



International Journal of ChemTech Research

CODEN(USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555 Vol.11 No.05, pp301-315,2018

Tetra AcetoxymethylGlycoluril as an Efficient and Novel Reagent for Acylation of Amines

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Abstract:New glycoluril derivative tetra acetoxymethylglycoluril was synthesized via the electrophilic substitution of an acetyl group at oxygen atoms of hydroxymethylglycoluril using acetic anhydride. Direct N-acetylation of primary amines by using tetra acetoxymethylglycoluril as new efficient, effective, and mild acetylating agent. The N-acetylation reaction was carried out using classical and mechanochemical methods in dichloromethane to obtain the correspondent acylated amines in good yields. The structures of the compounds were confirmed using 1HNMR, 13CNMR, and FTIR spectroscopy.

Keywords: Acetoxymethylation, Acetylation, Amine, Amide, Glycoluril, Mechanochemistry.

International Journal of ChemTech Research, 2018,11(05): 301-315.

DOI= http://dx.doi.org/10.20902/IJCTR.2018.110533
