

Catalyst-free synthesis of 2-amino-3-cyanopyridine

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A new compound, 2-amino-4-(4-bromophenyl)-6-(phenylamino)pyridine-3,5-dicarbonitrile, has been synthesized by the catalyst-free reaction of 2-(4-bromobenzylidene)malononitrile with malononitrile and benzylamine. The structure of the reaction product has been determined by NMR spectroscopy and X-ray diffraction analysis. A probable reaction mechanism and intramolecular rearrangement has been proposed.

Keywords: Catalyst-free, Cyanopyridine, Malononitrile, Benzylamine, Rearrangement