

Professor Kamalika Sen



1. Full name : **Dr. KAMALIKA SEN (ROY)**
2. Nationality : **INDIAN**
3. Date of Birth : 1st May-1977
4. Address for Correspondence : 94, Akhil Mistry Lane, Kolkata 700 009, INDIA

Email: kschem@caluniv.ac.in; kamalchem.roy@gmail.com

5. Area of research interest : Analytical Chemistry

6. Experiences :

- 04.01.2025 – Continuing** **Professor in Chemistry**
Department of Chemistry
University of Calcutta
92, APC Road
Kolkata 700009
- 04.01.2022 – 03.01.2025** **Associate Professor in Chemistry**
Department of Chemistry
University of Calcutta
92, APC Road
Kolkata 700009
- 04.01.2010 – 03.01.2022** **Assistant Professor in Chemistry**
Department of Chemistry
University of Calcutta
92, APC Road
Kolkata 700009
- 18.09.2008 – 30.09.2009** **Post Doctoral Fellow**
Radiation and Isotopes for Health Section
Radiation, Radionuclides & Reactors Department
Faculty of Applied Sciences
Delft University of Technology
Mekelweg 15, 2629 JB Delft, The Netherlands
- 18.03.2004 – 10.09.2008** **Research Associate**
Chemical Sciences Division,
Saha Institute of Nuclear Physics,
1/AF Bidhannagar, Kolkata 700 064, INDIA
- 17/02/2000 – 24/11/2003** **Research Fellow**
Nuclear and Analytical Chemistry Laboratory
The University of Burdwan
Burdwan- 713 104, INDIA.

7. Detail of educational qualification beginning with the latest degree:

Name of Examination	Subjects taken	Name of the University	Year of passing
Ph. D	Radioanalytical Chemistry	The University of Burdwan	November, 2003
M. Sc	Chemistry (Nuclear & Analytical Chemistry Spl)	The University of Burdwan	1999
B. Sc.	Chemistry (Hons), Physics (Pass), Mathematics (Pass)	The University of Burdwan	1997

8. Honor/Awards/Recognitions

- 1. Women Researcher Award** in “International Scientist Awards on Engineering, Science and Medicine” 2017 by INSO.
- 2. Sentinel of Science Award Recipient**, 2016. The Top 10 Per Cent of Reviewers by Publons.
- 3. Best paper presentation Award** in Nuclear and Radioanalytical Chemistry Symposium, Mumbai, India (2003).
- 4. Oral presentation in** International symposium on Environmental Radiochemical Analysis, 18th-20th September, 2002, Royal Society of Chemistry, UK.
- Qualified joint CSIR-UGC Eligibility test for Lecturership – National Eligibility Test (NET) held on June, 2000.

9. Invited Lectures/Session Chairs

- 1. Invited Talk** on “Sustainable Management for Better Future: Recent Advancement and Prospects” Department of Botany and Chemistry in collaboration with Internal Quality Assurance Cell (IQAC) of East Calcutta Girls' College, Lake Town, Kolkata on 25th and 26th November, 2024.
- 2. Invited Talk** on “Ultrasensitive Graphene Based Nanocomposites”, National Webinar on 20th September 2024 at Gandhi Institute of Engineering and Technology, Rayagada, Odisha.
- 3. Invited Talk** on “Graphene Based Nanocomposites for Ultra-trace Sensing” 18th International Conference on Thermal Analysis and Calorimetry, 2024 (ICTAC 2024), at Indian Institute of Technology Madras from September 2-7, 2024.
- 4. Chaired a session** in the 18th International Conference on Thermal Analysis and Calorimetry, 2024 (ICTAC 2024), at Indian Institute of Technology Madras from September 2-7, 2024.
- 5. Invited Talk** on “Generation of Ultrasensitive Graphene Based Nanocomposites”, International Conference on Nano Structured Materials and Nanocomposites (ICN 2024) May 10-12, 2024 at Mahatma Gandhi University, Kottayam, Kerala, India.
- 6. Invited Talk** on ‘The Journey to Green Chemistry’, March 08, 2024, Birla Industrial and Technological Museum, Kolkata

7. **Invited Talk** on “Green Chemistry” for remedial classes at B. N. Mahavidyalaya, Itachuna, Hooghly, West Bengal on 27.03.2023 and 28.03.2023.
8. **Invited Talk** on “The Magic of Two Aqueous Layers in Contact and Beyond” in Refresher Course in Chemistry at the Department of Chemistry, University of Calcutta, from 6th-19th December, 2022.
9. **Invited talk** on “Chromatography and its Various Aspects: Part I” Webinar Internship Course on Emerging Trends in Nanomaterials for Different Device Architectures (ETNDDA-2021) 15th September to 28th November, 2021 Organized by Indian Chemical Society, Kolkata.
10. **Invited talk** on “Chromatography and its Various Aspects: Part II” Webinar Internship Course on Emerging Trends in Nanomaterials for Different Device Architectures (ETNDDA-2021) 15th September to 28th November, 2021 Organized by Indian Chemical Society, Kolkata.
11. **Invited talk** on “Potential Porous Materials” Refresher’s Course organized by UGC-Human Resource Development Centre, University of Calcutta. 19th of March 2021.
12. **Invited talk** on “The magic of two aqueous layers in contact and beyond”, 160th Birth Anniversary Celebration of Acharya P. C. Ray. International Seminar on Recent Advances in Chemistry and Material Science (RACMS-2021). Young Scientist Conclave and Student Meet, Organized by Indian Chemical Society 1st -8th August 2021.
13. **Invited talk** on “Applications of Potential Porous Nanocomposites”, International Online Conference on NanoMaterials (ICN 2021) 09th -11th April 2021 Kottayam, Kerala, India, Organized by Mahatma Gandhi University, P.D Hills P.O, Kottayam, Kerala, India & Wroclaw University of Technology, Wroclaw, Poland & Gdansk University of Technology, Poland & Wuhan University, China.
14. **Chaired a session** in International Online Conference on NanoMaterials (ICN 2021) 09th -11th April 2021 Kottayam, Kerala, India, Organized by Mahatma Gandhi University, P.D Hills P.O, Kottayam, Kerala, India & Wroclaw University of Technology, Wroclaw, Poland & Gdansk University of Technology, Poland & Wuhan University, China.
15. **Invited Talk** on “Potential Porous Materials” in Refresher Course in Chemistry at the Dept of Chemistry, University of Calcutta, from 16th-31st March, 2021.
16. **Invited Talk** on “Gamma Irradiation Mediated Sustainable Synthesis of Metal Nanoparticles” One-Day National Webinar on Emerging Application of Radiation in Nanotechnology (26th February 2021). Dr. B. C. Roy Engineering College, Durgapur, West Bengal, India
17. **Invited Talk** on Gamma Irradiation Modified Metal Nanoparticles with Enhanced Chemical Properties. World Nanotechnology Webinar. October 21-22, 2020. Texas A&M University, USA
18. **Invited Talk** on “Analytical Methods in Chemistry DSE A-4” Four-Day National Webinar on Discipline Specific Elective (DSE) Topics of UG Chemistry (Hons.), CBCS Syllabus, University of Calcutta (4-7th August 2020). Maulana Azad College and Ashutosh College, Kolkata, India.

19. **Invited Talk** on “Prospective Applications of Potential Porous Materials” One-day National Webinar on “Aspects of Material Chemistry in Modern Times”, 21st July, 2020. Presidency University, Kolkata, India.
20. **Invited Talk** on “Green Chemistry for Everyday” Two-day National Conference on Science and Technology: Rural development, 20th and 21st January, 2020. Surendranath College, Kolkata, India.
21. **Invited Talk** on “Molybdenum Chemistry: A versatile Prodigy” School on Know Your Elements (KYE-2019), Chemical Sciences Division, Saha Institute of Nuclear Physics, Kolkata, 4th -10th Aug 2019.
22. **Invited Talk** on “Elements and their Speciation” CHeMoNaTiON-3, One day Seminar on Current Progress in Chemistry, Department of Chemistry, Surendranath College, Kolkata, 27th Feb 2019.
23. **Invited Talk** on “Elemental Speciation using Sustainable Alternatives” International Seminar on Recent Trends in Chemistry at Prasannadeb Women’s college, Jalpaiguri on 3rd Jan 2019.
24. **Invited Talk** on “Chemical Characterization of the Superheavy Elements: Extreme Chemistry” in Refresher Course in Chemistry at the Dept of Chemistry, University of Calcutta, from November 30-December 20, 2018.
25. **Invited Talk** on “Aqueous Biphasic Systems for Extractions, Separations and Identification of Molecular Interactions” 2nd Caparica Christmas Conference on Sample Treatment, 5th, 6th, 7th of December, 2016, Caparica, Portugal.
26. **Invited Talk** on “Sustainable Alternatives in Developing Elemental Speciation” Recent Developments in Chemistry, 4-6 October, 2016, Department of Chemistry, National Institute of Technology, Durgapur.
27. **Invited Talk** on “Sustainable Alternatives in Developing Elemental Speciation” 26th August 2016. One day seminar organized by Department of Chemistry, City College, Kolkata.
28. **Invited Talk** on “Role of Polymers in Generating Aqueous Biphasic Systems: A Tool to Recognize Interacting Molecular Species” International Conference on Frontiers in Materials Science and Technology, 10-12 December, 2015, National Institute of Science and Technology, Berhampur, Odisha.
29. **Invited Talk** on “Speciation, Separation and Sensing of Different Analytes using Polymeric and Bio-Nanocomposite Materials” Fourth International Conference on Natural Polymers and Biomaterials, 10-12 April, 2015, Mahatma Gandhi University, Kottayam, India
30. **Chaired a session** in Fourth International Conference on Natural Polymers and Biomaterials, 10-12 April, 2015, Mahatma Gandhi University, Kottayam, India.
31. **Invited Talk** on “A prologue to elementary particles” in Refresher Course in Chemistry at the Dept of Chemistry, University of Calcutta, from August – September, 2012.
32. **Invited talk** on Radioactivity and Radioisotopes: Effect on Fungal Biodiversity, UGC Sponsored National Seminar on Biodiversity: Crisis, Conservation and Management, East Calcutta Girls’ College, Laketown, Kolkata, December, 8-9, 2011.

33. **Invited talk** on Radiation, Radioactivity and Radiotracers, “Acharya Prafulla Chandra Ray Memorial Symposium on Chemistry Today (2011) and Celebration of the International Year of Chemistry” organized by the Indian Chemical Society, Rashbehari Siksha Prangan, University of Calcutta, August 02-03, 2011.
34. **Invited Talk** on Radiation, Radioactivity and Radiotracers-Part I in Refresher Course in Chemistry at the Dept of Chemistry, University of Calcutta, from July 04 – 23, 2011.
35. **Invited Talk** on Radiation, Radioactivity and Radiotracers-Part II in Refresher Course in Chemistry at the Dept of Chemistry, University of Calcutta, from July 04 – 23, 2011.
36. **Invited talk** on Speciation Analysis: A Directive to the Chemical Behavior of Elements, UGC sponsored Seminar on Recent Trends in Chemistry, BC College Asansol, 25-26 February, 2010.
37. Invited as Resource Person in School on Trace Element Speciation (SE/IS -08), - organized by Saha Institute of Nuclear Physics, during 24-28 November, 2008
38. **Invited talk** in the 5th Chittagong Conference on Biophysics, Biomathematics and Biostatistics, September 2003, Bangladesh.

12. Organizational Experience:

- i. Convener of the one day National Symposium on “Emerging Trends in Chemical Sciences” at Department of Chemistry, University of Calcutta, Rashbehari Siksha Prangan on 9th February 2024.
- ii. Convener of the Analytical Chemistry Section in the International Seminar on Recent Advances in Chemistry & Material Sciences 2020 organised by the Indian Chemical Society to commemorate the 159th Birth Anniversary of Acharya Prafulla Chandra Ray held on August 22, 2020.
- iii. Convener of the Analytical Chemistry Section of the 57th Annual Convention of Chemists, 2020 & International Conference on “Recent Trends in Chemical Sciences (RTCS-2020)” organized by the Indian Chemical Society, Kolkata during December 26 – 29, 2020.
- iv. School on Know Your Elements (KYE-2019), 4th-10th August, 2019, Chemical Sciences Division, Saha Institute of Nuclear Physics, Kolkata.
- v. The fourth International Conference on Application of RadiotraCers and Energetic Beams in Sciences, ARCEBS-2018 (November 11-17, 2018), Ffort Raichak.
- vi. Refresher course in Chemistry, 2015, Academic Staff College, University of Calcutta.

vii. Joint Secretary, School on Trace Analysis, TRACE-07, Saha Institute of Nuclear Physics, Kolkata, India, 3-13 October 2007.

viii. Secretary, Discussion meeting on Application of Radiotracers in Chemical, Environmental and Biological Sciences (ARCEBS 04) , Saha Institute of Nuclear Physics, Kolkata, April 15-16, 2004.

10. Guiding Experience:

Students obtained Ph.D: 12

Students submitted Ph.D thesis: 1

Students registered for Ph.D: 3

Students Obtained Ph. D.

Name	Registration No.	Date of Joining	Date of Degree Awarded	Photo
Dr. Pallabi Samaddar	0791/Ph. D.(Sc.)Proceed/2013	19.11.2012	23.06.2016	
Dr. Sumanta Kumar Ghatak	2444/Ph.D.(Sc.)Proceed/2011	17.08.2011	18.07.2016	
Dr. Partha Pratim Chakraborty	2251/Ph.D.(Sc.)Proceed/2013		09.12.2017	

Dr. Arabinda Chakraborty	6226/Ph.D.(Sc.)Proceed/2014	08.10.2012	31.01.2018	
Dr. Sankar Prasad Paik	2264/Ph.D.(Sc.)Proceed/2013	21.12.2010	29.08.2018	
Dr. Kangkana Sarkar	6640/Ph.D.(Sc.)Proceed/2014	03.10.2012	25.09.2018	
Dr. Zarina Ansari	2511/Ph.D.(Sc.)Proceed/2015	12.03.2014	08.07.2019	
Dr. Mita Halder	7597/Ph.D.(Sc.)Proceed/2015	01.08.2013	18.07.2019	

Students Obtained Ph. D.

Name	Registration No.	Date of Joining	Date of Completion	Photo
Dr. Pritam Singh	03422/Ph.D.(Sc.)Proceed/2018	11-07-2016	31-03-2022	
Dr. Priti Sengupta	03128/Ph.D.(Sc.)Proceed/2021	14-10-2020	11-04-2023	
Dr. Laboni Das	01744/Ph.D.(Sc.)Proceed/2019	02-01-2018	07-06-2024	
Dr. Rajib Karmakar	02645/Ph.D.(Sc.)Proceed/2019	17-07-2017	27-12-2024	

Students pursuing Ph.D.

Name	Registration No.	Date of Joining	Date of Completion	Photo
Shalmali Basu	06626/Ph.D.(Sc.) Proceed/2021	14.10.2020	Continuing	
Tiyasa Ray	09423/Ph.D.(Sc.) Proceed/2023	03.01.2022	Continuing	
Seikh Asif	09417/Ph.D.(Sc.) Proceed/2023	03.01.2022	Continuing	
Tridib Banerjee	04119/Ph.D.(Sc.) Proceed/2024	20.06.2022	Continuing	

Post Doctoral Fellow

Name	Date of Joining	Date of Completion	Scheme	Photo
Dhiman Santra	03-02-2017	02-02-2019	NPDF	
Debashree Das	July 2018	July 2021	DSKPDF	
	October 2021	October 2024	CSIR-POOL	
Bhavya Srivastava	01-04-2019	31-03-2021	CSIR-RA	

11. Research Interest

Please see Annexure I

15. Research publications in:

- A. Refereed Journals: **140** (Vide Annexure II)
- B. Book Chapter: **4** (Vide Annexure III)
- C. Publications in Conferences : **120** (Vide ANNEXURE IV)
(International 69, National 51)

Kamalika Sen

ANNEXURE - I

Developing Spectroscopic Methods in Ultra Trace Analyses of Analytes of Potential Pharmaceutical and Environmental Interest Using Green Technology

Research Interest:

The main objective is towards development of Green methodology for development of simple spectroscopic methods of detection, speciation and find species transformation of elements and compounds of pharmaceutical and environmental concern at ultra-trace scale. Extraction and separation of analytes in their pure form is also a part of the objective. Finding out the abilities of aqueous two phase systems, which is actually a liquid-liquid extraction system where both the phases are aqueous towards elemental speciation both in bulk and ultra-trace scale is an example. Green methodology for synthesis of nanoparticles is also taken up making use of in situ γ radiation which offers a novel spectroscopic sensing technique for several analytes which may range from environmental toxicants to cancer biomarkers.

Research Experience:

Development of production of accelerator based medically important no-carrier-added radionuclides and chemical methods towards clean separation these radionuclides from bulk target matrix. Gamma spectrometric analysis of accelerator and reactor produced radionuclides. Use of various analytical techniques for determination and quantification of elements and chemical compounds using UV-Visible spectra, fluorescence spectra, Infrared spectra, Atomic absorption spectrometry (AAS), Inductively coupled plasma optical emission spectrometry (ICPOES) and High performance liquid chromatography (HPLC). Research interest has also lead to working experience with Dynamic Light Scattering (DLS) instrument, Transmission Electron Microscopy (TEM) coupled with elemental detection system (EDS), Ultra thin sectioning of small cells/ particles before subjecting to TEM which reveals the kinetics of nanoparticles in cells and small systems.

Completed Projects

Funded by	Title of the project	Tenure	Sanction No.	Money sanctioned (Rs.)
UGC Major Research Project	Speciation Analysis in Trace Scale using Aqueous Biphasic Extraction System: A Green Chemistry Approach	July 2012-July 2015	UGC/1228C/Major Research (SC) 2012	12,78,300/-
DST fast track	Designing New Aqueous Biphasic Extraction Systems as Cleaner Alternatives in Separation Technology	June 2012-June 2015	SR/FT/CS-105/2011	26,83,000/-
UGC-DAE-CSR	Radiation Mediated Sustainable Synthesis of Magnetic Nanoparticles	December 2013-December 2016	CSR/PROJECT/ACCT/2014/0057/0085	7,61,400/-
UGC-DAE-CSR	Radiation induced synthesis and modification of metal nanoparticles for optical sensing of biomarkers	May 2019-April-2022	UGC-DAE-CSR-KC/CRS/19/RC07/0982/1017	7,50,000/-
UGC-DAE-CSR	Design of Fluorescent Active Hydrogels for Trace Detection of Biomolecules of Physiological Importance	Feb 2024-Jan 2027	CRS/2022-23/02/824	7,75,080/-

Co-investigator:

1. UGC Ref No. : F.PSW-47/12-12(ERO), 05.02.2013

Title: Extraction Studies of Some Medically Important Trace Elements Using Aqueous Biphasic Systems

Sanctioned amount: 1,92,000/-

Period: 2 yrs

First installment: 1,16,000/-

Date of implementation: 01.05.2013

2. UGC UPE II program

Title: Understanding Interactions through Material Culture: Case of India and Myanmar c. 2nd century BCE to C. 13th century CE

Sanctioned amount: 8,78,400/-

Period: 2 yrs

Date of implementation: 12.09.2018

3. GOVERNMENT OF WEST BENGAL

DEPARTMENT OF SCIENCE AND TECHNOLOGY AND BIOTECHNOLOGY

Title: Efficiency evaluation of natural biosorbents in the removal of toxic metals and anions in industrial and agricultural wastewater

Sanctioned Amount: 4,45,000/-

Period: 3 yrs

Date of implementation: 14.02.2020

ANNEXURE II

List of Publications in International Journals

1. Seikh Asif, Tridib Banerjee, Laboni Das, **Kamalika Sen**, Polymer vs. Polyphenol Aqueous Biphasic Systems in Extraction of Fe-Tannic Acid Nanocomposite and Sensing of H₂O₂, J. Chem. Eng. Data, 2025, <https://doi.org/10.1021/acs.jced.5c00288>.
2. Smritiparna Biswas, Apurba Biswas and **Kamalika Sen**, Graphene Based Hybrid Nanocomposite Materials as Sustainable Energy Resource: Synthesis to Application

- as Supercapacitors. *ES Chemistry and Sustainability*. 2025, 3, 1581, [DOI: 10.30919/escs1581](https://doi.org/10.30919/escs1581).
3. Arpita Manna, **Kamalika Sen**, Kakoli Banerjee, Ascorbic acid cross-linked cellulose agar beads (AA-CLCAB) for selective removal of Hg(II) ions from aqueous medium. *Water, Air and Soil Pollution*. 236 (2025) 609. <https://doi.org/10.1007/s11270-025-08271-w>.
 4. Seikh Asif, David Morgan, **Kamalika Sen**, Graphene Quantum Dots from Pyrolytic Condensation of Aspartic Acid and Glycerol for Ratiometric Fluorosensing of Lactic Acid in Cancer cells. *Diamond and Rel Mat.* 157 (2025) 112547. <https://doi.org/10.1016/j.diamond.2025.112547>
 5. Tiyasa Ray, Susmita Chakraborty, Maloncho Sen, Susanta Lahiri, **Kamalika Sen**, Wheat Bran as Natural Reagent for Bio-Recovery of Eu(III) Following Box-Behnken Optimization and the Thermodynamics Study, (2025) *Thermal Advances*. 3 (2025), 100050. <https://doi.org/10.1016/j.thradv.2025.100050>
 6. Shalmali Basu, Nabakumar Rana, David Morgan, **Kamalika Sen**, Gold Nanoparticle Incorporated Graphene Oxide as SERS Platform for Ultra-trace Anti-body Free Sensing of Cancer Biomarker CEA. (2025) *Langmuir*, 41, 7886–7901. <https://doi.org/10.1021/acs.langmuir.5c00522>
 7. Tridib Banerjee, Ujjal Das, Adity Bose, **Kamalika Sen**, Chitosan Anchored Lecithin-Cholesterol Liposomes for Cisplatin Encapsulation and Favourable Sustained Release to HeLa Cells. (2024) *BioNanoScience* 15:80. <https://doi.org/10.1007/s12668-024-01608-5>
 8. Kaushik Gangopadhyay, Rajat Sanyal, Sharmistha Chatterjee, Pritam Singh, Chandrima Shaha, Nabanita Naskar, David Morgan, **Kamalika Sen**, Finding historical linkages between India and Myanmar through archaeological and physicochemical analysis of ceramics c. 1st century BCE to 13th century CE. (2024) *J. Arch. Sci.: Rep.* 60, 104828. <https://doi.org/10.1016/j.jasrep.2024.104828>.
 9. Tridib Banerjee, **Kamalika Sen**, Liposomal Encapsulation of Different Anticancer Drugs: An Effective Drug Delivery Technique, (2024) *BioNanoScience*, 14, 3476–3495.
 10. Debashree Das, Sampurna Bhattacharya, Sreshtha Ganguly, Runa Sur, **Kamalika Sen**, Synergistic anticancer effect of polymersome-encapsulated curcumin and cytarabine: A spectroscopic and theoretical approach. (2024) *J Appl Polym Sci.* 2024;e56052. <https://doi.org/10.1002/app.56052>
 11. Seikh Asif, Debashree Das, Shalmali Basu, David Morgan, Aparna Datta, **Kamalika Sen**, Generating luminescent Graphene quantum Dots from Tryptophan: Fluorosensors for

- hydrogen peroxide in cancer cells, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* Available online 28 July 2024, 124887. <https://doi.org/10.1016/j.saa.2024.124887>
12. Tiya Ray, Debashree Das, Goutam Pramanik, Souvik Sen, **Kamalika Sen**, Fluorescent hydrogels of Zn^{2+} cross-linked cellulose-graphene-Brij composite for ultra-trace sensing of serum uric acid with high interfering triglyceride, *Inorg. Chim. Acta* 566 (2024) 122010. <https://doi.org/10.1016/j.ica.2024.122010>
 13. Arpita Manna, Susanta Lahiri, **Kamalika Sen**, Kakoli Banerjee, Fe(III) cross-linked cellulose-agar hydrogel beads for efficient phosphate removal from aqueous solutions, *Environ Monit Assess* (2024) 196:54, <https://doi.org/10.1007/s10661-023-12198-2>
 14. Priti Sengupta, Sampurna Bhattacharya, Debashree Das, Prasenjit Mondal, Runa Sur, Adity Bose, **Kamalika Sen**, Milk protein-based carrier system for encapsulation of dietary polyphenol rutin: Molecular-level interactions and enhanced bioactivities. *Journal of Molecular Liquids*. 3911 December 2023. 10.1016/j.molliq.2023.123233
 15. Dipanjali Majumdar, Rita Mondal, Abhijeet Mondal, **Kamalika Sen**, Deepanjan Majumdar, Micromorphology of size-segregated aerosols and their airway deposition in public transport commuters. *Air Quality, Atmosphere and Health* 16 (10) 2133 – 2147 October 2023. 10.1007/s11869-023-01395-0.
 16. Shalmali Basu, Nabakumar Rana, **Kamalika Sen**, γ -Irradiated CuS-graphene nanoparticles for selective optical sensing of cancer biomarker CA-125. *Applied Nanoscience*. 13, 6457-6470 (2023) <https://doi.org/10.1007/s13204-023-02938-8>.
 17. Shalmali Basu, Debashree Das, David Morgan, Bibhas Hazra, Abhijit Saha, **Kamalika Sen**, Green synthesis of copper iodide nanoparticles: gamma irradiation for spectroscopic sensing of cancer biomarker CA 19-9. *Journal of Radioanalytical and Nuclear Chemistry*. (2023) 332:3763–3778, <https://doi.org/10.1007/s10967-023-09056-3>.
 18. Shalmali Basu, Debashree Das, Zarina Ansari, Nabakumar Rana, Bhim Majhi, Dipendu Patra, Ajay Kanungo, David Morgan, Sanjay Dutta, **Kamalika Sen**, A multispectroscopic approach for ultra-trace sensing of prostate specific antigen (PSA) by iron nanocomposite fabricated on graphene nanoplatelet. *Spectrochim. Acta Part A: Molecular and Biomolecular Spectroscopy* 2023, 301, 122955. <https://doi.org/10.1016/j.saa.2023.122955>.

19. Laboni Das and **Kamalika Sen**, Carbohydrate-Tailored PPG#400 vs Ionic Liquid-Based Aqueous Biphasic System That Enables Extraction of Polyphenols 2023, *J. Chem. Eng. Data*, 68, 2398–2406, <https://doi.org/10.1021/acs.jced.3c00383>
20. Prasenjit Mondal, Pritam Singh, David Morgan, Adity Bose, **Kamalika Sen**, Nisinapic acid nanocomposite in the selective sensing of permanganate ions. *Journal of Photochemistry and Photobiology A: Chemistry*, 2023, 437, 114458. <https://doi.org/10.1016/j.jphotochem.2022.114458>.
21. Priti Sengupta, Debashree Das, Sampurna Bhattacharya, Runa Sur, Adity Bose, **Kamalika Sen**, A pH-driven method for liposomal encapsulation of dietary flavonoid rutin: Sustained release and enhanced bioefficacy, *Food Bioscience* 52 (2023) 102392, <https://doi.org/10.1016/j.fbio.2023.102392>
22. Debashree Das, Nabakumar Rana, Goutam Pramanik, Kamalika Sen, Fluorosensing of benzaldehydes by CuI-graphene: A spectroscopy, thermodynamics and docking supported phenomenon. *Analytica Chimica Acta* 1249 (2023) 340897. <https://doi.org/10.1016/j.aca.2023.34089>
23. Laboni Das and **Kamalika Sen**, Amino acid vs. block copolymer based ABS: An efficient extraction tool for PPI and consequent recovery of the polymer, *J. Chem. Eng. Data* 2023, 68, 1, 173–182. <https://doi.org/10.1021/acs.jced.2c00567>
24. Debashree Das, Shalmali Basu, Nabakumar Rana, Sourav Roy, Bibhas Hazra, **Kamalika Sen**, CuI@graphene as antibody-free fluorosensor for prostate-specific antigen (PSA), *Mat. Today Chem.*, 26 (2022) 101196. <https://doi.org/10.1016/j.mtchem.2022.101196>
25. Arpita Manna, Nabanita Naskar, Kamalika Sen, Kakoli Banerjee, A review on adsorption mediated phosphate removal and recovery by biomatrices, *J. Ind. Chem. Soc.* 99 (2022) 100682. <https://doi.org/10.1016/j.jics.2022.100682>
26. Rajib Karmakar, Pritam Singh, Aparna Datta, **Kamalika Sen**, Emulsion Liquid Membrane in the Selective Extraction of Dy, *Chem. Eng. Res. Des.* 187 (2022) 497–506. <https://doi.org/10.1016/j.cherd.2022.09.001>
27. Nandan Saha, Baidurya Sarkar, **Kamalika Sen**, Aqueous Biphasic Systems: A Robust Platform for Green Extraction of Biomolecules, *J. Mol. Liq.* 363 (2022) 119882. <https://doi.org/10.1016/j.molliq.2022.119882>
28. Pritam Singh, **Kamalika Sen**, Selective adsorption of epigallocatechin gallate onto highly reusable gallium doped mesoporous TiO₂ nanoparticles adsorbent. *J. Ind. Chem. Soc.* 99 (2022) 100576. <https://doi.org/10.1016/j.jics.2022.100576>

29. Debashree Das, Shalmali Basu, Santanu Ray, Sudeep Koppayithodi, Bibhas Hazra, Subhajit Bandyopadhyay, Abhijit Saha, **Kamalika Sen**, Generation of selenium nanoparticles under γ -Irradiation for optical sensing of Carcinoembryonic antigen, *J. Mol. Liq.* 361 (2022) 119597. <https://doi.org/10.1016/j.molliq.2022.119597>
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ANNEXURE III

Publications as chapter of books

1. **Kamalika Sen** and Priti Sengupta, Materials for Drug Delivery, in Materials from Natural Sources, Structure, Properties, and Applications, Ramesh Gardas, Neha Patni, Amita Chaudhary (eds), pp 1st Ed. 3 October 2024, CRC Press, Boca Raton, 2024 (eBook ISBN 9781032636368).
2. Susanta Lahiri and **Kamalika Roy**, Study of Radiotracer Application in Bio-Nano-Geo Sciences at Saha Institute of Nuclear Physics, in Bio-Nano-Geo Sciences: The Future Challenge, A. Srivastava, I Roy (eds), pp 101-108, Ane Books Pvt. Ltd., New Delhi 2009.

3. Dalia Nayak and **Kamalika Roy**, Trace Element Speciation using Greener Techniques, In: Advanced Trace Analysis, Ed. S. Lahiri, Narosa Publishing House, New Delhi, 2009, ISBN 978-81-8487-029-9.
4. **Kamalika Roy**, D. K. Pal, S. Basu, Dalia Nayak, A. De and Susanta Lahiri, “Synthesis of a Novel Ion Exchanger, Zirconium Vanadate, for Immobilising $^{134,137}\text{Cs}$ Radionuclides”, In: Environmental Radiochemical Analysis II, Ed. P. Warwick, Royal Society of Chemistry, UK, 2003, pp. 17-20.

Publications in Conferences

A. International Conferences:

1. Tridib Banerjee, Priti Sengupta, Adity Bose, **Kamalika Sen**, “Development and optimization of chitosan coated liposomal encapsulation of cytarabine using box-behnken design” International seminar on Innovation, Expansion, Impacts and challenges in chemical and Biological sciences on December 22, 2023 organized by department of chemistry, Surendranath college.
2. Tiya Ray, Debashree Das, Goutam Pramanik, Souvik Sen, **Kamalika Sen** “Fluorescence active Zn^{2+} crosslinked cellulose graphine hydrogel for ultratrace sensing of cerum uric acid” International seminar on Innovation, Expansion, Impacts and challenges in chemical and Biological sciences on December 22, 2023 organized by department of chemistry, Surendranath college.
3. Seikh Asif, Shalmali Basu, **Kamalika Sen**, “Biomolecule Generated Graphene Dots for Fluorometric sensing of H_2O_2 in MCF-7 cell lysate” International seminar on Innovation, Expansion, Impacts and challenges in chemical and Biological sciences on December 22, 2023 organized by department of chemistry, Surendranath college.
4. Debashree Das, Sampurna Bhattacharya, Adhir Majumder, Ramananda Maity, **Kamalika Sen**, “Heterobimetallic Ir (III) / Pd (II) complex (HBMC) for selective and sensitive fluorosensing of DNA” in International seminar on Innovation, Expansion, Impacts and challenges in chemical and Biological sciences, organized by Department of Chemistry, Surendranath College, Kolkata on December 22, 2023.
5. Debashree Das, Sampurna Bhattacharya, **Kamalika Sen**, “Dual application of semiconductor nanoparticle, CuTe, in cancer cell detection and DNA sensing” in P.C. Ray Memorial International Conference on “Contemporary Ideas, Innovations & Initiatives in Chemical Sciences 2023 (CI3CS 2023)” organized by Presidency University, Kolkata during August 23-24, 2023.
6. Shamali Basu, **Kamalika Sen**, Synthesis of γ -Irradiated CuS-Graphene Nanoparticles for Selective Detection of Cancer Biomarker CA-125, 5 th International Conference

- on Application of RadiotraCers and Energetic Beams in Sciences (ARCEBS 2023), January 31st -February 5th , 2023, Sidho-Kanho-Birsha University, Purulia, India.
7. Priti Sengupta, Adity Bose, and **Kamalika Sen**. Encapsulation of a dietary polyphenol in β -casein micelles: Interactions and effect on bioactivity, International Seminar on Recent Advances in Chemistry and Material Science (RACMS-2022), 2-3 August, 2022.
 8. Shalmali Basu, Debashree Das, Zarina Ansari, Nabakumar Rana , Bhim Majhi, Dipendu Patra, Ajay Kanungo, David Morgan, Sanjay Dutta, **Kamalika Sen**, A Graphene Modified Quinoxaline Derivative Based Iron Nanocomposite for Optical Sensing of Prostate Specific Antigen (PSA). Celebration of 161 st Birth Anniversary of Acharya P. C. Ray & amp; International Seminar on Recent Advances in Chemistry and Material Science (RACMS-2022), July 30 th -August 3rd , 2022, Kolkata, India.
 9. Debashree Das, Shalmali Basu, Nabakumar Rana, Souvik Roy, Bibhas Hazra, **Kamalika Sen**, “CuI-Graphene Nanocomposites as Fluorosensors of Benzaldehydes and Consequent Photodegradation” in International seminar on Recent advances in Chemistry and Material Science (RACMS 2022) organized by the Indian Chemical Society in association with the Bangladesh Chemical Society, Bangladesh and Department of Chemistry, Jadavpur University, Kolkata during July 30-31 & August 02-03, 2022.
 10. Debashree Das, Sampurna Bhattacharya, Shrestha Ganguly, Runa Sur, **Kamalika Sen**, “Role of curcumin on the toxicity induced by the anticancer drug cytarabine” in 58th Annual Convention of Chemists, 2021 & International Conference on “Recent Trends in Chemical Sciences (RTCS 2021) organized by the Indian Chemical Society, Kolkata during December 21 – 24, 2021.
 11. Pritam Singh, Rituparna Patra, Arpita Manna, Nabanita Naskar, **Kamalika Sen**, Tandem Adsorption of Ga-Alizarine Red S complex and Fluoride ion using Ga-doped TiO₂ Nanoparticles, 58th Annual Convention of Chemists and International Conference on Recent Trends in Chemical Sciences, Indian Chemical Society, 21st-24th December 2021.
 12. **Kamalika Sen**, The magic of two aqueous layers in contact and beyond, 160th Birth Anniversary Celebration of Acharya P. C. Ray. International Seminar on Recent Advances in Chemistry and Material Science (RACMS-2021). Young Scientist

Conclave and Student Meet, Organized by Indian Chemical Society 1st -8th August 2021 (**Invited talk**).

13. **Kamalika Sen**, Applications of Potential Porous Nanocomposites, International Online Conference on NanoMaterials (ICN 2021) 09th -11th April 2021 Kottayam, Kerala, India, Organized by Mahatma Gandhi University, P.D Hills P.O, Kottayam, Kerala, India & Wroclaw University of Technology, Wroclaw, Poland & Gdansk University of Technology, Poland & Wuhan University, China. (**Invited talk**).
14. Pritam Singh, Zarina Ansari, Santanu Ray, Bilwadal Bandyopadhyay, and **Kamalika Sen**, Effect of γ -Irradiation on Ruthenium-Morin Nanocomposite for Trace Detection of Ce(IV), Ce(III) and Dy(III), 3rd European Chemistry Conference October 12, 2020, University of Naples Federico II, Rome, Italy.
15. Pritam Singh, Subhasish Ghosh and **Kamalika Sen**, Gallium doped TiO₂ nanoparticles for adsorption - desorption behavior of tea polyphenols. 57th Annual Convention of Chemists & International Conference of Recent Trends in Chemical Sciences RTCS 2020, Organized by Indian Chemical Society, 26th-29th Dec, 2020.
16. Shalmali Basu, Debashree Das, **Kamalika Sen**, γ -irradiated Selenium Nanoparticles for Optical Sensing of Cancer Biomarker. 57th Annual Convention of Chemists & International Conference of Recent Trends in Chemical Sciences RTCS 2020, Organized by Indian Chemical Society, 26th-29th Dec, 2020.
17. Laboni Das, Sankar Prasad Paik and **Kamalika Sen**, Design of D-mannitol and PPG#400 Based Aqueous Biphasic System for Extraction of Drugs Recommended in Covid-19. 57th Annual Convention of Chemists & International Conference of Recent Trends in Chemical Sciences RTCS 2020, Organized by Indian Chemical Society, 26th-29th Dec, 2020.
18. Debashree Das, Souvik Sen, Shantanu Bhakta, **Kamalika Sen**, Efficacy of Vitamin C in Prevention of Methemoglobinemia Caused by Nitrate Containing Drugs in Diabetics and Nondiabetics. 57th Annual Convention of Chemists & International Conference of Recent Trends in Chemical Sciences RTCS 2020, Organized by Indian Chemical Society, 26th-29th Dec, 2020.
19. Bhavya Srivastava, Souvik Sen and **Kamalika Sen**, Clinical Impact of Caffeine on the Diabetic Patient's Serum: A Spectroscopic Study. 57th Annual Convention of Chemists & International Conference of Recent Trends in Chemical Sciences RTCS 2020, Organized by Indian Chemical Society, 26th-29th Dec, 2020.

20. Debashree Das, **Kamalika Sen**, “Preventive Role of Antioxidants towards Drug Induced Methemoglobinemia” in virtual meeting of 3rd European Chemistry Conference 2020 held on 12th October, 2020
21. Bhavya Srivastava, Souvik Sen and **Kamalika Sen**, “Spectroscopic Studies of Sorbitol-Caffeine Interactions for Plausible Remediation of Diabetic Neuropathy”. International Seminar on “Recent Advances in Chemistry & Material Sciences (2020)” In Commemoration of the 159th Birth Anniversary of Acharya Prafulla Chandra Ray Month long Program for August, 2020.
22. Laboni Das, Sankar Prasad Paik and **Kamalika Sen**, Tri-Component Based Aqueous Biphasic System: One Step Forward to Construct a Greener Biphasic System, International Seminar on “Recent Advances in Chemistry & Material Sciences (2020)” In Commemoration of the 159th Birth Anniversary of Acharya Prafulla Chandra Ray Month long Program for August, 2020.
23. Debashree Das, Souvik Sen, **Kamalika Sen**, Differential effect of selenourea and selenocystine on methemoglobinemia in nondiabetics and diabetics. International Seminar on “Recent Advances in Chemistry & Material Sciences (2020)” In Commemoration of the 159th Birth Anniversary of Acharya Prafulla Chandra Ray Month long Program for August, 2020.
24. Shalmali Basu, Debashree Das, **Kamalika Sen**, γ -irradiated Selenium Nanoparticles for Optical Sensing of Cancer Biomarker. International Seminar on “Recent Advances in Chemistry & Material Sciences (2020)” In Commemoration of the 159th Birth Anniversary of Acharya Prafulla Chandra Ray Month long Program for August, 2020.
25. Pritam Singh, Mita Halder, Santanu Ray, Adity Bose and **Kamalika Sen**, Green Synthesis of Silver and Palladium Nanocomposites: A Study of Catalytic Activity towards Etherification Reaction. International Seminar on “Recent Advances in Chemistry & Material Sciences (2020)” In Commemoration of the 159th Birth Anniversary of Acharya Prafulla Chandra Ray Month long Program for August, 2020.
26. Shamali Basu, Debashree Das and **Kamalika Sen**, Surface Enhanced Raman Spectroscopy using Selenium Nanoparticles for Sensing of Cancer Biomarker. International Seminar (ICBS-2020) on Innovation, Expansion, Impacts and Challenges in Chemical and Biological Sciences, 8th and 9th January, 2020, Surendranath College, Kolkata, India.
27. Bhavya Srivastava, Souvik Sen and **Kamalika Sen**, Spectroscopic Studies on Sorbitol-Caffeine Interactions: A Suggestive Approach for Plausible Remediation of

- Diabetic Neuropathy. International Seminar (ICBS-2020) on Innovation, Expansion, Impacts and Challenges in Chemical and Biological Sciences, 8th and 9th January, 2020, Surendranath College, Kolkata, India.
28. Debashree Das, **Kamalika Sen**, Role of some organo-selenium drugs on oxidative damage of hemoglobin. International Seminar (ICBS-2020) on Innovation, Expansion, Impacts and Challenges in Chemical and Biological Sciences, 8th and 9th January, 2020, Surendranath College, Kolkata, India.
29. Laboni Das, Sankar Prasad Paik and **Kamalika Sen**, Interaction of Synthetic and Natural Pesticides with Metal Ions in PEG Media: Extraction Patterns in Aqueous Biphasic Systems. International Seminar (ICBS-2020) on Innovation, Expansion, Impacts and Challenges in Chemical and Biological Sciences, 8th and 9th January, 2020, Surendranath College, Kolkata, India.
30. Sankar Prasad Paik, Laboni Das and **Kamalika Sen**, Thermoseparative regeneration of triblock copolymer after aqueous two phase extraction of molybdate species. International Seminar (ICBS-2020) on Innovation, Expansion, Impacts and Challenges in Chemical and Biological Sciences, 8th and 9th January, 2020, Surendranath College, Kolkata, India.
31. Laboni Das, Santanu Ray, Sreyan Raha, Debarati Dey and **Kamalika Sen**, Biomolecule assisted acid free generation of molybdenum blue: Application in analytical and bioanalytical system. International Symposium on Recent Advances in Chemistry and Material Sciences (2019) and the Celebration of the International Year of the Periodic Table, August 2 and 3, 2019, Saha Institute of Nuclear Physics, Kolkata.
32. Pritam Singh, Mita Halder, Santanu Ray, Bilwadal Bandyopadhyay and **Kamalika Sen**, Generation of biomolecules based Ru nanocatalysts for sustainable reduction of benzene. International Symposium on Recent Advances in Chemistry and Material Sciences (2019) and the Celebration of the International Year of the Periodic Table, August 2 and 3, 2019, Saha Institute of Nuclear Physics, Kolkata.
33. Rajib Karmakar and **Kamalika Sen**, Selective adsorption and separation of Th(IV) from U(VI) and Ce(III) using TiO₂ and mesoporous Al₂O₃. International Symposium on Recent Advances in Chemistry and Material Sciences (2019) and the Celebration of the International Year of the Periodic Table, August 2 and 3, 2019, Saha Institute of Nuclear Physics, Kolkata.

34. Debashree Das, Souvik Sen and **Kamalika Sen**, Differential effect of caffeine and Catechin on prevention of drug induced methemoglobinemia in coronary heart disease. International Symposium on Recent Advances in Chemistry and Material Sciences (2019) and the Celebration of the International Year of the Periodic Table, August 2 and 3, 2019, Saha Institute of Nuclear Physics, Kolkata.
35. Rajib Karmakar and **Kamalika Sen**, Role of Biomolecules in Extraction of U(VI) using an Aqueous Biphasic System, The fourth International Conference on Application of RadiotraCers and Energetic Beams in Sciences, ARCEBS-2018 (November 11-17, 2018), Ffort Raichak.
36. Pritam Singh and **Kamalika Sen**, Effect of γ -Irradiation on Ruthenium-Morin Nanocomposite for Trace Detection of Ce(IV), Ce(III) and Dy(III), The fourth International Conference on Application of RadiotraCers and Energetic Beams in Sciences, ARCEBS-2018 (November 11-17, 2018), Ffort Raichak.
37. Zarina Ansari, **Kamalika Sen**, γ -Irradiated Ni-Hesperidin Nanocomposite for Selective Trace Level Sensing of Sulfide Ions, The fourth International Conference on Application of RadiotraCers and Energetic Beams in Sciences, ARCEBS-2018 (November 11-17, 2018), Ffort Raichak.
38. **Kamalika Sen**, Aqueous Biphasic Systems for Extractions, Separations and Identification of Molecular Interactions. 2ndCaparica Christmas Conference on Sample Treatment, 5th, 6th, 7th of December, 2016, Caparica, Protugal. (**Invited Talk**)
39. Kangkana Sarakar, Susanta Lahiri, **Kamalika Sen**, Adsorption of cadmium by microporous calcium alginate beads. 52nd Annual Convention of Chemists 2015 and International Conference on Recent Advances in Chemical Sciences, 28-30 December, 2015, JECRC University, Jaipur, Rajasthan, India.
40. **Kamalika Sen**, Role of Polymers in Generating Aqueous Biphasic Systems: A Tool to Recognize Interacting Molecular Species” International Conference on Frontiers in Materials Science and Technology, 10-12 December, 2015, National Institute of Science and Technology, Berhampur, Odisha, India (**Invited Talk**).
41. Zarina Ansari and **Kamalika Sen**, Agro Waste Derived Polyphenols in Generation of Metal Nanoparticles: Application in Organophosphorus Sensing, 14th Annual Meeting of the Society for Free radical Research-India (SFRR-India), 7-9 January 2016, department of Biochemistry, College of Medicine and JNM Hospital, WBUHS, Kalyani, India.

42. Zarina Ansari and **Kamalika Sen**, Generation of NiS, ZnS and CuS Nanoparticles for Sensing Heavy Metal Ions, International Conference on Frontiers in Materials Science and Technology, 10-12 December, 2015, National Institute of Science and Technology, Berhampur, Odisha.
43. Kangkana Sarkar and **Kamalika Sen**, Hg(II) Detoxification from Aqueous Enzyme Media using Modified Calcium Alginate Gels, International Conference on Frontiers in Materials Science and Technology, 10-12 December, 2015, National Institute of Science and Technology, Berhampur, Odisha.
44. **Kamalika Sen**, Speciation, Separation and Sensing of Different Analytes using Polymeric and Bio-Nanocomposite Materials, Fourth International Conference on Natural Polymers and Biomaterials, 10-12 April, 2015, Mahatma Gandhi University, Kottayam, India (**Invited talk**).
45. Pallabi Samaddar and **Kamalika Sen**, Anion Induced Gelation in Polyvinyl Alcohol: A Probe for Metal Ion Speciation Studies, MACRO 2015, International Symposium on Polymer Science and Technology, January 23-26, 2015.
46. Arabinda Chakraborty and **Kamalika Sen**, Implementation of a Tri-block Copolymer towards Designing an Aqueous Two –phase system, MACRO 2015, International Symposium on Polymer Science and Technology, January 23-26, 2015.
47. Zarina Ansari and **Kamalika Sen**, Silver-Polyphenol Nanocomposites from Peanut Skin Extract in Anion Sensing Studies. 5th Interdisciplinary Symposium on Materials Chemistry, December 9-13, 2014, Bhabha Atomic Research Centre, Mumbai, India.
48. Arabinda Chakraborty and **Kamalika Sen**, L-Proline Based Aqueous Biphasic System: Role of Sodium Alginate to Isolate the Alkaline Earths. 20th ISCB International Conference on “Chemistry and Medicinal Plants in Translational Medicine for Healthcare” Department of Chemistry, University of Delhi, 1st to 4th March, 2014.
49. Sankar Prasad Paik, Pallabi Samaddar, Souvik Sen, **Kamalika Sen**, Matrix Dependent Allergenicity of a Zn-Bound Sulpha Drug, 20th ISCB International Conference on “Chemistry and Medicinal Plants in Translational Medicine for Healthcare” Department of Chemistry, University of Delhi, 1st to 4th March, 2014.

50. Kangkana Sarkar and **Kamalika Sen**, Silver-Morin Nanocomposites in their Antimicrobial Action. 20th ISCB International Conference on “Chemistry and Medicinal Plants in Translational Medicine for Healthcare” Department of Chemistry, University of Delhi, 1st to 4th March, 2014.
51. Pallabi Samaddar and **Kamalika Sen**, Polyvinyl Alcohol Solutions as Fluorescent Probes. 20th ISCB International Conference on “Chemistry and Medicinal Plants in Translational Medicine for Healthcare” Department of Chemistry, University of Delhi, 1st to 4th March, 2014.
52. Sumanta Kumar Ghatak and **Kamalika Sen**, Iron Configuration in the Type 2 Diabetes Profile using Ion Chromatograph: Probable Role of a Peanut Protein. 20th ISCB International Conference on “Chemistry and Medicinal Plants in Translational Medicine for Healthcare” Department of Chemistry, University of Delhi, 1st to 4th March, 2014.
53. Pallabi Samaddar and Kamalika Sen, Speciation of Nitrate and Nitrite Ions: A Novel Application of PVA, 5th Asian Conference on Colloid and Interface Science, November 20-23, 2013.
54. Arabinda Chakraborty, Kangkana Sarkar and **Kamalika Sen**, Designing Amino Acid Based New Aqueous Biphasic System for Extraction of Ag-Morin Complex, International symposium on Molecular Organization and complexity: A Chemical Perspective, Feb 6-8, 2013, Kolkata, India.
55. Pallabi Samaddar and **Kamalika Sen**, Speciation Study of Zn and its Complexes Based on Aqueous Biphasic System. International symposium on Molecular Organization and complexity: A Chemical Perspective, Feb 6-8, 2013, Kolkata, India.
56. Partha Pratim Chakrabarty, Sandip Saha and **Kamalika Sen**, Effect of Salt-Anion in the formation of Zn(II)-Schiff Base complexes. International symposium on Molecular Organization and complexity: A Chemical Perspective, Feb 6-8, 2013, Kolkata, India.
57. Sumanta Kumar Ghatak and **Kamalika Sen**, Peanut Globulin Conarachin: Sensitivity towards Trace Level Cr(VI), Fe(III) and Cu(II) Salts. International symposium on Molecular Organization and complexity: A Chemical Perspective, Feb 6-8, 2013, Kolkata, India.

58. Sumanta Kumar Ghatak, Sankar Prasad Paik and **Kamalika Sen**, Polyethylene Glycol Solutions as Fluorescent Probes, International Symposium on Chemistry and Complexity December 6-8, 2011. Indian Association for the Cultivation of Science, Kolkata, India.
59. Debashree Das and **Kamalika Sen**, Spectroscopic Studies in Extraction of Some Heavy Metals using a Surfactant based Aqueous Biphasic System. International Symposium on Facets of Weak Interactions in Chemistry. January 13-15, 2011, Saha Institute of Nuclear Physics, Kolkata, India.
60. **Kamalika Roy**, Wouter A. P. Breeman and H.Th. Wolterbeek, Speciation of No-Carrier-Added ^{68}Ga Prior to its Labelling for PET Imaging, ARCEBS 2010, 7-13 November, 2010, Saha Institute of Nuclear Physics, Kolkata.
61. **Kamalika Roy** and H.Th. Wolterbeek, Role of an Ionic Liquid in Dissolution and Extraction Studies of $^{159}\text{Gd}_2\text{O}_3$, ARCEBS 2010, 7-13 November, 2010, Saha Institute of Nuclear Physics, Kolkata.
62. **Kamalika Roy** and H. Th. Wolterbeek, A Green Synthesis of Ionogel from Fe-Dextran and a Room Temperature Ionic Liquid, 8th Green Chemistry Conference, September 9-11, 2009, Zaragoza, Spain.
63. Susanta Lahiri, **Kamalika Roy** and Souvik Sen, *In Vitro* Kinetic Studies on Direct Complexation of Insulin with Astatine Radionuclides, 9th International Conference on Nuclear Analytical Methods in the Life Sciences, NAMLS-9, 7-12 September, 2008, Lisbon, Portugal.
64. **Kamalika Roy** and Susanta Lahiri Aqueous Biphasic Extraction: A Tool to Generate Radiogenic Gold-Palladium Nanoparticles, Seventh International Conference on Nuclear and Radiochemistry, 24-29 August, 2008, Eötvös Loránd University, Budapest, Hungary.
65. **Kamalika Roy**, Souvik Sen and Susanta Lahiri, 2008, Studies on ^{198}Au -insulin complex: A proposed radiopharmaceutical for targeted therapy. 10th International Symposium on Metal ions in Biology and Medicine. May 19-22, 2008, Corsica, France.
66. **Kamalika Roy** and Susanta Lahiri (2006): Polyethylene glycol based aqueous biphasic system: A potential extractant of Gold (III). ARCEBS 06, Saha Institute of Nuclear Physics, Kolkata, 23-27 Jan, 2006.

67. **Kamalika Roy**, P. Sinha and Susanta Lahiri (2006): Accumulation Studies of Gold Using Baker's Yeast, *Saccharomyces cerevisiae*. ARCEBS 06, Saha Institute of Nuclear Physics, Kolkata, 23-27 Jan, 2006.
68. **Kamalika Roy**, S. Basu, Dalia Nayak and Susanta Lahiri, 'Application of Tracer Packet Technique in Multielemental Uptake Studies by Thiosemicarbazide Incorporated Amberlite IRC-50', International Conference on Modern Trends in Activation Analysis (MTAA), June 20-25, 2004 University of Surrey, Guildford, UK.
69. **Kamalika Roy**, (2003): Tracer Packet: A New Concept and its Application in Bioaccumulation Studies, 5th Chittagong Conference on Biophysics, Biomathematics and Biostatistics, 20-21 September 2003, Bangladesh.

B. National Conferences:

1. Debashree Das, Sampurna Bhattacharya, Adhir Majumder, Ramananda Maity, **Kamalika Sen**, "Selective imaging of cancer cells by a fluorescent heterobimetallic Ir(III)/Pd(II) complex (HBMC)" in National seminar on Recent trends in chemistry and related disciplines, organized by Department of Chemistry, University of Burdwan on January 11, 2024.
2. Tridib Banerjee, Priti Sengupta, **Kamalika Sen**, "Effect of Chitosan Coating on Liposomal Encapsulation of Cytarabine in a Thin Film Hydration Method" National seminar on Recent trends in chemistry and related disciplines on January 11, 2024 organized by department of chemistry, university of Burdwan.
3. Tiya Ray, Debashree Das, Goutam Pramanik, Souvik Sen, **Kamalika Sen**, "An Enzyme- Free Fluorescence Sensing Platform for Detection of Serum Uric Acid in Presence of High Concentration Triglyceride" National seminar on Recent trends in chemistry and related disciplines on January 11, 2024 organized by department of chemistry, university of Burdwan.
4. Seikh Asif, Shalmali Basu, **Kamalika Sen**, Poster presentation on "Fluorescence Based Sensing of Hydrogen Peroxide using Graphene Quantum Dots" National seminar on Recent trends in chemistry and related disciplines on January 11, 2024 organized by department of chemistry, university of Burdwan.

5. Shalmali Basu, Debashree Das, **Kamalika Sen**, γ -Irradiated Copper Iodide Nanoparticles for Optical Sensing of Cancer Biomarker CA 19-9. 15th Biennial DAE-BRNS Symposium on Nuclear and Radiochemistry (NUCAR-2021), 22nd -26th February, 2022, BARC, Mumbai, India.
6. Debashree Das, Shalmali Basu, Santanu Ray, Abhijit Saha, **Kamalika Sen**, Presented a paper titled "Optical sensing of cancer biomarker by modified selenium nanoparticles" in the 3rd National Conference on Science, Technology, and Communication Skills (NCSTCS 2K20) held on 25-26th September, 2020.
7. Pritam Singh and **Kamalika Sen**, Activity of Different Porous CaCO_3 Materials as Carrier of an Antibiotic Drug. National Symposium on Recent Advances in Chemistry and Industry, August 2 and 3, 2017, Department of Chemistry, IEST, Shibpur, Howrah.
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