

[7.1] List of Publications

- Rohman, S. S., **Ghosh, B.**, and Phukan, A. K. In search of stable singlet metalla-N-heterocyclic carbenes (MNHCs): a contribution from theory. *Dalton Transactions*, 48(31):11772-11780, 2019. (https://mjl.clarivate.com:/search-results?issn=1477-9226&hide_exact_match_fl=true&utm_source=mjl&utm_medium=share-by-link&utm_campaign=search-results-share-this-journal)
- Lenczyk, C., Roy, D. K., **Ghosh, B.**, Schwarzmann, J., Phukan, A. K., and Braunschweig, H. First Bis (σ)-borane Complexes of Group 6 Transition Metals: Experimental and Theoretical Studies. *Chemistry—A European Journal*, 25(36):8585-8589, 2019. (https://mjl.clarivate.com:/search-results?issn=0947-6539&hide_exact_match_fl=true&utm_source=mjl&utm_medium=share-by-link&utm_campaign=search-results-share-this-journal)
- **Ghosh, B.**, Bharadwaz, P., Sarkar, N., and Phukan, A. K. Activation of small molecules by cyclic alkyl amino silylenes (CAASis) and germylenes (CAAGes): a theoretical study. *Dalton Transactions*, 49(39):13760-13772, 2020. (https://mjl.clarivate.com:/search-results?issn=1477-9226&hide_exact_match_fl=true&utm_source=mjl&utm_medium=share-by-link&utm_campaign=search-results-share-this-journal)
- **Ghosh, B.**, and Phukan, A. K. Probing the potential of metalla-N-heterocyclic carbenes towards activation of enthalpically strong bonds. *Dalton Transactions*, 49(27):9505-9515, 2020. (https://mjl.clarivate.com:/search-results?issn=1477-9226&hide_exact_match_fl=true&utm_source=mjl&utm_medium=share-by-link&utm_campaign=search-results-share-this-journal)
- Borthakur, B., **Ghosh, B.**, and Phukan, A. K. The flourishing chemistry of carbene stabilized compounds of group 13 and 14 elements. *Polyhedron*, 197, 115049, 2021. (https://mjl.clarivate.com:/search-results?issn=0277-5387&hide_exact_match_fl=true&utm_source=mjl&utm_medium=share-by-link&utm_campaign=search-results-share-this-journal)
- **Ghosh, B.**, Fantuzzi, F., and Phukan, A. K. Understanding, Modulating, and Leveraging Transannular M \rightarrow Z Interactions. *Inorganic Chemistry*, 60(17):12790-12800, 2021. (<https://mjl.clarivate.com:/search-results?issn=0020->

[1669&hide_exact_match_fl=true&utm_source=mjl&utm_medium=share-by-link&utm_campaign=search-results-share-this-journal](https://mjl.clarivate.com/search-results?issn=2052-1669&hide_exact_match_fl=true&utm_source=mjl&utm_medium=share-by-link&utm_campaign=search-results-share-this-journal))

- **Ghosh, B.**, Cabrera-Trujillo, J. J., Fernández, I., and Phukan, A. K. Stable N-heterocyclic borylenes with promising ligand properties: a contribution from theory. *Inorganic Chemistry Frontiers*, 9(21):5673-5687, 2022. (https://mjl.clarivate.com/search-results?issn=2052-1553&hide_exact_match_fl=true&utm_source=mjl&utm_medium=share-by-link&utm_campaign=search-results-share-this-journal)
- **Ghosh, B.**, and Phukan, A. K. Unravelling the Potential of Ylides in Stabilizing Low-Valent Group 13 Compounds: Theoretical Predictions of Stable, Five-Membered Group 13 (Aluminum and Gallium) Carbenoids Capable of Small-Molecule Activation. *Inorganic Chemistry*, 61(37):14606-14615, 2022. (https://mjl.clarivate.com/search-results?issn=0020-1669&hide_exact_match_fl=true&utm_source=mjl&utm_medium=share-by-link&utm_campaign=search-results-share-this-journal)
- **Ghosh, B.**, and Phukan, A. K. Unravelling the Potential of Tripodal Vanadium Catalysts for Dinitrogen Reduction. (Communicated).

[8.1] List of Conferences attended

- “Activation of Enthalpically Strong Bonds by Metalla-*N*-Heterocyclic Carbenes.” **Bijoy Ghosh** and Ashwini K. Phukan, Emerging Trends in Chemical Sciences, February 13-15, 2020, Gauhati University, Assam, India.
- “Activation of Small Molecules by Cyclic Alkyl Amino Silylenes (CAASis) and Germylenes (CAAGes): A Theoretical Study.” **Bijoy Ghosh** and Ashwini K. Phukan, “MATERIALS CHEMISTRY AND CATALYSIS” (VIRTUAL MODE), March 4-5, 2021, Tezpur University, Assam, India.
- “Activation of Small Molecules by Cyclic Alkyl Amino Silylenes (CAASis) and Germylenes (CAAGes): A Theoretical Study.” **Bijoy Ghosh** and Ashwini K. Phukan, Recent Advances in Chemistry: Theoretical & Computational Aspects, November 18-20, 2022, Department of Chemistry, National Institute of Technology, Meghalaya & North Eastern Hill University, Shillong, India.
- “Unravelling the Potential of Ylides in Stabilizing Low-Valent Group 13 Compounds: Theoretical Predictions of Stable, Five-Membered Group 13 (Aluminum and Gallium) Carbenoids Capable of Small-Molecule Activation.” **Bijoy Ghosh** and Ashwini K. Phukan, “RESEARCH AT THE INTERFACE OF CHEMICAL BIOLOGICAL AND MATERIAL SCIENCES, March 10th, 2023, Tezpur University, Assam, India.