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Highly selective organocatalytic three-component reaction of 2-chloroquinoline-3-carbaldehydes, 6-aminouracils, and cyclic methylene active compounds

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Abstract

An efficient synthesis of novel functionalized 4H-pyrano[2,3-b]quinoline and 1,4dihydrobenzo[b][1,8]naphthyridine derivatives via the one-pot reaction of 2-chloroquinoline-3carbaldehydes, 6-aminouracils and dimedone or 3-methyl-1H-pyrazol-5(4H)-one was developed. The simple procedure, mild organocatalytic reaction conditions, good to high yields, and no column chromatography are important features of this protocol.

Keywords: three-component reaction, quinoline, aminouracil, heterocyclization, organocatalytic.