

# PERSONAL PROFILE



**DR. DIPAK KUMAR RANA**

*Assistant Professor*

**Department of Chemistry  
Saldiha College, Saldiha,  
Bankura-722173, WB**

**Date of Birth** : 01/02/1982  
**Educational Qualification** : M.Sc., Ph.D  
**Permanent Address** : Vill – Banshi, P.O. – Machatora, P.S. – Simlapal,  
Dist. – Bankura, West Bangal, India, Pin – 722151  
**Contact Number** : 9007352524  
**E-mail** : [drpcju@yahoo.co.in](mailto:drpcju@yahoo.co.in)  
**Date of Joining** : 07/06/2010  
**Area of Teaching** : Physical Chemistry  
**Research interest** : Photochemistry; Surface chemistry; Fluorescence sensing; Experimental and Theoretical modulation of the Photophysics of synthesized bio-active fluorescent drug molecules in organized assemblies.

## List of Research Papers in National/International Journal

1. *Effect of surfactant chain length of cationic micelles of alkyl trimethyl ammonium bromides ( $C_n$ TAB) on the spectroscopic properties of 2-anthracene sulphonate*, A. Sarkar, **D. K. Rana**, S. Dhar, T.K. Mandal, S.C. Bhattacharya, ***Journal of Indian Chemical Society* 85 (2008) 1301-1305.**
2. *Physicochemical characterization of reverse micelles of triton X using 1-anthracene sulphonate as fluorescent probe: A spectroscopic study*, S. Dhar, **D.K. Rana**, A. Sarkar, T.K. Mandal, S. Ghosh, S.C. Bhattacharya ***Colloids Surface A: Physicochemical Engineering Aspects* 349 (2009) 117-124.**
3. *Modulated photophysics of 2-anthracene sulphonate in micellar assembly*, **D. K. Rana**, A. Sarkar, S. Dhar, T.K. Mandal, S.C. Bhattacharya ***Journal of Lumination* 130 (2010) 1106-1112.**

# PERSONAL PROFILE

4. *Fluorescence resonance energy transfer from serum albumins to 1-anthracene sulphonate entrapped in reverse micellar nanocavities*, S. Dhar, **D. K. Rana**, A. Sarkar, T.K. Mandal, S.C. Bhattacharya, ***Colloids Surface A: Physicochemical Engineering Aspects* 369 (2010) 57-64.**
5. *Tuning the photophysics of a bio-active molecular probe '3-pyrazolyl-2-pyrazoline derivative' in different solvents: Dual effect of polarity and hydrogen bonding*, A. Sarkar, T.K. Mandal, **D. K. Rana**, S. Dhar, S. Chall, S.C. Bhattacharya, ***Journal of Lumination* 130 (2010) 2271-2276.**
6. *Tunable solvatochromic response of newly synthesized antioxidative naphthalimide derivatives: Intramolecular charge transfer associated with hydrogen bonding effect*, S. Dhar, S. Singha Roy, **D. K. Rana**, S. Bhattacharya, S. Bhattacharya, **S.C. Bhattacharya**, ***Journal of Physical Chemistry A* 115 (2011) 2216-2224.**
7. *Dual intramolecular hydrogen bond as a switch for inducing ground and excited state intramolecular double proton transfer in doxorubicin: An excitation wavelength dependence study*, **D. K. Rana**, S. Dhar, A. Sarkar, S.C. Bhattacharya. ***Journal of Physical Chemistry A* 115 (2011) 9169-9179.**
8. *Effect of solvent environment on the photophysics of a newly synthesized bioactive 7-oxy(5-selenocyanato-pentyl)-2H-1-benzopyran-2-one*, S. Dhar, **D. K. Rana**, S. Singha Roy, S. Roy, S. Bhattacharya, S.C. Bhattacharya, ***Journal of Lumination* 132 (2012) 957-964.**
9. *Influence of nanoscopic micellar confinements on spectroscopic probing and rotational dynamics of an antioxidative naphthalimide derivative*, S. Dhar, **D. K. Rana**, S.C. Bhattacharya, ***Colloids Surface A: Physicochemical Engineering Aspects* 402 (2012) 117-126.**
10. *Fluorescence turn-ON of a naphthalimide derivative by anions in cationic micellar network: An overture towards a simple chemosensing platform*, S. Dhar, **D. K. Rana**, S.C. Bhattacharya, ***Sensors and Actuators B: Chemical* 176 (2013) 467-474.**
11. *Spectroscopic probing of the microenvironment of 7-oxy(5-selenocyanato- pentyl)-2H-1-benzopyran-2-one in ionic and nonionic micelles*, **D. K. Rana**, S. Rakshit, S. Dhar, S.C. Bhattacharya, ***Journal of Photochemistry Photobiology A: Chemistry* 270 (2013) 67-74.**
12. *Photobehavior and docking simulations of drug within macromolecules: Binding of an antioxidative isoquinolindione to a serine protease and albumin proteins*, S. Dhar, **D. K. Rana**, A. Pal, S.C. Bhattacharya, ***Journal of Photochemistry Photobiology B: Biology* 129 (2013) 69-77.**



# PERSONAL PROFILE

13. *An intriguing pH-triggered FRET-based biosensor emission of a pyrazoline-doxorubicin couple and its application in living cells*, **D. K. Rana**, S. Dhar, S.C. Bhattacharya, *Physical Chemistry Chemical Physics* 16 (2014) 5933-5936.

## List of Books/Book Chapters

## Seminars/Conferences Proceeding Abstracts

1. **National conference on recent advances in photosciences** – organized by the Department of Chemistry and Indian Photobiology Society, Jadavpur University, Kolkata – 700032, W.B., India, August 09, **2008**.
2. **Life & Works of Sir J. C. Bose In the Perspective of Modern Science & Technology** – organized by Faculty Council of Science, Jadavpur University, Kolkata – 700032, W.B., India, March 20-21, **2009**.
3. **1<sup>st</sup> International Workshop on Nanomaterials (IWON): Engineering Photons and Phonon Transport** – organized by the Jadavpur University, Kolkata – 700032, W.B., India, December 14-15, **2012**.
4. **National Symposium on Recent Palestrae in Photosciences** – organized by the Department of Zoology, Banaras Hindu University, Varanasi, W.B., India, under the aegis of the Indian Photobiology Society, Jadavpur University, Kolkata, September 3-4, **2012**.
5. **State level one day seminar on Recent Trends in Chemical Science** – organized by the Department of Chemistry, Bankura Sammilani College, Bankura – 722102, W.B., India, July 15, **2016**.

## National/International Seminar/Conferences/Workshops Attended

1. Attended the – **National Symposium on Advances in Chemistry** – Under the auspices of centre for advanced studies (UGC) – organized by the Department of Chemistry, Jadavpur University, Kolkata – 700032, W.B., India, November 05, **2008**.
2. Attended the – **Trends in Surface Science and Related Areas** – organized by the Indian Society for Surface Science and Technology & Bose Institute, held at Bose Institute, Kolkata – 700009, W.B., India, November 06, **2009**.
3. Attended the – **National Conference on Trends in Surface Science and Related Areas (TSSRA-2010)** – organized by the Indian Society for Surface Science and

# PERSONAL PROFILE

Technology & Centre for Surface Science, Department of Chemistry, Jadavpur University, Kolkata – 700032, W.B., India, November 19, **2010**.

4. Attended the – UGC sponsored Two-Days National Seminar on ***The Srimadbhagbad-Gita and Modern Society*** – organized by the Department of Sanskrit, Saldiha College, Bankura – 722173, W.B., India, March 15-16, **2011**.
5. Attended the – ***Celebration of the 'International year of Chemistry2011'*** – organized by the Department of Chemistry, Jadavpur University, Kolkata – 700032, W.B., India, March 24-25, **2011**.
6. Attended the – ***Trends in Surface Science and Related Areas*** – organized by the Indian Society for Surface Science and Technology & Centre for Surface Science, held at the Department of Chemistry, Jadavpur University, Kolkata – 700032, W.B., India, November 08, **2011**.
7. Attended the – UGC sponsored National Seminar on ***Recent Trends in Chemical Science*** – organized by the Department of Chemistry, Bankura Christian College, Bankura – 722101, W.B., India, November 18-19, **2011**.
8. Attended the – ***National Seminar on Recent Advances in Chemistry*** – Under the centre for advanced studies Programme (UGC) – organized by the Department of Chemistry, Jadavpur University, Kolkata – 700032, W.B., India, February 10-11, **2012**.
9. Attended the – UGC sponsored Two-Days National Seminar on ***Oscillating Historicity of Jungle-Mahal: A query with regard to its legacy*** – organized by the Department of History, Saldiha College, Bankura – 722173, W.B., India, October 4-5, **2012**.
10. Attended the – ***National Conference on Sustainable Development through Innovative Research in Science and Technology*** – Under the auspices of centre for advanced studies (UGC) – organized by the Department of Chemistry, Jadavpur University, Kolkata – 700032, W.B., India, under DST PURSE Programme, September 28-29, **2012**.
11. Attended the – ***Physical Chemistry Research: Teaching and Industrial Perspectives*** – organized by the Department of Chemistry, Jadavpur University, Kolkata – 700032, W.B., India, September 28, **2013**.
12. Attended the – ***National conference on photosciences: Contemporary Challenges and Future Perspectives*** – organized by in collaboration with Indian Photobiology Society and Department of Chemistry, Jadavpur University, Kolkata – 700032, W.B., India, December 12-14, **2013**.

# PERSONAL PROFILE

13. Attended the – One-day Workshop-cum-Seminar on **Quality Enhancement and Preparation of Self-Study Report** – organized by IQAC, Bankura Christian College, Bankura – 722101, W.B., India, November 28, **2014**.
14. Attended the – National Seminar on **Human Rights: Challenges and Responsibilities** – organized by the Teachers' Council, Saldiha College, Bankura – 722173, W.B., India, October 8-9, **2015**.

## Research Projects

## International & National links for Teaching & Research

## Member of Professional Bodies

## Faculty Development Courses or Programmes Attended

Sl. No.	Course	Sponsoring Agency	Institutions	Period/Date
1	Orientation Programme (OP)	UGC	UGC Academic Staff College, Jadavpur University, India.	12 <sup>th</sup> January 2014 to 11 <sup>th</sup> February 2014
2.	Refresher Course in Advances in chemistry through teaching and research	UGC	UGC-ASC, Jadavpur University	02.01.2015 – 22.01.2015
3.	Short term Course on Environmental Science	UGC	UGC-HRDC, The University of Burdwan	24.05.2016- 30.05.2016

## Extracurricular Activities

## Associated with any other Organization



# PERSONAL PROFILE

1. Associate with Directorate of Distance Education, Vidyasagar University, Saldiha College Centre Since 2010 to till date for teaching in M.Sc Classes in Environmental Science.
2. Jadavpur University, West Bengal, India

## Other Academic Activities

1. Acting as the Answer Scripts Evaluator (Chemistry) at U.G. level under the University of Burdwan, India.
2. Acting as the External Examiner/Internal Examiner to conduct the Practical Examinations (Chemistry) at U.G. level under the University of Burdwan, India.
3. Acted as member of different Sub-Committees belong in our college.
4. Acted as member of different Committees of Seminars/Conferences/Symposia etc. at college and university level.

