



ALIPURDUAR UNIVERSITY

ESTD: 2020

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Subject Specialization: Inorganic Chemistry

Areas of Research Interest: Host-Guest Chemistry and Solution Thermodynamics.

No. of Ph.D. students: (a) Supervised: Nil (b) Ongoing: Nil

No. of M.Phil. students: (a) Supervised: Nil (b) Ongoing: Nil

No. of Publications: (a) Scientific Papers: 08 (b) Books/Book Chapter: Nil

Achievement & Awards:

- Awardee of JRF by the University of North Bengal (State/University Fellowship).
- Awardee of Rajiv Gandhi National Fellowship for SC Candidates for Pursuing Ph. D. Degree.
- GATE Qualified.
- NET Qualified.

Administrative Experiences: In-Charge, Engineering Section (Additional Charge) of the Alipurduar University, Alipurduar Court, Alipurduar-736122, West Bengal, India.

Research Experience:

- JRF by the University of North Bengal (State/University Fellowship): (2013-2014)
Catalysis and Metal ion Sensing in solution. (Mentor: Dr. P. Bandyopadhyay).
- University of North Bengal, West Bengal India: (2015-2018)
Ph. D degree, Inclusion Complexes and Solvation Consequences of Ionic Liquids and Biologically Active Molecules in Liquid Systems. (Guide: Prof. M. N. Roy).

List of Selected Publications:

1. S. Saha, A. Roy, **K. Roy** and M.N.Roy*, Study to explore the mechanism to form inclusion complexes with vitamin molecules, **SCIENTIFIC REPORTS 6(2016) 35764(Nature Publisher)**.
2. **K. Roy**, S. Saha, B. Datta, L. Sarkar and M. N. Roy*, Study on Host-Guest Inclusion Complexation of a Drug in Cucurbit [6]uril, **Z. Phys. Chem.2(2017)232(DE GRUYTER Publisher)**.
3. M. N. Roy*, M. C. Roy and **K. Roy**, Investigation of an Inclusion Complex formed by Ionic Liquid and β -Cyclodextrin through Hydrophilic and Hydrophobic Interactions, **RSC Adv.,5(2015) 56717(RSC Publisher)**.
4. M. N. Roy*, **K. Roy**, K. Das, B. K. Barman, Self –assembly inclusion of green solvent with oligosaccharides, **Journal of Molecular Liquids 216 (2016) 132 (Elsevier Publisher)**.
5. **K. Roy**, P. Bomzan, M. C. Roy and M. N. Roy*, Inclusion of tyrosine derivatives with α -cyclodextrin in aqueous medium of various pH conditions by surface tension, conductance, Uv-vis and NMR studies, **Journal of Molecular Liquids 230(2017) 104 (Elsevier Publisher)**.
6. D. Ekka, T. Ray, **K. Roy** and M. N. Roy*, Exploration of Solvation Consequence of Ionic Liquid [Bu₄PCH₃SO₃] in Various Solvent systems by Conductance and FTIR Study, **Journal of Chemical & engineering Data, 61(2016)2187 (ACS Publisher)**.
7. B. K. Barmana, **K. Roy** and M. N. Roy, Probing Inclusion Complexes of Pentoxifylline and Pralidoxim inside Cyclic Oligosaccharides by Physicochemical Methodology, **Z. Phys. Chem. 8(2018)233 (DE GRUYTER Publisher)**.
8. R. Ghosh, **K. Roy**, A. Subba , P. Mandal , S. Basak , M. N. Roy, Case to Case Study for Exploring Inclusion Complexes of an Anti-diabetic Alkaloid with α - and β - cyclodextrin Molecules for Sustained Dischargement, **Journal of Molecular Structure 1200(2020)126988 (Elsevier Publisher)**.