

Curriculum Vitae

1. Name of the Applicant : DR (Mrs) Monali Dutta Saikia

2. Mailing Address: Dr. Monali Dutta Saikia

Lecturer, Department of Chemistry

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3. Date of Birth: 04 / 03/ 1970

4. Education Qualifications (From B.Sc onwards):

Sl No	Degree obtained	Subject	Name of the University	Year of passing
1	Bachelor of Science	Chemistry (Honors)	Gauhati University, Guwahati – 14, India	1991
2	Master of Science	Physical Chemistry	Gauhati University, Guwahati – 14, India	1993 (held in 1994)
3	Ph. D	Physical Chemistry	Gauhati University (work done at NEIST, Jorhat, India)	2001

5. Details of professional training and research experience, specifying period.

- (i) Working as an Assistant Professor in Chemistry at **Arya Vidyapeeth College**, Guwahati –16, Assam, India since 02.05.2008.
- (ii) Worked as Senior Research Associate (under the Scientist's Pool Scheme of Council of Scientific and Industrial Research, New Delhi) in the Department of Chemistry, **Indian Institute of Technology**, Guwahati (From 18.04.2007 to 30.04.2008)
- (iii) Worked as a Young Scientist (under Fast Track Scheme, DST, New Delhi) in the Department of Chemistry, **Indian Institute of Technology** Guwahati (From 14.08.2003 till 31.01.2007).

- (iv) Worked as a visiting faculty at POGL Institute for Petroleum and Energy Development at Guwahati from March 2006 to October 2006.
- (v) Worked as a part time researcher at Indian Institute of Technology Guwahati from October 2001 to February 2003.
- (vi) Worked as a researcher at **Okayama University, Japan** from April 2000 to October 2000.
- (vii) Worked as Senior Research Fellow (CSIR, New Delhi) at **Regional Research Laboratory (presently known as NEIST), Jorhat** from October 1997 to Feb. 2000.
- (viii) Worked as Junior Project Fellow at **Regional Research Laboratory, Jorhat** under a DST project from June 1995 to September 1997.

6. List of publications

- [1] S. Gogoi, **M D Saikia***, “Adsorptive interaction of ^{90}Y and ^{90}Sr with diglycolamide based resin: A Density functional theory”, *J Radioanal Nucl Chem* (2016)
DOI 10.1007/s10967-016-5068-y.
- [2] H Deka, **M D Saikia***, “Structural and thermodynamic factors on adsorptive interaction of certain flavonoids onto polymeric resins and activated carbon”, *Colloids And Surfaces A: Physicochem. Eng. Aspects* (2015) 469 51–59.
- [3] A Banik, **M Dutta Saikia***, Triflumizole encapsulation by 2-hydroxypropyl and sulphated derivatives of β -cyclodextrin, *J Ind Chem Soc* **91** (2014) 865-870.
- [4] A Banik, **M Dutta Saikia***, “Adsorptive interaction of chiral amino acids on β -cyclodextrin bonded to silica particles”, *J Encapsulation and Adsorption Sciences* (2013) 3: 35-47
- [5] A Banik, **M Dutta Saikia***, “Interaction of Ibuprofen with β -Cyclodextrins: Experimental and molecular modeling studies”, *J Ind Chem Soc.* (2013) 90: 1163-1171
- [6] **M Dutta Saikia***, A Banik, P. Gogoi, “Interaction of Naproxen with β -Cyclodextrin and its derivatives/Polymer : Experimental and Molecular modeling studies”, *J Incl Phenom Macrocycl Chem* (2012) 72:449–458
- [7] P Gogoi, **MD Saikia**, NN Dutta, PG Rao, “Adsorption affinity of tea catechins onto polymeric resins: Interpretation from molecular orbital theory”, *Biochemical Engineering Journal*, **52** (2010) 144-150

- [8] **M Dutta Saikia***, “ Studies on adsorption of amino acids on β -cyclodextrin bonded to silica particles”, *Colloids and Surfaces A: Physicochem. Eng. Aspects*, **329** (2008) 177-183
- [9] **M Dutta Saikia***, “Revisiting Adsorption of Biomolecules on Polymeric Resins”, *Colloids and Surfaces A: Physicochem. Eng. Aspects*, **315** (2008) 196-204
- [10] **M Dutta Saikia***, NN Dutta, “Adsorption affinity of certain biomolecules onto polymeric resin: Effect of solute chemical nature”, *Reactive and Functional Polymer*, **68** (2008) 33-38.
- [11] **M Dutta Saikia***, NN Dutta, “Adsorption affinity of certain biomolecules onto polymeric resins: Interpretation from molecular orbital theory”, *Colloids and Surfaces A: Physicochem. Eng. Aspects* (2006) **280** : 163-168.
- [12] NN Dutta, **MD Saikia**, “Adsorption equilibrium of 7-aminodeacetoxy cephalosporin acid-cephalexin mixture onto activated carbon and polymeric resins”, *Indian Journal of Chemical Technology* (2005) **12** : 296-303
- [13] **M Dutta**, N N Dutta, K G Bhattacharyya, “Adsorptive Interaction of Certain Beta-lactam Antibiotics in Aqueous Solution : Interpretation by Frontier Orbital Theory”, *Journal of Chemical Engineering of Japan*, **33(2)** (2000) 303-307.
- [14] **M Dutta**, N N Dutta, K G Bhattacharyya, “Aqueous phase Adsorption of certain Beta-lactam antibiotics onto polymeric resins and activated carbon”, *Separation and Purification Technology*, **16** (1999) 213-224.
- [15] **M Dutta**, R Baruah, N N Dutta, “The Adsorption of certain semi-synthetic Cephalosporins on Activated carbon”, *Colloids And Surfaces A: Physicochem. Eng. Aspects*, **127** (1997) 25-37.
- [16] **M Dutta**, R Baruah, N N Dutta, “Adsorption of 6-Aminopenicillanic acid on activated carbon”, *Separation and Purification Technology*, **12** (1997) 99-108.
- [17] S. Gogoi, **M D Saikia***, “Studies on the adsorption mechanism of heavy metals onto Polymeric resins”, *J.Ind. Chem. Soc.(Communicated)*
- [18] H. Deka, **M D Saikia***, “Adsorptive Interaction of Certain Monoterpenoids with Graphene and Nitrogen Doped Graphene: A Density functional Theory Study”, *Colloids And Surfaces A: Physicochem. Eng. Aspects (Communicated)*

Details of Published Book Chapters:

[1] **M D Saikia***, Adsorptive separation of phenolic compounds at solid-liquid interface, *Chemistry of phenolic compounds State of Art* (2010) 155-163. Editor: Prof. JB Baruah, Nova Publication, New York, USA. ISBN-978-1-61761-335-7.

[2] **MD Saikia***, "Perspectives in biomolecular adsorption at solid-liquid interface", *Current Focus on Colloids and Surfaces*, 2009: 131-154. Editor: Songjun Li
ISBN: 978-81-7895-438-7.

[3] **M Dutta***, MM Borah, N N Dutta, "Adsorptive Separation of Beta-Lactam Antibiotics : Technological Perspectives", *Adv. Biochem Engin/Biotechnol* (2004) **86** : 255-278.

7. Any other information:

Projects Completed:

1. Adsorptive Interaction of Biomolecules/Drug molecules on Cyclodextrin Polymers: Experimental and Molecular Modeling Studies.

Funding Agency: **DST New Delhi. Duration: 3 Years (2010-2013)**

2. Experimental and molecular modeling study on the liquid phase adsorption of biomolecules/beta-lactam antibiotics.

Funding Agency: DST New Delhi under its **Fast Track Scheme** for Young Scientist.

8. Research Guidance:

Level of Guidance	No. of candidate registered	Thesis Submitted (numbers)	Degree Awarded (numbers)	
M Phil	-			
Ph D.	4 (Under Gauhati University)	Not yet	Not yet	

9. Referee of the Journals

- (a) Journal of Chemical Technology and Biotechnology
- (b) Colloids and Surfaces A: Physicochem. Eng. Aspects
- (c) Journal of the Taiwan Institute of Chemical Engineers
- (d) Journal of Inclusion Phenomena and Macrocyclic Chemistry

