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Anant Kapdi was born in Mumbai, Maharashtra, India, in 1980, and studied chemistry at the University of Mumbai (MSc 2002) and York (MSc 2005; Dr. Ian J. S. Fairlamb). He completed his PhD in 2008 under the supervision of Dr. Fairlamb at The University of York (UK), before starting postdoctoral work in the research group of Prof. Lutz Ackermann at the Georg-August-University Gottingen as an Alexander von Humboldt Fellow. He returned to India in 2010 and was appointed as DST-SERC Fast Track Fellow (2011) and DST Inspire Faculty (2012) at the Institute of Chemical Technology, Mumbai before taking up UGC-FRP Assistant Professor position (2014) at the same institute. He has performed very well in his field of research, publishing more than 120 research publications in various reputed international journals and has 4 edited books in his name.

Anant has been instrumental in the formation of India's first-of-kind Scientific consortium (Innovation Sustainability Chemistry Consortium-ISSC) and is currently the founding Coordinator (India). Currently, he has been appointed as the Central Placement Coordinator for ICT, Mumbai, and looks after the training and placement for all the 3 campuses of ICT. Anant has received many recognitions for his scientific contributions as well as extensive administrative and outreach activities such as

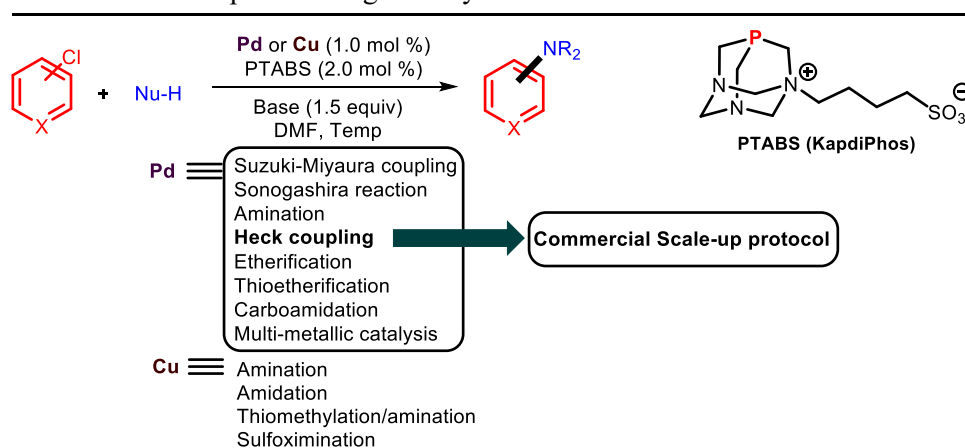
- a) Fellow of RSC under the Leader in Field category.**
- b) Prof. M. M. Sharma Science and Technology Award 2023 by Marathi Vidnyan Parishad**
- c) Was appointed an Associate Editor of the Royal Society of Chemistry journal, RSC Advances in 2015-2017**
- d) Appointed Associate Editor of Sustainability and Circularity Now, Thieme Publishers 2023-2027.**
- e) 2024 Thieme Chemistry Journal Awardee**
- f) C. B. Murarka Best Assistant Professor Award 2018-19**
- g) DAAD Fellowship for Scientists (not availed)**
- h) Alexander von Humboldt Return Fellowship (2013)**

Acceptor Caged Phosphine Ligands: Exploration of Novel Catalytic Reactivity and Mechanism

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Abstract Phosphines as activating ligands have, in combination with transition metals, played an important role in the development of sustainable catalytic solutions for academia as well as industrial applications. Caged phosphines are a class of phosphines possessing three-dimensional scaffolds and capable of providing unique control over steric and electronic properties. The versatility of the caged phosphine ligands has been demonstrated elegantly by the groups of Verkade, Gonzalvi, and Stradiotto.¹ Our contribution to this area comes in the form of the 1,3,5-triaza-7-phosphaadamantane-based caged ligands, especially PTABS (KapdiPhos), which has proved to be a revelation in promoting nucleoside/peptide/heteroarene functionalization in a highly efficient way. The talk will, therefore, be centered around the journey from the development of the ligand to the varied applications, including scale-up possibilities, eventually culminating in its commercialization.² New catalytic reactivity and its mechanism have been explored along the way and will also be discussed.



References

1. H. Shet, U. Parmar, S. Bhilare, A. R. Kapdi, *Org. Chem. Front.*, **2021**, 8, 1599-1656.
2. a) S. Murthy Bandaru, S. Bhilare, N. Chrysochos, V. Gayakhe, I. Trentin, C. Schulzke, A. R. Kapdi, *Org. Lett.*, **2018**, 20, 473-476. b) S. Bhilare, S. MuthryBandaru, J. Shah, N. Chrysochos, C. Schulzke, Y. S. Sanghvi, A. R. Kapdi, *J. Org. Chem.*, **2018**, 83, 13088-13102. c) H. Shet, S. Bhilare, Y. S. Sanghvi, A. R. Kapdi, *Molecules*, **2020**, 25, 1645. d) S. Bhilare, S. Murthy Bandaru, C. Schulzke, A. R. Kapdi, *Chem. Rec.*, **2021**, 21, 188-203. e) A. R. Kapdi, R. Sahu, *Synlett*, **2022**, 34, 912-930 (account on KapdiPhos).