

Poly(hydroxamic acid) functionalized copper catalyzed C–N bond formation reactions

ABSTRACT

Highly active poly(hydroxamic acid) functionalized copper catalysts were synthesized by the surface modification of khaya cellulose through graft copolymerization and subsequent hydroxylation processes. The prepared catalysts were well characterized by FTIR, FESEM, HRTEM, ICP-AES, UV-vis and XPS analyses. The supported catalysts effectively promoted C–N bond formation reactions and provided excellent yields of the corresponding products under mild reaction conditions. The catalysts were easy to recover from the reaction mixture and were reused several times without any significant loss of their catalytic activity.