

RESEARCH GROUP



Name : D.SASTIKUMAR

**Research Area : FIBER OPTIC SENSOR AND
LASER MATERIALS PROCESSING**

Research Scholars:

1. Name: V. Kalyanavalli



Research Area: composite materials, Infrared thermography

No: of Publications: 2

1. Kalyanavalli, V., Ramadhas, T. A., & Sastikumar, D. (2019). Determination of thermal diffusivity of Basalt fiber reinforced epoxy composite using infrared thermography. *Measurement*, 134, 673-678.

2. Kalyanavalli, V., Ramadhas, T. A., & Sastikumar, D. (2018). Long pulse thermography investigations of basalt fiber reinforced composite. *NDT & E International*, 100, 84-91.

2. Name: Gaurav Kumar Yogesh



Research Area: Fluorescent Nanomaterials, Nanosecond Pulsed Laser

No: of Publication: 1

1. Yogesh, G. K., Shuaib, E. P., & Sastikumar, D. (2017). Photoluminescence properties of carbon nanoparticles synthesized from activated carbon powder (4% ash) by laser ablation in solution. *Materials Research Bulletin*, 91, 220-226.

3. Name : M. Manjula



Area of interest : Gas sensors

No: of Publications: 2

1.M. Manjula, B. Karthikeyan, D. Sastikumar, Sensing characteristics of Nano crystalline bismuth oxide clad-modified fiber optic gas sensor, Optics and Lasers in Engineering 95 (2017) 78-82.

2. M. Manjula, B. Karthikeyan, D. Sastikumar, Sensing characteristics of clad-modified (Ho-doped Bi₂O₃ nanoparticles) fibre optic gas sensor, Optical Fiber Technology 45 (2018) 35-39.

4. Name: Devendiran. S



Research Area: Fiber optics gas sensors & medical instrumentation.

No: of Publications: 2

1. Devendiran, S.; Sastikumar, D., Gas sensing based on detection of light radiation from a region of modified cladding (nanocrystalline ZnO) of an optical fiber, Optics and Laser Technology, 89 (2017) 186 -191.
2. Devendiran, S.; Sastikumar, D., Fiber optic gas sensor based on light detection from the samarium oxide clad modified region, Optical Fiber Technology, 46 (2018) 215-220.

5. Name: Shuaib. E. P



Research Area: Laser ablation in liquids, Glucose sensing

No: of Publication: 1

1. Photoluminescent SiC nanoparticles synthesized by laser ablation in ethanol medium. Proc. Of. The Intl. Conf. on Nanotechnology for Better Living 2016, 3, 139.

6. Name: A.KALAI PRIYA



Research Area: Nanomaterials and Fiber Optic Gas Sensor, Nanosecond Pulsed Laser.

Women Scientist (DST)

1. Name : Dr. Manju Bhargavi



Research areas : Electrochemical Sensor, Bio-sensor

No: of publication: 2

1. Fabrication of an electrochemical biosensor with ZnO nanoflakes interface for methylglyoxal quantification in food samples

Amudha Jayaprakasan, Amarnath Thangavel, Lakshmeshri Ramachandra Bhat, **Manju Bhargavi Gumpu**, Noel Nesakumar, K Jayanth Babu, Srinivasan Vedantham, John Bosco Balaguru Rayappan

Food science and biotechnology 27 (1), 9-17(2018)

2. Fabrication of Electrochemical Biosensor with ZnO-PVA Nanocomposite Interface for the Detection of Hydrogen Peroxide

Navin Kishore Sekar, **Manju Bhargavi Gumpu**, Bhat Lakshmeshri Ramachandra, Noel Nesakumar, Prabakaran Sankar, K Jayanth Babu, Uma Maheswari Krishnan, John Bosco Balaguru Rayappan

Journal of nanoscience and nanotechnology 18 (6), 4371-4379 (2018)

2. Name : Dr. S. Boomadevi



Research areas; Crystal growth, Nonlinear optics, QPM devices

No: of Publications : 7

1. Effect of phase-shifter domains in quasi-phase matching devices

TS Meetei, SHH Subramani, **S Boomadevi**, K Pandiyan

Advances in Optical Science and Engineering, 461-466 (2015)

2. Studies on acetone sensing characteristics of ZnO thin film prepared by sol-gel dip coating

Karthika Muthukrishnan, Manoj Vanaraja, **Shanmugam Boomadevi**, Rakesh Kumar Karn, Vijay Singh, Pramod K Singh, Krishnamoorthy Pandiyan

Journal of Alloys and Compounds 673, 138-143 (2016)

3. Dip coated nanostructured ZnO thin film: Synthesis and application

M Vanaraja, K Muthukrishnan, **S Boomadevi**, RK Karn, V Singh, PK Singh, . Krishnamoorthy Pandiyan.

Ceramics International 42 (3), 4413-4420 (2016)

4. Dip coated TiO₂ nanostructured thin film: synthesis and application

M Vanaraja, K Muthukrishnan, **S Boomadevi**, RK Karn, V Singh, PK Singh, . Krishnamoorthy Pandiyan.

Phase Transitions 89 (2), 107-114(2016)

5. Engineering phase shifter domains for multiple QPM using simulated annealing algorithm

C Siva, TS Meetei, P Shiva, B Narayanan, G Arvind, **S Boomadevi**,
Krishnamoorthy Pandiyan.

Journal of Optics 19 (10), 105507 (2017)

6. Studies on the effect of duty cycle variation in Fibonacci-based quasi-phase matching devices

Toijam Sunder Meetei, Arumugam Singaravadivel, Chandra Jayachandra
Pragadeesh, Pakkirisamy Karthikeyan, Chellappa Siva, Prabhakar Shiva,
Rakesh Kumar Karn, **Shanmugam Boomadevi**, Krishnamoorthy Pandiyan

Journal of Modern Optics 65 (16), 1860-1865 (2018)

7. Design and development of low-cost room temperature electric field poling system for the fabrication of quasi-phase matching devices

TS Meetei, **S Boomadevi**, K Pandiyan, Pramana 91 (3), 37