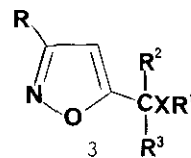
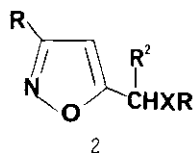
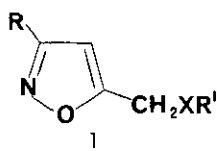


LITHIATION OF FIVE-MEMBERED HETEROAROMATIC COMPOUNDS.
THE 5-ALKOXYMETHYL- AND 5-ALKYLTHIOMETHYLISOXAZOLES.

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Various methods for the preparation of 5-alkoxymethyl and 5-alkylthiomethylisoxazoles, 1, were studied and will be described. 1-Methoxypentan-2,4-dione with hydroxylamine gave a mixture of the isomeric 3-methyl-5-methoxymethylisoxazole, 1 ($R = R^1 = \text{CH}_3$; $X = \text{O}$) and 3-methoxymethyl-5-methylisoxazole, which was readily separated by utilizing the preferential reaction of 1 with *n*-butyllithium. Compounds of type 1 were readily converted to compounds of types 2 and 3, by sequential reaction with *n*-butyllithium and an appropriate reagent. Among the compounds thus prepared were thioacetals and mixed thioacetals, 2; α -alkoxy- and α -thioalkoxy acids, 2; ortho-thioesters and ortho-mixedthioesters, 3; α, α -dithioalkoxy acids and α -alkoxy- α -thioalkoxy acids, 3.