



## TEACHER PROFILE/ CV

1. Full name of the faculty member Dr. Partha Dutta

2. Designation Assistant Professor (Stage 3)

3. Department: **Chemistry**

4. Specialization (if any): **Physical Chemistry**

5. Contact Information: 4/2, Viveknagar, Jadavpur, P.O. Santoshpur, Kolkata – 75,

West Bengal, India

e-mail: par\_dut@yahoo.com

### 6. Academic qualifications

*Please mention here the degrees (graduation onward):*

College/ university	Abbreviation of the Degree
Jadavpur University	B. Sc.
Jadavpur University	M. Sc.
Jadavpur University	Ph. D. in Science

### 7. Post holding after appointment at this institution

Designation	Department	Duration		Institution
		From	To	
1. Assistant Prof. (Stage 2)	Chemistry	14.05.2010	14.12.2012	M.M.C. College
2. Assistant Prof. (Stage 3)		15.12.2012	Till date	



### 7. Post held before appointment at this institution

Designation	Department	Duration		Institution
		From	To	
1. Lecturer	Chemistry	15.12.2003	31.12.2005	A. C. College
2. Assistant Prof. (Stage 1)		01.01.2006	14.12.2007	
3. Assistant Prof. (Stage 2)		15.12.2007	13.05.2010	

**8. Research interests**      *Ultrafast Laser Spectroscopy, Terahertz Time Domain Spectroscopy, Photophysical Properties, Nanomaterials : Synthesis & Characterization*

### 9. Research Project

(a) *Completed projects:* “Charge – carrier dynamics in modified Graphene oxides studied by terahertz time-domain spectroscopy”, Collaborative Research Project with Kobe University, Japan sponsored by Hyogo Overseas Research Network (HORN), Japan

(b) *Current Project:* “Synthesis and Characterization of Graphene Oxide based Nano-composites”, Minor Research Project sponsored by UGC

### 10. Lectures delivered/paper presentation

Title	Conference/Symposium and Year	Nature of Participation	Venue
1. -----	CTMSE, 19 <sup>th</sup> -20 <sup>th</sup> January, 2018	Delegate	S. N. Bose National Center for Basic Sciences, Kolkata, <u>INDIA</u>
1. Graphene Oxide and Graphene Oxide-Polyaniline	13 <sup>th</sup> International Conference	Poster	ACC centre,



Nanocomposites: A Temperature-Dependent Conductivity Study Using Terahertz Time Domain Spectroscopy	on Materials Chemistry (MC13), Royal Society of Chemistry Conference, 10 <sup>th</sup> to 13 <sup>th</sup> July, 2017		Liverpool, <u>UK</u>
2. Low Frequency Response of Graphene Oxide: A Temperature Dependent Study	Two Days UGC Sponsored National Seminar, February, 2016	Poster	St. Paul's Cathedral College, W. B., <u>INDIA</u>
3. Temperature Dependent Terahertz TDS Study of Graphene Oxide	“Nanoscience and its Application” (UGC Sponsored), 28 <sup>th</sup> November, 2015	Poster	Fakir Chand College, Diamond Harbour, W. B., <u>INDIA</u>
4. Terahertz Time Domain Spectroscopy of Graphene Oxide and Graphene Oxide-Polyaniline Nanocomposites: A Temperature Dependence Study	Seminar on 24 <sup>th</sup> July, 2015	Invited Talk	Kobe University, <u>JAPAN</u>
5. Model Spectral Analysis of low frequency spectra in solution	“Current Thrust areas Experimental Research in Physical Science”, 25 <sup>th</sup> April, 2015	Poster	Vidyasagar Evening College, Kolkata, W. B., <u>INDIA</u>
6. Fluoride in Ground Challenges in 21 <sup>st</sup> Century	Two-Day International Seminar on Groundwater: Issues & Challenges of the	Poster	Hotel the Fame, Berhampore, Murshidabad,



	21 <sup>st</sup> Century 29 <sup>th</sup> & 30 <sup>th</sup> December, 2014		West Bengal, <u>INDIA</u>
7. -----	International Symposium on Advances in Spectroscopy And Ultrafast Dynamics (ASUD 2014) 12 <sup>th</sup> to 14 <sup>th</sup> December, 2014	Delegate	Indian Association for the Cultivation of Science (IACS) Kolkata, <u>INDIA</u>
8. Terahertz Spectroscopy for Industrial Development	“Role of Chemistry in Human Civilisation”, 26 <sup>th</sup> September, 2014	Poster	Department of Chemistry, Jogesh Chandra Chaudhuri College, W. B., <u>INDIA</u>
9. -----	Trends in Surface Science and Related Areas 24 <sup>th</sup> July, 2014	Delegate	Department of Chemistry Presidency University, Kolkata, <u>INDIA</u>
10. Terahertz Time Dom Spectroscopy: A New Regime	Physical Chemistry Research: Teaching and Industrial Perspectives (PCRTIP-2013) 28 <sup>th</sup> September, 2013	Invited Talk	Department of Chemistry Jadavpur University, Kolkata, <u>INDIA</u>
11. Terahertz Time -Dom Spectroscopy: Polar Solute Molecules in Non-polar solvents	Frontiers in Molecular Spectroscopy and Theory 7 <sup>th</sup> to 9 <sup>th</sup> March, 2009	Oral	Indian Association for the Cultivation of Science (IACS) Kolkata, <u>INDIA</u>



<p>12. Ultrafast Dynamics: From Solutions to Organized Assemblies</p>	<p>Invited Presentation 24<sup>th</sup> December, 2008</p>	<p>Oral</p>	<p>Indian Institute of Science, Education and Research (IISER), Kolkata, <u>INDIA</u></p>
<p>13. Low Frequency Spectra Polar Solute molecules in Non-polar Solvents by Terahertz Time Domain Spectroscopy</p>	<p>5<sup>th</sup> Asian Conference on Ultrafast Phenomena  6<sup>th</sup> to 9<sup>th</sup> January, 2008</p>	<p>Poster</p>	<p>National University of Singapore, <u>SINGAPORE</u></p>
<p>14. Low Frequency Spectra Polar Solute molecules in Non-polar Solvents by Terahertz Time Domain Spectroscopy</p>	<p>Joint Conference of JMLG/ EMLG Meeting 2007 and 30<sup>th</sup> Symposium on Solution Chemistry of Japan  21<sup>st</sup> to 25<sup>th</sup> November, 2007</p>	<p>Oral</p>	<p>Fukuoka University, <u>JAPAN</u></p>
<p>15. THz-TDS of Polar Solute</p>	<p>Mini Symposium on</p>		



Molecules in Non-Polar Solvents	Low Frequency Spectra in Condensed Phases; Molecular Dynamics and Intermolecular Interactions  2 <sup>nd</sup> June, 2007	Oral	Kobe University, <u>JAPAN</u>
16. Solvation Dynamics in PVP and PVP-SDS Aggregates	Third Asian Photochemistry Conference, 2002 (APC-2002)  January, 2002	Poster	Centaur Hotel, Mumbai, <u>INDIA</u>

## 11. Publications:

### (a) Published paper in Journals

1. **“Effect of an anionic surfactant (SDS) on the photoluminescence of graphene oxide (GO) in acidic and alkaline medium”**

*RSC Advances*, **2018**, 8, 584-595.

2. **“Heavily Doped Single Quantum Wells and the Effective Mass”**

*Materials Focus*, **2017**, 6, 1-52.

3. **“Temperature Dependent Conductivity of Graphene Oxide and Graphene Oxide-Polyaniline Nanocomposites Studied by Terahertz Time-Domain Spectroscopy”**

*Journal of Physical Chemistry C*, **2017**, 121, DOI 10.1021/acs.jpcc.6b10412



4. **“Can Photons Affect the entropy?”**

*Materials Focus*, 2017, 6, 1-34.

5. **“pH dependent tunable photoluminescence of Polyaniline grafted Graphene Oxide (GO-PANI) nanocomposite”**

Saha, P.; Pyne, D. K.; Pal, M.; Datta, S; Das, P. K.; **Dutta, P.**; Halder, A.

*Journal of Luminiscence* 2017, 181, 138-146.

6. **“The Story of Graphene Oxide”**

**Dutta, P.**

*Uttaran*, 2016, 1, 133.

7. **"Excitation wavelength dependent UV fluorescence of dispersed modified graphene oxide: Effect of pH "**

**Dutta, P.**; Nandi, D.; Datta, S.; Chakraborty, S.; Das, N.; Chatterjee, S.; Ghosh, U. C.; Halder, A.

*Journal of Luminiscence* 2015, 168, 269.

8. **“Terahertz time domain spectroscopy studies in liquids and solutions”**

**Dutta, P.**

*Prajnan-O-Sadhona-A Science Annual* 2015, 2, 40.

9. **“Low-frequency Dynamics in Condensed Phases Studied by Terahertz Time-Domain Spectroscopy”**

Kambara, O.; Ponseca Jr., C. S.; **Dutta, P.**; Tominaga, K.

*Abstract book of 2<sup>nd</sup> International Symposium on Terahertz Science and Technology between Japan and Sweden* 2009, 52.

10. **“THz-TDS Studies on Proteins and Molecular Complexes in Solutions”**

Tominaga, K.; Kawaguchi, S.; Shibata, M.; Kandori, H.; **Dutta, P.**



*Proceedings of the Conference IRMMW-THZ 2009, R4C02.0539*

11. **“Obtaining Low Frequency Spectra of Acetone Dissolved in Cyclohexane by Terahertz Time-Domain Spectroscopy”**

**Dutta, P.**; Tominaga, K.

*J. Phys. Chem. A* **2009**, *113*, 8235.

12. **“Terahertz Time-Domain Spectroscopic Study of the Low-Frequency Spectra of Nitrobenzene in Alkanes”**

**Dutta, P.**; Tominaga, K.

*J. Mol. Liq.* **2009**, *147*, 45.

13. **“Dependence of Low Frequency Spectra on Solute and Solvent in Solutions studied by Terahertz Time-Domain Spectroscopy”**

**Dutta, P.**; Tominaga, K.

*Mol. Phys.: An International Journal at the Interface Between Chemistry and Physics* **2009**, *107*, 1845.

14. **“Low-Frequency Dynamics in Condensed Phases Studied by Terahertz Radiation Spectroscopy”**

Kambara, O.; Kawaguchi, S.; **Dutta, P.**; Ponseca Jr., C. S.; Ikeshima, K.; Yamaguchi, S.; Hirai, S.; Banno, M.; Naito, S.; Tominaga, K.

*Proceedings of International Symposium on Terahertz between Japan and Sweden, TMU Symp. Ser.*, **2008**, *1*, 44.

15. **“Solvation Dynamics in a worm-like CTAB Micelle”**

Sen, P.; Mukherjee, S.; Halder, A.; **Dutta, P.**; Bhattacharyya, K.

*Res. Chem. Intermed.* **2005**, *31*, 135.

16. **“Ultrafast Chemistry in Complex and Confined Systems”**

**Dutta, P.**; Bhattacharyya, K.

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- J. Chem. Sci.* **2004**, *116*, 5.
17. **“Solvation Dynamics in the Molten Globule State of a Protein”**  
Sen, P.; Mukherjee, S.; **Dutta, P.**; Halder, A.; Mandal, D.; Banerjee, R.; Roy, S.;  
Bhattacharyya, K.  
*J. Phys. Chem. B* **2003**, *107*, 14563.
18. **“Solvation Dynamics in DMPC Vesicle in the Presence of a Protein”**  
**Dutta, P.**; Sen, P.; Mukherjee, S.; Bhattacharyya, K.  
*Chem. Phys. Lett.* **2003**, *382*, 426.
19. **“Solvation Dynamics of 4-Aminophthalimide in a Polymer (PVP)-Surfactant (SDS) Aggregate”**  
**Dutta, P.**; Sukul, D.; Sen, S.; Bhattacharyya, K.  
*Phys. Chem. Chem. Phys.* **2003**, *5*, 4875.
20. **“Solvation Dynamics in a Protein-Surfactant Aggregate. TNS in HSA-SDS”**  
Mukherjee, S.; Sen, P.; Halder, A.; Sen, S.; **Dutta, P.**; Bhattacharyya, K.  
*Chem. Phys. Lett.* **2003**, *379*, 471.
21. **“Solvation Dynamics in the Water Pool of an Aerosol-OT Microemulsion. Effect of Sodium Salicylate and Sodium Cholate”**  
**Dutta, P.**; Sen, P.; Mukherjee, S.; Halder, A.; Bhattacharyya, K.  
*J. Phys. Chem. B* **2003**, *107*, 10815.
22. **“Solvation Dynamics in a Protein-Surfactant Complex”**  
**Dutta, P.**; Sen, P.; Halder, A.; Mukherjee, S.; Sen, S.; Bhattacharyya, K.  
*Chem. Phys. Lett.* **2003**, *377*, 229.
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23. **“Isomerization and Fluorescence Depolarization of Merocyanine 540 in Polyacrylic Acid. Effect of pH”**  
Sukul, D.; Sen, S.; **Dutta, P.**; Bhattacharyya, K.  
*Proc. Indian Acad. Sci. (Chem. Sci.)* **2002**, 114, 501.
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24. **“Excited State Proton Transfer of 1-Naphthol in a Hydroxypropylcellulose/Sodium Dodecyl Sulfate System”**  
**Dutta, P.**; Halder, A.; Mukherjee, S.; Sen, P.; Sen, S.; Bhattacharyya, K.  
*Langmuir* **2002**, 18, 7867.
25. **“Solvation Dynamics in Bile Salt Aggregates”**  
Sen, S.; **Dutta, P.**; Mukherjee, S.; Bhattacharyya, K.  
*J. Phys. Chem. B* **2002**, 106, 7745.
26. **“Solvation Dynamics of TNS in Polymer (PEG)-Surfactant (SDS) Aggregate”**  
**Dutta, P.**; Sen, S.; Mukherjee, S.; Bhattacharyya, K.  
*Chem. Phys. Lett.* **2002**, 359, 15.
27. **“Solvation Dynamics in the Water Pool of Aerosol Sodium Dioctylsulfosuccinate Microemulsion: Effect of Polymer”**  
Sen, S.; **Dutta, P.**; Sukul, D.; Bhattacharyya, K.  
*J. Phys. Chem. A* **2002**, 106, 6017.
28. **“Solvation Dynamics in Aqueous Polymer Solution and in Polymer-Surfactant Aggregate”**  
Sen, S.; Sukul, D.; **Dutta, P.**; Bhattacharyya, K.  
*J. Phys. Chem. B* **2002**, 106, 3763.
29. **“Photoisomerization of Merocyanine 540 in Polymer-Surfactant Aggregate”**  
Sen, S.; Sukul, D.; **Dutta, P.**; Bhattacharyya, K.



*Proc. Indian Acad. Sci. (Chem. Sci.)* **2002**, 114, 83.

30. “Slow Solvation Dynamics of Dimethylformamide in a Nanocavity. 4-Aminophthalimide in  $\beta$ -Cyclodextrin”

Sen, S.; Sukul, D.; **Dutta, P.**; Bhattacharyya, K.

*J. Phys. Chem. A* **2001**, 105, 10635.

31. “Fluorescence Anisotropy Decay in Polymer-Surfactant Aggregates”

Sen, S.; Sukul, D.; **Dutta, P.**; Bhattacharyya, K.

*J. Phys. Chem. A* **2001**, 105, 7495.

**(b) Articles /Chapters published in books**

**(c) Conference/ seminar volumes**

**(d) Other publication**

**12. Administrative/Professional Experience**

*a) Member of the Governing Body at A. C. College, Jalpaiguri, 2008 -2010*

*b) Bursar at M. M. C. College from 2013 to 2015*

*c) Member of the Governing Body at M. M. C. College, from 2017 to till date*

**13. Other notable activities**

**a) Member of Royal Society of Chemistry, UK**

**b) General Secretary of VISION** , a Registered Organization under Indian Trust Act – 1882, Regn. No. - IV-190306993/2016

**c) Life Member of Indian Association for Cultivation of Science**

**14. Special remarks, if any**