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Raja Rammohunpur, Dist- Darjeeling, West Bengal, Pin-734013, India.



Department of Chemistry

Print

## Dr. Biswajit Sinha

M.Sc., B. Ed., Ph.D., DIT

### Professor



**Members of Learned Societies:** Indian Chemical Society, Chemical Research Society of India, Life member of Indian Chemical Society [F/7020 (LM)], Nominated member of the U. G Board of Studies in Chemistry w. e. f 18-06-2017, Appointed Member of the Central Visiting Team, N. B. U for ensuring B.A/B.Sc/B.Com examinations, 2017, Member of the Election Commission, N.B.U for the NBUSA Election 2016-17. Appointed Member of the Central Visiting Team, N. B. U for ensuring B.A/B.Sc/B.Com examinations, 2016, Elected member of P. G Board of studies for 04 years w.e.f 23-03-2010, Elected member of U. G Board of studies for 04 years w. e. f 08-05-2010, Nominated member of the Decoration Committee for the 44<sup>th</sup> Annual Convocation, N.B.U., Nominated member of the Volunteer Sub-Committee for the 43<sup>th</sup> Annual Convocation, N.B.U., Member of The Board of Research Studies in Chemistry, N. B. U since 2011 onwards, Member of The P. G. Board of Studies in Chemistry, N. B. U since 2008 onwards, Appointed Member of the Central Visiting Team, N. B. U for ensuring B.A/B.Sc/B.Com examinations, 2014, Member of the Election Commission, N. B. U for the NBUSA Election 2014-15, Member of the Vehicle Advisory Committee, WBSSTC-2015 held at N. B. U., Member of the Advisory Committee, USIC, N. B. U., Member of the Library Committee, N. B. U.



### About:

Dr. Biswajit Sinha is a professor of Inorganic Chemistry at the Department of Chemistry, University of North Bengal, India. His present research interest includes hydrothermal synthesis of Metal-Organic hybrid materials and their magnetic properties. He also works on Coordination Chemistry and Solution Thermodynamics. At present he has 70 research articles published in various peer reviewed national and international journals. Amid these articles, 14 research articles are hi-indexed. He has also published five books including some monographs. He has been a reviewer of several national and international reputed journals of different brands like Elsevier, Springer, Taylor and Francis, American Chemical Society and Royal Society of Chemistry, etc. He has already supervised seven research scholars for their Ph. D and six scholars are presently pursuing their Ph. D under his supervision. He has been as a member of several academic and administrative committees and councils of the university over the years. He is a life member of Indian Chemical Society and Chemical Research Society of India.

### Contact Addresses:

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**Subject Specialization:** Inorganic Chemistry

**Areas of Research Interest:** Hydrothermal Synthesis of single crystals, Coordination Chemistry & Solution Thermodynamics.

**No. of Ph.D. students:** (a) Supervised: 08 (b) Ongoing: 07.

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

**No. of Publications:** (a) Research Articles: 70 (b) Book(s) : 05

### Achievement & Awards:

- Nil

### Professional Experiences:

- **2001** (10-01-2001)-**2008** (till 11-03-2008): Assistant Teacher in (10 + 2) level in Higher Secondary School, West Bengal, India.
- **2008** (12-03-2008)-**2012** (12-03-2012): Assistant Professor (Stage I) in the Department of Chemistry, University of North Bengal, India.
- **2012** (12-03-2012)-**2018** (21-05-2018): Assistant Professor (Stage II) in the Department of Chemistry, University of North Bengal, India.
- **2018** (22-05-2018)-**2018** (05-09-2018): Associate Professor in the Department of Chemistry, University of North Bengal, India.
- **2018** (06-09-2018)-**till date**: Professor in the Department of Chemistry, University of North Bengal, India.
- **Reviewer for:** Journal of Chemical & Engineering data, Chemical Engineering Communication, Journal of Molecular Liquids, Journal of Chemical Thermodynamics, RSC Advances, Heliyon, Food & Function & Fluid Phase Equilibria, etc.
- **Convener for:** National Seminar on "Frontiers in Chemistry 2017-18" organized by the Department of Chemistry, N. B. U on 14<sup>th</sup> Sep 2017.
- **Joint Convener for:** National Seminar on "Frontiers in Chemistry-2017" organized by the Department of Chemistry, N. B. U during 20-21<sup>st</sup> Feb 2017.
- **Joint Convener for:** National Seminar on "Frontiers in Chemistry-2014" organized by the Department of Chemistry, N. B. U during 11-12<sup>th</sup> March 2014.

- **Joint Coordinator for:** National Seminar on “Frontiers in Chemistry-2013” organized by the Department of Chemistry, N. B. U held on 28<sup>th</sup> Feb 2013.
- **Coordinator/Convener/Moderator/Paper setter/Examiner of:** Several theoretical & Practical papers of Chemistry of U. G and P. G level of N. B. U, Raiganj University & Cooch Behar Panchanan Barma University, etc.
- **Technical Advisor/Expert for:** The Common Facility Centre (CFC) of Siliguri Storage Battery Cluster Services Pvt. Ltd under MSE-CDP Scheme, Ministry of MSME, Govt. of India from 2008 onwards.

#### Administrative Experiences:

- Elected member of P. G & U. G board of studies: 04 years for each board.
- **Reviewer for:** Journal of Chemical & Engineering data, Chemical Engineering Communication, Journal of Molecular Liquids, Journal of Chemical Thermodynamics, RSC Advances, Heliyon, Food & Function & Fluid Phase Equilibria, etc.
- **Convener for:** National Seminar on "Frontiers in Chemical 2017-18" organized by the Department of Chemistry, N.B.U on 14th Sep 2017.

#### Professional courses:

- Summer workshop on " Electronic Band Structure Calculations and Hands-on Computation" during 6<sup>th</sup>-13<sup>th</sup> June 2016 organized by Dept. of Physics, N.B.U.
- UGC sponsored "Refreshers Course in Chemistry" during 23<sup>rd</sup> Nov - 12<sup>th</sup> Dec 2015 from UGC - HRDC, Himachal Pradesh University.
- UGC sponsored "Refreshers Course in Chemistry" during 12<sup>th</sup> Sep - 1<sup>st</sup> Oct 2011 from UGC - ASC, Himachal Pradesh University.
- UGC sponsored "Orientation Programme" during 8<sup>th</sup> May - 4<sup>th</sup> June 2010 from UGC-ASC, University of Burdwan.

#### Projects Completed:

- Minor project entitled “Ionic liquid Based Schiff Bases and Their Transition Metal Complexes: Synthesis and Physico-Chemical Characterization”, sanctioned by N.B.U in 2013-14.
- Minor project entitled “Efficacy of Some Polydentate Schiff base Transition Metal Complexes as Potential Plant Growth Promoters”, sanctioned by N.B.U in 2015-16.

#### Books/Monographs authored:

1. **B. Sinha**, Physico-Chemical Investigation On 1,4-Dioxane And Its Binary Systems. 2012, Lambert Academic Publishing, Germany, ISBN: 978-3-659-13139-4.
2. A. Sarkar and **B. Sinha**, Interactions of thiamine hydrochloride in aqueous TBAHS solutions: Volumetric, viscometric and uv-vis spectroscopic methods. 2016, Lambert Academic Publishing, Germany, ISBN: 978-3-659-96322-3.
3. A. Sarkar and **B. Sinha**, Host-guest interactions between a drug and cyclodextrin: Inclusion Complex Formation And Solution Behavior, 2017, Lambert Academic Publishing, Germany, ISBN: 978-6202010283.
4. A. Sarkar and **B. Sinha**, Interactions between an anticancer agent and cyclodextrin: Inclusion Complex Formation And Solution Thermodynamics. 2017, Lambert Academic Publishing, Germany, ISBN: 978-3330044425.
5. A. Sarkar and **B. Sinha**, Interactions of an anti-diabetic drug in aqueous D-glucose solutions: Volumetric, viscometric and acoustic methods. 2018, Lambert Academic Publishing, Germany, ISBN: 978-3-659-61683-9.

#### Seminar/Symposium/Convention/Workshops attended/Participated:

- Workshop on Restructuring the Under-Graduate Syllabus Based on CBCS (Honours & Programme Courses) organized by Council for Under-Graduate Studies in Arts, Science and Law & Board of Under-Graduate Studies, N. B. U on 29<sup>th</sup> Jan 2019 held in the conference Hall, N. B. U.
- Two Days International Conference on “Green Engineering and Sustainable Development” during 20<sup>th</sup>-21<sup>st</sup> August-2018, organized by the Dept. of Chemistry, Mugberia Gangadhar Mahavidyalaya, Purba Medinipur, West Bengal in collaboration with Indian Chemical Society.
- International Seminar on Recent Advances in Molecules & Materials (*RA2M-2018*) during 2<sup>nd</sup>-3<sup>rd</sup> August 2018, jointly organized by School of Applied Science & Humanities, Haldia Institute of Technology, Haldia & The Indian Chemical Society, Kolkata.
- Science Academies Lecture Workshop on “Frontiers in Chemical and Material Sciences: Theory and Practice” during 8-10<sup>th</sup> Feb 2018 organized by Department of Chemistry, N. B. U.
- 54<sup>th</sup> Annual Convention of Chemists 2017 (Nation Conference) held at Uka Tarsadia University, Surat during 23-25<sup>th</sup> Dec 2017.
- Workshop on Restructuring the Under-Graduate Syllabus Based on CBCS (Honours & General organized by Council for Under-Graduate Studies in Arts, Science and Law & Board of Under-Graduate Studies in Chemistry, N. B. U on 30<sup>th</sup> Oct 2017 held in the conference Hall, N. B. U.
- National Seminar on “Frontiers in Chemistry 2017-18” organized by Department of Chemistry, N. B. U on 14<sup>th</sup> Sep 2017.
- National Seminar on “Frontiers in Chemistry 2017” organized by Department of Chemistry, N. B. U on during 20-21<sup>st</sup> Feb 2017.
- 53<sup>rd</sup> Annual Convention of Chemists 2016 (Nation Conference) held at GITAM University, Visakhapatnam during 27-29<sup>th</sup> Dec 2016.
- 19<sup>th</sup> CRSI National Symposium in Chemistry during 14<sup>th</sup>-16<sup>th</sup> July 2016 held at organized by Dept. of Chemistry, N. B. U.
- Summer Workshop on Electronic Band Structure calculations and Hands-on Computation during 6-13<sup>th</sup> June 2016 organized by Department of Physics, N. B. U.
- National seminar on “Frontiers in Chemistry-2016” during 7<sup>th</sup>-8<sup>th</sup> March 2016 organized by Dept. of Chemistry, N. B. U.
- 17<sup>th</sup> CRSI National Symposium in Chemistry during 6<sup>th</sup>-8<sup>th</sup> Feb 2015 held at CSRI-NCL, Pune, India.
- National seminar on “Frontiers in Chemistry-2015” during 17<sup>th</sup>-18<sup>th</sup> February 2015, organized by Dept. of Chemistry, N. B. U.
- 22<sup>nd</sup> West Bengal State Science & Technology Congress-2015 during 28<sup>th</sup> Feb-1<sup>st</sup> March 2015 organized by DST, Govt. of W. B, West Bengal State Council of Science & Technology and N. B. U.
- One-day seminar on “Recent Trends on Chemistry and Biology Interface” on 28<sup>th</sup> Aug 2015, organized by Dept. of Chemistry, N. B. U.
- 16<sup>th</sup> CRSI National Symposium in Chemistry during 7<sup>th</sup>-9<sup>th</sup> Feb 2014, held at IITB, Powai, Mumbai.

- National seminar on “Frontiers in Chemistry-2014” during 11<sup>th</sup>-12<sup>th</sup> March 2014, organized by Dept. of Chemistry, N. B. U.
- National Seminar on “Integrated Approaches in Horticulture for Sustainable Development” during 29<sup>th</sup>-30<sup>th</sup> Nov 2014, held at Palli Siksha Bhavana, Visva Bharati, Sriniketan.
- 15<sup>th</sup> CRSI National Symposium in Chemistry during 1<sup>st</sup>-3<sup>rd</sup> Feb 2013, organized by Dept. of Chemistry, B. H. U.
- National seminar on “Frontiers in Chemistry-2013” held on 28<sup>th</sup> Feb 2013 & organized by Dept. of Chemistry, N. B. U.
- 50<sup>th</sup> Annual Convention of Chemists 2013 during 4<sup>th</sup>-7<sup>th</sup> Dec 2013 held at the Dept. of Chemistry & Centre for Advanced Studies in Chemistry, Panjab University, Chandigarh.
- UGC Sponsored Nation Seminar on “Current Trends in Chemistry” during 9-10<sup>th</sup> Feb 2012 organized jointly by Union Christian College, Berhampore, Murshidabad & Education College, Basantapur, Murshidabad.
- CRSI Easter Zonal Meeting, 2011 & Celebration of the International Year of Chemistry 2011 during 22<sup>nd</sup>-24<sup>th</sup> Jul 2011, organized by Dept. of Chemistry, N. B. U.
- 12<sup>th</sup> CRSI National Symposium in Chemistry & 4<sup>th</sup> CRSI-RSC Symposium in Chemistry during 4-7<sup>th</sup> Feb- 2010 held at IICT, Hyderabad.
- UGC sponsored National seminar on “Recent Reforms in Education in India: Trends and Challenges” during 1<sup>st</sup> -2<sup>nd</sup> Oct-2010 organized by University B. T. & Evening College and Tufanganj College, Cooch Behar and held at Rabindra Bhavan, Cooch Behar.
- National Workshop on “Advances in Instrumental Techniques” during 14<sup>th</sup> -16<sup>th</sup> Oct-2010, organized by Dept. of Chemistry, Shri Shivaji Science College, Amravati (Maharashtra).
- Awareness programme on Access to E-resources under UGC INFONET Digital Library Consortium held on 25<sup>th</sup> March-2009, organized by University Library, N. B. U & INFLIBNET Centre, Ahmedabad.
- 46<sup>th</sup> Annual Convention of Chemists 2009 during 2<sup>nd</sup>-6<sup>th</sup> Dec 2009 jointly organized by Indian Chemical Society, Kolkata & Chemical Division, School of Science and Humanities, VIT University, Tamilnadu and held at VIT University campus, Vellore, Tamilnadu.
- Trends in Surface Science and Related Areas (TSSRA) V held on 6<sup>th</sup> Dec 2008 organized by Department of Chemistry, N. B. U & Indian Society for Surface Science & Technology, Jadavpur University.
- Sixth CRSI (Kolkata Chapter) Symposium held on 2<sup>nd</sup> Aug 2008, organized by the Dept. of Chemistry, N. B. U.
- 42<sup>nd</sup> Annual Convention of Chemists 2005 during 9<sup>th</sup>-13<sup>th</sup> Feb 2006 organized by Indian Chemical Society and hosted by the Department of Chemistry, Visva-Bharati University, Santiniketan, India.

### Selective List of Publications:

#### Research Articles:

- **B. Sinha**, M. Bhattacharya, S. Sanda, Transition metal complexes obtained from an ionic liquid-supported Schiff base: synthesis, physicochemical characterization and exploration of antimicrobial activities. *J. Chem. Sci.* (2019) 131: 19. <https://doi.org/10.1007/s12039-019-1593-x>.
- A. Das, S. Dutta, **B. Sinha**. Effects of  $\beta$ -cyclodextrin-based Schiff-base Zn(II) complexes: synthesis, physicochemical characterization and their role in alleviating oxidative stress related disorder. *Journal of Coordination Chemistry* (2018) DOI: 10.1080/00958972.2018.1519705.
- K. Acharjee, J. Sarkar, P. Deb, U. Chackraborty, **B. Sinha**. Responses of *Oryza sativa* L. towards Azo Functionalised Schiff base Cu(II) Complexes and CuSO<sub>4</sub>: A Comparative Biochemical Study. *Oriental Journal of Chemistry* 34 (2018) 1991-2001.
- A. Sarkar, **B. Sinha**. Thermophysical properties of gallic acid in aqueous  $\beta$ -cyclodextrin solutions at different temperatures. *J. Indian Chem. Soc.* 95 (2018) 961-970.
- B. Saha, B. Mitra, D. Brahman, **B. Sinha**, P. Ghosh. 2-Iodo benzoic acid: an unconventional precursor for the one pot multi-component synthesis of Quinoxaline using organo Cu (II) catalyst. *Tetrahedron Letters* 59 (2018) 3643-3724.
- D. K. Mishra, U. K. Singha, A. Das, S. Dutta, P. Kar, A. Chakraborty, A. Sen, **B. Sinha**. DNA binding, amelioration of oxidative stress and molecular docking study of Zn(II) metal complex of a new Schiff base ligand. *Journal of Coordination Chemistry* 71 (2018) 2165-2182.
- A. Kamath, D. Brahman, G. Pilet, **B. Sinha**, A. Tamang. [Bis(picolate- $\kappa^2$  N:O)Copper(II)] di(benzene-1,3,5-tricarboxylic acid): Hydrothermal synthesis, structural characterization, magnetic properties and DFT study. *Journal of Molecular Structure*. 1165 (2018) 228-235.
- S. Saha, G. Basak, **B. Sinha**. Physico-chemical characterization and biological studies of newly synthesized metal complexes of an ionic liquid- supported Schiff base: 1-{2-(2-hydroxy-5-bromobenzylidene)amino}ethyl-3-ethylimidazolium tetrafluoroborate. *J. Chem. Sci.* 130 (2018) 9.
- K. Acharjee, J. Sarkar, P. Deb, U. Chackraborty, **B. Sinha**. Efficacy of N<sub>2</sub>O<sub>2</sub> donor Schiff bases and their Zn<sup>2+</sup> complexes on various morphological and biochemical parameters of *Cicer arietinum* L. *Journal of Plant Nutrition* 41 (2018) 487-496.
- A. Das, D. K. Mishra, **B. Sinha**. A Pd(II) complex of a  $\beta$ -cyclodextrin-based polydentate ligand: an efficient catalyst for the Suzuki reaction in aqueous media. *Journal of Coordination Chemistry* 70 (2017) 3035-3047.
- D. Brahman, A. Kamath, D. K. Mishra, **B. Sinha**. Solution Thermodynamics of *N, N'*-Ethylenebis(salicylideneiminato)-diaquochromium(III) Chloride in Aqueous Dimethylsulphoxide. *Journal of Solution Chemistry* 46 (2017) 589-612.
- D. K. Mishra, A. Das, A. Kamath, **B. Sinha**. Solution thermodynamics and taste behaviour of nicotinic acid in aqueous sodium gluconate solutions: A volumetric and rheological perspective. *Journal of Molecular Liquids* 230 (2017) 662-666.
- A. Sarkar, **B. Sinha**. Volumetric, Acoustic and Transport Properties of Metformin Hydrochloride Drug in Aqueous D-Glucose Solutions at T = (298.15 – 318.15) K. *Journal of Solution Chemistry* 46 (2017) 424-445.
- R. Pradhan, **B. Sinha**, Thermophysical properties of the binary blends of cyclohexane with some esters. *Journal of the Serbian Chemical Society* 82 (2017) 189-202.
- M. Saha, S. Sengupta, **B. Sinha**, D. K. Mishra. Assessment of Physico-Chemical Properties, Some Heavy Metals and Arsenic of River Teesta in Jalpaiguri District, West Bengal, India. *Asian J. Research Chem.* 10 (2017) 1-6.
- A. Sarkar, H. Rahaman, U. K. Singha, **B. Sinha**. Solute-solute and Solute-solvent Interactions of Paracetamol in Aqueous Solutions of  $\beta$ -cyclodextrin at Different Temperatures: A Volumetric and Viscometric Approach. *Indian Journal of Advances in Chemical Science* 5 (2017) 230-244.
- A. Sarkar, **B. Sinha**. Effect of tetrabutylammonium hydrogen sulphate on the Solution thermodynamics of thiamine hydrochloride in aqueous solutions, *Journal of Molecular Liquids* 223 (2016) 321-328.

- A. Sarkar, B. K. Pandit, **B. Sinha**. Volumetric and viscometric behaviour of pyridoxine hydrochloride in aqueous tetrabutylammonium hydrogen sulphate solutions at different temperatures. *Journal of Chemical Thermodynamics* 103 (2016) 36-43.
- A. Sarkar, **B. Sinha**. Solution properties and taste behavior of lactose monohydrate in aqueous ascorbic acid solutions at different temperatures: Volumetric and rheological approach. *Food Chemistry* 211 (2016) 590-597.
- A. Kamath, D. K. Mishra, D. Brahman, G. Pilet, **B. Sinha**, A. Tamang. Poly[diaquo(1,10-phenanthroline- $\kappa^2N1:N10$ )( $\mu_2$ -sulphato- $\kappa^2O:O'$ )copper(II)]: hydrothermal synthesis, crystal structure and magnetic properties. *RSC Advances* 6 (2016) 46030-46036.
- A. Sarkar, D. K. Mishra, **B. Sinha**. Volumetric, Acoustic, and Fourier Transform Infrared Spectroscopic Study of Potassium Thiocyanate in Cyclohexanone, N, N-Dimethylformamide and Dimethyl Sulfoxide. *Indian J. Chem. Advances* 4 (2016) 180-187.
- A. Sarkar, D. K. Mishra, **B. Sinha**. Solution Thermophysics of L-Ascorbic Acid in Aqueous Tetrabutylammonium Hydrogen Sulfate. *Journal of Solution Chemistry* 45 (2016) 560-573.
- A. Sarkar, B. K. Pandit, **B. Sinha**. Volumetric and viscometric studies of nicotinic acid in aqueous solutions of sodium malonate at  $T = (298.15-318.15)$  K. *Journal of Chemical Thermodynamics* 98 (2016) 193-199.
- B. K. Pandit, A. Sarkar, **B. Sinha**. Solution thermodynamics of sodium pyruvate in aqueous glycine solutions at  $T = (298.15-313.15)$  K. *Journal of the Serbian Chemical Society* 81 (2016) 1283-1294.
- S. Saha, A. Das, K. Acharjee, **B. Sinha**. Synthesis, characterization and antibacterial studies of Mn(II) and Co(II) complexes of an ionic liquid tagged Schiff base. *Journal of the Serbian Chemical Society* 81 (2016) 1151-1159.
- A. Sarkar, B. K. Pandit, **B. Sinha**. Volumetric and transport properties of betaine hydrochloride drug in aqueous uracil solutions at  $T = (298.15-318.15)$  K. *Journal of Chemical Thermodynamics* 98 (2016) 118-125.
- N. A. Al-Omair, D. Das, L. Snoussi, **B. Sinha**, R. Pradhan, K. Acharjee, K. Saoudi, N. Ouerfelli. A partial derivatives approach for estimation of the viscosity Arrhenius temperature in N,N-dimethylformamide + 1,4-dioxane binary fluid mixtures at temperatures from 298.15 K to 318.15 K. *Physics and Chemistry of Liquids* 54 (2016) 615-631.
- A. Sarkar, B. K. Pandit, **B. Sinha**. Effect of paracetamol in aqueous sodium malonate solutions with reference to volumetric and viscometric measurements. *Journal of Chemical Thermodynamics* 96 (2016) 161-168.
- S. Saha, D. Brahman, **B. Sinha**. Cu(II) complexes of an ionic liquid-based Schiff base [1-{2-(2-hydroxy benzylidene amino) ethyl}-3-methyl-imidazolium]PF<sub>6</sub>: Synthesis, characterization and biological activities, *Journal of the Serbian Chemical Society* 80 (2015) 35-43.
- K. Acharjee, D. K. Sangma, D. K. Mishra, P. Deb and **B. Sinha**. Effect of some Schiff base ligands and their Zn (II) complexes on germination and seedling growth of papaya (*Carica papaya* L.), *Indian Journal of Advances in Chemical Science* 3 (2015) 141-146.
- A. Sarkar, B. K. Pandit, K. Acharjee, **B. Sinha**. Volumetric and Viscometric Behavior of Ferrous Sulfate in Aqueous Lactose Solutions at Different Temperatures, *Indian Journal of Advances in Chemical Science* 3 (2015) 219-229.
- R. Pradhan, A. Kamath, D. Brahman, **B. Sinha**. Hydrogen bond interactions in the blends of 1,4-dioxane with some 1, 2- disubstituted ethanes at  $T = (298.15, 308.15$  and  $318.15)$  K, *Fluid Phase Equilibria* 404 (2015) 131-140.
- R. Biswas, D. Brahman, **B. Sinha**. Thermodynamics of the complexation between salicylaldehyde thiosemicarbazone with Cu(II) ions in methanol-1,4-dioxane binary solutions, *Journal of the Serbian Chemical Society* 79 (2014) 565-578.
- D. Brahman, **B. Sinha**. Non-covalent interactions between {N, N'-bis[(2-pyridinyl)methylene]-1, 2-benzenediamine}-bis(nitrato)Cu(II) with pyridoxine hydrochloride in methanol at  $T = (298.15, 308.15$  and  $318.15)$  K, *Journal of Chemical Thermodynamics* 75 (2014) 136-144.
- D. Brahman, **B. Sinha**. Partial molar volumes and viscosity B-coefficients for N, N'-ethylenebis(salicylideneiminato)-diaquochromium(III) chloride in methanolic solutions of 1-butyl-2,3-dimethylimidazolium tetrafluoroborate at  $T = (298.15, 308.15,$  and  $318.15)$  K, *Journal of Chemical Thermodynamics* 68 (2014) 260-269.
- D. Brahman, **B. Sinha**. Solution behaviour of (N, N' ethylenebis(salicylideneiminato))-iron(III) chloride in aqueous methanol at 298.15, 303.15 and 313.15 K, *Journal of the Serbian Chemical Society* 79 (2014) 225-239.
- D. Brahman, R. Pradhan, **B. Sinha**. Solution thermodynamics of iron(III)-N, N'-ethylene-bis(salicylideneiminato)-chloride in binary mixtures of N,N-dimethylformamide and acetonitrile at  $T = (298.15, 303.15, 308.15$  and  $313.15)$  K, *Journal of Chemical Thermodynamics* 75 (2014) 96-105.
- **B. Sinha**, G. C. Dey, B. Sarkar, A. Roy, Seik Weng. Ng, Edward R. T. Tiekink. Poly[( $\mu_3$ -3,5-dinitrobenzoato- $\kappa^3O^1:O^1:O^3$ )( $\mu_2$ -hydroxido- $\kappa^2 O:O$ )-copper(II)], *Acta Cryst.* E70 (2014) m112-m113.
- R. Biswas, D. Brahman, **B. Sinha**. Spectrophotometric and conductometric study of the complexation of N-salicylidene-2-aminophenol with Cu<sup>2+</sup> in methanol + 1,4-dioxane binary solutions, *Journal of the Serbian Chemical Society* 79 (2014) 1263-1277.
- D. Brahman, **B. Sinha**. Synthesis, characterization and antibacterial activities of Zn(II) and Cd(II) complexes of a 3-amino-2-phenylquinazolin-4(3H)-one Schiff base, *Journal of the Serbian Chemical Society* 79 (2014) 1505-1513.
- A. Sarkar, **B. Sinha**. Solution thermodynamics of aqueous nicotinic acid solutions in the presence of tetrabutylammonium hydrogen sulphate, *Journal of the Serbian Chemical Society* 78 (2013) 1225-1240.
- **B. Sinha**, R. Pradhan, S. Saha, D. Brahman, A. Sarkar. Thermophysical properties of binary mixtures of N, N-dimethylformamide with three cyclic ethers, *Journal of the Serbian Chemical Society* 78 (2013) 1443-1460.
- D. Brahman, **B. Sinha**. Effect of tetrabutylammonium bromide on solution behavior of salicylaldehyde anil zinc (II) in methanol at  $T = (298.15, 308.15$  and  $318.15)$  K, *Journal of Chemical Thermodynamics*, 67 (2013) 13-20.
- S. C. Roy, B. D. Sharma, S. Singha, **B. Sinha**. Characterization of Rice [*Oryza sativa* L.] Germplasm Based on Iron and Zinc Content, *NBU Journal of Plant Sciences*, 7(1) (2013) 89-93.
- B. K. Sarkar, A. Choudhury, **B. Sinha**. Excess Molar Volumes, Excess Viscosities and Ultrasonic Speeds of Sound of Binary Mixtures of 1,2-Dimethoxyethane with Some Aromatic Liquids at 298.15 K, *Journal of Solution Chem.* 41 (2012) 53-74.
- **B. Sinha**, A. Sarkar, P. K. Roy, D. Brahman. Physicochemical Properties of L-Alanine in Aqueous Silver Sulphate Solutions at (298.15, 308.15, and 318.15) K, *Int. Journal of Thermophys.* 32 (2011) 2062-2078.
- D. Brahman, **B. Sinha**. Partial Molar Volumes and Viscosity B-Coefficients of N, N'-Ethylene-bis(salicylideneiminato)cobalt(II) in Binary Mixtures of 1,4-Dioxane + Methanol at  $T = (298.15, 303.15, 308.15,$  and  $313.15)$  K, *Journal of Chemical Engineering & Data*, 56 (2011) 3073-3082.
- R. S. Sah, B. Sinha, M. N. Roy. Ion association and solvation behavior of some alkali metal acetates in aqueous 2-butanol solutions at  $T = 298.15, 303.15$  and  $308.15$  K, *Fluid Phase Equilibria*, 307 (2011) 216-221.
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