

Bio-Data of Prof. S. Asokan

Name:

Sundarrajan Asokan

Date of Birth:

02-10-1960

Designation & Address:

MSIL Chair Professor,

Details of Academic Qualifications (Degree Onwards):

Examination	University/Institution	Class obtained	Year
B.Sc. (Physics)	Madras University, Madras	First	1981
M.Sc. (Materials Science)	College of Engineering Anna University, Guindy	First; First Rank	1983
Ph.D. (Physics)	Indian Institute of Science, Bangalore	Martin J Foster Gold Medal	1987

Details of Employment at IISc:

Year		Designation
From	To	
May 1986	October 1987	Research Associate
October 1987	September 1990	Scientific Officer
September 1990	March 1993	Lecturer (senior grade)
March 1993	March 1999	Assistant Professor
April 99	March 2005	Associate Professor
April 2005	Till Date	Professor

Academic Achievements/Awards/Honors:

- **I Rank, M.Sc. Materials Science, Anna University, Madras, 1983.**
- **The Martin J. Forster Gold Medal of the Indian Institute of Science, for the best Ph.D. thesis in the Division of Physical and Mathematical Sciences, for the year 1986-87**
- **Young Scientist Medal, Indian National Science Academy, 1990**
- Japanese Society for Promotion of Science Visiting Scientist, Dept. of Electronics and Computer Engineering, Gifu University Japan, 1991.
- **Young Scientist Research Award of the Department of Atomic Energy, India, for the year 1995.**
- INSA-Royal Society Visiting Scientist, Imperial College of Science, Technology and Medicine, London (1998)
- Visiting Scholar, Lyman Laboratory, Harvard University, Cambridge, MA, USA (1999).
- General Secretary, Instrument Society of India (2000-2004)
- Vice President, Instrument Society of India (2004-2008)
- **Elected Fellow of the National Academy of Sciences, 2008**
- **IISc Alumni Award for excellence in Research in Engineering (2018)**
- **MSIL Chair professorship, Indian Institute of Science (2018)**
- **President, Instrument Society of India (2020-)**

Contribution to Administration:

- Member, Council of Wardens, IISc
- Secretary, Graduate Aptitude Test in Engineering (GATE), IISc (2002-2004)
- Chairman, Graduate Aptitude Test in Engineering (GATE), IISc (2004-2007)
- Member & Chairman, Publications Committee (Annual Report, Court Report, Hand Book, Scheme of instruction, etc.)
- Chairman, Robert Bosch Centre for Cyber Physical Systems, IISc (2011 - 16)
- Chairman, Department of Instrumentation and Applied Physics, IISc (2016-2023)
- Chairman, Contracts Management Committee, IISc (2017 onwards)
- Dean Faculty Of Science, IISc Bangalore (2024 Onwards)

Other Contributions to the Institute

Served as

- Member, Admission Committee
- Member, Central Evaluation Committee
- Member, Negotiation Committee
- Chairman, Secretarial Staff evaluation Committee
- Member, Summer Programme Committee, KVPY
- Member, Contracts Management Committee
- Member, Editorial Board, Journal of Indian Institute of Science
- Member, Pre-Interview Familiarization Programme
- Member, shortlisting & selection committee of officers
- Member, Annual alumni meets

Other Noteworthy Contributions

- Based on the Fiber Bragg Grating (FBG) sensor technology developed in the lab, a start-up company, “Instrumentation and Scientific Technologies Pvt. Ltd.”, was incubated at SID; Served as a mentor for this company, which has developed indigenously, FBG interrogation systems for defense and aerospace applications.
- Functioned as independent director in a fiber optic instrumentation company, “Fiber Optika”, which developed in collaboration with IIT Delhi, an advanced kit (light runner) for conducting fiber optics based advanced experiments for UG and PG engineering curriculum.
- Also contributed in the development of FBG sensors for railways in collaboration with an IISc incubated company, Lab to Market.
- Undertaken many industry sponsored projects under the auspices of SID and CSIC. These include projects with Hindustan Aeronautics, Applied Materials, USA, Semiconductor Research Corporation, USA, Southern Electronics, Bangalore, etc.
- Contributed to the indigenous development instruments and sensors for the need of Defence and aerospace; These include the “Angular and Binocular Deviation measurement system, developed for HAL for HAWK aircrafts, underwater acoustic sensors for DRDO, FBG based Structural Health Monitoring system for ADA, FBG pressure sensor for ISRO, tilt measurement system for piles in open cast mines, etc.
- Contributed to the field of Instrumentation in the country by serving as the General Secretary, Vice President and President, of Instruments Society of India, etc.; Organized many National and two International Symposia on Instrumentation which were attended widely by academics, students and practicing engineers.
- Actively involved in the establishment of a translational research center at IISc, the Robert Bosch Centre for Cyber Physical Systems. From the projects funded by the center, three start-up companies have come up, in the areas of water purification, point of care diagnostic tools and endoscopic simulator for medical practitioners.

Research Students Guided

A. M.Sc.(Engg)

1. Mr. Ranajit Chatterjee, CEO, Kriyetic Japan, LLC, Tokyo, Japan (M.Sc. Engg)
2. Mr. Sumeet Yamdagni, Director, Instrumentation and Scientific Technologies Pvt. Ltd.
3. Dr. T.K. Mondal, PRS, IISc
4. Mr. Nilesh Patel, ADE, DRDO, Bangalore

B. Ph.D.

1. Dr. R. Ramakrishna (PRS, IISc., Retd.) (deceased)
2. Prof. Dr. K. V. Acharya, Physics Dept., Bangalore University (Retd), Bangalore Univ (Co-guide)
3. Dr. S. S. K. Titus, NPL, New Delhi
4. Prof. Dr. S. Prakash, Professor of Dept of Electronics and Communication, Saveetha University, Chennai, India
5. Prof. Dr. S. Murugavel, Department of Physics, University of Delhi
6. Prof. Dr. R. Aravinda Narayanan, BITS, Hyderabad
7. Dr. C. Nagarajamurthy, Principal Engineer, CISCO, CA, USA
8. Prof. Dr. Srirang Manohar, University of Twente, Netherlands
9. Dr. Ms. B. H. Sharmila, John F. Welch Technology Centre, GE, Bangalore
10. Prof. Dr. Zaheerudeen Saheb P, Al Ameen Science and Commerce College, Bangalore, Bangalore University (Co-guide)
11. Prof. Dr. J.T. Devaraju, Dept. of Electronic Science, Bangalore University, Bangalore, Bangalore University (Co-guide)
12. Prof. Dr. N. Manikandan, Department of Physics, VIT University, Chennai
13. Prof. Dr. M. Anbarasu, Department of Electrical Engineering, IIT, Madras
14. Prof. Dr. Pulok Pattanayak, Neotia University, Kolkatta
15. Dr. Kalaga Venu Madhav, Leibniz Institute of Astrophysics, Germany
16. Prof. Dr. Bhanuprasanth, Professor, Dept. of Medical Electronics, BMSCE, Bangalore
17. Dr. Ms. Aashia Rahman, Leibniz Institute of Astrophysics, Germany
18. Dr. B. R. Madhu, Gov. Sci. College, Chitradurga, Bangalore University (Co-Guide)
19. Prof. Dr. Chanda Sree Das, Professor, BMS College of Engineering, Bangalore
20. Dr. Srinivasa Rao, G. (Deceased)
21. Dr. A.S. Guruprasad, Robert Bosch Engineering India, Bangalore
22. Prof. Dr. K. P. Lakshmi, BMS College of Engineering, Bangalore.
23. Prof. Dr. G. Sreevidya, Presidency University, Bangalore
24. Dr. S. Tamilarasan, Technion University, Israel.
25. Prof. Dr. B. N. Shivananju, Department of Electrical Engineering, IIT, Madras
26. Dr. U. Sharath, LEOS, ISRO, Bangalore
27. Dr. S. Sridevi, Oxford University, UK
28. Prof. Dr. L. Lakshmi Rajeswara Rao, Geetam University, Visakapatnam
29. Dr. Shika Ambastha, CSIR, Anusandhan Bhavan, New Delhi
30. Prof. Dr. K. Chethna, Jyothi Institute of Technology, VTU, Bangalore
31. Dr. Saurabh Kumar, Robert Bosch Engineering India, Bangalore
32. Prof. Dr. Gayathri Sivakumar, VIT University, Chennai
33. Prof. Dr. S. Sridhar, VIT University, Vellore
34. Dr. Tanujit Biswas, RA, IISc

35. Dr. Puspita Ray, RA (IISc) (Co-Guide)
36. Dr. Fazluddeen R, Prince Sultan Institute of Defense Studies and Research, Riyadh, Saudi Arabia
37. Dr. Anita Sure, Honeywell, Bangalore
38. Dr. Suma M N, LPSC, ISRO (Co-guide)
39. Dr. V. Chitnis, LPSC, ISRO (Co-guide)
40. Dr. Ompakash Parida (DLRL, Hyderabad)
41. Dr. Kavitha, University of Southampton
42. Mr. Jineesh Thomas, HAL, Bangalore
43. Mr. Sanjib Jana (Co-guide)
44. Dr. Shweta Pant, CGCRI, Kolkata.
45. Dr. Shiva Prasad, DRDO, Hyderabad
46. Dr. Vajresh Kumar, IISc, Bangalore.

Courses Taught Earlier

1. Semiconductor Physics
2. Properties of Electrical Engineering Materials
3. Special Purpose Instrumentation

Courses Taught Presently

Analytical Instrumentation

Current Research Interests:

1. Chalcogenide glasses-Alternating DSC; Photoconductivity; DC & AC conductivity
2. Electrical switching and phase change memories
3. High Pressure Instrumentation & Research
4. Thermal Wave Spectroscopy
5. Fiber Bragg Grating Sensors
6. All Optical Switching

Affiliation to Professional Societies

- Life Member - Instruments Society of India
- Life Member - Semiconductor Society of India

Editorial work for journals:

- ii) Member, Editorial Board, Journal of Indian Institute of Science
- iii) Chief Editor, J. Instrument Society of India
- iv) Member, Editorial Board, Int. J. of Instrumentation Technology

Refereeing for International Journals (Not Exhaustive)

- a) IEEE Transactions for Instrumentation & Measurements
- b) J. Physics & Chemistry of Solids
- c) J. Non-Crystalline Solids
- d) Physica
- e) Vacuum
- f) Thin Solid Films
- g) Radiation Measurements
- h) Materials Chemistry & Physics
- i) Solid State Communications

- j) J. Opto Electronics & Advanced Materials
- k) Bull. Materials Science
- l) Pramana
- m) Current Science
- n) Proceedings of Nat Acad of Sciences
- o) Applied Physics A
- p) J Mater Science
- q) IEEE sensors Journal
- r) Physica Status Solidi
- s) IEEE sensors

List of Patents

- 1) IPA1012004, 4990/CHE/201, A system and method to measure deviations and refractive index of objects, B. N. Shivananju, S. Yamdagni, R. M. Vasu, and S. Asokan; Applicant: Indian Institute of Science, Bangalore.
- 2) US Patent 2012 (US 2012/0176597 A1): Strain and Temperature Discrimination Using Fiber Bragg Gratings in a Cross-Wire Configuration. Inventors: Sundarrajan Asokan, Kalaga Venu Madhav, Aashia Rahman, Balaji Srinivasan; Assignee: Indian Institute of Science.
- 3) IPA 4989/CHE/2012, Apparatus and Method to Measure Blood Pressure using Fiber Bragg Grating Sensor, Inventors: Sundarrajan Asokan, Sharath Umesh, Sukreet Raju and Apoorva Girish; Applicant: Indian Institute of Science, Bangalore.
- 4) IPA 719/CHE/2013 Optical Biosensors having Enhanced Sensitivity, Inventors: K.S.Vasu, Sridevi. S, S. Asokan, N. Jayaraman, A.K. Sood; Applicant: Indian Institute of Science, Bangalore.
- 5) IPA 6111/CHE/2014, Optical Sensors, Methods and Applications Thereof, K.S.Vasu, S. Sridevi, S. Asokan, A.K. Sood; Applicant: Indian Institute of Science, Bangalore.
- 6) IPA 457/CHE/2014, Measurement of Arterial Compliance using Fiber Bragg Grating Pulse Recorder, Inventors: Sundarrajan Asokan, Sharath Umesh, Shwetha Chiplunkar; Applicant: Indian Institute of Science, Bangalore.
- 7) IPA 3368/CHE/2014, FBG-Based Device for Monitoring Seismic Vibrations, Inventors: Sundarrajan Asokan, Sharath Umesh, Thulasiraman Natarajan, Kusala Rajendran; Applicant: Indian Institute of Science, Bangalore.

- 8) IPA 3378/CHE/2014, Detection and Characterization of Fractures in Bore Wells using Single FBG Sensor Device, Inventors: Sundarrajan Asokan, Guru Prasad, M Shekar, C Prateek; Applicant: Indian Institute of Science, Bangalore.
- 9) PCT WO 2014/128590 A3, International Publication Date 28 August 2014, Optical Biosensors Having Enhanced Sensitivity, Inventors: K.S.Vasu, Sridevi. S, S. Asokan, N. Jayaraman, A.K. Sood; Applicant: Indian Institute of Science, Bangalore
- 10) IPA 6275/CHE/2015, A Real Time Fiber Bragg Grating Bio Sensor, Sai Shiva G, S. Asokan, U. Sharath, Rajesh Srinivasan; Applicant: Indian Institute of Science, Bangalore.
- 11) IPA 201841002316, Method and Device for Tracking Eye Movement of a Subject, Sharath Umesh, Shweta Pant, Srivani Padma Goggi, Sundarrajan Asokan, Sumitash Jana, Varsha Vasudevan And Aditya Murthy; Applicant: Indian Institute of Science, Bangalore.
- 12) IPA 201641021/2016, Spinal Needle Force Monitoring During Lumbar Puncture Using Fiber Bragg Grating Force Device; Applicant: Indian Institute of Science, Bangalore
- 13) IPA 201741040407/2017, Method and system for facilitating gait analysis", application filing date: 13/11/2017, Shweta Pant, Sharath Umesh, Sundarrajan Asokan; Applicant: Indian Institute of Science, Bangalore
- 14) IPA 201841025221/2018, A Plethysmograph Pulse Recorder, Sharath Umesh, Shweta Pant, Sundarrajan Asokan; Applicant: Indian Institute of Science, Bangalore.
- 15) A method and system for air brake force monitoring using FBG sensors, S K Sinha, Rao S Ganappa, S. Asokan, Suneetha Sebastian, R K Prabhu, J Ashlin, S Panchal, Indian Patent – Applied; Applicant: Lab to Market, SID, IISc
- 16) A system for temperature monitoring of an axle box using FBG sensors and the method thereof, S K Sinha, Rao S Ganappa, S. Asokan, Suneetha Sebastian, R K Prabhu, J Ashlin, S Panchal, Indian Patent- Applied; Applicant: Lab to Market, SID, IISc
- 17) IPA 202241040064/2022, System for generating high rate Multi-bit quantum random numbers from path-Entangled single photons, Asokan Sundarrajan, Applicant: Indian Institute of Science.

Publications

Books Published/Edited

1. Advances in Instrumentation (New Age, India, 1996) (Editor)
2. Proceedings of International symposium on Non-Oxide and Novel Optical Glasses, Special Issue of J. Non-Cryst. Solids (Elsevier, USA, 2007) (Guest Editor)

List of Publications in International Journals & Books

1. *Electrical transport and high pressure studies on bulk Ge₂₀Te₈₀ glass*, G. Parthasarathy, A.K. Bandopadhyay, S. Asokan and E.S.R.Gopal, Pramana, Vol. 23, 1984, 17.
2. *Effect of pressure on the electrical resistivity of bulk Ge₂₀Te₈₀ glass*, G.Parthasarathy, A.K. Bandopadhyay, S. Asokan and E.S.R Gopal, Solid state Communication, Vol. 51, 1984, 195.
3. *Pressure induced electronic and structural transformations in bulk GeSe₂ glass*, M.V.N. Prasad, G. Parthasarathy, S. Asokan and E.S.R.Gopal, Pramana, Vol. 23, 1984, 31.
4. *Double glass transition and double stage crystallization in bulk Si₂₀Te₈₀ glass* S.Asokan, G. Parthasarathy and E.S.R.Gopal, J. Mater. Sci. Letts., Vol. 4, 1985, 502.
5. *Pressure induced polymorphous crystallization in bulk Si₂₀Te₈₀ glass*, S. Asokan, E.S.R. Gopal and G. Parthasarathy, J. Mater. Sci., Vol. 21, 1986, 625.
6. *Evidence for a new meta-stable crystalline compound in the Ge - Te system*, S. Asokan, G. Parthasarathy and E.S.R.Gopal, Mater. Res. Bull., Vol. 21, 1986, 217; 1141.
7. *Electrical transport and crystallization studies on glassy semiconducting Si₂₀ Te₈₀ alloy at high pressures*, S. Asokan, G. Parthasarathy, G.N. Subbanna and E.S.R.Gopal, J. Phys. Chem. Solids, Vol. 47, 1986, 341.
8. *Crystallization studies on bulk Si_xTe_{100-x} glasses*, S. Asokan, G. Parthasarathy and E.S.R. Gopal, J. Non - Cryst. Solids, Vol. 86, (1986), 48.
9. *Crystallization of bulk Ge_xTe_{100-x} and Si_xTe_{100-x} glasses at high pressures and temperatures*, S. Asokan, G. Parthasarathy and E.S.R. Gopal, Collected Papers, XIV Int. Congress on glass, New-Delhi, 1986, p. 809.
10. *Effect of pressure on the electrical resistivity of bulk amorphous Al₂₃ Te₇₇ alloys at various stages of crystallization*, G. Parthasarathy, R. Ramakrishna, S. Asokan and E.S.R. Gopal, J. Mater. Sci. Letts., Vol. 5, 1986, 809.
11. *Pressure induced polymorphous crystallization in bulk Ge₂₀Te₈₀ glasses*, G. Parthasarathy, S. Asokan, E.S.R. Gopal and A.K. Bandopadhyay, Physica, Vol. 139 & 140, 1986, 266.

12. *Crystallization studies on bulk $Ge_{20}Te_{80}$ glasses*, G. Parthasarathy, S. Asokan, M.V.N. Prasad and E.S.R.Gopal, J. Mater. Sci. Letts., Vol. 6, 1987, 75.
13. *Crystallization studies on bulk Ge_xTe_{100-x} glasses*, S.Asokan, G. Parthasarathy and E.S.R. Gopal, Int. J. Rapid Solidification, Vol. 2, 1987, 257.
14. *Electrical transport and thermal studies on bulk Tl_xSe_{100-x} glasses*, G. Parthasarathy G.M. Naik, S. Asokan, J. Mater. Sci. Letts., Vol. 6, 1987, 181.
15. *Preparation and characterization of bulk $Tl-Ge-Se$ glasses*, G.Parthasarathy, G.M. Naik, S. Asokan, J. Mater. Sci. Letts., Vol. 6, 1987, 214.
16. *Effect of pressure on the electrical resistivity of glassy oxygenated Se*, G. Parthasarathy, S. Asokan, J. Mater. Sci. Letts., Vol. 6, 1987, 313.
17. *An evidence for critical composition in IV-VI Chalcogenide glasses*, S. Asokan, G. Parthasarathy and E.S.R. Gopal, Phys. Rev. B, Vol. 35, 1987, 8269.
18. *Si-Te glasses: Relation between structure and physical properties*, S.Asokan, E.S.R.Gopal and G.Parthasarathy, Key Engineering Materials, Vol. 13-15, 1987, 119.
19. *Pressure induced phase transitions in amorphous Tl_xSe_{100-x} alloys*, G. Parthasarathy, G.M. Naik, S. Asokan and R.R. Krishna, Phil. Mag. Letters, Vol. 36, 1987, 191.
20. *High pressure studies on Ge-Te glasses: An evidence for a critical composition in IV-VI glassy system*, S. Asokan, G. Parthasarathy and E.S.R. Gopal, Phil. Mag. B, Vol. 57, 1988, 49.
21. *Metallization and crystallization of semi conducting amorphous $Ga_{20}Te_{80}$ alloy at high pressure*, G. Parthasarathy, S. Asokan, S.S.K. Titus and R. Ramakrishna, Phys. Letts., Vol. 131, 1988, 441.
22. *Optical absorption and thermal diffusivity in Ge_xTe_{100-x} glasses by photo acoustics technique*, K.N. Madusoodanan, J. Philip, G. Parthasarathy, S. Asokan and E.S.R.Gopal, Phil. Mag. B., Vol. 58, 1988, 123.
23. *Thermal diffusivity of As_xTe_{100-x} glasses measured by photoacoustic technique*, K.N. Madusoodanan, J. Philip, S. Asokan and E.S.R. Gopal, J. Mater. Sci. Letts., Vol. 7, 1988, 1333.
24. *Mechanical and chemical thresholds in IV-VI chalcogenide glasses*, S.Asokan, M.V.N. Prasad, G. Parthasarathy and E.S.R. Gopal, Phys. Rev. Letts., Vol. 62, 1989, 808.
25. *Pressure induced electronic and structural transformation in bulk semiconducting amorphous $Tl-Se$ alloys*, G. Parthasarathy, S. Asokan, G.M. Naik, in " High Pressure Science and Technology ", (Kiev, Naukova, 1989) p. 49.

26. *Photoacoustic investigation of the optical absorption and thermal diffusivity in $Si_x Te_{100-x}$ glasses*, K.N. Madusoodanan, J. Philip, S. Asokan, G. Parthasarathy and E.S.R.Gopal, *J. Non-Cryst. Solids*, Vol. 109, 1989, 255.
27. *Double glass transition and double stage crystallization in Te-based chalcogenide glasses*, S. Asokan and E.S.R.Gopal, *Rev. Solid State Sci.*, Vol. 3, 1989, 273.
28. *Photo acoustic investigation of glass transition in $As_x Te_{1-x}$ glasses*, K.N. Madusoodanan, K. Nandakumar, J. Philip, S.S.K.Titus, S. Asokan and E.S.R. Gopal, *Phys. Stat. Solidi*, Vol. 114A, 1989, 525.
29. *High pressure studies on $As_x Te_{100-x}$ glasses*, S. Seelakumar Titus, S. Asokan, G. Parthasarathy and E.S.R. Gopal, *Phil. Mag. B.*, Vol. 60, 1990, 553.
30. *Thermal conduction threshold in binary chalcogenide glasses*, J. Philip, K.N. Madusoodanan, E.S.R. Gopal and S. Asokan, in "Phonons 89", edited by S. Hunklinger, W. Ludwig and G. Weiss, (World Scientific, Singapore, 1990) p. 507.
31. *Photoacoustic study of glass transition in bulk $Ge_x Te_{1-x}$ and $Si_x Te_{1-x}$ glasses*, K.N. Madusoodanan, J.Philip, S.Asokan, G. Parthasarathy and E.S.R.Gopal, in "Photoacoustic and photothermal Phenomena", edited by J.C. Murphy, J.W. Maclachlan-Spicer, L. Aamodt, B.S.H. Royce, (Springer-Verlag, Berlin, 1990) p. 183.
32. *Pressure induced semiconductor - metal transition in Tl-Se layered semiconductor*, M.K. Rabinal, S. Asokan, M.O. Godazaev, N.T. Mamedov and E.S.R.Gopal, *Phys. Stat. Solidi B*, Vol. 167, 1991, K97.
33. *Anisotropic properties of the layered semiconductor InTe*, S. Pal, D.N. Bose, S. Asokan and E.S.R. Gopal, *Solid State Commun.*, Vol. 80, 1991, 753.
34. *Reversible photo induced changes of optical and electronic transport in organo poly silanes*, K. Shimakawa, K. Ishida, S. Asokan and O. Imagawa, *J. Non-Cryst. Solids*, Vol. 137, 1991, 915.
35. *Calorimetric studies on $Al_x Te_{100-x}$ glasses: Composition dependence of crystallization and a new compound in the Al-Te system*, R. Ramakrishna, S. Asokan, G. Parthasarathy, S.S.K. Titus and E.S.R. Gopal, *J. Non-Cryst. Solids*, Vol. 139, 1992, 129.
36. *High pressure studies of resistance anisotropy of the layered semiconducting InTe*, S. Asokan, E.S.R. Gopal, S. Pal and D.N. Bose, in "Recent Trends in High Pressure Research", edited by A.K. Singh, (Oxford-IBH, New Delhi, 1992) p. 459.
37. *A study of high-pressure behavior of bulk As_2X_3 glasses*, S.S.K. Titus, S. Asokan and E.S.R. Gopal, in "Recent Trends in High Pressure Research", edited by A.K. Singh, (Oxford-IBH, New Delhi, 1992) p. 477.

38. *High-pressure electrical resistivity studies on As-Te-Se glasses*, S.S.K.Titus, S. Asokan, R. Ramakrishna and E.S.R.Gopal, High Pressure Research, Vol. 10, 1992, 629.
39. *Thermal crystallization behavior of As-Te glasses*, S.S.K.Titus, S. Asokan, T.S. Panchapagesan and E.S.R.Gopal, Phys. Rev. B, Vol. 46, 1992, 14493.
40. *Compositional dependence of crystallization behavior of As-Te glasses*, S.S.K. Titus, S. Asokan and E.S.R.Gopal, Solid State Commun., Vol. 83, 1992, 745.
41. *High pressure electrical resistivity studies on Ga-Te glasses*, M.V.N.Prasad, S.Asokan, G.Parthasarathy, S.S.K.Titus and E.S.R.Gopal, High Pressure Research, Vol. 11, 1993, 195.
42. *Electrical resistivity studies on Ge-Se glasses at high pressures and low temperatures*, M.V.N. Prasad, S. Asokan, G. Parthasarathy, S.S.K. Titus and E.S.R.Gopal, Phys. Chem. Glasses, Vol. 34, 1993, 199.
43. *Effect of pressure on the electrical conductivity of $TlInX_2$ ($X = Se, Te$) layered semiconductors*, M.K. Rabinal, S.S.K. Titus, S. Asokan, E.S.R. Gopal, M.O. Godzaev and N.T. Mamedov, Phys. Stat. Solidi, Vol. B178, 1993, 403.
44. *Percolation phenomenon in glasses- The current Status*, E.S.R. Gopal, A. Srinivasan and S.Asokan, Ind. J. Pure & Appl. Phys., Vol. 31, 1993, 211.
45. *Electrical switching behavior and short range order As-Te glasses*, S.S.K.Titus, R.Chatterjee, S. Asokan and A. Kumar, Phys. Rev., Vol. B 48, 1993, 14560.
46. *Effect of selenium on the crystallization behavior of As-Te glasses*, S.S.K.Titus, S. Asokan, T.K. Mondal and E.S.R. Gopal, Solid State Commun., Vol. 89, 1994, 23.
47. *A PC based system for studying electrical switching in amorphous semiconductors*, R.Chatterjee, K.V. Acharya, S. Asokan and S.S.K. Titus, Rev. Sci. Instrum., Vol. 65, 1994, 2382.
48. *Electrical switching behavior of semiconducting aluminum telluride glasses*, S. Prakash, S. Asokan and D.B. Ghare, Semicond. Sci. Tech., Vol. 9, 1994, 1484.
49. *High pressure studies on $AgI-Ag_2O-MoO_3$ glasses*, B. Vaidyanathan, S. Asokan and K.J. Rao, Pramana, Vol. 43, 1994, 189.
50. *Current controlled negative resistance behavior and memory switching bulk As-Te-Se glasses*, R.Chatterjee, S.Asokan and S.S.K.Titus, J. Physics D, Appl. Physics, Vol. 27, 1994, 2624.
51. *Thermal crystallization studies on Ga-Te glasses*, M.V.N. Prasad, S. Asokan, G. Parthasarathy, S.S.K. Titus and E.S.R. Gopal, J. Thermal. Analysis, Vol. 44, 1995, 583.

52. *High pressure electrical resistivity measurements on Ge-Te-Se glasses*, S. Murugavel, K.V. Acharya and S. Asokan, High Pressure Research, Vol. 15, 1995, 3.
53. *Near ideal electrical switching in fast ion conducting glasses: Evidence for an electronic process with chemical origin*, B.Vaidyanathan, S.Asokan and K.J.Rao, Bull. Mater. Sci., Vol. 18, 1995, 301.
54. *Pressure induced metallization in Al-As-Te glasses*, S. Murugavel, K.V. Acharya and S. Asokan, J. Non-Cryst. Solids, Vol. 191, 1995, 327.
55. *Electrical switching in AgI based fast ion conducting glasses - possibility for newer applications*, B. Vaidyanathan, K.J. Rao, S. Prakash, S. Murugavel and S. Asokan, J. Appl. Phys., Vol. 78, 1995, 1358.
56. *Easily reversible memory switching in Ge-As-Te glasses*, S. Prakash, S. Asokan and D.B.Ghare, J. Phys. D. Appl. Physics, Vol. 29, 1996, 1.
57. *Crystallization studies on $Cu_xGe_{15}Te_{85-x}$ Glasses*, K.Ramesh, S. Asokan, K.S. Sangunni and E.S.R.Gopal, J. Phys. C. Condensed Matter, Vol. 8, 1996, 2755.
58. *Evidence concerning the effect of topology on electrical switching in chalcogenide network glasses*, R. Aravinda Narayanan, S. Asokan and A. Kumar, Phys. Rev. B., Vol. 54, 1996, 4413.
59. *Compositional dependence of crystallization behavior of Cu-Ge-Te glasses*, K.Ramesh, S. Asokan, K.S. Sangunni and E.S.R.Gopal, Phys. Chem. Glasses, Vol. 37, 1996, 217.
60. *High pressure resistivity studies on Cu-Ge-Te glasses*, K. Ramesh, S. Asokan, K.S. Sangunni and E.S.R.Gopal, in "High Pressure Science & Technology, edited by W.A. Trzeciakowski, (World Scientific, Singapore, 1996) p.776.
61. *A micro controller based pressure controller cum multi channel pressure monitor*, C. Manoj Gopinath, C. Nagaraja Murthy and S. Asokan, in "Advances in Instrumentation", edited by B.S. Ramprasad, S. Asokan, K. Rajanna and N.C. Shivaprakash, (New-Age International Publishers, New Delhi, 1996) p.654
62. *A guideline for designing chalcogenide based glasses for threshold switching characteristics*, S.Prakash, S.Asokan and D.B.Ghare, IEEE Trans. Electron Dev. Letts, Vol. 18, 1997, 45.
63. *Pressure induced phase transition in natural Muscovite: an electrical resistivity study*, G.Parthasarathy, S.Asokan and Vijaya G., in "Advances in High Pressure Science & Technology", edited by M. Yousuf, N. Subramanian and K. Govinda Rajan, (University Press, Hyderabad, 1996) p.119.

64. *Origin of carrier type reversal in Pb-Ge-Se glasses: A detailed thermal, electrical and structural study*, B. Vaidyanathan, S. Murugavel, S. Asokan and K.J. Rao, J. Phys. Chem., Vol. 101, 1997, 9717.
65. *Local Structure and electrical switching in chalcogenide glasses*, S. Murugavel and S. Asokan, Phys. Rev. B., Phys. Rev., Vol. 58, 1998, 3022.
66. *Al coordination in bulk Al_xTe_{1-x} glasses from solid state NMR*, S. Murugavel and S. Asokan, Phys. Rev. B., Vol. 57, 1998, 57.
67. *Carrier Type reversal in Pb modified chalcogenide glasses*, S. Murugavel and S. Asokan, Phys. Rev., B. Vol. 58, 1998, 4449.
68. *Non-linear electrical response of chalcogenide glasses: memory state phenomena*, S.Asokan and E.S.R. Gopal, Non-linear Electromagnetic Systems, edited by V. Kose and J. Sievert (IOS Press, 1998) p.574.
69. *Composition tunable memory and threshold switching in $Al_{20}As_xTe_{80-x}$ semi conducting glasses*, S. Murugavel and S. Asokan, J. Mater. Res., Vol.13, 2982, 1998.
70. *Effect of topological thresholds on thermal behavior of germanium telluride glasses containing metallic additive*, K. Ramesh, S. Asokan, K.S. Sangunni and E.S.R. Gopal, Euro. Phys. J. Vol. B6, 1998, 207.
71. *An automated, externally heated opposed anvil high pressure-high temperature system for electrical resistivity studies*, T.K. Mondal, S. Murugavel and S. Asokan, Rev. Sci. Instrum., Vol. 70, 1999, 165.
72. *Evidence for clustering in an aqueous solution: a small angle X-ray scattering study*, J. Jacob, A. Kumar, S. Asokan, D. Sen, R. Chitra and S. Mazumder, Chem. Phys. Letts., Vol.304, 1999, 180.
73. *Electrical resistivity behavior of Ag-Ge-Te glasses under pressure at different temperatures: the Influence of bonding and topological thresholds*, K. Ramesh, S. Asokan, K.S. Sangunni and E.S.R. Gopal, J. Phys. Condensed Matter, Vol.11, 1999, 3897.
74. *Composition dependence of electrical properties of Al-Te Glasses*, S. Murugavel and S. Asokan, J. Non- Cryst. Solids, Vol. 249, 1999, 145.
75. *Electrical switching in germanium telluride glasses doped with Cu and Ag*, K.Ramesh, S. Asokan, K.S. Sangunni and E.S.R.Gopal, Appl. Phys. A., Vol.69, 1999, 421.
76. *Thermal crystallization behavior of Ge-Te-Se glasses*, K. V. Acharya, S. Asokan and T.S. Panchapagesan, Ind. J. Pure and Applied Physics, Vol. 37, 1999, 823.

77. *Glass formation in germanium telluride glasses containing metallic additives*, K. Ramesh, S. Asokan, K.S. Sangunni and E.S.R.Gopal, *J. Phys. Chem. Solids*, Vol.61, 2000, 95.
78. *Effect of CuO addition on the high-field and high-pressure behavior of microwave-prepared lead vanadate glasses*, B.Vaidyanathan, S.Asokan and K.J.Rao, *J. Mater. Sci.* Vol.15, 2000, Vol.15, 2000, 518.
79. *Photo acoustic spectroscopy and its application to chalcogenide glassy semiconductors*, Srirang Manohar, S.Asokan and E.S.R. Gopal, *Asian J. Physics*, Vol.9, 2000, 589.
80. *Topological thresholds and high pressure behavior of chalcogenide glasses*, S. Asokan in "Advances in High Pressure Science Technology" edited by N. Victor Jaya, M. Raja Gopalan and S. Natarajan (Allied Publishers, New Delhi, 2000) p.91.
81. *The Strip inverse configuration photopyroelectric technique to measure the thermal conductivity of bulk samples*, Srirang Manohar and S. Asokan, *Appl. Phys. Letts.*, Vol. 78, 2001, 469.
82. *Influence of chemical disorder on electrical switching in chalcogenide glasses*, R. Aravinda Narayanan, S. Asokan and A. Kumar, *Phys. Rev. B.*, Vol. 63, 2001, 092203-1.
83. *Tomographic imaging of phase objects in turbid media through quantitative estimate of phase of ballistic light*, G. Ganesh Chandan, R.M. Vasu and S. Asokan, *Optics Communications*, Vol. 191, 2001, 9.
84. *Direct measurement of phase of forward-scattered light using polarization heterodyne interferometry*, C. Ganesh Chandan, R.M Vasu and S. Asokan, in "Advanced Photonic Sensors and Applications", Edited by A.K. Asundi and V.K. Varadan, *Proc. SPIE.*, Vol. 4596, 2001, 280.
85. *Non-Linear I-V Characteristics and threshold switching in As-Te-In glasses*, J.T. Devaraju, B.H. Sharmila, K.V. Acharya, S. Asokan and E.S.R. Gopal, *Proc. SPIE*, Vol. 4412, 2001, 250.
86. *Threshold electrical switching in As-Te-In glasses: The influence of rigidity percolation and chemical ordering*, J.T. Devaraju, B.H. Sharmila, S. Asokan and K.V. Acharya, *Phil. Mag. B.*, Vol. 81, 2001, 583.
87. *Electrical switching in chalcogenide glasses- some newer insights*, S. Asokan, *J. Optoelectronics and Advanced Materials*, Vol. 3, 2001, 753.
88. *Local structure in $Al_{20}As_xTe_{80-x}$ glasses, revealed by NMR, X-ray and thermal Investigations*, S. Murugavel and S. Asokan, *Phys. Chem. Glasses*, Vol. 43, 2002, 16.
89. *Composition dependence of photoconductivity of $Al_{20}As_xTe_{80-x}$ Glasses*, S.Murugavel and S. Asokan, *J. Non-Cryst. Solids*, Vol. 303, 2002, 296.

90. *Threshold switching in $As_{45}Te_{55-x}In_x$ and $As_{45}Te_{50-x}In_x$ glasses*, J.T. Devaraju, B.H. Sharmila, S. Asokan and K.V. Acharya, Appl. Phys. A, Vol. 75, 2002, 515.
91. *High pressure resistivity behavior of As-Te-In glasses-The effect of network topological thresholds*, B.H. Sharmila, J.T. Devaraju and S. Asokan, J. Non-Cryst. Solids, Vol. 303, 2002, 372.
92. *Electrical switching in chalcogenide glasses: The current Status* J.T. Devaraju, S. Asokan and E.S.R. Gopal, in "Frontiers in Materials Physics", Vol. I, Edited by D. Chakravarty (Allied Publishers, New Delhi, 2002), p.135.
93. *Electrical switching and topological thresholds in chalcogenide network glasses*, S. Asokan, in "Physics and Applications of Disordered Materials", Edited by M. Popescu (INOE, Bucharest, 2002) p.241.
94. *Electrical switching studies on lead doped germanium telluride glasses*, P. Zaheerudeen Saheb, S. Asokan, K. and Appaji Gowda, Appl. Phys. A, Vol. 77, 2003, 665.
95. *Electrical switching studies on in $As_{40}Te_{60-x}Se_x$ and $As_{35}Te_{65-x}Se_x$ glasses*, V. C. Selvaraju, S. Asokan and V. Srinivasan, Appl. Phys. A., Vol. 77, 2003, 149.
96. *A modulated differential scanning calorimetric studies on As-Te-In glasses*, B.H. Sharmila, J.T. Devaraju and S. Asokan, J. Non Cryst. Solids, Vol. 326 & 327, 2003, 154.
97. *Transient and Steady State Photoconductivity studies on Bulk Glasses and Amorphous Films of Ge-Te-Pb – Composition and Spectral Dependence*, P. Zaheerudeen Saheb, S. Asokan, K. Appaji Gowda, J. Optoelectronics and Advanced Materials, Vol. 5, 2003, 1215.
98. *Extended Rigidity Percolation and Chemical Thresholds in Ge-Te-Pb glasses, as revealed by MDSC*, P. Zaheerudeen Saheb, B. H. Sharmila, S. Asokan, K. Appaji Gowda, Solid State Commun., Vol. 129, 2004, 765.
99. *Electrical switching in As-Te-Ag system- Composition and Temperature Dependence*, V. C. Selvaraju, S. Asokan and V. Srinivasan, J. Non-Cryst. Solids, Vol. 333, 2004, 16.
100. *Electrical Switching Behavior of Bulk As-Te-Si Glasses*, M. Anbarasu, N. Manikandan and S. Asokan, Trans. Indian Inst. Metals, Vol. 57, 2004, 201.
101. *Spectrum Estimation by Wavelength Shift Time Stamping in Fiber Bragg Grating Sensor*, K. Venu Madhav and S. Asokan, IEEE Photonics Technology Letters, Vol. 16, 2004, 1355.
102. *Electrical switching behavior of bulk As-Te-Si glasses: Composition dependence and topological effects*, M. Anbarasu and S. Asokan, App. Phys. A. Vol. 80, 2005, 249.

103. *Signature Of A Silver Phase Percolation Threshold In Microscopically Phase Separated Ternary $Ge_{0.15}Se_{0.85-x}Ag_x$ ($0 \leq x \leq 0.2$) Glasses*, Pulok Pattanayak and S. Asokan, J. Appl. Phys., Vol. 97, 2005, 0313515.
104. *Thermal Diffusivities and Molar Volumes of Ternary $Al_{20}As_xTe_{80-x}$ alloy glasses: Evidence of Self-Organization*, Srirang Manohar, S. Murugavel and S. Asokan, Solid State Communications, Vol. 135, 2005, 323.
105. *Electrical Switching and Topological Thresholds In Ge-Te And Si-Te Glasses*, C. Nagaraja Murthy, Vijaya Ganesan and S. Asokan, App. Phys. A., Vol.81, 2005, 939.
106. *Photoconductivity studies on bulk As-Te-In glasses*, N. Manikandan, B. H. Sharmila and S. Asokan, App. Phys. A. Vol. 81, 2005, 1313.
107. *Studies on Electrical Switching Behavior of As—Te-Tl Glasses- Effect of Local Structure on Switching Type and Composition Dependence of Switching Voltages*, B. H. Sharmila and S. Asokan, Appl. Phys. A, Vol. 82, 2005, 345.
108. *A Simple, Low Cost Electrical Switching Analyzer For I-V Characterization Of Switching Samples And Devices*, C. Nagaraja Murthy, S. Ramgopal and S. Asokan, IEEE Trans. on Instrumentation & Measurement, Vol. 55, 2006, 248.
109. *Non-Linear I-V Characteristics of Nanocrystalline Sno_2* , A. Chandra Bose, P. Thangadurai, S. Ramasamy, Vijaya Ganesan and S. Asokan, Nanotechnology, Vol. 17, 2006, 1752.
110. *Effect Of Network Connectivity On Thermal Properties Of $As_{30}Te_{70-x}Tl_x$ Glasses*, B. H. Sharmila and S. Asokan, Philos. Mag. Letts., Vol. 86, 2006, 155.
111. *Differential Scanning Calorimetric Studies on As-Te-Si Glasses: Network Topological Effects and Composition Dependence Of Thermal Properties*, M. Anbarasu and S. Asokan, J. Non-Cryst. Solids, Vol. 352, 2006, 1551.
112. *Chemical Ordering And Fragility Minimum In Cu-As-Se Glasses*, K. Ramesh, S. Asokan and E. S. R. Gopal, J. Non-Cryst. Solids, Vol. 352, 2006, 2905.
113. *Fiber Bragg Grating Magnetic Field Sensor*, K. V. Madhav, K. Ravi Kumar, T. Srinivas and S. Asokan, Proc. IMTC-2006-Instrumentation and Measurement Technology Conference, Sorrento, Italy, 2006, p.2042.
114. *Anomalous Electrical Switching Behavior in Phase-Separated Bulk Ge-Se-Ag Chalcogenide Glasses*, Pulok Pattanayak and S. Asokan, Europhys. Letts., Vol. 75, 2006, 778.
115. *Electrical Switching and Spectroscopic Studies of Silver Phospho Vanadate Glasses*, B. Eraiah, R. A. Anavekar and S. Asokan, J. Mater. Sci., Vol. 42, 2007, 784.

116. *Photo-Thermal Deflection And Electrical Switching Studies on Ge-Te-I Chalcogenide Glasses*, Pulok Pattanayak and S. Asokan, J. Phys. C., Vol. 19, 2007, 036224.
117. *High Field Electrical Behavior in Lithium-Phospho-Vanadate Glass System*, C. Narayana Reddy, S. Asokan and R.V. Anavekar, Bulletin of Materials Science, Vol. 30, 2007, 65.
118. *Network Topological Thresholds in Gallium Doped As-Te Glasses – Electrical and Thermal Investigations*, N. Manikandan, and S. Asokan, J. Non-Cryst. Solids, Vol. 353, 2007, 1247.
119. *Electrical Switching and Thermal Studies on $Ge_{22}Te_{78-x}I_x$ Chalcogenide Glasses: The Effect of Iodine on Network Topology*, Pulok Pattanayak and S. Asokan, Solid State Commun., Vol. 142, 2007, 698.
120. *A Programmable High Voltage Electrical Switching Analyzer for I-V Characterization of Phase Change Materials*, J. Instrumentation, Vol. 2, 2007, TO 7003.
121. *Observation of a Thermally reversing window in bulk $Ge_{15}Te_{85-x}In_x$ Glasses*, N. Manikandan, and S. Asokan J. Phys. Condens. Matter, Vol. 19, 2007, 376104.
122. *Electrical switching and in situ Raman scattering studies on the set-rest processes in Ge-Te-Si glass*, M. Anbarasu, S. Asokan, S. Prusty and A.K. Sood, Appl. Phys. Letts., Vol. 91, 2007, 093520.
123. *Effect of indium doping on the electrical switching behavior of Ge-Te glasses*, N. Manikandan, and S. Asokan, Philos. Mag., Vol. 87, 2007, 5109.
124. *Investigation on chalcogenide glasses for its threshold phenomena using photothermal methods*, M. Paulraj, Jyotsana Ravi, P. Pattanayak, R. Saavedra, J. E. Morales, S. T. Lee and S. Asokan, Non Destructive Testing and Evaluation, Vol. 23 2008, 1.
125. *The influence of network rigidity on the electrical switching behavior of Ge-Te-Si glasses suitable for phase change memory applications*, M. Anbarasu and S. Asokan, Vol. 40, 2007, 7515.
126. *Predicting thermal stability of Fiber Bragg Gratings –isothermal annealing within isochronal annealing*, R. Joseph, N.K. Viswanathan, S. Asokan, K.V. Madhav and B. Srinivasan, Electronics Letters, Vol. 43, 2007,
127. *Glass transformation studies in Ge-Se-Bi system*, G. Achamma, D. Sushama, S. Asokan and P. Pradeep, Glass Physics and Chemistry, Vol. 33, 2007, 562.
128. *Etched Fiber Bragg Grating as ethanol solution concentration sensor*, U. S. Raikar, V. K. Kulkarni, A.S. Lalasangi, K. Madhav and S. Asokan, J. Optoelectronics and Advanced Materials- Rapid Communications, Vol.1, 2007, 149.

129. *Evidence for a thermally reversing window in bulk Ge-Te-Si glasses revealed by Alternating Differential Scanning calorimetry*, M. Anbarasu, K. K. Singh and S. Asokan, *Philos. Mag.*, 88, 2008, 599.
130. *High Pressure studies on the electrical resistivity of As-Te-Si glasses and the effect of network topological thresholds*, Deepti Verma, B.H. Sharmila, R. Rukmani and S. Asokan, *High Pressure Research*, Vol. 28, 2008, 55.
131. *Synthesis and Characterization of $Y_3Al_5O_{12}$ and ZrO_2 - Y_2O_3 thermal barrier coatings by combustion spray pyrolysis*, S. Saravanan, G. Hari Srinivas, V. Jayaram, M. Paulraj and S. Asokan, *Surface & Coatings Technology*, Vol. 202, 2008, 4653.
132. *Signatures of an extended rigidity percolation in the photo-degradation behavior and the composition dependence of photo-response of Ge-Te-In glasses*, N. Manikandan and S. Asokan, *J. Non-Cryst. Solids*, Vol. 354, 2008, 3732.
133. *An evidence for a microscopic phase separation in AsSeAg glasses revealed by thermal and structural investigations*, P. Pattanayak and S. Asokan, *E. J. Physics*, Vol. B62, 2008, 277.
134. *One wavelength Fiber Bragg Grating Array Interrogation by Reflectivity Division Multiplexing*, K.V. Madhav, S. Yamdagni, T. Srinivas and S. Asokan, *J. Opto electron. & Adv. Materials, Rapid Commun.*, Vol. 2, 2008, 1.
135. *Composition dependent electrical switching in $Ge_xSe_{35-x}Te_{65}$ ($18 \leq x \leq 25$) glasses- the influence of network rigidity and thermal properties*, S.B. Bhanu Prasanth and S. Asokan, *Solid State Commun*, Vol. 147, 2008, 452.
136. *A Novel Opto Electro Mechanical Interrogation System for Measuring Wavelength Shifts In Fiber Bragg Grating (FBG) Sensors*, Krishnappa Suresha, Sumeet Yamdagni Suresh Chandra Mohan and Sundarrajan Asokan, *International Journal of Opto mechatronics*, Vol. 2, 2008, 61.
137. *Thermal diffusivity measurements on As-Te-Ga glasses by photo-thermal deflection technique: Composition dependence and topological thresholds*, N. Manikandan and S. Asokan, *J. Non-Cryst. Solids*, Vol. 355, 2009, 58.
138. *Effect of antimony addition on the thermal and electrical switching behavior of bulk Se-Te Glasses*, S.B. Bhanu Prasanth and S. Asokan, *J. Non-Cryst. Solids*, Vol. 355, 2008, 164.
139. *Anomalous thermal dynamics of Bragg gratings inscribed in germanosilicate optical fiber*, A. Rahman, K. Venu Madhav, B. Srinivasan and S. Asokan, *J. Opto electron. & Adv. Materials, Rapid Commun.*, Vol. 3, 2009, 17.

140. *Structural origin of Set-Reset processes in $Ge_{15}Te_{83}Si_2$ glass investigated using in situ Raman and transmission electron microscopy*, M. Anbarasu, S. Asokan, S. Prusty and A.K. Sood, J. Appl. Phys. Vol. 105, 2009, 084517.
141. *High Field electrical switching behavior of $Ge_{10}Se_{90-x}Te_x$ glasses*, B. J. Madhu, H.S. Jayanna and S. Asokan, J. Non-Cryst. Solids, Vol. 355, 2009, 459.
142. *A composition dependent thermal behavior of $Ge_x Se_{35-x} Te_{65}$ glasses*, S.B. Bhanu Prasanth and S. Asokan, J. Non-Cryst. Solids, 355, 2009, 1227.
143. *Nano Indentation Studies on Germania-doped silica glass preforms: Evidence for the compaction-densification model of photosensitivity*, R. Aashia, K.V. Madhav, U. Ramamurty and S. Asokan, Optics Letters, Vol. 34, 2009, 2414.
144. *Evidence of an intermediate phase in ternary $Ge_7 Se_{93-x} Sb_x$ glasses*, B.J. Madhu, H.S. Jayanna, and S. Asokan, Eur. Phys. J. B Vol. **71**, 2009, 21.
145. *The Manifestation of network topological thresholds in the electrical switching behavior of chalcogenide glasses*, M. Anbarasu and S. Asokan in "Rigidity and Boolchand intermediate phases in nanomaterials", Edited by M. Micoulaut and M. Popescu (INOE, Bhucharest, 2009) Chapter 15, p.27.
146. *The composition dependence of electrical switching behavior of $Ge_7 Se_{93-x} Sb_x$ glasses*, B.J. Madhu, H.S. Jayanna, S. Asokan, Journal of Non-Crystalline Solids, Vol. 355, 2009, 2630.
147. *Simultaneous Measurement of Strain and Temperature using Type I and Pre-strained Fiber Bragg Gratings*, R. Aashia, S. Asokan, IEEE Sensors, Vol. 1-3, 2009, 1229.
148. *Detection of Tsunami Wave Generation and Propagation Using Fiber Bragg Grating Sensors*, G. Prasad, S. Asokan, R. Tatavarti, IEEE Sensors, Vol. 1-3, 2009, 1278-1281.
149. *Fiber Bragg Grating Sensor Packages for Sensing Water Pressures Inside Ocean*, GuruPrasad.AS, Abishek.B, Asokan.S, 2009 International Conference on Emerging Trends in Electronic and Photonic Devices & Systems (ELECTRO 2009).
150. *Compact fiber Bragg grating dynamic strain sensor cum broadband thermometer for thermally unstable ambience*, K. Sreekumar and S. Asokan, J. Optics, Vol. 12, 2010, 015502
151. *Electrical switching behavior of bulk $Si_{15}Te_{85-x}Sb_x$ chalcogenide glasses – A study of compositional dependence*, R. Lokesh, N.K. Udayashankar, S. Asokan, Journal of Non-Crystalline Solids, Vol. 356, 2010, 321.

152. *Strain-Temperature Discrimination using a Single Fiber Bragg Grating*, Aashia Rahman, K.V. Madhav, Balaji Srinivasan and S. Asokan, IEEE Photonics Tech Letts., Vol. 11, 2010, 778.
153. *Fiber Bragg Grating Sensors: New Ideas on Strain-Temperature Discrimination*, Aashia Rahman, S. Asokan, Int. J. Smart Sensing and Intelligent Systems, Vol. 3, 2010, 108.
154. *Fiber Bragg Grating Sensors for real Time Monitoring of Evacuation Process*, A.S. Guruprasad, G.M. Hegde and S. Asokan, Proc. SPIE, Vol. 752232, 2010, 752232-1.
155. *Thermal and electrical switching studies on $Ge_{20}Se_{80-x}Bi_x$ ($1 \leq x \leq 13$) ternary chalcogenide glassy system*, Srinivasa Rao Gunti and S Asokan, J. Non-Cryst. Solids, Vol.356, 2010, 1637.
156. *A Comparative Study of Electrical Switching Behavior of Certain Tellurium based Chalcogenide Thin Films for Phase Change (PCM) Applications*, Chandasree Das, G. Mohan Rao, S. Asokan, Advanced Materials Res., Vol. 123-125, 2010, 1207.
157. *Electrical Switching behavior of amorphous $Al_{23}Te_{77}$ thin film sample*, Chandasree Das, R.Lokesh, G. Mohan Rao, S. Asokan, J. Non-Cryst. Solids, Vol.356, 2010, 2203.
158. *Electrical switching and thermal studies on bulk Ge–Te–Bi glasses*, Chandasree Das, G. Mohan Rao, S. Asokan, J. Non-Cryst. Solids, Vol. 357, 2011, 165.
159. *Electrical switching studies on Ge–Te–Tl chalcogenide glasses: Effect of thallium on the composition dependence of switching voltages*, Mohammad Mahbubur Rahman, K. Rukmani and S. Asokan, Journal of Non-Crystalline Solids Vol.357, 2011, 946.
160. *Structural origin of set-reset process in a new bulk $Si_{15}Te_{83}Ge_2$ phase-change memory material*, Srinivasa Rao Gunti, and S. Asokan, AIP Advances, Vol. 1, 2011, 012109.
161. *Experimental investigation of link between growth and decay of fiber Bragg gratings*, Balaji Srinivasan, V. J. Vishnu Prasad, Rajesh Joseph, S. Asokan, and Nirmal K. Viswanathan, Applied Optics, Vol. 50, 2011, 4042.
162. *Electrical Set-Reset phenomenon in thallium doped Ge-Te glasses suitable for phase change memory applications*, M.M.Rahman, K.Rukmani, S.Asokan, J.Nano- Electron.Phys,3, 2011 No1,479.
163. *Electrical Switching and other properties of chalcogenide glasses*, S.Asokan and K.P.Lakshmi, Reviews, J. of the Indian Institute of Science, Vol.91:2, 2011,319-330.
164. *Electrical Switching in Cu-As-Se Glasses*, Ramesh Karuppanan, Vijaya Ganesan, Sundarrajan Asokan, Int. J. of Applied Glass Science Vol.2 [1], 2011, 52.

165. *Low electric field, easily reversible electrical set and reset processes in a $Ge_{15}Te_{83}Si_2$ glass for phase change memory application*, M.Anbarasu and S.Asokan, *J.Applied Physics* **109**, 2011,084517.
166. *Thermodynamic, kinetic and electrical switching studies on $Si_{15}Te_{85-x}In_x$ glasses: Observation of Boolchand intermediate phase* Srinivasa Rao Gunti, Arunbabu Ayiriveetil, Asokan Sundarrajan *J. of Solid State Chemistry* 184, 2011, 3345.
167. *Measurement of Stress-strain response of a rammed earth prism in compression using fiber Bragg grating sensors*, A.S.Guru Prasad, M.Anita, K.S.Nanjunda Rao, S.Asokan, *Int. J. on Smart Sensing and Intelligent Systems*, Vol.4,No.3, 2011,376.
169. *Electrical switching and optical studies on amorphous $Ge_xSe_{35-x}Te_{65}$ thin films* Chandasree Das, M.G.Mahesha, G.Mohan Rao, S.Asokan *Thin Solid Films* Vol. 520, 2012, 2278.
170. *The electrical switching and thermal behavior of bulk $Ge_{15}Te_{85-x}Sn_x$ and $Ge_{17}Te_{83-x}Sn_x$ glasses*, Chandasree Das, G.Mohan Rao, S.Asokan *J. of Non-Crystalline Solids* Vol. 358, 2012, 224.
171. *Thermodynamic, Raman and electrical switching studies on $Si_{15}Te_{85-x}Ag_x$ ($4 \leq x \leq 20$) glasses*, Srinivasa Rao Gunti, Sundarrajan Asokan *J. of Applied Physics* Vol. 111, 2012, 033518.
172. *Studies on electrical switching behavior and optical band gap of amorphous Ge-Te-Sn thin films*, Chandasree Das, M.G.Mahesha, G.Mohan Rao, S.Asokan *Appl Phys. A* Vol. 106, 2012, 989.
173. *Observation of high pressure o-GeTe phase at ambient pressure in Si-Te-Ge glasses*, Srinivasa Rao Gunti, S.Asokan *AIP Advances* Vol. 2, 2012, 012172.
174. *Dual functional performance of fiber Bragg gratings coated with metals using flash evaporation technique*, Rajam Sekar, B.N.Shivnanju, K.P.Lakshmi, S.Asokan *Optical Fiber Technology*, Vol. 18, 2012, 183.
175. *Thermally reversing window in $Ge_{15}Te_{85-x}In_x$ glasses: Nanoindentation and micro-Raman studies*, G. Sreevidya Varma, M.S.R.N. Kiran, D.V.S. Muthu, U. Ramamurty, A.K. Sood, S. Asokan, *Journal of Non-Crystalline Solids* , Vol. 358, 2012, 3103.
176. *A broad pore size distribution mesoporous SnO₂ as anode for lithium-ion batteries*, Konda Shiva & M. S. R. N. Kiran & U. Ramamurty and S. Asokan & Aninda J. Bhattacharyya, *J Solid State Electrochem* Vol. 16, 2012, 3643.
177. *Manifestation of intermediate phase in mechanical properties: Nano-indentation studies on Ge-Te-Si bulk chalcogenide glasses*, Chandasree Das, M.S.R.N.Kiran, U.Ramamurty and S.Asokan, *Solid State Communications*, Vol. 152, 2012, 2181.

178. *Direct ultrafast laser written C-band waveguide amplifier in Er-doped chalcogenide Glass*, Tamilarasan Sabapathy, Arunbabu Ayiriveetil, Ajoy K. Kar, Sundarrajan Asokan, and Stephen J. Beecher, *Optical Materials Express*, Vol.2, 2012, 1556.
179. *A high precision instrument to measure angular and binocular deviation introduced by aircraft windscreens by using a shadow casting technique*, B. N. Shivananju, S. Yamdagni, R. M. Vasu, and S. Asokan, *Rev. Sci. Instrum.* Vol. 83, 2012, 123104.
180. *Thermal, Structural and Electrical Switching properties of Sb-Se-Te amorphous chalcogenide*, M.K. Vanitha, M.V. Hanumantha Rao, S. Asokan and K. Ramesh, *The Indian Mineralogist* Vol. 46, 2012, 151.
181. *Physical ageing in Se-Te-Sb glasses*, M.K.Vanitha, M.V. Hanumantha Rao, S. Asokan, K.Ramesh *Journal of Physics and Chemistry of Solids* Vol. 74, 2013, 804.
182. *Multi-resistance states in the electrical switching behavior of amorphous $Si_{15}Te_{75}Ge_{10}$ thin films: Possibility of multi-bit storage*, K.P.Lakshmi, S.Asokan *J. of Non-Crystalline Solids* Vol. 373, 2013, 13.
183. *CO₂ sensing at room temperature using carbon nanotubes coated core fiber Bragg Grating*, B.N.Shivananju, S.Yamadagni, R.Fazaludeen, A.K.Sarin Kumar, G.M. Hegde, M.M.Varma and S.Asokan *Review of Scientific Instruments* Vol. 84, 2013, 065002.
184. *Calibration of Etched Fiber Bragg Grating Sensor Arrays for Measurement of Molecule Surface Adsorption*, Renilkumar Mudachathi, B.Nanjunda Shivananju, Gurusiddappa R.Prashanth, Sundarrajan Asokan and Manoj M Varma *J. of Light wave Technology* Vo.31, 2013, 2400.
185. *Detection Limit of Etched Fiber Bragg Grating Sensors*, B.Nanjunda Shivananju, M.Renilkumar, Gurusiddappa R.Prashanth, Sundarrajan Asokan and Manoj M Varma, *Journal of Light wave Technology*, Vo.31, 2013, 2441.
186. *Blood pressure evaluation using sphygmomanometry assisted by arterial pulse waveform detection by fiber Bragg grating pulse device*, Umesh Sharath, Raju Sukreet, Girish Apoorva and Sundarrajan Asokan, *Journal of Biomedical Optics*, Vol. 18, 2013, 067010.
187. *Temperature dependence of resistance and crystallization in amorphous $Si_{15}Te_{85-x}Ge_x$ thin films*, K.P.Lakshmi, S.Asokan, *Journal of Non-crystalline Solids*, Vol. 376, 2013, 94.
188. *Measurement of temperature and pressure on the surface of a blunt cone using FBG sensor in hypersonic wind tunnel*, A S Guru Prasad, U Sharath, V Nagarjun, G M Hegde and S.Asokan , *Measurement Science and Technology*, Vol. 24, 2013, 095302.

189. *Electrical switching in amorphous Si-Te-Ge thin films: Impact of input energy on crystallization process and switching parameters*, K. P. Lakshmi, S. Asokan, Journal of Non Crystalline Solids, Vol. 377, 2013, 175.
190. *Carbon nanotube coated fiber Bragg grating for photomechanical optic modulator*, B.N.Shivananju, Ashish Suri, Sundarrajan Asokan and Abha Misra, Review of Scientific Instruments Vol. 84, 2013, 095101.
191. *Evaluation of airline exercises prescribed to avoid deep vein thrombosis using fiber Bragg grating sensors*, Arudi Subbarao Guru Prasad, Subbarama Jois Narasipur Omkar, Kalegowda Anand, Gopalkrishna Mahadeva Hegde, Sundarrajan Asokan, J. of Biomedical Optics, Vol. 18, 2013, 097007.
192. *Direct correlation between non-random distribution of cations and ion transport mechanism in soda-lime silicate glasses*, S Murugavel, C Vaida, C Das and S Asokan, Journal of Non-Crystalline Solids Vol. 404, 2014, 84.
193. *Controlling the cross-section of ultrafast laser inscribed waveguides inscribed in bulk chalcogenide glasses*, Tamilarasan Sabapathy, Gayathri sivakumar, Arunbabu Ayiriveetil, Ajoy K Kar, Sundarrajan Asokan, Journal of Optoelectronics and Advanced materials, Vol. 8, 2014, 1001.
194. *Enhancement in threshold voltage with thickness in memory switch fabricated using GeSe_{1.5}S_{0.5} thin films*, R T A Kumar, C Das, P C Lekha, S Asokan, C Sanjeeviraja, D P Padiyan Journal of Alloys and Compounds Vol. 615, 2014, 629.
195. *Reversible and irreversible pH induced conformational changes in self-assembled weak polyelectrolyte multilayers probed using etched fiber Bragg grating sensors*, B N Shivananju, GR Prashanth, S Asokan, MM Varma, Sensors and Actuators B: Chemical, Vol. 201, 2014, 37.
196. *High pressure studies on the electrical resistivity of Ge-Te-Tl glasses*, KNN Prasad, MM Rahman, K Rukmani, S Asokan , High Pressure Res. Vol. 34, 2014, 309.
197. *A Brief Overview of the Recent Bio-Medical Applications of Fiber Bragg Grating Sensors*, Sharath U, S Asokan, Journal of the Indian Institute of Science, Vol. 94, 2014, 319. 2014.
198. *Radial arterial compliance measurement by fiber Bragg grating pulse recorder*, U Sharath, C Shwetha, K Anand, S Asokan, Journal of human hypertension, 2014.
199. *Optical, photo-acoustic and electrical switching studies of amorphous GeS₂ thin films*, R T A Kumar, C Das, S Asokan, C Sanjeeviraja, D P Padiyan, Applied Physics A, Vol. 115, 2014, 1151.

200. *Optical bio-sensing devices based on etched fiber Bragg gratings coated with carbon nanotubes and graphene oxide along with a specific dendrimer*, S Sridevi, K S Vasu, N Jayaraman, S Asokan, A K Sood, *Sensors and Actuators B: Chemical*, Vol. 195, 2014, 150.
201. *Electrical switching, SET-RESET, and Raman scattering studies on $Ge_{15}Te_{80-x}In_5Ag_x$ glasses*, G S Varma, D V S Muthu, A K Sood, S Asokan, *J. Applied Physics*, Vol. 115, 2014, 164505.
202. *Raman signatures of intermediate phase in quaternary $Ge_{15}Te_{80-x}In_5Ag_x$ glasses*, G Sreevidya Varma, D V S Muthu, A K Sood, S Asokan, *Journal of Non-Crystalline Solids* Vol. 387, 2014, 143.
203. *Mesoporous bioactive glass and glass–ceramics: Influence of the local structure on in vitro bioactivity*, C Vaid, S Murugavel, C Das, S Asokan, *Microporous and Mesoporous Materials*, Vol. 186, 2014, 46.
204. *Design and development of Fiber Bragg Grating sensing plate for plantar strain measurement and postural stability analysis*, A S Guru Prasad, S N Omkar, H N Vikranth, V Anil, K Chethana, S Asokan, *Measurement*, Vol. 47, 2014, 789.
205. *Evidence of an intermediate phase in a quaternary Ag bearing telluride glass system using alternating DSC*, G Sreevidya Varma, C Das, S Asokan, *Solid State Communications*, Vol. 177, 2014, 108.
206. *Electrical switching behavior of amorphous $Ge_{15}Te_{85-x}Si_x$ thin films with phase change memory applications*, C Das, G Mohan Rao, S Asokan, *Materials Research Bulletin*, Vol. 49, 2014, 388.
207. *Monitoring of ultraviolet pulse rate dependent photomechanical actuation in carbon nanotubes using fiber Bragg gratings*, B N Shivananju, A Suri, S Asokan, A Misra, *Applied Physics Letters*, Vol.104, 2014, 013104.
208. *Sensitive detection of C-reactive protein using optical fiber Bragg gratings*, S Sridevi, K S Vasu, S Asokan, A K Sood, *Biosensors and Bioelectronics*, Vol. 65, 2015, 215.
209. *Study on effect of optical wavelength on photo induced strain sensitivity in carbon nanotubes using fiber Bragg grating*, B N Shivananju, S Asokan and Abha Misra, *J. Phys. D. Appl. Phys.* Vol. 48, 2015, 275502.
210. *Fiber Bragg Grating Sensor Based Instrumentation to Evaluate Postural Balance and Stability on an Unstable Platform*, K. Chethana, A S Guru Prasad, H N Vikranth, H Varun, S N Omkar and S Asokan, *International Journal of Mechanical, Aerospace, Industrial and Mechatronics Engineering* Vol. 9, 2015, 96.

211. Variation of Electrical Resistivity with High Pressure in Ge₂Te₂Sn Glasses: A Composition Dependent Study, K.N.N. Prasad, Chandasree Das, K. Rukmani, and S. Asokan, *Acta Physica Polonica A* Vol. 127, 2015, 1666.
212. *Pulse transit time differential measurement by fiber Bragg grating pulse recorder*, Sharath Umesh, Srivani Padma, Shikha Ambastha, Anand Kalegowda,c and Sundarrajan Asokan, , *Journal of Biomedical Optics* Vol. 20, 2015, 057005.
213. *Pulmonary Function Test Using Fiber Bragg Grating Spirometer*, S Ambastha, S Umesh, U Maheshwari, S Asokan, *Journal of Lightwave Technology* Vol. 34 (24), 2016, 5682-5688.
214. *Quantitative vibro-acoustography of tissue-like objects by measurement of resonant modes*, D Mazumder, S Umesh, RM Vasu, D Roy, R Kanhirodan, S Asokan, *Physics in medicine and Biology*, Vol. 62 (1), 2016, 107 3.
215. *Detecting stages of needle penetration into tissues through force estimation at needle tip using fiber Bragg grating sensors*, S Kumar, V Shrikanth, B Amrutur, S Asokan, MS Bobji *Journal of Biomedical optics*, Vol. 21 (12), 2016. 127009-127009.
216. *Spinal needle force monitoring during lumbar puncture using fiber Bragg grating force device*, S Ambastha, S Umesh, S Dabir, S Asokan, *Journal of Biomedical optics*, Vol. 21 (11), 2016, 117002-117002.
217. *Fiber Bragg Grating differential pressure sensor*, S Ambastha, S Umesh, A Ayiriveetil, S Pant, S Asokan, *IEEE Conference on Recent Advances in Lightwave Technology (CRALT)*, 2016.
218. *Non-invasive assessment of brachial arterial stiffness using fiber Bragg grating sensor*, S Pant, S Umesh, S Padma, S Asokan, *IEEE Conference on Recent Advances in Lightwave Technology (CRALT)*, 2016.
219. *Fiber Bragg Grating based bite force measurement*, S Umesh, S Padma, S Asokan, T Srinivas *Journal of Biomechanics*, Vol. 49 (13), 2016, 2877-2881.
220. *An on-board life estimation technique for lights using high power white LEDs*, F Ruknudeen, S Gervasis, V Viswambharan, S Asokan, *Journal of Display Technology*, Vol. 12 (9), 2016, 938-945.
221. *Fiber Bragg grating sensor-based communication assistance device*, S Padma, S Umesh, S Pant, T Srinivas, S Asokan, *Journal of Biomedical optics*, Vol. 21 (8), 201, 086012-086012.
222. *Structural and mechanical characterization on ultrafast laser written chalcogenide glass waveguides*, A Ayiriveetil, T Sabapathy, GS Varma, U Ramamurty, S Asokan, *Optical Materials Express*, Vol. 6 (8), 2016, 2530-2536.

223. *Optical detection of glucose and glycated hemoglobin using etched fiber Bragg gratings coated with functionalized reduced graphene oxide*, S Sridevi, KS Vasu, S Sampath, S Asokan, AK Sood
Journal of Biophotonics, Vol. 9 (7), 2016, 760-769.
224. *Enhanced strain and temperature sensing by reduced graphene oxide coated etched fiber Bragg Gratings*, KS Vasu, S Asokan, AK Sood, Optics letters, Vol. 41 (11), 2016, 2604-2607.
225. *Cooling of organic light-emitting diode display panels with heat pipes*, A Sure, GK Vankayala, V Baranwal, P Karthikeyan, KR Sarma, S Asokan, SPIE Defense & Security, Vol. 98390P, 2016, 9.
226. *Switching Studies on Ge₁₅In₅Te₅₆Ag₂₄ Thin Films*, D Roy, GS Varma, S Asokan, C Das, International Journal of World Academy of Science, Engineering and Technology, 2016.
227. *Fiber Bragg grating based tunable sensitivity goniometer*, S Padma, S Umesh, S Pant, T Srinivas, S Asokan, Proc. of SPIE, Vol 9754, 97541, 2016, A-1.
228. *Estimating needle-tissue interaction forces for hollow needles using fiber Bragg grating sensors* S Kumar, V Shrikanth, A Bharadwaj, S Asokan, MS Bobji, Proc. SPIE 9702, 2016, T 1
229. *Ultra sensitive NO₂ gas detection using the reduced graphene oxide coated etched fiber bragg Gratings*, S Sridevi, KS Vasu, N Bhat, S Asokan, AK Sood, Sensors and Actuators B: Chemical Vol. 223, 2016, 481-486.
230. *The Role of Photo-Striction in Tailoring the Nano-Scale Phase Changes in Amorphous Selenium Thin Films*, S Gayathri, GS Varma, S Asokan, MRS Advances, Vol. 1 (39), 2016, 2743-2748.
231. *Investigations on photo-mechanical and photo-thermo-mechanical strain variations in amorphous selenium using fiber Bragg grating sensor*, S Gayathri, S Asokan, Journal of Non- Crystalline Solids, VI. 477, 2017, 7-11.
232. *Synthesis and characterization of barium fluoride substituted zinc tellurite glasses*, K Aishwarya, G Vinitha, GS Varma, S Asokan, N Manikandan, Physica B: Condensed Matter, Vol. 526, 2017, 84-88.
233. *Bite force measurement based on fiber Bragg grating sensor*, S Padma, S Umesh, S Asokan, T Srinivas, Journal of Biomedical Optics, Vol. 22 (10), 2017, 107002.
234. *Ag nanowire-assisted low threshold WGM lasing from polymer optical fiber*, S Sebastian, M Kailasnath, VPN Nampoori, S Asokan, Optics Letters, Vol. 42 (19), 2017, 3820-3823.
235. *Structural, mechanical and optical studies on ultrafast laser inscribed chalcogenide glass Waveguide*, A Ayiriveetil, GS Varma, A Chaturvedi, T Sabapathy, U Ramamurty, S. Asokan, Optical Materials, Vol. 66, 2017, 386-391.

236. *A study of thermal stability and electrical switching behaviour of Ge–Te–In chalcogenide glass system*, A George, D Sushamma, P Predeep, S Asokan, Indian Journal of Physics, 2017, 1-8.
237. *Fiber Bragg grating sensor-based device for simultaneous measurement of respiratory and cardiac activities*, K Chethana, AS Guru Prasad, SN Omkar, S Asokan Journal of Biophotonics, Vol. 10 (2), 2017, 278-285.
238. *Bare fiber Bragg grating immunosensor for real- time detection of Escherichia coli bacteria* R Srinivasan, S Umesh, S Murali, S Asokan, S Siva Gorthi, Journal of Bio Photonics, Vol. 10 (2), 2017, 224-230.
239. *Molybdenum microheaters for MEMS-based gas sensor applications: Fabrication, electro-thermo-mechanical and response characterization*, LLR Rao, MK Singha, KM Subramaniam, N Jampana, S Asokan, IEEE Sensors Journal, Vol. 17 (1), 2017, 22-29.
240. *Kinetics based evidence for intermediate phase in Ge 15 Te 85– x In x chalcogenide Glasses*, GS Varma, A Chaturvedi, U Ramamurty, S Asokan, Journal of Non-Crystalline Solids, Vol. 471, 2017, 251-255.
241. *In-situ monitoring of photo-striction in chalcogenide glass film using fiber Bragg grating Sensors*, S Gayathri, GS Varma, G Singh, BN Shivananju, S Umaphathy, SS Gorthi, S. Asokan, International Journal of Opto Mechatronics, Vol. 11, 2017, 27-35.
242. *Fiber Bragg Grating Goniometer for Joint Angle Measurement*, S Umesh, S Padma, T Srinivas, S Asokan, IEEE Sensors Journal, Vol.18, 2018, 216-222.
243. *Carotid Arterial Pulse Waveform Measurements using Fiber Bragg Grating Pulse Probe*, S Padma, S Umesh, T Srinivas, S Asokan, IEEE Journal of Biomedical and Health Informatics, Vol. 22 (5), 2018, 1415-1420.
244. *Electrical Switching Behavior of Bulk AgI-Ag₂O-MoO₃ glass with ON-state current and Thickness*, B Tanujit, GS Varma, K Rajanna, S Asokan, Materials Today: Proceedings, Vol. 5 (1), 2018, 2705-2709.
245. *Comparison of Force Required for Lumbar Puncture with Different Gauges of Spinal Needle Using Fiber Bragg Grating Force Device*, S Ambastha, S Umesh, S Dabir, S Asokan IEEE Sensors Journal Vol. 18 (19), 2018, 8028-8033.
246. *Investigation of fast and sizeable photostriction effect in tellurium thin films using fiber Bragg grating sensors*, S Gayathri, S Sridevi, G Singh, BN Shivananju, S Asokan Sensors and Actuators A: Physical Vol. 279, 2018, 688-693.
247. *Knee angle measurement device using Fiber Bragg Grating Sensor*, S. Pant, S. Umesh and S. Asokan, IEEE Sensors Journal, Vol.18, 2018, 10034-40.
248. *Investigation of fast and sizeable photostriction effect in tellurium thin films using Fiber*

- Bragg Grating sensors*, S. Gayathri, S. Sridevi, G. Singh, B.N. Shivananju and *Sensors and Actuators A: Physical*, Vol. 279, 2018, 688-693.
249. *Fiber Bragg Grating Goniometer for Joint Angle Measurement*, S Umesh, S Padma, T Srinivas, S Asokan, *IEEE Sensors Journal*, Vol.18, 2018, 216-222.
250. *Evaluation of fiber Bragg grating sensor interrogation using InGaAs detector arrays and Gaussian approximation on embedded hardware*, *Rev. Sci. Instrum.*, Vol. 89 (2), 2018, 025102.
251. *Carotid Arterial Pulse Waveform Measurements using Fiber Bragg Grating Pulse Probe*, S Padma, S Umesh, T Srinivas, S Asokan, *IEEE Journal of Biomedical and Health Informatics*, Vol. 22 (5), 2018, 1415-1420.
252. *Electrical Switching Behavior of Bulk AgI-Ag₂O-MoO₃ glass with ON-state current and Thickness*, B Tanujit, GS Varma, K Rajanna, S Asokan, *Materials Today*, Vol. 5 (1), 2018, 2705-2709.
253. *Comparison of Force Required for Lumbar Puncture with Different Gauges of Spinal Needle Using Fiber Bragg Grating Force Device*, S Ambastha, S Umesh, S Dabir, S Asokan *IEEE Sensors Journal* Vol. 18 (19), 2018, 8028-8033.
254. *Investigation of Fast and Sizeable Photo striction effect in tellurium thin films using fiber Bragg grating sensors*, S Gayathri, S Sridevi, G Singh, BN Shivananju, S Asokan *Sensors and Actuators A: Physical* Vol. 279, 2018, 688-693.
255. *Knee angle measurement device using Fiber Bragg Grating Sensor*, S. Pant, S. Umesh and S. Asokan, *IEEE Sensors Journal*, Vol.18, 2018, 10034-40.
256. *Highly sensitive Fiber Bragg Grating based pressure sensor using side-hole packaging*, S. Sebastian, S. Sridhar, P.S. Prasad, S. Asokan, *Applied Optics*, 58 (1), 2019, 115-21
257. *Temperature sensor based multi-layer MoS₂ coated etched Fiber Bragg Grating*, S. Sridhar, S. Sebastian and S. Asokan, *Applied Optics*, Vol. 58 (3), 2019, 535-39.
258. *Electrical Switching and Optical Bandgap Studies on Quaternary Ag-Doped Ge-Te-In Thin Films*, D Roy, GS Varma, S Asokan, C Das, *IEEE Transactions on Electron Devices*, Vol.66 (4), 2019, 1881-1886.
259. *Temperature Compensated FBG Displacement Sensor for Long-Range Applications*, J Thomas, TR Rajanna, S Asokan, *IEEE Sensors Letters*, Vol. 4 (1), 2019, 1-4.
260. *Switching behavior of bulk, fast ion conducting, vitreous AgI- Ag₂O- MoO₃ solids with inert electrode*, B Tanujit, GS Varma, S Asokan, *Journal of the American Ceramic Society*, Vol. 102 (12), 2019, 7244-7252.

261. *Feasibility Study on Thermography of Embedded Tumor Using Fiber Bragg Grating Thermal Sensor*, S Ambastha, S Pant, S Umesh, V Vazhayil, S Asokan, *IEEE Sensors Journal*, Vol. 20 (5), 2019, 2452-2459.
262. *Double-L Cantilever-Based Fiber Bragg Grating Accelerometer*, OP Parida, J Thomas, J Nayak, S Asokan, *IEEE Sensors Journal*, Vol. 19 (23), 2019, 11247-11254.
263. *Structural shape estimation by mode shapes using Fiber Bragg Grating Sensors: A Genetic Algorithm approach*, J Thomas, S Gurusamy, TR Rajanna, S Asokan, *IEEE Sensors Journal*, Vol. 20 (6), 2019, 2945-2952.
264. *Design and validation of a novel high sensitivity self-temperature compensated fiber Bragg grating accelerometer*, O P Parida, J Nayak, S Asokan, *IEEE Sensors Journal*, Vol. 19 (15), 2019, 6197-6204.
265. *A novel fiber Bragg grating system for eye tracking*, S Umesh, S Pant, S Padma, S Jana, V Vasudevan, A Murthy, S Asokan, *Journal of Advanced research*, Vol. 16, 2019, 25-34.
266. *Structural Shape Estimation by Mode Shapes Using Fiber Bragg Grating Sensors: A Genetic Algorithm Approach*, Jineesh Thomas, S. Gurusamy, T. R. Rajanna, and Sundarrajan Asokan, *IEEE Sensors Journal*, Vol. 20 (6), 2019, 2945-2952.
267. *Physical and mechanical properties of intermediate phase chalcogenide glasses with centroid compositions in the Ge-Te-In-Ag system*, A Chaturvedi, GS Varma, S Asokan, U Ramamurthy, *Journal of Non-Crystalline Solids*, Vol. 543, 2020, 120112.
268. *Manifestation of intermediate phase in Cu doped Si-Te glasses*, D Roy, B Tanujit, GS Varma, S Asokan, C Das, *Journal of Non-Crystalline Solids*, Vol. 531, 2020, 119863.
269. *Diaphragm-Micro-Stylus-Based Fiber Bragg Grating Tactile Sensor*, A Prasad, S Sebastian, S Asokan, *IEEE Sensors Journal*, Vol. 20 (12), 2020, 6394-6399.
270. *A Novel Approach to Acquire the Arterial Pulse by Finger Plethysmography Using Fiber Bragg Grating Sensor*, S Pant, S Umesh, S Asokan, *IEEE Sensors Journal*, Vol. 20 (11), 2020, 5921-5928, 2020
271. *Detection of Copper Nanoparticles Templated by DNA Using Etched Fibre Bragg Grating Sensor*, IEEE Sensors Journal, N. K. Radhika, B. S. Kavitha, S. Asokan, and Sai Siva Gorthi, Vol. 20 (16), 2020, 9179-9186.
272. *Diaphragm-Micro-Stylus-Based Fiber Bragg Grating Tactile Sensor*, Asha Prasad, Suneetha Sebastian, and Sundarrajan Asokan, *IEEE Sensors Journal*, Vol. 20 (12), 2020, 6394-6399.

273. *Feasibility Study on Thermography of Embedded Tumor Using Fiber Bragg Grating Thermal Sensor*, Shikha Ambastha, Shweta Pant, Sharath Umesh, Vikas Vazhayil, and Sundarrajan Asokan, IEEE Sensors Journal, Vol. 20 (5), 2020, 2452-2459.
274. *Pulp chamber temperature variation evaluation using fiber Bragg grating sensor*, Shweta Pant, Sharath Umesh, and Sundarrajan Asokan, Applied Optics, Vol. 59 (34), 2020, 10953-10958.
275. *Etched Fiber Bragg Grating Sensor for quantification of DNA*, BS Kavitha, NK Radhika, Sai Siva Gorthi, S Asokan, IEEE Sensors Journal, Vol. 21 (2), 1588-1595, 2020.
276. *Thermal studies of the effect of thallium in ternary Ge-Te-Tl chalcogenide glasses*, Mohammad Mahbubur Rahman, K Rukmani, Rajam Sekar, S Asokan, Journal of Materials Science: Materials in Electronics, 2020, in press.
277. *Electrochemical impedance spectroscopy study of AgI-Ag₂O-MoO₃ glasses: understanding the diffusion, relaxation, fragility and power law behaviour*, Tanujit Biswas and S Asokan, Philosophical Magazine, in press.
278. *Highly Sensitive and Rapid Detection of Mercury in water Using Functionalized Etched Fiber Bragg Grating Sensors*, Kavitha Srinivasan, Sridevi Siddarama, Pandeewar Makam, Debasis Ghosh, Thimmaiah Govindaraju, Asokan Sundarrajan, Ajay Sood, Sensors and Actuators: B. Chemical, in press.
279. *A Study on MoS₂ Nanolayer Coated Etched Fiber Bragg Grating Strain Sensor*, Sridhar S, Suneetha Sebastian, A. K Sood, and S. Asokan, IEEE Sensors Journal, in press.
280. D.Roy, B Tanujit, KB Jaganatha, S Asokan, C Das, Influence of Cu doping in Si-Te-Based Chalcogenide Glasses and thin films : Electrical switching, Morphological and Raman Studies, IEEE Transactions on Electron Devices 68 (3), 1196-1201, 2021.
281. S Pant, S Umesh, S Asokan, Assesment of Spatio-Temporal Parameters of Human Gait using Fiber Bragg Grating Sensor-based devices, IEEE Sensors journal 21(7), 9186-9193, 2021.
282. NV Kumar, S Pant, S Sridhar, V Marulasiddappa, S Srivatzen, S Asokan, Fiber Bragg grating-based pulse monitoring device for real time non –invasive blood pressure measurement – A Feasibility
283. G Hegde, S Asokan, G Hegde, Fiber Bragg Grating Sensors for aerospace applications: a review ISSS Journal of micro and smart systems, 1-19, 2022
284. S Ghosh, K Dissanayake, S Asokan, T Sun, BMA Rahman, KTV Grattan, Lead (Pb²⁺) ion sensor development using Optical Fiber gratings and nanocomposite materials, Sensors and Actuators B: Chemical 364, 131818, 2022.
285. G Hegde, B Himakar, S Rao, G Hegde, S Asokan, Simultaneous Measurement of pressure and temprature in a supersonic ejector using FBG Sensors , Measurement science and Technology 33(12), 125111.

286. G Hegde, RMV Srisha, G Hegde, S Asokan, Wall strain and temperature measurement inside supersonic Ejector using FBG Sensor , Frontiers in optics, JW4A, 8, 2022.
287. S Bannur Nanjunda, VN Seshadri, C Krishnan, S Rath, S Arunagiri, Q Bao, Emerging Nanophotonic biosensor technologies for virus detection, Nanophotonics 11(22), 5041-5059, 2022.
288. S Sebastian, PS Prasad, K Michael, S Avvaru, S Asokan, Validation of packaged clad-Etched fiber bragg Grating as underwater Acoustic sensor, IEEE Sensors journal 23(3),2137-2144,2022.
289. PS Prasad, S Asokan, J Nayak, Measurement and mitigation of recoil forces of rifles on an unmanned aerial vehicle, ISSS Journal of Micro and smart systems 1-10, Volume 12- Pages 9-18, (2023)
290. BS Kavitha, S Pant, AK Sood, S Asokan, Fiber grating sensors and their recent applications in biomedical domain, journal of optics, Volume 25, Number 8 2023.
291. D Majumder, S Asokan, A Ghosh, Resonant Plasmonic Metasurface in the Mid-IR based on Alternate plasmonic material, Solar Energy and light-Emitting Devices, JTU4A, 40,2023.
292. NV Kumar, BS Kavitha, S Asokan, A silver nanoparticle modified etched fiber bragg grating sensor for arsenic detection, IEEE Sensors journal, vol. 23,no. 20, pp. 24518-24525,2023.
293. VR Anand, SR Ramanan, T Santhanakrishnan, S Asokan, Side hole packaged-shell encapsulated etched FBG Hydrophone, IEEE Sensors journal, vol.23, no.20,24526-24532, 2023.
294. G Hegde, H Verma, G Hegde, G Jagadeesh, S Asokan, Blast wave induced strain measurements in polymers using FBG Sensor inside shock tube, Measurement, Vol 225, 114045, 2023.
295. S Pant, S Umesh, A Prasad, S Asokan, Fiber Bragg Grating Based Goniometer for joint kinematics Evaluation, 2022 IEEE 7th International Conference on Recent advances and Innovations in Engineering (ICRAIE)2022.
296. Gautam Hegde, Gopalkrishna Hegde, Gopalan Jagadeesh, S Asokan, Numerical Analysis of FBG response to blast wave inside shock tube, 25th AIAA International space planes and Hypersonic Systems and Technologies Conference, 2023.