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Convenient Synthesis of -Trifluoromethylated Acyloins From -Hydroxy or -Amino Acids

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Abstract. -Trifluoromethylated acyloins (2 and 6) have been prepare d from -hydroxy acids (1), N-acylprolines (5) or N-acyl-N-alkyl -amino acids (8) by novel transformation reactions with trifluoroacetic anhydride (TFAA) in the presence of pyridine. The former reaction of 1 could proceed through mesoionic 1,3-dioxolium-4-olates, whereas the latter two reactions of -amino acids (5 and 8) could involve mesoionic 1,3-oxazolium-5-olates. The reaction of 1 with TFAA shows more potential for practical applications because of the ready availability of the starting materials and ease of manipulation.