
Selective Synthesis of Fluorine-Containing Enaminones of Benzofuran Series

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Abstract—Selective synthesis of regioisomers of fluorine-containing enaminones of the benzofuran series was carried out from benzofuranoyltrifluoroacetone according to a two-stage scheme. The possibility of targeted preparation of regioisomers, which were evaluated as Eu^{3+} complexones in aqueous solutions by the luminescence spectral method, was revealed in order to identify the prospects for their use in immunofluorescence analysis. The obtained enaminones form complexes with Eu^{3+} in aqueous solutions, however, over time, these complexes are hydrolyzed that was detected by the change of spectral characteristics through time.

Keywords: fluorine-containing enaminones, europium(III) complexes, benzofuran derivatives, fluorescence

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