotubes, Waseem Khan, Shahir Hussain, Azher Majid Siddiqui and **S. S. Islam**, AIP Conf. Proc. 1536, 199 (2013); http://dx.doi.org/10.1063/1.4810169.
9. Study the degree of purification of single wall carbon nanotubes (SWNTs), Shahir Hussain and **S. S. Islam**, AIP Conference Proceedings 1536 (2013): 1276. http://dx.doi.org/10.1063/1.4810707.
10. Role of electric field on sensing mechanism of carbon nanotube based chemical sensor, Prabhash Mishra, Prerna Balyan, Harsh, **S. S. Islam,** Sensors Lett. 11 (2013):1-5. https://doi.org/10.1166/sl.2013.2982.
11. Cracks free Silica Sol-gel based Biosensor, International Journal of Systems, Tanu Bhardwaj, Vinita Kumari, Prabhash Mishra, **S. S. Islam,** Algorithms & Applications. 3 (2013): 35.
12. Highly Porous Sol-gel Based Urea Biosensor, Tanu Bhardwaj, Prabhash Mishra, **S. S. Islam**, Vinita Kumari, International Journal on Advanced Computer Theory and Engineering, 2 (2013): 2319.
13. Development of MWCNTs/alumina composite-based sensor for trace level ammonia gas sensing, Sakshi Sharma, Shahir Hussain, K Sengupta, **S. S. Islam**, Applied Physics A, 111.3 (2013): 965-974. https://doi.org/10.1007/s00339-012-7323-6.

2012

1. Development of MWCNT/alumina composite-based sensor for trace level ammonia gas sensing, Sakshi Sharma, Shahir Hussain, K. Sengupta, **S. S. Islam,** Applied Physics A Material Science & Processing, 0947-8396, (2012): 965-974. https://doi.org/10.1007/s00339-012-7323-6.
2. Deposition of pristine and functionalized MWCNTs in Alumina matrix by sol-gel technique and investigation of their ammonia sensing properties, Sakshi Sharma, K. Sengupta, **S. S. Islam,** Nanomaterials and Nanotechnology, 2 (2012): 1-6. https://doi.org/10.5772/50962.

3. Nanoporous morphology of alumina films prepared by sol–gel dip coating method on alumina substrate, Manju Pandey, Kriti Tyagi, Prabhash Mishra, Debdulal Saha, K. Sengupta, **S. S. Islam**, J Sol-Gel Sci Technol, 64.2 (2012): 282-288. https://doi.org/10.1007/s10971-012-2855-y.
4. TiO_2 Thin Film Capacitive Humidity Sensor Based on Sol-gel Technique, Manju Pandey, Debdulal Saha, Kamalendu Sengupta, **S. S. Islam**, 142, (7), 143-149, 2012.
5. Characterization of $CdSe_xS_{1-x}$ Quantum dots using XRD, UV-Vis absorption and Raman spectroscopy measurements, Jitender Kumar, Shikha Madan, Devinder Madhewal, Inderpreet Singh, P.K. Bhatnagar, P.C. Mathur and **S. S. Islam**, International Journal of Nanoscience, 11.2 (2012): 1250015. https://doi.org/10.1142/S0219581X12500159.
6. Nanoporous Silicon Based Electrochemical Immunosensor, Dhirendra Prabhakar, Vinita Kumari, and **S. S. Islam**, Science of Advanced Materials, 4 (2012): 121–125. https://doi.org/10.1166/sam.2012.1260.
7. Photo-induced electrochemical anodization of p-type silicon: Achievement and demonstration of long-term surface stability, Saakshi Dhanekar, **S. S. Islam**, Harsh Nanotechnology 23 (2012): 235501. https://doi.org/10.1088/0957-4484/23/23/235501.
8. Ozone/UV-Light oxidation of multiwall carbon nanotubes (MWCNTs), Shahir Hussain, **S. S. Islam**, and Harsh, SPIE proceeding (2012): 85491-85491. https://doi.org/10.1117/12.924965.
9. Development and standardization of porous silicon for application as a working electrode in electrochemical immunosensor, Vinita Kumari, Prabhash Mishra, **S. S. Islam**, Proc. SPIE 8549, 16th International Workshop on Physics of Semiconductor Devices, 85491I (2012). https://doi.org/10.1117/12.923196.

2011

1. Surface modification of MWCNTs; Preparation, characterization and electrical percolation studies of MWCNTs/PVP composite films for reaction of ammonia gas sensor operable at room temperature, Sakshi Sharma, K. Sengupta, **S.S. Islam**, Sensors & Transducers Journal, 134.11 (2011):143-154.
2. PL quenching technique: A sensitive probe for detecting organic vapours at low ppm, Saakshi Dhanekar, **S. S. Islam**, T. Islam, Harsh, International Journal of Nanoscience, 10.04n05 (2011):777-781. https://doi.org/10.1142/S0219581X11008885.
3. Aligned nanogold assisted one step sensing and removal of heavy metal ions, Neha Chauhan, Shweta Gupta, Nahar Singh, Sukhvir Singh, **Saikh S. Islam**, Kedar N. Sood, Renu Pasricha, Journal of Colloid and Interface Science, 363.1 (2011): 42-50. https://doi.org/10.1016/j.jcis.2011.07.018.
4. Purification and Oxidation Studies of Multiwall Carbon Nanotubes using Raman Spectroscopy, Shahir Hussain, **S. S. Islam**, T. Islam, Harsh, Asian Journal of Chemistry, 23.12 (2011): 5639-5642.

5. Spectroscopic Investigation of modified Single wall carbon nanotube (SWCNT), S. Hussain, P. Jha, A. Chouksey, R. Raman, **S. S. Islam**, T.Islam, P.K.Choudhary and Harsh, Journal of Modern Physics, 2 (2011): 538-543. https://doi.org/10.4236/jmp.2011.26063.
6. Porous silicon in low moisture content dry gas by Impedance Spectroscopy, T. Islam, S. Hussain, A. Gangopadhyay, **S. S. Islam**, Harsh, Physica Status Solidi, 208.6 (2011): 1475-1479. https://doi.org/10.1002/pssa.201000053.

2010

1. Organic vapour sensing by porous silicon: Influence of molecular kinetics in selectivity studies, Saakshi Dhanekar, **S. S. Islam**, T. Islam, A.K. Shukla, Harsh, Physica E, 42.5 (2010): 1648-1652. https://doi.org/10.1016/j.physe.2010.01.017.
2. Highly sensitive porous silicon sensor: Detection of organic vapours using photoluminescence quenching technique, Saakshi Dhanekar, **S. S. Islam**, T. Islam, and Harsh, Int. Journal on smart sensing & Intelligent systems, 3.1 (2010): 1648.
3. Organic vapour sensing and its polarity dependent analysis, P.M. Zia, **S. S. Islam**, Ameer Azam, Harsh, Sensor Review, 30.4 (2010):.
4. Capacitive detection of organic vapours at low ppm level by porous silicon: role of molecular structure in sensing mechanism, PMZ Hasan, **S. S. Islam**, T Islam, A Azam, Harsh, Sensor Review, 30.4 (2010): 336-340. https://doi.org/10.1108/02602281011072224.
5. γ-Al_2O_3 coated porous silicon for trace moisture detection, T. Islam, D.D. Saha, **S. S. Islam**, P.M.Z. Mufti, IEEE Sensors Journal, 11.4 (2010): 882-887. https://doi.org/10.1109/JSEN.2010.2060188.

2009

1. Laser-induced etching of Cr-O doped GaAs: Etching mechanism under super- and sub-bandgap photon illumination, Bipin Joshi, **S. S. Islam**, V. Kumari, H.S. Mavi, A.K. Shukla, and Harsh, Bull.Mat.Sci., 32.1 (2009): 31-35. https://doi.org/10.1016/j.matchemphys.2004.04.010.
2. Porous silicon based sensor array for ethanol sensing, T. Islam, H. Saha, **S. S. Islam**, Sensor letter 7.6 (2009): 1077-1085. https://doi.org/10.1166/sl.2009.1237.
3. Effect of organic vapour on porous alumina-based moisture sensor in dry gases, Saakshi Dhanekar, Tarikul Islam, **S. S. Islam**, Kamalendu Sengupta, Debdulal Saha, Sens and Trans, 6 (2009): 117.
4. Wavelength dependent Laser-induced etching of Cr-O doped GaAs : Morphology studies by SEM and AFM, Bipin Joshi, **S. S. Islam**, H.S. Mavi, Vinita Kumari, A.K. Shukla, Harsh, Bulletin of Materials Science, 32 (2009): 31-35. https://doi.org/10.1007/s12034-009-0005-0.

5. Size-selective laser induced etching in Semi-insulating GaAs: PL studies, Bipin Joshi, **S. S. Islam,** H.S. Mavi, A.k. Shukla, Harsh, Physica E, 41.4 (2009): 690. https://doi.org/10.1016/j.physe.2008.11.010.
6. Sensitivity Enhancement of Wheatstone Bridge Circuit for Resistance Measurement, T Islam, SA Khan, **S. S. Islam**, Sensors & Transducers, 6 (2009): 92.

2008

1. Study of cross-sensitivity of porous alumina study of cross-sensitivity of porous alumina based trace moisture sensor in dry gasessed trace moisture sensor in dry gases, Saakshi Dhanekar, P. M. Z. Hasan, S. Hussain, T. Islam, **S. S. Islam**, K. Sengupta, Deb. Saha, 3rd International Conference on Sensing Technology IEEE, (2008): 656-660. 10.1109/ICSENST.2008.4757187.
2. Laser Induced Effects in the Laser Etched Silicon Nanostructures, Rajesh Kumar, Aniruddha K. Shukla, Bipin Joshi, **Saikh S. Islam**, The Japan Society of Applied Physics 47.11R (2008): 8461. https://doi.org/10.1143/JJAP.47.8461.
3. A sensitive detection electronics for resistive sensor, T. Islam, F. A. Siddiqui, S. A. Khan, **S. S. Islam**, Harsh, 3rd International Conference on Sensing Technology, IEEE. (2008): 259-264. IEEE. https://doi.org/10.1109/ICSENST.2008.4757109
4. Porous silicon based moisture detector in the ppmV range, T. Islam, **S.S. Islam**, H. Saha, Sensors Letters 6.5 (2008): 746-751. https://doi.org/10.1166/sl.2008.m156.

2007

1. Parametric dependence of current-voltage characteristics for scanning tunneling microscope tip-carbon nanotube contact, K.A. Shah, and **S. S. Islam**, Nanoengineering and Nanosystems, 220.3 (2007): 139-142. https://doi.org/10.1243/17403499JNN94.
2. Ni substituted Li-Zn-Mn Ferrite for the suppression of Radiated Emission Noise, N.C. Joshi, **S. S. Islam**, Defense Science Journal, 57.4 (2007): 471-480. https://doi.org/10.14429/dsj.57.1795.
3. Raman study on single-walled carbon nanotubes with different laser excitation energies, **S. S. Islam,** K.A. Shah, H.S. Mavi, A.k. Shukla, S.Rath, Harsh, Bull. Mat.Sci., 30.3 (2007): 295-299. https://doi.org/10.1007/s12034-007-0049-y.
4. Lithium-zinc ferrite for the suppression of electromagnetic noise, N.C. Joshi, **S. S. Islam**, Anjali Verma, Ferrites - Jounal of Interferece Technology, 5 (2007): 21.

2006

1. Temperature, current and doping dependence of non-ideality factor for pnp and npn punch-through structures, K. A. Shah, and **S. S. Islam**, Indian journal of Pure and Appl. Phys, 44 (2006): 953-958.

2. Spectroscopic Investigation of porous GaAs prepared by Laser-induced etching, H.S. Mavi, **S. S. Islam,** Rajesh Kumar and A.K. Shukla, Journal of Non-crystalline Solids, 352.21 (2006): 2236-2242. https://doi.org/10.1016/j.jnoncrysol.2006.02.046.
3. Characterization of CNT grown on $Fe_{70}Pd_{30}$ film, Zishan H. Khan, **S. S. Islam**, S. C.Kung and T.P. Perng, Samina Khan, Monika Aggarwal, M.Zulfequar, and M.Hussain, Physica B, 373.2 (2006): 317-322. https://doi.org/10.1016/j.physb.2005.12.250.
4. Quantum confinement effects in silicon nanocrystals produced by laser-induced etching and CW laser annealing, H.S. Mavi, A.K.Shukla, R.kumar, S.Rath, Bipin joshi, and **S. S. Islam**, Semi- cond. Sci. Technol. 21.12 (2006): 1627. https://doi.org/10.1088/0268-1242/21/12/021.
5. Design of High-Speed-Pipelined Execution Unit of 32-bit RISC Processor, **S. S. Islam**, D Chattopadhyay, MK Das, Annual IEEE, (2006).
6. Investigation of the nature of CNT in a bundle by resonant Raman spectroscopy, **S. S. Islam,** K.A. Shah, journal IEICE, Electronic Express, (2006).
7. Metallic/Semiconducting ratio of carbon nanotubes in a bundle prepared using CVD technique, Khurshed Ahmad Shah, **S. S. Islam**, H.S. Mavi, A.K. Shukla, Harsh, Pramana-journal of Physics, 67.2 (2006): 395-400. https://doi.org/10.1007/s12043-006-0086-x.

2005

1. Effects of Extended Depletion region on Noise Modeling of HEMTs: Meena Mishra, R. Murulidharan, Harsh, **S. S. Islam**, and Mukunda Das, IEICE, Electronic Express, 2.3 (2005): 81-85. https://doi.org/10.1587/elex.2.81.

2004

1. Laser-induced Etching of Cr-O doped GaAs and wavelength dependent Photoluminescence, H. S. Mavi, **S. S. Islam**, S. Rath, B.S. Chauhan, A. K. Shukla, Mat. Chem. And Phys., 86 (2004): 414-419. https://doi.org/10.1016/j.matchemphys.2004.04.010.
2. Surface morphology and the formation of GaAs nanocrystals by laser-induced etching: SEM, PL, and Raman studies, H.S. Mavi, A.K. Shukla, B.S. Chauhan, **S. S. Islam**, Mat. Sci. and Engg B, 107.2 (2004): 148-154. https://doi.org/10.1016/j.mseb.2003.10.101.

Before 2000

1. Forbidden one Lo-phonon resonant Raman scattering and multiphonon scattering in pure CdTe crystals, **S. S. Islam**, S. Rath, K.P. Jain, S.C. Abbi, C.Julien, M. Balkanski, Physical Review B, 46.8 (1992): 4982. https://doi.org/10.1103/PhysRevB.46.4982.
2. Electrochemical studies of disordered MoS_2 as cathode material in lithium batteries, C. Julien, **S. I. Saikh**, G.A. Nazri, Mat. Sc. And Engg. B, 15 (1992): 73. https://doi.org/10.1016/0921-5107(92)90034-7.

3. Electrochemical properties and cycling performances of composite electrodes in solid state lithium batteries, C. Julien, **S. I. Saikh**, M. Balkanski, Mat. Sc. & Engg., B, 14 (1992): 121. https://doi.org/10.1016/0921-5107(92)90340-F.
4. Cycling performance of composite electrodes in solid state lithium batteries, **S. I. Saikh** , C. Julien, Solid State Ionics, **A2-1** (1991): 69-75.
5. Properties of disordered MoS_2 as cathode material in lithium electrochemical cells, C. Julien, **S. I. Saikh**, G.A. Nazri, Solid State Ionics, **A2-1** (1991): 5.
6. Ionic transport in Li_x $NiPS_3$, C. Julien, I. Samaras, **S. I. Saikh**, L. El- Farh, Solid State Ionics, **A2 III** (1991): 10.
7. Disordered MoS_2 used as cathode material in lithium electrochemical cells, C. Julien, **S. I. Saikh,** G.A. Nazri, ISSI letters 1 (No. 3 & 4), 12, 1990.
8. Lithium intercalation in layered material as battery cathodes, I. Samaras, **S. I. Saikh**, C. Julien, M. Balkanski, J. Mat.Sc. And Engineer B, 3 (1989): 209. https://doi.org/10.1016/0921-5107(89)90203-1.

Conferences/Workshops: 135 (One Hundred Thirty-Five)

2020

1. Structural and morphology analysis of $Nb_{0.25}Bi_2Se_3$ single crystal, MM Sharma, Poonam Rani, PK Maheshwari, **S. S. Islam**, AIP Conference Proceedings, 2220.1 (2020): 110040. https://doi.org/10.1063/5.0001454.
2. Hikami-Larkin-Nagaoka (HLN) fitting of magneto transport of Bi_2Se_3 single crystal in different magnetic field ranges, Deepak Sharma, Poonam Rani, PK Maheshwari, V Nagpal, RS Meena, **S. S. Islam**, S Patnaik, VPS Awana, AIP Conference Proceedings, 2220.1 (2020): 110028. https://doi.org/10.1063/5.0001476.
3. Ultrafast spectroscopy of Bi_2Se_3 topological insulator, P Sharma, D Sharma, N Vashistha, P Rani, M Kumar, **S. S. Islam**, VPS Awana, AIP Conference Proceedings, 2220.1(2020): 110033. https://doi.org/10.1063/5.0001677.

2019

1. Solvothermal Synthesis Of CdTe Nanostructures To Study Their Physical And Photoelectrochemical Properties, Sakshi Kapoor, **S. S. Islam,** International Conference on Atomic, Molecular, Optical & Nano Physics with Applications, 2019, Delhi Technological University, Delhi, INDIA
2. Raman and PL analysis of nanowire based P type porous silicon etched for variable current densities, Mohd. Zaid, **S. S. Islam**, UPCON 2019, AMU, India.
3. Green synthesis of cobalt ferrite nanoparticles by Hibiscus extract, Chetan Awasthi, Pragati, **S. S. Islam,** ICEFN&SEM-2019, kumaun University, Nainital, India
4. Liquid phase exfoliated few layered WS_2 thin sheets-based photodetector, Abid, Poonam Sehrawat, **S. S. Islam**, NBL-2019, NIT-Srinagar, India

5. Humidity Sensing by Porous Anodic Alumina: Investigations of Morphological Dependent Performance, Kusum Sharma, Noor Alam, **S. S. Islam,** ICAM-2019, AIP Conference Proceedings, Jamia Millia Islamia, New Delhi, India
6. Optical biosensor for chronic myeloid leukemia detection using multi-wall carbon nanotubes, Payal Gulati, **S. S. Islam,** ICAM-2019, AIP Conference Proceedings, Jamia Millia Islamia, New Delhi, India
7. Investigating Temperature Dependent Electrical Transport Properties of Reduced Graphene Oxide based Self-Standing Film, Poonam Sehrawat, Abid, S.A. Hashmi, **S. S. Islam,** ICAM-2019, AIP Conference Proceedings, Jamia Millia Islamia, New Delhi, India.
8. Development of Reduced Graphene Oxide Based Broadband Optical Detector with High Responsivity, Abid, Poonam Sehrawat, **S. S. Islam**, ICAM-2019, AIP Conference Proceedings, Jamia Millia Islamia, New Delhi, India.
9. Effect of Oxygen Plasma Treatment on the Photoresponse of Reduced Graphene Oxide (RGO) Based Optical Sensors, Abgeena Shabir, Abid, Mir Bintul Islam, **S. S. Islam,** ICAM-2019, Jamia Millia Islamia, New Delhi, India.
10. Effect of Oxygen Plasma Treatment on RGO Based Temperature Sensor Performance, Mir Bintul Islam, Abgeena Shabir, Abid, Poonam Sehrawat, **S. S. Islam,** ICAM-2019, Jamia Millia Islamia, New Delhi, India.
11. Ultrahigh Performance of Electrochemically Grown Nano-Porous Anodic Alumina for Low Humidity Sensing Applications, Noor Alam, Kusum Sharma, **S. S. Islam,** ICAM-2019, AIP Conference Proceedings, Jamia Millia Islamia, New Delhi, India.
12. Anodised Aluminium Oxide [AAO] Template Based Synthesis of Curved CdS Nanobelts, Sakshi Kapoor, **S. S. Islam,** ICAM-2019, AIP Conference Proceedings, Jamia Millia Islamia, New Delhi, India.
13. Structural Evolution of rGO Under the Effect of Heat and Pressure, Aaruni Jha, **S. S. Islam,** ICAM-2019, Jamia Millia Islamia, New Delhi, India.
14. Improving the Sensing Behavior of Carbon Nanotubes Towards NO_2 and NH_3 by Functionalization with SnO_2, Neeru, Pika Jha, Abhilasha Chouksey, Seema Gautam, **S. S. Islam**, J.S. Rawat, ICAM-2019, AIP Conference Proceedings, Jamia Millia Islamia, New Delhi, India.
15. Temperature Sensing Performance of 2D-$MoSe_2$ Based Thermistor, Chetan Awasthi, Poonam Sehrawat, R.C. Meena, K. Asokan, **S. S. Islam,** ICAM- 2019, AIP Conference Proceedings, Jamia Millia Islamia, New Delhi, India.

2018

1. AAO Template based synthesis of surfactant-free microflower of tellurium nanorods and their application as supercapacitor electrode, Sakshi Kapoor, **S. S. Islam,** ICNSMD-2018, STAMI & DU, New Delhi, India.

2017

1. Phase Dependent Investigation of Humidity Sensor Based on Anodic Aluminium Oxide (AAO) For Trace Moisture Measurement, Kusum Sharma, Prabhash Mishra, Manika Khanuja, **S. S. Islam**, IWPSD – 2017, IITD, India.

2. Development of composite based highly sensitive CO_2 gas sensor, Zohauddin Ahmad, Naseem, Abid, Mohammad Talib, **S. S. Islam**, Prabhash Mishra, IWPSD – 2017, IITD, India.
3. Synthesis and characterization of TiS3 ribbons via CVT technique, Mohammad Talib, Abid, Rana Tabassum, Samrah Manzoor, Zohauddin Ahmad, Naseem, **S. S. Islam**, Prabhash Mishra, IWPSD – 2017, IITD, India.
4. Temperature dependent TCR studies of MWCNTs/Alumina composite temperature sensor, Poonam Sehrawat, Abid, **S. S. Islam**, Prabhash Mishra, Manika Khanuja. Fourth International Conference on Nanostructured Materials and Nanocomposites (ICNM 2017) 10-12 February 2017, Kottayam, Kerala, India.
5. Fabrication of Electrochemical Immunosensor for Cardiac Biomarker Detection, Payal Gulati, **S. S. Islam**, Prabhash Mishra, Manika Khanuja. Fourth International Conference on Nanostructured Materials and Nanocomposites (ICNM 2017) 10-12 February 2017, Kottayam, Kerala, India.
6. Investigation of Different anodization parameters and optimization of electrochemically grown anodic alumina films for moisture sensing, Kusum Sharma, **S. S. Islam**, Prabhash Mishra, Manika Khanuja. Fourth International Conference on Nanostructured Materials and Nanocomposites (ICNM 2017) 10-12 February 2017, Kottayam, Kerala, India.
7. Photoconductive response of pristine MWCNTs aligned between the electrodes of Glucometer strip, Abid, Poonam Sehrawat, **S. S. Islam**, Prabhash Mishra, Manika Khanuja. Fourth International Conference on Nanostructured Materials and Nanocomposites (ICNM 2017) 10-12 February 2017, Kottayam, Kerala, India.

2016

1. Synthesis of TiS3 for the Application of Electronic Devices, Mohd Talib, Nishant Tripathi, Abid, **S. S. Islam**, Prabhash Mishra. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
2. Development of MWCNTs Based NIR Sensor by CVD Method, Abid, Nishant Tripathi, Poonam Sehrawat, Mohd. Talib, Sami Ullah, Prabhash Mishra, Manika Khanuja, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
3. Electrochemical Immunosensor for Cardiac Biomarker Detection Based on Glassy Carbon Electrode, Payal Gulati, Vinita Kumari, Prabhash Mishra, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.

4. CNT-Nanocomposite as an Optical Sensor, Parvez Akhtar, Poonam Sehrawat, Nishant Tripathi, Amanullah Saify, Naseem, Abid, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
5. High SNM 16nm 6T CNFET SRAM Cell Design at Low Supply Voltage, Nezam Uddin, Nishant Tripathi, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
6. Perovskite: Stability Against Moisture, Parvez Akhtar, Swati Maimgain, Sateesh Partapani, **S. S. Islam**, Ashwani Yella. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
7. CVD Synthesis of Small Diameter Single Walled Carbon Nanotubes, Khurshed A. Shah, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
8. Current Density Dependent Fabrication of Porous Silicon, Hina Qureshi, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
9. Investigation of Highly Sensitive CNT- Ceramic Composite Temperature Sensor, Poonam Sehrawat, Zuhaib Khan, Abid, Prabhash Mishra, Nishant Tripathi, Manika Khanuja, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
10. Fabrication of Nanotransistor Device by Selective Deposition of a Single-wall Carbon Nanotube, Rumysa Manzoor, Samrah Manzoor, **S. S. Islam**, Prabhash Mishra. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
11. Synthesis and Characterization of Graphene Oxide, and their Application for Pb(II) Removal, Naseem, Nezam Uddin, M.W. Malik, Hilal Ahmad, Parvez Akhtar, Nishant Tripathi, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
12. Improved Surface Stability of Porous Silicon with Si-Ag Bonds, Gunjan Aggarwal, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
13. A Study on Alignment of CNTs: Different Approaches and its Advantages, Mohammad Wasil Malik, Abid Ali, Nishant Tripathi, Nezam Uddin, Naseem, Sami Ullah, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
14. Nano Porous Anodic Alumina Based Capacitive Sensor for Measuring Trace Moisture, Kusum Sharma, Md Zainul Abedeen, Mayank Kohli, Gufran Tasneem, Manika Khanuja, Prabhash Mishra, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.

15. Tailoring Surface Groups of Graphene Oxide with Hard Lewis Basic Sites for Speciation Andremoval of Arsenicspecies, Hilal Ahmad, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
16. Vibrational Spectra and Density Functional Theoretical Calculations on the Anticancer Drugs Nitrosourea, Priyanka Singh, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
17. Horizontally Aligned Single Wall Carbon Nanotubes Based Resistive Sensor for Carbon Dioxide Gas Monitoring, Shima Shabbir, Sumayah Shaki, Wani, **S. S. Islam**, Prabhash Mishra. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
18. Hydrothermal Synthesis and Characterization of One-dimensional CdTe nanorod Arrays on AAO Template, Sakshi Kapoor, Hilal Ahmad, Nishant Tripathi, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
19. Porous Silicon And ito Based Biosensor for Detection of Cardiac Marker Myoglobin, Vinita Kumari, Payal Gulati, **S. S. Islam**. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
20. Optimization of Electrochemically Grown CdTe Nanorods on Porous Alumina Template for Enhanced Optical Absorption, Harsimran Singh Bindra, **S. S. Islam**, Ranu Nayak. International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
21. Identification and Origin of Visible Transitions in 1 D ZnO Nanostructures: Excitation Wavelength and Morphology Dependence Study, Arpit Baral, Manika Khanuja, **S. S. Islam**, International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
22. CNTFET Based Realization of Voltage Differencing Transconductance Amplifier, Laxya, Dinesh Prasad, Mainuddin, **S. S. Islam**, International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016), Jamia Millia Islamia, New Delhi.
23. Fabrication of Cardiac biomarker Immunosensor based on three different electrode surfaces & contrasting their efficiencies, Payal Gulati, Prabhash Mishra, **S. S. Islam**, International conference on Computer, Communication, Chemical, Material & Electronic Engineering- 2016, Rajshahi University, Bangladesh.
24. SWCNTS/Al_2O_3 Composite Thin Film Temperature Sensor. Poonam Sehrawat, **S. S. Islam**. Intl. Conf. on Nanotechnology for Better Living- Nano-Materials for Electronics, Energy and Environment, At National Institute of Technology Srinagar, Kashmir, India (2016).
25. Development of MWCNTs/alumina composite tap by using gel cast technique for optical detector in the IR region: CNT concentration and light intensity dependent comparative study. Abid, **S.S. Islam**. Intl. Conf. on Nanotechnology for Better Living-Nano-Materials

for Electronics, Energy and Environment, At National Institute of Technology Srinagar, Kashmir, India (2016).

2015

1. Growth of SWNTs using Cu(No3)2 and CuO: A systematic study on role of Oxygen in growth of CNTs. Nishant Tripathi, **S. S. Islam**, INDICON 2015; JMI, India.
2. Fabrication of Electrochemical Immunosensor for the early Detection of cardiac biomarker Myoglobin on Indium tin oxide electrode. Payal Gulati, Nishant Tripathi, Prabhash Mishra, **S. S. Islam**, National Conference on Interdisciplinary Approaches in Chemical Sciences-2015; JMI, India.
3. Development of anodized Aluminium based highly sensitive RH Sensor, Kusum Sharma, Nishant Triapathi, **S. S. Islam**, National Conference on Interdisciplinary Approaches in Chemical Sciences-2015; JMI, India.
4. Low cost Device Materials: Graphene thin film synthesis by Thermal CVD method, Nishant Tripathi, **S. S. Islam**, National Conference on Interdisciplinary Approaches in Chemical Sciences-2015; JMI, India.
5. Thermal behavior studies of MWCNTs/Alumina composite based thin film resistive sensors for temperature sensing application. Poonam Sehrawat, Md. Amanullah Saifee, Nishant Tripathi, **S. S. Islam**, National Conference on Interdisciplinary Approaches in Chemical Sciences-2015; JMI, India.
6. MWCNTs/Alumina composite based temperature sensor using gel-cast technique. Poonam Sehrawat, Nishant Tripathi, **S. S. Islam**, 18th IWPSD 2015; IISc Bangalore, India.
7. Comparative Study of moisture sensor fabricated from two different roots, Kusum Sharma, Nishant Triapathi, Sakshi Kapoor, **S. S. Islam**, 18th IWPSD 2015; IISc Bangalore, India.
8. Orientation Control of CNTs: A new approach based on O2 plasma treatment, Nishant Tripathi, **S. S. Islam**, 18th IWPSD 2015; IISc Bangalore, India.

2014

1. Effect of temperature increasing rate(temperature ramp) on growth of Carbon Nanotubes Nishant Tripathi, Kausar Ali, Abrar Ahmad, Abid, Prabhash Mishra, **S. S. Islam**, NCNRE 14-2014, Jamia Millia Islamia, New Delhi, India.
2. Effect of Purification and Dispersion of chemically functionalized SWNTs by using dimethylformamide solution, Prabhash Mishra, Poonam Sehrawat, Nishant Tripathi, **S. S. Islam,**" NCNRE 14-2014, Jamia Millia Islamia, New Delhi, India.
3. Dispersion of single-walled carbon nanotubes by Room-temperature ionic liquid (1 Hexyl-3-methylimidazolium hexafluorophosphate), Prabhash Mishra, Nishant Tripathi, Poonam Sehrawat, Rajan Patel, **S. S. Islam**. NCNRE 14-2014, Jamia Millia Islamia, New Delhi, India.

4. Multi walled carbon nanotubes based photodetector, Sneha Khatri, Madiha Mumtaz, Vijay Kumar, Kusum Sharma, Nishant Tripathi, Prabhash Mishra, **S. S. Islam**, NCNRE 14-2014, Jamia Millia Islamia, New Delhi, India.

2013

1. Fabrication of SWCNTs based flexible, trace level NO2 gas sensor using spray coating technique. Prabhash Mishra, Neha Tabassum, Choksh Bhola, Vaibhav Sharma, Kamran Zaidi, Manish Gupta, Harsh, **S. S. Islam,** IWPSD-2013, Amity University, Noida, India.
2. Effect of the Growth Temperature on the Diameter Distribution and yield of Carbon Nanotubes, Nishant Tripathi, Prabhash Mishra, Harsh, **S. S. Islam**, IWPSD-2013, Amity University, Noida, India.
3. Development of highly selective moisture sensor based on functionalized nano-porous silicon, Saakshi Dhanekar, **S. S. Islam**, Harsh, 3rd International Conference on Advanced Nanomterials and Nanotechnology, 1-3 December 2013, IIT Guwahati, India
4. Surface Studies of Functionalized Porous Silicon for Development of Selective Moisture Sensor, Saakshi Dhanekar, **S. S. Islam,** Harsh International Union of Materials Research Society-International Conference in Asia (IUMRS-ICA), (2013), IISc Bangalore, India.
5. Growth of VA-CNT for detection of NH3 Gas, Prabhash Mishra, Sakshi Sarma, K. Sengupta, **S. S. Islam** and Harsh, Central Glass and Ceramics Research Institute.
6. Optimization Of Porous Silicon Electrode For The Development Of Model Immunosensor Using IgG. Vinita Kumari, Payal Gulati, Prabhash Mishra, **S. S. Islam**, International Journal of Biomedical Engineering and Consumer Health Informatics" No.2 2013 issue.
7. Optimization of porous silicon electrode for the development of model immunosensor using IGG, Payal Gulati, Prabhash Mishra, **S. S. Islam**, Vinita Kumari, oral presentation, 2nd National Conference on Medical Engineering & Technologies: Issues, Challenges & Benefits (Meditech-13), 04-05 April, 2013, DCR Univ. of Sc. And Tech., Murthal.
8. Sol-gel Based Disposable impedimetric Urea Biosensor, Tanu Bhardwaj, Prabhash Mishra, **S. S. Islam** and Vinita Kumari, 2nd National Conference on Medical Engineering & Technologies: Issues, Challenges & Benefits (Meditech-13), 04-05 April, 2013, DCR Univ. of Sc. And Tech., Murthal.
9. Transferred 3D Aligned Carbon Nanotube Patterns and Characterization of Their NH3 gas sensing Properties, Prabhash Mishra, Nishant Tripathi, Manju pandey, Mukesh Tripathi, Neha Tabassum, Choksh Bhola, Abhinav Prakash Dubey, Harsh, **S. S.Islam**, 17th National Seminar on Physics and Technology of Sensors 11-13 March 2013, Jamia Millia Islamia, New Delhi, India.
10. Sensitive PL quenching technique for selective detection of moisture based on nano-porous silicon, Saakshi Dhanekar, **S. S. Islam**, Harsh, 17th National Seminar on Physics and Technology of Sensors, 11-13 March 2013, Jamia Millia Islamia, New Delhi, India.

11. Synthesis of Carbon Nanotubes without metal catalyst using Thermal CVD System, Nishant Tripathi, Prabhash Mishra,Harsh, **S. S. Islam**, Oral presentation in International Conference on Emerging Technologies: Micro to Nano 2013, (ETMN-2013), 23-24 February 2013, BITS- Pilani- K.K. Birla Goa Campus Goa.
12. Sol-gel based Impedimetric Urea Biosensor, poster presentation in International Conference on Emerging Technologies:Micro to Nano 2013, (ETMN-2013), 23-24 February 2013, Tanu Bhardwaj, Prabhash Mishra, **S. S. Islam,** Vinita Kumari, BITS-Pilani-K.K. Birla Goa Campus Goa.
13. Role of Plasma Etching for the Development of Humidity Sensor Based on Nanoporous Alumina Thin film, Manju Pandey, Prabhash Mishra, K. Sengupta, **S. S. Islam**, International Conference on Recend Trends in Applied Physics & Material Science, February 01-02, 2013, Govt. College of Engineering & Technology, Bikaner, Rajasthan.

2012

1. Nano-Porous Silicon Based Electrochemical Glucose Sensor, Saakshi Dhanekar, Himani Kohli, **S. S. Islam**, Harsh, 1st Winter Workshop on Engineering at Nanoscale: Materials to Bio-sensors, 10-12 December 2012, IIT Indore, Madhya Pradesh, India.
2. Nanoporous alumina thin films prepared by sol-gel technique using dip coating method on alumina substrate, Manju Pandey, Prabhash Mishra, Debdulal Saha, K. sengupta, **S. S. Islam**, Proceedings of Third Asian Conference on Mechanics of functional Materials and Structures (ACMFMS 2012), IIT Delhi, p.212-215, 2012.
3. Sol-Gel based Impedimetric Disposable Urea Biosensor,Vinita Kumari, Tanu Bhardwaj, Prabhash Mishra, **S. S. Islam**, October 28-31, 2012, Taipei International Convention Centre, Taipei, Taiwan.
4. Electrical properties of nanocrystalline alumina in cubic & hexagonal phases for the development of thin film trace moisture commercial sensor by wet chemical method, Manju Pandey, Kriti Tyagi, Prabhash Mishra, Debdulal Saha, K. Sengupta, **S. S. Islam**, 9th International Workshop on Nanomechanical Sensing, 6-8 June 2012, IIT Mumbai, India.
5. Sensitivity studies of functionalized porous silicon for detection of alcohols, Saakshi Dhanekar, **S. S. Islam**, 9th International Workshop on Nanomechanical Sensing, 6-8 June 2012, IIT Mumbai, India.
6. Deposition of pristine and functionalized MWCNTs in Alumin matrix by sol-gel technique and investigation of their ammonia sensing properties, Sakshi Sharma, K. Sengupta, **S. S. Islam**, 9th International Workshop on Nanomechanical Sensing, 6-8 June 2012, IIT Mumbai, India.
7. Preparation, characterization and electrical studies of MWCNTs/PVP composite films for realization of ammonia gas sensor operable at room temperature, Sakshi Sharma, K.

Sengupta, **S. S. Islam**, 2nd International conference on "Advanced Nonmaterial and Nanotechnology", IIT Guwahati from 8th -10th December 2012.

2011

1. Transfer of 2-D vertically aligned patterned carbon nanotubes (CNTs) onto Plastic substrate using hot press technique for flexible electronic device applications, Prabhash Mishra, K. Sengupta, N.H. Tai, **S. S. Islam**, XVI "International Workshop on Physics of Semiconducting Devices" IIT Kanpur from 19-22 December 2011.
2. Fabrication of highly sensitive Ammonia gas sensor by depositing Functionalized MWCNTs in Alumina matrix through sol –gel processing, Sakshi Sharma, K. Sengupta, **S. S. Islam**, XVI "International Workshop on Physics of Semiconducting Devices" IIT Kanpur from 19-22 December 2011.
3. Selective moisture sensing by chemically treated porous silicon sensors, Saakshi Dhanekar, Indu Sharma, **S. S.Islam**, Harsh, XVI "International Workshop on Physics of Semiconducting Devices" IIT Kanpur from 19-22 December 2011.
4. Enhanced sensitivity from surface treated porous silicon, Saakshi Dhanekar, Swati Rajput, **S. S. Islam**, Harsh, XVIth International Workshop on Physics of Semiconductor Devices (IWPSD), 19-22 December 2011, IIT Kanpur, India.
5. A new approach to make capacitive humidity sensor based on TiO2 thin film with silver palladium electrodes, Manju Pandey, Debdulal Saha, K. Sengupta, **S. S. Islam**, XVIth International Workshop on Physics of Semiconductor Devices (IWPSD), 19-22 December 2011, IIT Kanpur, India.
6. Synthesis and characterization of few layer Graphene via cold wall CVD route, Mohammed Faisal, S. Bhattacharyya, Pika Jha, Monika Kumari, Anil Agarwal, P.K. Chaudhury, M. Husain and **S. S. Islam**, , XVIth International Workshop on Physics of Semiconductor Devices (IWPSD), 19-22 December 2011, IIT Kanpur, India.
7. MWCNTs reinforced polymer composite for development of thin film ammonia gas sensor, Sakshi Sharma, K. Sengupta, **S. S. Islam**, XVI "International Workshop on Physics of Semiconducting Devices" IIT Kanpur from 19-22 December 2011.
8. Development and standardization of porous silicon for application as a working electrode in electrochemical immunosensor, Vinita Kumari, Prabhash Mishra, **S. S. Islam**, XVI International Workshop on the Physics of Semiconductor Devices (IWPSD 2011), IIT Kanpur, Dec 19-22, 2011.
9. Ozone oxidation of multiwall carbon nanotubes. Shahir Hussain, **S. S. Islam**, and Harsh, (MWCNTs), XVIth International workshop on the physics of semiconductor devices, Dec.19-22, 20011, IIT Kanpur, India.
10. Porous silicon: an attractive material for immunosensor, International Conference on Nanomaterials and Nanotechnology, Vinita Kumari, **S. S. Islam**, Conference Centre at University of Delhi, India, 18-21 December 2011, (ICNANO-2011).

11. Detection of mono/double layer formation of porous silicon using Raman & PL spectroscopy, Saakshi Dhanekar, **S. S. Islam**, Harsh, 3rd International Conference on Current Development in Atomic, Molecular, Optical and Nano Physics, 14-16 December 2011, Delhi University, India.
12. Annealing effect on the Structure of Multi-walled Carbon Nanotubes, National Work shop on Nanotechnology For Defence Applications Shahir Hussain, **S. S. Islam**, and Harsh, 16-17 November, 2011, SSPL, DRDO, Delhi.
13. Role of Annealing Temperature on Porosity of Al2O3 Thin Film Prepared by Sol-Gel Technique, Manju Pandey, Kriti Tyagi, K. Sengupta, **S. S. Islam**, National Workshop on Nanotechnology For Defence Applications (NWNDA) held at Solid State Physics Laboratory, Delhi from 16th November to 17th November 2011.
14. Detection of Mono/Double Layer Formation of Porous Silicon Using Raman & PL Spectroscopy, Saakshi Dhanekar, **S. S. Islam**, Harsh", Current Development in Atomic, Molecular, Optical and Nano Physics, 14-16 December 2011, Delhi University, India.
15. Sensing Studies of Chemically Modified Porous Silicon, Saakshi Dhanekar, **S. S. Islam**, Harsh, National Workshop on Nanotechnology for Defence Applications, 14-15 November 2011, Solid State Physics Laboratory (SSPL), Delhi, India.
16. Stability achievement by Photo-electrochemical etched optical sensors, Saakshi Dhanekar, **S. S. Islam**, T.Islam", National Conference on Recent Advances in Condensed Matter Physics, 14-15 March 2011, Department of Physics, Aligarh Muslim University Aligarh, India.
17. Multiwall carbon nanotubes purification and oxidation studied using Raman spectroscopy S. Hussain, K.A. Shah, P. Jha, T. Islam, **S. S. Islam** and Harsh, National Conference on Recent Advances in Condensed Matter Physics, March 14-15, 2011, Aligarh (UP) India.

2010

1. PL quenching: A sensitive probe for detection of organic vapours by porous silicon at low ppm", Saakshi Dhanekar, Prabhash Mishra, **S. S. Islam**, T. Islam, Harsh", 4th International Conference on Science and Technology, 17-20 February 2010, IIT Bombay, India.
2. Nanoporous silicon based electrochemical immunosensor, Dhirendra Prabhakar, S. Goel, Vinita Kumari, Harsh, **S. S. Islam**, International Interdisciplinary Science conference on Nanobiotechnology: An interface between Physics and Biology", Dec 2-4, 2010, Jamia Millia Islamia, New Delhi.
3. Impedance spectroscopy of the porous silicon in low moisture content dry gas, T. Islam, S. Hussain, A. Gangopadhyay, Harsh, **S. S. Islam**, 7th International Conference on Porous Semiconductors-Science and Technology (PSST10), 14-19 March, Valencia, Spain,2010.
4. Optical Detection of organic vapours by photoelectrochemically etched porous silicon based sensors, S. Dhanekar, P. Mishra, **S. S. Islam**, T.Islam, Harsh, 7th International

Conference on Porous Semiconductors-Science and Technology (PSST10), 14-19 March, Valencia, Spain, 2010.

5. Morphological and PL studies of porous silicon prepared by different additives, Vinita Kumari, **S. S. Islam** and Harsh, National conference on Nanomaterials and Nanotechnology, Dept. of Chemistry and Dept. of Chemical Engg., VNIT, Nagpur, 18-20th Jan, 2010.

2009

1. Fine tuning of Photoluminescence emission of nanoporous silicon in laser assisted electrochemical anodization using HF: DMF, Vinita Kumari, **S. S. Islam** and Harsh, 2nd National Conference on Nanomaterials and Nanotechnology, 21-23 December, 2009, Lucknow University, India.
2. Sensor parameters studies of porous silicon sensor by photoluminescence quenching technique, Saakshi Dhanekar, **S. S. Islam**, T.Islam, Harsh", 2nd National Conference on Nanomaterials and Nanotechnology, 21-23 December, 2009, Lucknow University, India.
3. Selective organic vapour sensing by porous silicon: Significance of morphology, Saakshi Dhanekar, P.M.Z. Hasan, **S. S. Islam**, T. Islam, A. Azam and Harsh, 2nd National Conference on Nanomaterials and Nanotechnology, 21-23 December, 2009, Lucknow University, India.
4. Comparative studies of pristine and functionalized Carbon Nanotubes, Shahir Hussain, **S. S. Islam**, T. Islam, Harsh, 2nd National Conference on Nanomaterials and Nanotechnology, Dec. 21- 23, 2009, Lucknow, India, pp.261-264.
5. Morphological and PL studies of porous silicon prepared by different additives, Vinita Kumari, **S. S. Islam** and Harsh, Nagpur Conference, 2009.
6. Functionalization studies of Single Wall Carbon Nanotubes (SWCNTs) using Raman spectroscopy**,** Shahir Hussain**, S. S. Islam,** T.Islam, P. Jha, P. Chaturvedi, Harsh, XVth International Workshop on the Physics of Semiconductor Devices, 15-19 December, 2009, Jamia Millia Islamia, New Delhi, India.
7. Efficient Photoluminescence from Porous Silicon with specific selection of anodization parameters, Saakshi Dhanekar, **S. S. Islam**, T.Islam, Harsh", XVth International Workshop on the Physics of Semiconductor Devices, 15-19 December, 2009, Jamia Millia Islamia, New Delhi, India.
8. Selective Organic Vapour Sensing by Porous Silicon: Significance of Morphology, Saakshi Dhanekar, P.M.Z.Hasan, **S. S. Islam**, T.Islam, Harsh", XVth International Workshop on the Physics of Semiconductor Devices, 15-19 December, 2009, Jamia Millia Islamia, New Delhi, India.
9. N-type porous silicon fabricated under variable photon flux: Photoluminescence and Raman studies, **S. S. Islam,** S. Mokhria, S. Sharma, T. Islam, and Harsh , XVth

International Workshop on the Physics of Semiconductor Devices, 15-19 December, 2009, Jamia Millia Islamia, New Delhi, India.

10. Organic Vapor Sensing by Porous Silicon: Investigation of Morphological Dependence, Saakshi Dhanekar, P.M.Z.Hasan, **S. S. Islam**, T.Islam, Harsh, in National Conference on Nanomaterials: Synthesis and Applications, 6-7 February, 2009, DAV College, Jalandhar, India.
11. Improvement of PL Stability of Nanoporous Silicon by Surface Treatment, Vinita Kumari, **S. S. Islam**, T. Islam, and Harsh, National Conference on Nanomaterials Synthesis & Applications 6-7th Feb, 2009, Dav College Jalandhar, India.
12. Effect of laser illumination during electrochemical etching on PL of porous silicon, Vinita Kumari, **S. S. Islam**, T. Islam, and Harsh, First International conference on trends in optics and photonics, University of Calcutta, Kolkata, March 1-4, 2009.

2008

1. Study of Cross- Sensitivity of Porous Alumina based Trace Moisture Sensor in Dry Gases, S. Dhanekar, P.M.Z. Hasan, S. Hussain, T. Islam, **S. S. Islam**, K. Sengupta, Deb. Saha, ICST (IEEE) -2008, 31Nov.- 3rd Dec. 2008, Taiwan.
2. A Sensitive Detection electronics for Resistive Sensor, T. Islam, S.A, Khan, F. A Arif, **S. S. Islam**, International Conference on Sensing Technology (ICST 2008), Nov. 30 – Dec. 3, 2008 (IEEE Explore ISBN = 4757055), pp. 259-264, Tainan, Taiwan.

2007

1. Size distribution of Silicon nanocrystallites of porous silicon by Raman scattering studies, Vinita Kumari, **S. S. Islam**, T. Islam , and Harsh, in Conference Proceedings of Indo-Australian Symposium on Multifunctional Nanomaterials Nanostructures and Applications (MNNA 2007), New Delhi, December 19-21, 2007.
2. A precise active bridge circuit to measure incremental resistance change of resistive sensor, T. Islam**, S. S. Islam**, Harsh, International conference on advance materials and applications, 15-17 November, (ICMA-2007), 2007, Kolhapur, Shivaji University, India.
3. Porous silicon based moisture detector in the ppm range, T. Islam, **S. S. Islam**, H. Saha, 7th East Asian conference on chemical sensors (EACCS-2007), 3-5 December Singapore Hotel Novotel Clarke Quay.

2004

1. Laser induced Etching of Cr-O doped GaAs: Etching mechanism under super- and sub-bandgap photon illumination, H.S. Mavi, **S. S. Islam**, A.K. Shukla and Harsh, Asia-Pacific Microwave conference (APMC-2004), 15-18th Dec. 2004, India.
2. Spectroscopic Investigation of porous GaAs prepared by Laser-induced etching, **S. S. Islam**, H.S. Mavi, and A.K. Shukla, Proc. 4th Int. Conf. On Inorganic Materials, 19-21st Sept. 2004, Antwerp, Belgium.

2003

1. Noise Modeling of MESFETs: Meena Mishra and **S. S. Islam**, S.R.Shukla, and H.P.Vyas, National Symposium on Microwaves and Lightwaves, New Delhi, India, 2003.
2. Nanostructure of Semi insulating GaAs : SEM and PL studies, **S. S. Islam**, H.S. Mavi, A.K. Shukla, and B.S. Chauhan, and Harsh, published in XIIth Int. Conf. On The Phys. Of Semicond. Devices, Chennai, 16-20th Dec. 2003.
3. Small Signal Parameter Extraction for HEMT using Neural Networks, Meena Mishra, Avinendu Singh Tomar, **S. S. Islam**, R.Gulati, and H.P. Vyas, Proc.of XIIth Int Conf. of Physics of Semiconductor Devices, Chennai, 16-20th Dec.,2003.
4. Lithium ferrite for Suppression of Electromagnetic pollution as a new application. N.C. Joshi, **S. S. Islam**, and N. Kumar, published in XIIth Int. Conf. On The Phys. of Semicond. Devices, Chennai, 16-20th Dec. 2003.
5. Light induced chemical etching of Cr-O doped GaAs: Mechanism of pore formation and characterization, **S. S. Islam**, H.S. Mavi, A.K. Shukla, and B.S. Chauhan, and Harsh, XIIth Int. Conf. On The Phys. of Semicond. Devices, Chennai, 16-20th Dec. 2003.
6. Optimization of Gate to drain separation in submicron MODFET, **S. S. Islam**, and Meena Mishra, Int. conf. on VLSI Design & Technology, New Delhi, 2003.
7. Inverse Modeling of delta-Doped pHEMTs, Meena Mishra, **S. S. Islam**, M.Jagdish Kumar,Yashvir Singh, S.R.Shukla, H.P.Vyas, D.S. Rawal, A.Naik, H.S.Sharma, B.K.Sehgal, and R.Gulati, Proc. 11th Canadian Semiconductor technology Conference, Ottowa, 18-22nd Aug., 2003.

Before 2000

1. Resonance Raman Scattering in MBE grown ZnSe and ZnSSe, **S. S. Islam** and K.P. Jain, Proceeding on XIIIth Int. Conference on Raman Scattering , held in Wiirzburg (Germany), 28th Aug - 4th Sep .1992.
2. Multiphonon Raman Scattering in CdTe : Temperature dependence, S. Rath, **S. S. Islam**, K.P. Jain, S.C. Abbi, C. Julien and M. Balkanski, Proceeding on XIIIth Int. Conference on Raman Scattering , held in Wiirzburg (Germany), 28th Aug - 4th Sept. 1992.
3. Lithium electrochemical investigations of crystalline layered compounds, C.Julien, I. Samaras, **S. S. Islam** and M.Balkanski, Mat. Res. Soc. Symp. proc., 135 (Mat. Soc., Pittsburg, 1989) p. 467.
4. The role of $NiPS_3$ as cathode in secondary lithium solid state batteries, **S. S. Islam,** C. Julien and M.Balkanski, Solid State Micro Batteries, ed. by J.R. Akridge, NATO- ASI Series B (Plenum Publ., New York, 1989) p. 297.

(Prof. S.S. Islam), 04/07/2021

Annexure –B

LIST OF STUDENTS AWARDED Ph.D.

S. No.	Name of the student	Title of the Thesis	Year of Award
1.	Meena Mishra	Non linear HEMT Modelling and its parameter analysis	2005
2.	Khurshid A. Shah	Characterization of carbon nanotubes using SEM/TEM/AFM and Raman spectroscopy	2007
3.	N.C. Joshi	Study of electric and magnetic properties of ferrites and their application in suppression of electromagnetic pollution	2009
4.	Bipin Joshi	Fabrication of semiconductor nanostructures and its optical characterization	2009
5.	Vinita Kumari	Optical characterization of silicon nanostructure	2009
6.	Saakshi Dhanekar	Raman and Photoluminescence investigation of nanostructured porous silicon for sensing organic vapours	2011
7.	P. M. Ziaul Hasan	Porous silicon based sensor for sensing chemical vapours	2011
8.	Saheer Ahmad	Purification of as-grown carbon nanotubes (CNTs) and its characterization by using SEM, AFM and Raman studies	2012
9.	Prabhash Mishra	Fabrication and characterization of carbon nanotubes based NH_3 gas sensor	2014
10.	Sakshi Sharma	Chemical processing and functionalization of carbon nanotubes for optimization of gas sensing properties	2014
11.	Gunjan Aggarwal	Surface stability studies of porous silicon by vibrational (Raman and IR) spectroscopy	2016
12.	Nishant Tripathi	Growth and characterization of carbon nanotubes by CVD system and its optimization at different parameters	2016
13.	Poonam Sehrawat	Design and development of carbon nanotubes based heat flow sensor and its charactrization	2017
14.	Kusum Sharma	Design, development and characterization of humidity sensors	2019
15.	Payal Gulati	Carbon based nanomaterial for cancer detection	2019