Curriculum Vitae
of
Dr. Sharmila De

Name: Sharmila De

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Fellowships/Awards:

DST BOYSCAST Fellowship, 2004 to work at Max Planck Institute for Biochemistry, Munich

Research Experience:

1) Study of charge transport across model biological membranes

2) Various properties of bilayer lipid membranes, noise spectra analysis of bilayer lipid membrane as well as solid lipid films

3) Conductance and closing properties of bacterial outer membrane porin incorporated in bilayer lipid membranes formed by Montal Mueller Technique,

Thesis Guidance:
Co-guidance of the thesis dissertation of Sri Dipankar Ghosh, with Prof. Papiya Nandy of Jadavpur University, India, titled: 'Study of the effect of different physicochemical factors on organized lipid aggregation', submitted to Jadavpur University in Feb 2008.

Teaching Experience : 24 years.

List of Publication

1. **S.Das, R.Basu, S.De, A.Ghosh, M.Minch and P. Nandy** Photoinduced changes in structure and function of hexadecyl merocyanine dyes incorporated in lipid membranes. **(1995) J. Photochem. Photobiol. A 85, 161-164.**

2. **A.K.Ghosh, R.Basu, S.De, S.Das, N.P.Nayak, B.Barat and P.Nandy** Lipid disordering effect of aspirin on liposomal membrane of dipalmitoyl phosphatidyl choline – a fluorescence anisotropy study. **(1995) Colloids and Surfaces B: Biointerfaces 4, 309-311.**

3. **R. Basu. S. De, S. Nayar, S. Das, A.K. Ghosh and P. Nandy** Nonlinear DC electrical response in BLM:effect of bathing solutions. **(1995)Physical Review E 52(4), 4179-4182.**

4. **S.De, A.K.Ghosh, R.Basu and P.Nandy** Calculation of van't Hoff enthalpy associated with aspirin induced change in liposomal membrane anisotropy. **(1996) Physics in Medicine and Biology 41, 1-4.**

5. **A.K.Ghosh, N.Pore, R.Basu, S.De and P.Nandy** Lipid perturbation by corticosteroids-an anisotropic study. **(1996) Colloids and Surfaces B : Biointerfaces 7, 65-68.**

6. **S.Das, R.Basu, S.De, S.Talapatra and P.Nandy** Light/heat induced voltage generation, differential thermal analysis and spectral study of di-tert-butyl merocyanine dye probed lipid membrane. **(1996) Towards Clean Energy (Eds.: B.Ghosh, S.Saha, S.Basu) Tata Mc. Graw Hills, New Delhi, India, 312-315.**

7. **S.De, R.Basu, U.Nandi, C.Mukherjee, K.Bardhan and P.Nandy** Flicker noise in thin lipid films. **(1997) Physical Review B 56 (21), 13627-13629.**

8. **S.De, R.Basu, A.K.Ghosh and P.Nandy** Membrane based lipid-drug interaction. **(1997) J. Surf. Sc. Tech. 13, 2-4.**

9. **R.Basu, S.De and P.Nandy** Effect of n-decane on lecithin phase transition temperature: a microscopic study. **(1998) Colloids and Surfaces B: Biointerfaces 11, 29-31.**

10. **S.De, R.Basu and P.Nandy** Cholesterol incorporation in liposomal membrane: change in van't Hoff enthalpy. **(1998) J. Ind. Chem. Soc. 75, 405-406.**

11. **S.De, R.Basu and P.Nandy** Confirmation of membrane electroporation from flicker noise. **(2000) Phys. Rev. B 61(10),6689-6691.**

12. **R. Basu, S. De, D. Ghosh and P. Nandy** Charge conduction mechanism through planar lipid membrane **(2000) J.Surf.Sc.Tech. 16, 1-4**

13. **R. Basu, S.De , D. Ghosh and P. Nandy** Nonlinear conduction in bilayer lipid membranes : effect of temperature **(2001) Physica A 292 (1-4), 146-152. .**

14. **D.Ghosh, R.Basu, S.De and P.Nandy** Elastic property of organised lipid assembly - an Electrical Study **(2002) Ind. J. Physics 76 A(1), 13-14.**

15. **S.De, R. Basu, D. Ghosh, S. Manna and P.Nandy** Calculation of Conductance of lipid-water dispersion using effective medium approximation **(2002) J. Surf. Sc. Tech. 18, 121.**

16. **D.Ghosh, S.Manna, S.De, R.Basu and P.Nandy** Effect of asymmetric bathing solution on the nonlinear I- V characteristics of lipid membranes **(2004) Physica A 336, 514-520.**

17. **D.Ghosh, S.Manna, S.De, R.Basu and P. Nandy** Electrical properties of lipid membrane – role of bathing solution under forward and reverse biased conditions. **(2005) Internet Electronic J. Mol. Design,4(3),221-225**

18. **U. Zachariae, T. Kluehspies, S. De, H. Engelhardt, K.Zeth** High resolution crystal structures and Molecular Dynamics studies reveal substrate binding in Porin Omp 32 **(2006) Journal of Biological Chemistry ,281,7413-7420**

19. **D.Ghosh, S.De and P.Nandy** Spectral Analysis of current-noise data for bilayer lipid (2008) **International Journal of Modern Physics C,Vol 19,No. 07,1007-1015**