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Recyclizations of 2-aminobenzylimines and thioaroylhydrazones of N-substituted N-hydroxy-3-oxobutanamides

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Abstract

A universal scheme is proposed for the molecular design of heterocyclic recyclizations by replacing the exocyclic hydroxyl groups in exo-trig- ring-chain tautomeric molecules with substituted amines or hydrazines. The practical applicability of this approach is demonstrated by the condensations of 5-hydroxy-5-methyl-3-isoxazolidinones with thioaroyl-hydrazines and 2-aminomethylaniline. The condensation products were studied by modern 1H, 13C and 15N NMR spectroscopic methods using three solvents: CDCl3, DMSO[D6] and CD3CN. The solvent was found to have a strong effect to the relative amounts of the tautomers.