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### Journal Articles (Chronologically, latest first)

1. N. Jaglan, G. Sharma, P. Hitaishi, **R. P. Giri**, N. Hayen, B. Murphy, S. K. Ghosh, 'Assembling Xanthan gum at air-water interface and disentangling it by ionic liquids', *Accepted* (2025)
2. S. Chowdhury, M. K. Mukhopadhyay, M. K. Sanyal, S. Bhunia, B. Satpati, **R. P. Giri**, B. Bharatiya, C. Shen, B. M. Murphy, 'Investigation on the formation of two dimensional perovskite nanostructures at the water surface through self-initiated reaction', *Sci. Rep.* 15, 1 (2025); DOI: 10.1038/s41598-024-78259-9
3. A. Seth, P. Mandal, P. Hitaishi, **R. P. Giri**, B. M. Murphy, S. K. Ghosh, 'Assembly of graphene oxide vs. reduced graphene oxide in a phospholipid monolayer at air–water interfaces', *Phys. Chem. Chem. Phys.* 27, 1884-1900 (2025); DOI: 10.1039/D4CP02706J
4. S. Raghav, P. Hitaishi, **R. P. Giri**, A. Mukherjee, V. K. Sharma, S. K. Ghosh, 'Selective assembly and insertion of ubiquicidin antimicrobial peptide in lipid monolayers', *J. Mater. Chem. B* 12, 11731-11745 (2024); DOI: 10.1039/D4TB01487A
5. S. Chowdhury, M. K. Mukhopadhyay, M. K. Sanyal, S. Bhunia, B. Satpati, **R. P. Giri**, B. Bharatiya, C. Shen, B. M. Murphy, 'Solution processed hybrid lead perovskite films for white light emission and lasing applications', *Adv. Funct. Mater.*, 34, 2401334 (2024); DOI: 10.1002/adfm.202401334
6. J. E. Warias, L. Petersdorf, S. C. Hövelmann, **R. P. Giri**, C. Lemke, S. Festersen, M. Greve, P. Mandin, D. LeBideau, F. Bertram, O. M. Magnussen, B. M. Murphy, 'The laser pump X-ray probe option at LISA P08 PETRA III', *J. Synchrotron Rad.*, 31, 779-790 (2024); DOI: 10.1107/S1600577524003400
7. **R. P. Giri\***, S. Chowdhury, M. K. Mukhopadhyay, A. Chakrabarti, M. K. Sanyal, 'Ganglioside GM1 drives hemin and protoporphyrin adsorption in phospholipid membrane: a structural study', *J. Phys. Chem. B* 128, 2745-2754, 2024, DOI: 10.1021/acs.jpcc.3c08239 (\*Corresponding author)
8. H. Fernandez, A. El Haitami, A. Hemmerle, C. Shen, P. Jordt, **R. P. Giri**, P. Fontaine, S. Cantin, 'Tuning the order of poly (3-alkylthiophene) derivatives ultrathin films through side-chain polarity: From a short-range ordered monolayer to a highly crystalline bilayer', *Polymer* 294, 126719 (2024), DOI: 10.1016/j.polymer.2024.126719
9. A. Das, **R. P. Giri**, M. K. Mukhopadhyay, 'A liquid cell for structural investigations of supported lipid membrane by synchrotron X-rays over a wide temperature range', *Instrum. Exp. Tech.*, 67, 179-187 (2024); DOI: 10.1134/S0020441224700015
10. G. Sharma, A. Seth, **R. P. Giri**, N. Hayen, B. M. Murphy, S. K. Ghosh, 'Ionic liquid-induced assembly of DNA at air–water interface', *Langmuir*, 39, 16079-16089 (2023), DOI: 10.1021/acs.langmuir.3c02212
11. J. E. Warias, F. Reise, S. C. Hövelmann, **R. P. Giri**, M. Röhr, J. Kuhn, M. Jacobsen, K. Chatterjee, T. Arnold, C. Shen, S. Festersen, A. Sartori, P. Jordt, O. M. Magnussen, T. K. Lindhorst & B. M. Murphy, 'Photoinduced

- bidirectional switching in lipid membranes containing azobenzene glycolipids', **Sci. Rep.** 13, 11480 (2023); DOI: 10.1038/s41598-023-38336-x
12. **R. P. Giri**, M. K. Mukhopadhyay, M. K. Sanyal, D. Bose, A. Chakrabarti, P. Quan, W. Bu, B. Lin, 'Structural flexibility of proteins dramatically alters membrane stability - A novel aspect of lipid-protein interaction' **J. Phys. Chem. Lett.** 13, 49, 11430-11437 (2022); DOI: 10.1021/acs.jpcllett.2c02971
  13. **R. P. Giri\***, M. K. Mukhopadhyay, 'Humidity responsive polymer cushion supported biomimetic membrane: A model system for X-ray studies', **Langmuir** 38, 49, 15294-15302 (2022); DOI: 10.1021/acs.langmuir.2c02533 (\*Corresponding author)
  14. A. Sartori, **R. P. Giri**, H. Fujii, S. Hövelmann, J. Warias, P. Jordt, C. Shen, B. Murphy, O. Magnussen, 'Role of chemisorbing species in growth at liquid metal-electrolyte interfaces revealed by in situ X-ray scattering', **Nature Communications** 13, 5421 (2022); DOI: 10.1038/s41467-022-32932-7
  15. J. P. Hazelnis, A. Sartori, Q. Cheek, **R. P. Giri**, M. M. MacInnes, B. Murphy, O. Magnussen, S. Maldonado, 'Detection of Ge-containing adlayers at the liquid Hg/water interface by in situ X-ray reflectivity in aqueous borate electrolytes containing dissolved GeO<sub>2</sub>', **J. Phys. Chem C** 126, 18, 8177-8189 (2022); DOI: 10.1021/acs.jpcc.2c01671
  16. J. Smits, **R. P. Giri**, C. Shen, D. Mendonça, B. Murphy, P. Huber, K. Rezwan, M. Maas, 'Assessment of nanoparticle immersion depth at liquid interfaces from chemically equivalent macroscopic surfaces', **J. Colloid Interface Sci.** 611, 670-683 (2022); DOI: 10.1016/j.jcis.2021.12.113
  17. P. Mondal, **R. P. Giri**, B. Murphy, S. K. Ghosh, 'Self-assembly of Graphene Oxide Nano-flakes in Lipid Monolayer at Air-water Interface', **ACS Appl. Mater. Interfaces** 13, 48, 57023-57035, (2021); DOI: 10.1021/acsami.1c19004
  18. J. Smits, **R. P. Giri**, C. Shen, D. Mendonça, B. Murphy, P. Huber, K. Rezwan, M. Maas, 'Synergistic and competitive adsorption of hydrophilic nanoparticles and oil-Soluble surfactants at the oil-Water interface', **Langmuir** 37, 18, 5659-5672 (2021); DOI: 10.1021/acs.langmuir.1c00559
  19. D. Pattadar, Q. Cheek, A. Sartori, Y. Zhao, **R. P. Giri**, B. Murphy, O. Magnussen, S. Maldonado, 'Evidence for Facilitated Surface Transport during Ge Crystal Growth by Indium in Liquid Hg-In Alloys at Room Temperature', **Cryst. Growth Des.** 21, 3, 1645-1656 (2021); DOI: 10.1021/acs.cgd.0c01485
  20. S. Sarkar, D. Bose, **R. P. Giri**, M. K. Mukhopadhyay, A. Chakrabarti, 'Effects of GM1 on brain spectrin-aminophospholipid interactions', **Biochim. Biophys. Acta Biomembr.** 1861, 1, 298-305 (2019); DOI: 10.1016/j.bbamem.2018.06.011
  21. V. N. Gaonkar, E. T. Dias, A. B. Dey, **R. P. Giri**, A. K. Nigam, K. R. Priolkar, 'Role of Tin and Carbon in the magnetic interactions in Mn<sub>3</sub>SnC', **J. Magn. Magn. Mater.** 471, 215-219 (2019); DOI: 10.1016/j.jmmm.2018.09.070
  22. S. Biswas, D. Jana, G. S. Kumar, S. Maji, P. Kundu, U. K. Ghorai, **R. P. Giri**, B. Das, N. Chattopadhyay, B. K. Ghorai, S. Acharya, 'Supramolecular aggregates of tetraphenylethene-cored AIEgen toward mechanoluminescent and electroluminescent devices', **ACS Appl. Mater. Interfaces** 10, 20, 17409-17418 (2018); DOI: 10.1021/acsami.8b00165
  23. G. Bhattacharya, S. Mitra, P. Mandal, S. Dutta, **R. P. Giri**, S. K. Ghosh, 'Thermodynamics of interaction of ionic liquids with lipid monolayer', **Biophys. Rev.** 10, 709-719 (2018); DOI: 10.1007/s12551-017-0390-3
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- interaction with lipid membranes', *J. Phys. Chem. B* 122, 30, 7547-7554 (2018); DOI: 10.1021/acs.jpcb.8b03327
25. G. Bhattacharya, **R. P. Giri**, A. Dubey, S. Mitra, R. Priyadarshini, A. Gupta, M. K. Mukhopadhyay, S. K. Ghosh, 'Structural changes in cellular membranes induced by ionic liquids: From model to bacterial membranes', *Chem. Phys. Lipids* 215, 1-10 (2018); DOI: 10.1016/j.chemphyslip.2018.06.001
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  29. A. Indra, K. Dey, S. Majumdar, I. Sarkar, S. Francoual, **R. P. Giri**, N. Khan, P. Mandal, S. Giri, 'Magnetoelectric memory in reentrant frozen state and considerable ferroelectricity in multiferroic spin-chain compound  $\text{Sm}_2\text{BaNiO}_5$ ', *Phys. Rev. B* 95, 9, 094402 (2017); DOI: 10.1103/PhysRevB.95.094402
  30. Sk A. K. M. Faruque, **R. P. Giri** and S. Chakraborty, 'Effect of  $\text{N}_2\text{O}$  ratio on the crystallization temperature of  $\text{ZrO}_2$  deposited on Si by reactive sputtering in  $\text{Ar}/\text{O}_2/\text{N}_2\text{O}$  plasma', *Materials Research Express* 3, 11, 116406 (2016); DOI: 10.1088/2053-1591/3/11/116406

#### Conference Proceeding

- **R. P. Giri**, M. K. Mukhopadhyay, 'Self-assembly of diblock co-polymers at air-water interface: A microscopy and x-ray scattering study', *AIP Conf. Proc.* 1731, 1, 080016 (2016) ; DOI: 10.1063/1.4947894
- G. Bhattacharya, **R. P. Giri**, H. Saxena, V. V. Agrawal, A. Gupta, M. K. Mukhopadhyay, S. K. Ghosh, 'Interaction of imidazolium-based ionic liquids with soft supported lipid membrane', *European Biophysics Journal with Biophysics Letters* 46, S361 (2017)
- A. Sartori, S. Festersen, H. Fujii, J. Warias, **R. P. Giri**, F. Bertram, O. Magnussen, B. M. Murphy, 'In situ X-ray studies of electrodeposition of lead halide compounds on the electrolyte-liquid mercury interface', *Acta Cryst.* A75, e688 (2019); DOI: 10.1107/S2053273319088685

#### Book Chapter

- S. Sarkar, D. Bose, **R. P. Giri**, M. K. Mukhopadhyay, A. Chakrabarti, 'Status of Membrane Asymmetry in Erythrocytes: Role of Spectrin'. In: K. Chattopadhyay, S. Basu (eds) *Biochemical and Biophysical Roles of Cell Surface Molecules. Advances in Experimental Medicine and Biology*, vol 1112, pp 3-11. Springer Nature, Singapore (2018); DOI: 10.1007/978-981-13-3065-0\_1