

DABCO Catalyzed Efficient Addition of Acetyl Acetone on Isatins Under Neat Condition to Afford 3-hydroxy-3-((E)-2-hydroxy-4-oxopent-2-enyl) indolin-2-one Derivatives

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Abstract: We have demonstrated DABCO catalyzed efficient addition of Acetyl acetone on isatins under neat condition to afford 3-hydroxy-3-((E)-2-hydroxy-4-oxopent-2-enyl)indolin-2-one derivatives. The developed method as found applicable for different structurally diverse isatin electrophiles which has tolerated different functional groups in the reaction to afford Aldol addition products with high isolated yields. The use of green organocatalyst DABCO, mild reaction conditions and catalyst-free nature under neat conditions makes the procedure interesting alternative over the previous methods. Moreover the present protocol provides rapid and easy access for functionally diverse 3-hydroxy-3-((E)-2-hydroxy-4-oxopent-2-enyl) indolin-2-one derivatives, which might be useful for further chemical transformations to prepare a variety of compounds desirable for different applications.

Keywords: Isatin, Acetyl acetone, DABCO, 3-Hydroxy oxindole, 3-hydroxy-3-((E)-2-hydroxy-4-oxopent-2-enyl) indolin-2-one

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