

1. Name : **Dr. KALLOL KUMAR GHOSH**
2. Date of Birth : 10-10-1960
3. Designation : **Professor & Head** (Chemistry)
4. Address : School of Studies in Chemistry,
Pt. Ravishankar Shukla University, Raipur C.G. 492010.
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5. **Qualification:**

- B.Sc. in 1979, Pt. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR
64.6% 6th Position in University.
- M.Sc. in 1981, Pt. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR
71.2% 3rd Position in University.
Specialization: **(Physical Chemistry)**.
- Ph.D. in 1986, Pt. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR
Specialization: **Physical Chemistry**.

6. **Experience:**

- Teaching in M.Sc. Level **30** years
- Ph. D. Obtained : **21**
- Student Working: **06**

Research Interests:

- * Chemical Kinetics
- * Homogeneous Catalysis
- * Mechanistic Organic Chemistry
- * Surface Chemistry

7. **Examination Experience:**

Acted as Examiners for MSc/ M. Phil / Ph. D students :

Pt. Ravishanker Shukla University, Guru Ghasidas University, Bilaspur, Rani Durgavati University, Jabalpur, Jiwaji University, Gwalior, Barkatulla University, Bhopal, Nagpur University, Nagpur, Amravati University, Rajasthan University, Jaipur, Jadavpur University, Kolkata, JNV University,

Jodhpur, Sambalpur University, Sambalpur, Utkal University, Bhubaneswar, Annamalai University, Annamalai, Bhavnagar University. Bhavnagar, Kalyani University, Kalyani etc.

8. Reviewer

- **American Chemical Society Journals**
- **Elsevier Journals**
- **Academic Press**
- **CSIR Journals**
- **Indian Chemical Society Journal**

9. Foreign visit:

- 8th International Conference on Homogeneous Catalysis, University of Amsterdam. **The Netherlands**, August 1992.
- **INSA - JSPS Visiting Fellow**: Seikei University, Tokyo. **Japan**. (June 2000 to September 2000)
- 14th Surfactant in Solution Symposium: University of Barcelona. **Spain**, (June 2002)
- Delivered a lecture in ITODYS, University of Paris-7, Paris, **France** (June 2002)
- Visited University of Santiago-de-Compostella, **Spain**, (June 2002).
- Attended JASS 03 Winter School on NMR – Osaka University, **Japan** (Jan.2004)
- **JAMES CHAIR VISITING FELLOW**: St. Francis Xavier University, Antigonish, **CANADA** (1st June 2005 to 1st Aug. 2005).
- Attended 12th. Asian Chemical Congress, Kualalumpur, **Malaysia**, Aug. 2007
- Visited and delivered lecture in National University of Singapore, **Singapore**, Aug. 2007.(Nanoscience and Nanotechnology Division)
- Delivered an Invited a talk in 238 Th. American Chemical Society Meeting, Washington DC, **USA** from August 16-20, 2009.

- Delivered and Invited talk in 8th Inter. Chemical & Biological Medical Treatment Symposium, 2-7 May 2010, Spiez Laboratory, **Switzerland**.
- Delivered and Invited talk in CBMTS Industry VII, World Congress on CBRN Threat & Terrorism, 10-15 April 2011, Cavtat-Dubrovnik, **Croatia**

10. Research Projects: (Sanctioned/Ongoing)

- I. Kinetic Study of the Acid Promoted Hydrolysis of Hydroxamic Acids, UGC New Delhi, 1991-1993.
- II. Mechanistic Studies of the Acidic Hydrolysis of Some C and N Substituted Hydroxamic Acids, DST. New Delhi, 1992-1995.
- III. Kinetic Studies of Micellar Hydrolysis of Hydroxamic Acids, 1994-97. MPCST. Bhopal. INDIA
- IV. Reactivity & Mechanism of Alkaline Hydrolysis of Hydroxamic Acids. UGC, New Delhi (1994-1997).
- V. Acid-base Equilibria and Metal Complexation of Hydroxamic Acids Application to DNA Cleavage (1997-2001), DST. New Delhi.
- VI. Characterization and Properties of Mixed-Micelles and Polymer-Micelles as Reaction Media. UGC Unassigned Grant, 2001-2003.
- VII. Interfacial Organic Reactivity of Hydroxamic Acids in Micro organized Media. C.S.I.R. New Delhi 2002-2005.
- VIII. Detoxification of Some Simulants of Chemical Warfare Agents and Pesticides using Hydroxamic Acids, DRDO, New Delhi 2004-2006.
- IX. Size Controlled Silver and Gold Nanoparticles Synthesis in Organized Assemblies: UGC Minor Project, New Delhi, 2005-2006.
- X. Study of Enzymatic Hydrolysis of Carboxylate and Phosphate Esters in Micelles : CSIR Major project , New Delhi 2007-2011.
- XI. Studies on Physicochemical and Thermodynamic Properties of Some Gemini Surfactants: UGC Minor Project, New Delhi, 2009-2011.
- XII. Synthesis and Development of Novel Oxime Reactivators of Cholinesterases Inhibited by Organophosphorus Toxicants: DRDO New Delhi. 2012-2015
- XIII. Solubilization of polycyclic aromatic hydrocarbon using novel surfactants mixture: CSIR, New Delhi. 2012-2015

11. Special Training / Short Term Courses Attended:

- UGC Refresher Course on Physical Organic Chemistry for post-graduate teachers, IISc. Bangalore, 1991.
- Laser Workshop for Physicists and Chemists, Sagar University, 1988.

- 9th Refresher Course on Quantum Chemistry and Molecular Spectroscopy, Punjab University, Chandigarh, 1994.
- Refresher Course in Low Cost Chemical Instrumentation, Raipur. March 1995, in collaboration with CPDHE, Delhi University.
- UGC Refresher Course: Application Oriented Chemistry & Environmental Chemistry, Calcutta. March 1998.
- Orientation Programme for Academic Counsellors, IGNOU, Ahmedabad, 4-5 Dec. 1998.

12. Number of Research Papers Published: 137

National Journal : 57 International Journal : 80

13. Other Administrative Activities :

- (i) Academic Counsellor: Indira Gandhi National Open University.
Pt. Ravishankar Shukla University, Raipur
- (ii) **Life Member:** Indian Science Congress Association,
Indian Society for Surface Science and Technology,
Indian Association for Cultivation of Science.
Chemical Research Society of India
Indian Chemical Society
- (III) Organized a National Symposium on Fundamental and Analytical Aspects of Self-Organising Systems. Pt. Ravishankar Shukla University, Raipur (Aug. 4-6. 1997): Joint Organizing Secretary, 3rd C.G Young Scientist Congress (Feb 28- March 2, 2005) Organizing Secretary :47th. Annual Convention of Chemists and and International Conference on Recent Advances in Chemical Sciences, Dec. 23-27, 2010
- (IV) Elected Scientist-in- Charge, Physical Chemistry Section, Annual Convention of Chemists (2011-2013), Indian Chemical Society
- (V) Awarded Bronze Medal for Research by CRSI, Bangalore, 2012
- (VI) Coordinator: P G Valuation 2007-2008: 2008-09 Examination: Astd. Coordinator: PG Valuation and Central valuation 2005- 2008, Supply. Exam, Astd Coordinator; UGC and CSIR NET examinations (2006-2009):

- (VII) Member of Different Committees (Pt. RSU) : IX, X and XI Five years UGC plan, Youth Festivals, Affiliation Committees, Convocations, Selection Committees, Student Union etc. NAAC, IQAC and INSPIRE, Board of Studies
- (VIII) **Council Member** (2012-2016); Indian Society for Surface Science and Technology, Member Editorial Board
- (IX) Organized 8th Chhattisgarh Young Scientist Congress, April 9-10, 2010, Pt. RS University, Raipur (**Organizing Secretary**).
- (X) Organized 47th Annual Convention of Chemists and International Conferences on Recent Advances in Chemical Sciences. Dec. 23-27, 2010, SOS in Chemistry, Pt. RS University, Raipur (**Organizing Secretary**).
- (XI) **Editor**: Pt. Ravishankar Shukla University Journal (Science)
- (XII) **Coordinator** DST INSPIRE Program, Pt. RS University, Raipur
- (XIII) Organized Golden Jubilee National Conference on Recent Trends in Chemical Sciences, Jan 23-25, 2014 (**Organizing Secretary**).
- (XIV) Organized 12th Chhattisgarh Young Scientist Congress, Feb 17-19, 2014 (**Organizing Secretary**).
- (XV) **Council Member** : Indian Chemical Society (2013-2016)
- (XVI) **Joint Secretary**; Chemical Research Society of India, Bangalore (2013-2016).

14. Some Selected Publications (2011- 2014)

S.No.	Title	Authors Name	Journals
1	Interactions between Xylene-Linked Carbamoyl Bis-Pyridinium Mono Oximes and Organophosphates Inhibited-AChE: A Kinetic Study	B. Gupta, R. Sharma, J. R. Acharya, M. P. Kaushik, K. K. Ghosh.	<i>Toxicology</i> , 2014 , 316, 1-8
2	In-Vitro Reactivation Kinetics of Paraoxon and DFP Inhibited Electric	B. Gupta, R. Sharma, N. Singh,	<i>Archives of Toxicology</i> , 2014 ,

	eel AChE Using Mono- and Bis-Pyridinium Oximes	K. Kuca, J. R. Acharya, Kallol K. Ghosh.	80, 381-390
3	Reactivity of N-benzoyl-N-phenylhydroxylamine in Cationic Micellar Media for the Cleavage of Carboxylate and Phosphate Esters	B. Kumar, D. Tikariha, Kallol K. Ghosh	<i>J. Mol. Liquids</i> , 2014 , 193, 243-248
4	Effect of Polymers and Temperature on Critical Micelle Concentration of Some Gemini and Monomeric Surfactants	B. Kumar, D. Tikariha K.K. Ghosh, N. Barbero, P. Quagliotto	<i>J. Chem. Thermodynamics</i> , 2013 , 62, 178-185
5	Physicochemical Properties and Supernucleophilicity of Oxime Functionized Surfactants: Hydrolytic Catalysts Towards Dephosphorylation of Di- and Tri-phosphate Esters,	N. Singh, Y. Karpichev, B. Gupta, M. Satnami, J. Marek, K. Kuca, K.K. Ghosh.	<i>J. Phy. Chem. B</i> , 2013 , 117, 3806-3817
6	Activity, Stability and Kinetic Parameters for α -chymotrypsin catalyzed reactions in AOT/isooctane reverse micelles with non-ionic and zwitterionic surfactants.	S. K. Verma and Kallol K. Ghosh	<i>J. Chem. Sci.</i> , 2013 , 125, 875-882
7	Kinetic Study on Effect of Novel Cationic Dimeric Surfactants for the Cleavage of Carboxylate Ester	B. Kumar, D. Tikariha K. K. Ghosh, N. Barbero, P. Quagliotto	<i>J. Phys. Org. Chem.</i> , 2013 , 26, 626-631
8	Reactivity studies of carbon, phosphorus and sulfur-based acyl studies with tertiary oximes in gemini surfactants.	B. Gupta, R. Sharma, N. Singh, Y. Karpichev, M. L. Satnami, K. K. Ghosh	<i>J. Phys. Org. Chem.</i> , 2013 , 26, 632-642

9	Study of Solubility Efficiency of Polycyclic Aromatic Hydrocarbons in Single Surfactant System	Jyotsna Lakra, Deepti Tikariha, Toshikee Yadav, M. L. Satnami, Kallol K. Ghosh,	<i>J. Surf. Det.</i> 2013 , 16, 957-966
10	Interaction Between Cationic Gemini and Monomeric Surfactants: Micellar and Surface Properties	D. Tikariha, B. Kumar, S. Ghosh, A. K. Tiwari, S. K. Saha, N. Barbero, P. Quagliotto, K. K. Ghosh	<i>J. of Nanofluids</i> , 2013 , 2,1-9
11	Evaluation of biological efficiency of oxime based reactivators against organophosphate inhibited AChE: An in vitro study	B. Gupta, Kallol K. Ghosh	<i>Toxicology Letters</i> , 221, 2013 , S147–S148
12	Kinetic studies of cholinesterase reactivators with organophosphate inhibited AChE	R. Sharma, K. K. Ghosh	<i>Toxicology Letters</i> , 221, 2013 , S152–S153
13	Effect of Some Pyridinium Based Compounds on Hydrolysis of Carboxylate Ester	N. Singh, K.K. Ghosh, J. Marek and K. Kuca	<i>Indian J. Chem. Sec.</i> 2012 , 51B, 611-616.
14	Effect of Short Chain Length Alcohols on Micellization Behavior of Cationic Gemini and Monomeric Surfactants	B. Kumar, D. Tikariha K.K. Ghosh and P. Quagliotto	<i>J. Mol. Liquids</i> 2012 , 172, 81–87
15	Comparative Studies on Reaction of Bis(p-Nitrophenyl) Phosphate and α -Nucleophiles In Cationic Micellar Media	B. Kumar, M.L. Satnami, K.K. Ghosh and K. Kuca	<i>J. Physical Org. Chem.</i> 2012 , 25, 864-871.
16	Physiochemical Characterization of	D. Tikariha, N.	<i>Colloid Surf. A:</i>

	Cationic Gemini Surfactants and Their Effect on Reaction Kinetics in Ethylene Glycol-Water Medium	Singh, M. L. Satnami, K. K. Ghosh, P. Quagliotto and N. Barbero	<i>Physicochem. Eng. Aspects</i> 2012 , 411, 1-11.
17	Hydrolysis of Carboxylate and Phosphate Ester Using Monopyridinium Oximes in Cationic Micellar Media	N. Singh, K. K. Ghosh, J Marek and K Kuca	<i>Int. J. Chem. Kinet.</i> 2011 , 43, 523-597
18	Effects of Electrolytes on Micellar and Surface Properties of Alkyldiethylethanolammonium Bromide Surfactants	B. Kumar, D. Tikariha and K. K. Ghosh	<i>J. Dispersion Sci. Technol.</i> 2012 , 33, 265-271
19	Micellization Properties of Mixed Cationic Gemini and Cationic Monomeric Surfactants in Aqueous-Ethylene Glycol Mixture	D. Tikariha, K. K. Ghosh, P. Quagliotto and S. Ghosh	<i>Colloids Surf. A: Physicochem. Eng. Aspects</i> , 2011 , 381, 61-69
20	Micellar Characteristics and Surface Properties of Some Sufobetaine Surfactants	N. Singh, K. K. Ghosh	<i>Tenside Surfactants Detergents</i> , 2011 , 48 160-164.
21	Physicochemical Properties of Cetyltributylphosphonium Bromide in the Presence of Additives	D. Tikariha and K. K. Ghosh	<i>Tenside Surfactants Detergents</i> 2011 , 48, 308-311
22	Micellization Behavior of Cationic Dimeric Surfactants in Aqueous-Ethylene Glycol Solution	D. Tikariha, B. Kumar, N. Singh, Kallol K. Ghosh, P. Quagliotto	<i>J. Surf. Deterg.</i> 2011 14, 555-562
23	Micellar and Surface Properties of Some Monomeric and Gemini Surfactants.	S. K. Verma, K. K. Ghosh	<i>J. Surf. Deterg.</i> 2011 , 14, 347-352
24	Effect of Cationic Surfactants on the Enzymatic Activity of α -Chymotrypsin	S. K. Verma and K. K Ghosh	<i>Kinet. Catal.</i> 2011 , 52, 6-10

25	Comparative Study of the Cationic Surfactants and their Influence on the Alkaline Hydrolysis of Acetylsalicylic Acid	B. Kumar, K. K. Ghosh, and P. R. Dafonte	<i>Int. J. Chem. Kinet.</i> 2011 , 43, 1-8
26	Effects of Anionic Surfactants on the Kinetics of Acidic Hydrolysis of Acetohydroxamic Acid	B. Kumar and K. K. Ghosh,	<i>J. Indian Chem. Soc.</i> 2011 , 88, 193-197.