Recent Publications

1. Wavelet Transform of Breast Tissue Fluorescence Spectra: A Technique for Diagnosis of Tumors, Nidhi Agarwal, Sharad Gupta, Bhawna, **Asima Pradhan** and K.Vishwanathan, Prasanta K.Panigrahi, to be published in **IEEE JSTQE, 2003.**

2. Recovery of turbidity free fluorescence from measured fluorescence an experimental approach, N.C. Biswal, Sharad Gupta, N. Ghosh and **A. Pradhan, Optics Express**, Vol.11, No. 24, pp. 3320-3331, Dec. **2003.**

3. Microstructure of N+ ion beam induced epitaxial crystallized Si, P.K. Sahoo, Sharad Gupta, **A. Pradhan** and V.N. Kulkarni**, Nucl. Instr. and Meth. B**, Vol.216, pp. 316, **2003.**

4. Experimental and theoretical investigation of fluorescence photobleaching and recovery in human breast tissues and tissue phantoms, Sharad Gupta, Bhawna, P. Goswami, **A. Pradhan** and A. Agarwal, **Applied Optics,** Vol. 43, No. 5, pp. 1044-1052, **2004.**

5. Nanoprecipitation in transport matrices using an energetic ion beam, T. Mohanty, **A. Pradhan,** S. Gupta and D. Kanjilal, **Nanotechnology 15**, 1620-1624, **2004.**

6. Depolarization of light in a multiply scattering medium:Effect of the refractive index of a scatterer, Nirmalya Ghosh, **Asima Pradhan**, Pradeep Kumar Gupta, Sharad Gupta, V. Jaiswal and R. P. Singh, **Physical Review E 70,** 066607, **2004.**

7.Evaluation of laser Spectroscopy in Diagnostic of benign and malignant lesions of breast cytohistological correlation, Silpi Sikarwar, Asha Agarwal,S.N Singh, P.K Singh, Manvi Gupta, **Asima Pradhan** ,Ashish and Prashant Shukla, Indian Journal of Bioscience and Medical volume Oncology, Vol58#1, 7-10, Jan –June.

8. Effects of crystalline size distribution on the Raman-scattering profiles of silicon nanostructures, Md.Nazrul Islam, **Asima Pradhan**, Satyendra Kumar, **Journal of Applied Physics,** 98,1 **(2005)**

9. Wavelet based characterization of spectral fluctuations in normal, benign and cancerous human breast tissus, Sharad Gupta, N.C.Biswal, Nidhi Agarwal, Maya S. Nair, Asha Agarwal, P.K.Panigrahi, **Asima Pradhan, Journal of Biomedical** Optics Vol.10 (5), p-054012-1 to 9, **(2005).**

10. Nirmalya Ghosh,, Pradeep Kumar Gupta, **Asima Pradhan** ,S.K.Majumdar, *"Anomalous behaviour of depolarization of light in a turbid medium"* **Physics Letters** A, 354, 236-242 **(2006)**

11. Sharad Gupta, V. L. N Sridhar Raja and **Asima Pradhan,** *"Simultaneous Extraction of Optical Transport Parameters and Intrinsic Fluorescence of Tissue Mimicking Model Media Using Spatially Resolved Fluorescence Technique"* **Applied Optics ,** Vol.45, 28 **(2006)**

12. Dipak Paramanik, **Asima Pradhan** , Shikha Varma, *" Nanoscale defect formation on InP (111) surfaces after MeV Sb implantation"*, **J. Appl. Phys**. 99, 014304 **(2006)**

13. Prashant Shukla, R.Sumathi, Sharad Gupta, **Asima Pradhan,** "Influence of size parameter and refractive index of scatterer on polarization gated optical imaging through turbid media" , **JOSA A, (2006)**

14. Bhadra Mani, K. L. N. S. S. Sarma, C. R. Rao, P. A. Lakshmi**, A Pradhan** and P.K. Panigrahi, Wavelet Based Classification for Cancer Diagnosis, accepted for publication in Journal of Soft Computing.