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AlPW12O40 as an Effective and Reusable Catalyst for Three-Component Mannich Reactions of Cyclohexanon

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The asymmetric Mannich reaction has been known as one of pivotal synthetic routes for C-C bond forming reactions to produce chiral β -amino carbonyl compounds from enolizable ketone and a Schiff base [1]. These products as key intermediates has been drawing attention due to their atomeconomy [2] and applications in naturally [3, 4], pharmaceutically and biologically active compounds [5]. In this investigation we designing the direct, three- component mannich reactions in ethanolic mixture of cyclohexanon systems with a variety of aromatic aldehydes and aniline derivatives proceeded to afford the corresponding β -amino ketones with anti selectivity in good to high yields within short time. The process is mild, highly efficient and recyclable with the use of very catalytic amount of hetropolyacid.



References

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