

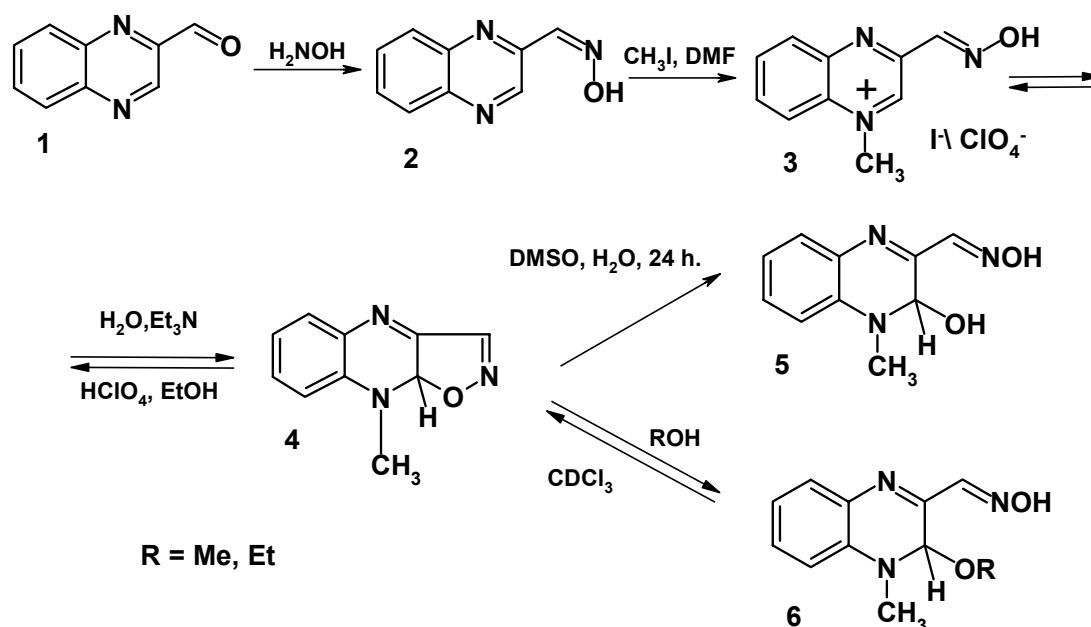
Stable σ^H -Adducts in the Synthesis of Isoxazolo[4,5-*b*]quinoxalines

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In continuation of our research on studying cyclizations of azines with bifunctional nucleophiles we have elucidated the reaction of 2-quinoxalinecarboxaldehyde (**1**) with hydroxylamine. Interaction of hydroxylamine with the carbonyl group of compound **1** results in the formation of oxime **2**, which was converted into the corresponding quaternary salt **3**. When base was added to aqueous solution of compounds **3** isoxazolo[4,5-*b*]quinoxaline **4** was obtained in good yield as result of intramolecular nucleophilic reaction at C-2 of the pyrazine ring. The compound **4** can be involved into ring-chain interactions. Thus, salt **3** is obtained, when an acid is added to solution of the adduct **4**. Also, adduct **4** transforms into σ -adducts **5,6** by action of O-nucleophiles (water, alcohols).



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