

Metal mediated amination of aromatic rings following carbon-nitrogen bond formation and the coordination chemistry thereof

AMRITA SAHA, AMIT K GHOSH, PARTHA MAJUMDAR and
SREEBRATA GOSWAMI

Department of Inorganic Chemistry, Indian Association for the Cultivation of
Science, Calcutta 700 032, India

Metal-mediated reactions which result in addition of $[NR]^{2-}$ fragments belong to a reaction class of fundamental importance in chemistry in connection with carbon-nitrogen bond formation processes. In this presentation we wish to report our results on aromatic ring amination of a pendant phenyl ring of coordinated 2-(phenylazo)pyridine, pap. Upon coordination, both ortho and para-C-H of the pendant phenyl group of the diaza ligand are activated. As a result, amination processes occurring both at ortho- and para- are observed. These chemical transformations of the coordinated pap ligand are schematically shown below. A rationale for the site selectivity for this amination process depending on the availability of coordination site is presented.

