

Curriculum Vitae/ Faculty Profile

Name : DR. TRIDIB MONDAL

Designation: Assistant Professor

Department: Chemistry

Date of Joining: 03/08/2020

Nationality: INDIAN

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ACADEMIC INFORMATION

➤ Qualification Details:

Examinations Passed	Institution/University	Year of Passing
M.A./M.Sc.	IIT Bombay	2008
Ph.D.	Indian Association for the Cultivation of Science, Kolkata	2013
NET	CSIR	2007

➤ Subject(s) Specialization: Physical Chemistry

CAREER INFORMATION

➤ Professional Development Programs (FIP, RC, Short Course, Workshop)

Sl. No.	Title of the Professional Development Program	Venue	Date and Duration
1.	Recent Advancement in Science and Technology	University of North Bengal	15.02.2022 to 28.02.2022

ACHIEVEMENTS AND PUBLICATIONS

➤ Recognition/ Fellowship/ Award:

Name of the Award/ Recognition	Awarding Authority/Organization
National Eligibility Test (NET)	CSIR
Dean of Faculty Fellowship for Post-doctoral research	Weizmann Institute of science, Israel.

➤ **Research Field:**

Solvation dynamics, proton transfer, electron transfer, FRET, protein folding, aggregation and its function, molecular chaperones, allostery

➤ **Research Experience**

- Department of Structural Biology, Weizmann Institute of Science, Israel (Postdoctoral fellow, September 2016 – June 2020)
- Department of Physical Chemistry, Indian Association for the cultivation of science, Kolkata (Research Associate I, February 2016 - September 2016)
- Department of Biochemistry and Molecular Biophysics, Washington university School of Medicine in St. Louis, USA (Postdoctoral fellow, January 2014 –December 2015).

➤ **Published Papers/Articles:**

24. “Slowdown of Water Dynamics from the Top to the Bottom of the GroEL Cavity” *N. Macro, L. Chen, Y. Yang, T. Mondal, L. Wang, A. Horovitz*, D. Zhong** *The Journal of Physical Chemistry Letters* **2021**, *12* (24), 5723-5730. (<https://doi.org/10.1021/acs.jpcllett.1c01216>)
23. “Discriminating between Concerted and Sequential Allosteric Mechanisms by Comparing Equilibrium and Kinetic Hill Coefficients” *A. Horovitz*, T. Mondal* *J. Phys. Chem. B.* **2021**, *125*, 70-73. (<https://doi.org/10.1021/acs.jpccb.0c09351>)
22. “Insight into the Autosomal-Dominant Inheritance Pattern of SOD1-Associated ALS from Native Mass Spectrometry” *J. Cveticanin†, T. Mondal†, E. M. Meiering*, M. Sharon*, A. Horovitz** *JMB* **2020**, *432*, 5995-6002. (†Equal Contribution). (DOI: [10.1016/j.jmb.2020.09.025](https://doi.org/10.1016/j.jmb.2020.09.025))
21. “GroEL allostery illuminated by a relationship between the Hill coefficient and the MWC model”, *R. Gruber†, T. Mondal†, A. Horovitz** *Biophysical Journal* **2019**, *117*, 1915-1921. (†Equal Contribution). (DOI: [10.1016/j.bpj.2019.10.013](https://doi.org/10.1016/j.bpj.2019.10.013))
20. “Double-mutant cycles: new directions and applications” *A. Horovitz*, R. C. Fleisher, T. Mondal.* *Curr. Opin. Struct. Biol.* **2019**, *58*, 10-17. (DOI: [10.1016/j.sbi.2019.03.025](https://doi.org/10.1016/j.sbi.2019.03.025))
19. “Contact order is a determinant for the dependence of GFP folding on the chaperonin GroEL” *B. Bandyopadhyay, T. Mondal, R. Unger* and A. Horovitz** *Biophysical Journal* **2019**, *116*, 42-48. (DOI: [10.1016/j.bpj.2018.11.019](https://doi.org/10.1016/j.bpj.2018.11.019))
18. “Enzyme Activity of α -chymotrypsin: Deactivation by Gold Nano-cluster and Reactivation by Glutathione” *C. Ghosh†, T. Mondal†, K. Bhattacharyya** *Journal of Colloid and Interface Science* **2017**, *494*, 74-81 (†Equal Contribution). (<https://doi.org/10.1016/j.jcis.2017.01.027>)
17. “ApoE: In vitro studies of a small molecule effector” *T. Mondal†, H. Wang†, G. T. DeKoster, B. Baban, M. L. Gross and C. Frieden** *Biochemistry* **2016**, *55*, 2613 – 2621 (†Equal Contribution). (<https://doi.org/10.1021/acs.biochem.6b00324>)

16. "Dynamics in Lipid Droplets, Cytoplasm and Nucleus in Live CHO cell: Time resolved Confocal Microscopy" *S. Ghosh, S. Chattoraj, T. Mondal, and K. Bhattacharyya* * *Langmuir* **2013**, *29*, 7975 - 7982. ([DOI: 10.1021/la400840n](https://doi.org/10.1021/la400840n))
15. "Effect of Room Temperature Ionic Liquid on Femtosecond Solvation Dynamics in a Tri-block Copolymer (P123) Gel" *A. K. Mandal, S. Ghosh, T. Mondal, A. K. Das and K. Bhattacharyya* * *Indian Journal of Chemistry Section A-Inorganic Physical Theoretical & Analytical Chemistry* **2013**, *52*, 1047 - 1055.
14. "Effect of NaCl on ESPT-Mediated FRET in a CTAC Micelle: A Femtosecond and FCS Study" *A. K. Mandal, S. Ghosh, A. K. Das, T. Mondal, and K. Bhattacharyya* * *ChemPhysChem* **2013**, *14*, 788 - 796. ([DOI: 10.1002/cphc.201200669](https://doi.org/10.1002/cphc.201200669))
13. "Salt Effect on the Ultrafast Proton Transfer in Niosome" *T. Mondal, S. Ghosh, A. K. Mandal, A. K. Das, and Kankan Bhattacharyya* * *J. Phys. Chem. B* **2012**, *116*, 8105 - 8012. (<https://doi.org/10.1021/jp3043957>)
12. "Solvation Dynamics under a Microscope: Single Giant Lipid Vesicle" *S. Sen Mojumdar, S. Ghosh, T. Mondal, and K. Bhattacharyya* * *Langmuir* **2012**, *28*, 10230 - 10237. (<https://doi.org/10.1021/la3014859>)
11. "Diffusion of organic dyes in a niosome immobilize on a glass surface using fluorescence correlation spectroscopy" *S. Ghosh, A. K. Mandal, A. K. Das, T. Mondal, and K. Bhattacharyya* * *Phys. Chem. Chem. Phys* **2012**, *14*, 9749 - 9757. (<https://doi.org/10.1039/C2CP41212H>)
10. "Effect of an Ionic liquid on the Unfolding of Human Serum Albumin: A Fluorescence Correlation Spectroscopy Study" *D. K. Das, A. K. Das, A. K. Mandal, T. Mondal, and K. Bhattacharyya* * *Chemphyschem.* **2012**, *13*, 1949 - 1955. ([DOI: 10.1002/cphc.201100421](https://doi.org/10.1002/cphc.201100421))
9. "An FCS Study of Unfolding and Refolding of CPM -Labeled Human Serum Albumin: Role of ionic Liquid" *D. K. Sasmal, T. Mondal, S. Sen Mojumdar, A. Choudhury, R. Banerjee, and K. Bhattacharyya* * *J. Phys. Chem. B* **2011**, *115*, 13075 - 13083. (<https://doi.org/10.1021/jp207829y>)
8. "Binding of Organic Dyes with Human Serum Albumin: A Single-Molecule Study" *D. K. Das, T. Mondal, A. K. Mandal and K. Bhattacharyya* * *Chem. Asian J.* **2011**, *6*, 3097 - 3103. (<https://doi.org/10.1002/asia.201100272>)
7. "Diffusion of Organic Dyes in Ionic Liquid and Giant Micron Sized Ionic Liquid Mixed Micelle: Fluorescence Correlation Spectroscopy" *D. K. Sasmal, A. K. Mandal, T. Mondal, and K. Bhattacharyya* * *J. Phys. Chem. B* **2011**, *115*, 7781 - 7787. (<https://doi.org/10.1021/jp202090x>)
6. "Marcus-like Inversion in Electron Transfer in Neat Ionic Liquid and Ionic Liquid-Mixed Micelles" *A. K. Das, T. Mondal, S. Sen Mojumdar and K. Bhattacharyya* * *J. Phys. Chem. B* **2011**, *115*, 4680 - 4688. (<https://doi.org/10.1021/jp200941c>)
5. "Probing Deuterium Isotope Effect on Structure and Solvation Dynamics of Human Serum Albumin" *D. K. Das, T. Mondal, U. Mandal and K. Bhattacharyya* * *Chemphyschem.* **2011**, *12*, 814 - 822. (<https://doi.org/10.1002/cphc.201000912>)
4. "Femtosecond study of ultrafast fluorescence resonance energy transfer in a cationic vesicle" *A. K. Das, T. Mondal, D. K. Sasmal, and K. Bhattacharyya* * *J. Chem. Phys.* **2011**, *135*, 074507. (<https://doi.org/10.1063/1.3624945>)
3. "Excited State Proton Transfer in Ionic Liquid Mixed Micelles" *T. Mondal, A. K. Das, D. K. Sasmal, and K. Bhattacharyya* * *J. Phys. Chem. B* **2010**, *114*, 13136 - 13142. (<https://doi.org/10.1021/jp1058758>)
2. "Ultrafast FRET in Ionic Liquid-P123 Mixed Micelles: Region and Counterion Dependence" *D. K. Das, A. K. Das, T. Mondal, A. K. Mandal, and K. Bhattacharyya* * *J. Phys. Chem. B* **2010**, *114*, 13159 - 13166. (<https://doi.org/10.1021/jp106689w>)
1. "Ultrafast and Ultraslow Proton Transfer of Pyranine in Ionic Liquid Microemulsion" *S. Sen Mojumdar, T. Mondal, A. K. Das, S. Dey and K. Bhattacharyya* * *J. Chem. Phys.* **2010**, *132*, 194505. (<https://doi.org/10.1063/1.3428669>)