

Faculty Details for IGNOU Web site

Photograph	Name*		PROF KAMALIKA BANERJEE
	Designation*		PROFESSOR
	Contact Address*		SCHOOL OF SCIENCES, IGNOU
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Web page			
EDUCATIONAL QUALIFICATIONS			
Degree	Year	Institute/University	
Ph.D.	2000	Karnatak University	
M.Sc.	1993	Jadavpur University	
B.Sc.	1991	Jadavpur University	
B.Ed	2001	University of Calcutta	
PGDDE	2010	IGNOU	
CAREER PROFILE			
PROFESSOR IN CHEMISTRY AT SCHOOL OF SCIENCES, IGNOU.			
AREA OF INTEREST/SPECIALIZATION*			
<ul style="list-style-type: none"> • Inorganic Chemistry • Theoretical Concepts and Modelling • Computational Chemistry • Chemistry Education and ICT in Chemistry 			
ROLE AND RESPONSIBILITIES AT IGNOU			
Associated with the design and development of distance teaching-learning materials and involved in developing audiovisual materials based on ICT. Also, guiding M.Phil/Ph.D. students. Coordinating a course in the program PG Diploma in Environment & Sustainable Development.			
RESEARCH GUIDANCE			
Supervision of	Year of completion	Students Name	Thesis title

Doctoral Students	2015	Ramil Kumar Bhardwaj	Synthesis and characterization of CdS nanoparticles and application in organic solar cells
	2016	Sangeeta Singla	Isolation, Characterisation of transition metal complexes.

NUMBER OF PUBLICATIONS

A. Books/Monographs (Authored/Edited)/ Book Chapter/ Lecture Notes :

B. Papers in Refereed/Peer reviewed Journals :

1. T. M. Aminabhavi & K. Banerjee, "Density, Viscosity, Refractive Index and Speed of Sound In Binary Mixtures of 2-Chloroethanol with Alkanols (C₁ – C₆) at 298.15, 303.15 and 308.15K". *J. Chem. Eng. Data*, 43, (1998) 509 – 513.
2. T. M. Aminabhavi & K. Banerjee, "Density, Viscosity, Refractive Index and Speed of Sound In Binary Mixtures of Acrylonitrile with Methyl Acetate, Ethyl Acetate, n-Propyl Acetate, n-Butyl Acetate and 3-Methylbutyle-2-acetate in the temperature interval (298.15 - 308.15) K". *J. Chem. Eng. Data*, 43, (1998) 514 – 518.
3. T. M. Aminabhavi & K. Banerjee, "Density, Viscosity, Refractive Index and Speed of Sound In Binary Mixtures of Methyl Acetate + Ethylene Glycol, or + Polyethylene Glycol in the temperature interval (298.15 - 308.15) K". *J. Chem. Eng. Data*, 43, (1998) 852 – 855.
4. T. M. Aminabhavi & K. Banerjee, "Density, Viscosity, Refractive Index and Speed of Sound In Binary Mixtures of Dimethyl Carbonate with Methanol, Chloroform, Carbon Tetrachloride, Cyclohexane and 1,2-Dichloromethane in the temperature interval (298.15 - 308.15) K". *J. Chem. Eng. Data*, 43, (1998)
5. T. M. Aminabhavi & K. Banerjee, "Density, Viscosity, Refractive Index and Speed of Sound In Binary Mixtures of 1-Chloronaphthalene with Benzene, Methyl benzene, 1,4-Dimethyl benzene, 1,3,5-Trimethyl benzene and Methoxybenzene in the temperature interval (298.15 - 308.15) K". *J. Chem. Eng. Data*, 43, (1999)
6. T. M. Aminabhavi & K. Banerjee, "Thermodynamic Interactions In Binary Mixtures of 1-Chloronaphthalene and n-Alkanes". *Canadian J. Chemistry*.
7. T. M. Aminabhavi, V. B. Patil, K. Banerjee & R. H. Balundgi, "Thermodynamic Interactions In Binary Mixtures of Styrene with n-Alkanes at 298.15K". *Bull. Chem. Soc. Japan*, (1999), 72(6), 1187 - 1196.
8. T. M. Aminabhavi, V. B. Patil & K. Banerjee, "Thermodynamic Interactions In Binary Mixtures of Ethenylbenzene (styrene) with Methanol, Ethanol, Butan-1-ol, Pentan-1-ol and Hexan-1-ol in the temperature range (298.15 – 308.15) K". *J. Chem. Eng. Data*, 44, (1999), 1291
9. T. M. Aminabhavi, K. Banerjee & R. H. Balundgi, "Thermodynamic Interactions In Binary Mixtures of 1-Chloronaphthalene and Monocyclic Aromatics". *Indian J. Chem.*, (1999), Vol 38A, 768 - 777. - 97.
10. Samik Nag, Kamalika Banerjee and Dipankar Datta, "Estimation of the van der Waals radii of the d-block elements using the concept of bond valence". *New J. Chem*, 2007, 31, 832-834.
11. Kamalika Banerjee, Senjuti De, Dipankar Datta, " X-H ...Y (X, Y =N,O) Hydrogen Bonds : A New Bond Valence Sum Analysis" . *J. Chem. Crystallogr*, 2007, 37, 675-67.
12. R.K. Bhardwaj , H.S Kushwaha , J. Gaur , T. Upreti , V. Bharti , V. Gupta , N. Chaudhary , G.D. Sharma , K. Banerjee , S. Chand , "A green approach for direct growth of CdS nanoparticles network in poly(3-hexylthiophene-2,5-diyl) polymer film for hybrid photovoltaic", *Materials Letters* 89(2012) 195-197.
13. Ramil K Bhardwaj, Vishal Bharti, Abhishek Sharma, Dibyajyoti Mohanty, Vikas Agrawal, Nakul Vats, Gauri D Sharma, Neeraj Chaudhari, Shilpa Jain, Jitender Gaur, Kamalika Banerjee and Suresh Chand, "Green approach for in-situ growth of CdS nanorods in low band gap polymer network for hybrid solar cell applications", *Advances in Nanoparticles* 3(2014) 106-113.
14. Pramod Kumar Singh, Kamalika Banerjee and Sangeeta Singla, "Synthesis and Spectral Studies on Transition Metal Complexes of Some Aroyl Hydrazone Ligands" *International Journal of Basic Sciences and Applied Computing (IJBASAC)* ISSN: 2394-367X (online), 1(2014)2, 5-7.

15. Kamalika Banerjee, Pramod Kumar Singh, and Sangeeta Singla, "Spectral studies on Transition Metal Complexes with novel tridentate aroylhydrazones", *International Journal of Scientific and Research Publications* ISSN: 2250-3153 (online), 5(2) (2015) 5-7.
16. Pramod Kumar Singh, Kamalika Banerjee and Sangeeta Singla, "Synthesis and spectral characterization of Cu(II) complexes of Tridentate ONO donor hydrazones", *International Journal of Engineering Technology, Management and Applied Sciences*, 2349-4476, 3(7) (2015) 110-116
17. Pramod Kumar Singh, Kamalika Banerjee and Sangeeta Singla, "Synthesis, Spectroscopic characterization and in vitro bacterial evaluation of Ni(II) complexes of new tridentate aroylhydrazone ligands". *International Journal of Advanced Engineering Research and Science (IJAERS)*, ISSN-2349-6495(P) /2456-1908(O), 3(12) Dec 2016, 119-124.
18. Pramod Kumar Singh, Kamalika Banerjee and Sangeeta Singla "Synthesis and Spectroscopic Properties of Co(II) Complexes derived from New Aroylhydrazone Ligands", *International Journal of Science and Research (IJSR)* ISSN (Online): 2319-7064, Vol. 6 Issue 2, 1911-1915.
19. Pramod Kumar Singh, Kamalika Banerjee and Sangeeta Singla, "Synthesis and characterization of some Chromium(III) complexes of dibasic tridentate hydrazone schiff base ligands", *Int. Journal of Engineering Research and Application* , Vol. 7, Issue 3, (Part -1), 41-45.
20. P. Rana, S. Sharma, R. Sharma, K. Banerjee, Apple Pectin supported Superparamagnetic (γ -Fe₂O₃) maghemite nanoparticles with antimicrobial potency, *Materials Science for Energy Technologies* (2018), doi: <https://doi.org/10.1016/j.mset.2018.09.001>

C. Papers in Conference Proceedings:

1. Kamalika Banerjee, "Innovative methods in teaching chemical bonding' at the Northeast Regional Meeting of the American Chemical Society, October 5-7, 2006 at Binghamton University, USA by availing travel grant from UGC.
2. Kamalika Banerjee, "Evaluation of digital resources which are potential resources for ODL in Chemistry : A case study on thecatalyst.org" , published in the seminar proceedings of iCODE, Hyderabad (2007)
3. Kamalika Banerjee, "Programme Evaluation of B.Sc Program in IGNOU", at the Workshop on "Programme Evaluation in Open and Distance Learning", organized by STRIDE, IGNOU on 11th July, 2007.
4. Kamalika Banerjee "ICT tools for teaching VSEPR", at the "Workshop on Skill Development using ICT Tools for Innovative Learning Solutions", held on 16-17, October 2008 at NCIDE, IGNOU.
5. Kamalika Banerjee, "Quality OER for elementary science teaching : a necessary tool for the SSA functionaries" presented the paper and published in the seminar proceedings of National Seminar on "Technology-mediated Learning for Professional Development of Personnel at Elementary Education Level" by DEP-SSA, IGNOU, New Delhi, 13-15th March, 2009.
6. Kamalika Banerjee, "Designing of teaching VSEPR (of chemistry – PG level) to be developed into a novel OAI-OER initiative", presented the paper and published in the seminar proceedings of ICDL 2010, New Delhi, 23 – 26 February 2010.
7. Kamalika Banerjee, "Utilising the Virtual Laboratory Resources for incorporating ICT in the Chemistry Teacher Education", presented the paper and published in the seminar proceedings of PCF6 (24th -28th Nov 2010), at Kochi, India.
8. Participated in the National Forum:ICT in Education Policies for Sustained Education organized by UNESCO-INTEL, New Delhi and deliberated on Essentials of ICT in Education Policy on 6th December 2010.
9. Participated in the Forum on ICT Based Professional Development for Education Stakeholders organized by UNESCO-INTEL, New Delhi and developed an action plan for State specific ICT in Education Policies on 7th December 2010.
10. Sumita, Vandana, Atul Kumar and Kamalika Banerjee, "Corrosion Behavior of Mild Steel in Various Acid Solutions", *International Conference on Recent Advances in Chemical Sciences*, February 24-26, 2013, organized by Department of Chemistry, Arya P.G. College, Panipat.
11. Kamalika Banerjee, "Experience in designing the course for PG Chemistry\ students involving extensive technology" 5th IEEE International Conference on Technology for Education at IIT Kharagpur from 18th to 20th Dec. 2013.

12. Kamalika Banerjee, "How to incorporate Open Educational Resources (OER) into the infrastructure and pedagogy for promoting ubiquitous learning." ICOFE (International Conference on Open and Flexible Education) 2015, Open University of Hong Kong, Hong Kong.
13. Kamalika Banerjee, "Looking Back at a Science Teachers' Training Program at IGNOU" "New Perspectives in Science Education", a Pixel International conference, March 2016. Florence, Italy.
14. Kamalika Banerjee, "Capacity building through blended approach – a case for the science teachers taken up by RCSE at IGNOU", International Seminar On Skill Development through ODeL: *Innovations, Entrepreneurship, Employment for Inclusive and Sustainable Livelihoods*, 9th March, 2017, STRIDE, IGNOU, New Delhi.
15. Kamalika Banerjee, "Quality assurance Model through evaluation of potential OERs, a case study for the Inorganic chemistry courses for UGC-CBCS.", International Seminar On Skill Development through ODeL: *Innovations, Entrepreneurship, Employment for Inclusive and Sustainable Livelihoods*, 10th March, 2017, STRIDE, IGNOU, New Delhi.
16. Kamalika Banerjee, "An alternative to the UGC-Orientation and Refresher courses for the Human Resource Development of the science teachers in Colleges/Universities." National Symposium on Quality Assurance in Higher Education, 30th March, 2017, UGC-Human Resource Development Centre, Jadavpur University, Kolkata.
17. Kamalika Banerjee, "A review on Open Educational Resources (OER) in India and the world", National Seminar on ICT support for Inclusive Digital Learning, 21st – 22nd April, 2017, JIM, Sector-62, Noida, UP.
18. Kamalika Banerjee, "Access across barriers to Open, Distance and Online learning through OER policies", 31st Asian Association of Open Universities (AAOU) Conference, 27th -29th September, 2017, Yogyakarta, Indonesia.
19. Kamalika Banerjee and Purnendu K Banerjee, "An attempt to analyse the contribution of women in science and technology as innovators in India", National Conference on *Role and Challenges of Women's Participation in Environment Sustainability and Innovation Policy*, 22-23 March 2018, CSSP, JNU, New Delhi.
20. Kamalika Banerjee, "Searching for Indian Heritage in Chemistry", UGC sponsored One day National Conference on Indian Heritage in Chemistry (IHC 2018), 27th March, 2018, Hislop College, Nagpur.

D. Other Publications (Poster presentations)

1. R. Bharadwaj, N. Chaudhary, N. Gupta, G. D. Sharma, V. Gupta, K. Banerjee and S. Chand, "Synthesis and characterization of ZnS nanoparticles for organic photovoltaic applications" at 3rd Asian Conference on Coordination Chemistry, New Delhi, India, 17th – 20th October, 2011.
2. N. Chaudhary, R. K. Bhardwaj, N. Gupta, G. D. Sharma, V. Gupta, K. Banerjee and S. Chand, "Fabrication of Hybrid Solar Cells using ZnS Nanoparticles" at the National Conference on "Chemistry: Education and Research Frontiers" from 13th-14th October, 2011 at Indira Gandhi National Open University, New Delhi.
3. R. Bhardwaj, J. Kumar Singh, P. Kumar, G. D. Sharma, K. Banerjee and Suresh Chand, "Growth of CdS nanoparticles in-situ with P3HT for photovoltaic applications", National Conference on 'Solar Energy Materials and Applications' held at NPL, New Delhi, September 1-2, 2011.
4. Suraj Gupta(presenter), Pintu Gautam and Kamalika Banerjee, "Using tea bags with bioadsorbents for cost effective method for removing heavy metals from waste water", NCRAES 2018, 22nd March, SOES, JNU, New Delhi.
5. Kamalika Banerjee and Suraj Gupta, "Use of L-3 class Bioadsorbents for removing heavy metals from waste water", International Conference on Environmental and Ecological Sustainability: Engaging the Stakeholders, 4th – 5th October, 2018, SOITS, IGNOU, New Delhi.

CONFERENCES/SEMINARS/WORKSHOPS ORGANISED/PARTICIPATED

A. Conferences/Seminars/Workshops organised

B. Conferences/Seminars/Workshops participated/Presented

1. Participated in the Seventh Pan-Commonwealth Forum on Open Learning (PCF7) (2–6 December 2013) in Abuja, Nigeria on the invitation of Commonwealth of Learning (COL), the Federal Ministry of Education, Nigeria and the National Open University of Nigeria (NOUN).
2. Dr. Kamalika Banerjee successfully fulfilled the necessary requirements of MOOC on MOOC, a Massive Open Online Course for Development and was awarded Certificate of Participation with Distinction by (jointly) Center for Development of Technical Education, IIT Kanpur, COL Knowledge Incubation for Technical Education Quality

Improvement Programme on November 2014.

3. Dr. Kamalika Banerjee attended the Indian Roadshow Workshop organized by the Royal Society of Chemistry on 4th November 2014, at Indian Institute of Technology, Delhi.
4. Prof. Kamalika Banerjee received the COL (Commonwealth Of Learning) fellowship to participate in 31st Asian Association of Open Universities (AAOU) Conference which was held during 27th -29th September, 2017 at Yogyakarta, Indonesia.
5. Participated in One day Seminar on “Innovative Ways of Offering Lab-based, Skill development and Technical Programmes in the context of the UGC Regulations on ODL 2017” Organised by NCIDE, IGNOU on 12th December, 2017.

RESEARCH PROJECTS

Sponsoring Agency	Period	Amount of grant (in Lakhs)	Title of Project	Co-investigator(s) (if any)
Distance Education Council	2008-2010	One	“Evaluation of digital resources which are potential resources for ODL in chemistry”	nil

PROFESSIONAL ASSOCIATIONS

1. Indian Association of Cultivation of Science, Jadavpur, Kolkata
2. Indian Association of Chemistry Teachers