**Oxalic Diamides: A New Generation of Ligands for Cu-Catalyzed Arylation of Nucleophiles**

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During the past two decades we have witnessed great progress in ligand-promoted copper-catalyzed arylation of nucleophiles. However, there still remain a lot of problems in this field. The most challenging problem is that less expensive aryl chlorides are inert for almost all Cu/ligand-catalyzed coupling reactions. Additionally, the catalytic loadings are still high in most cases. Recently, we found that some $N,N'$-diaryl, $N$-aryl-$N'$-alkyl or $N,N'$-dialkyl substituted oxalamides are very powerful ligands for copper-catalyzed arylation of nucleophiles. These ligands not only make Cu-catalyzed coupling of (hetero)aryl chlorides with nucleophiles proceed smoothly under relatively mild conditions, but also lead to Cu-catalyzed coupling reactions with aryl bromides and iodides being conducted at low catalytic loadings and reaction temperatures. In this lecture, we wish to describe these results.
