

SYNTHESIS OF N-[(1Z)-2-(ALKYLAMINO)-2-OXO-1-(2-OXO-1,2-DIHYDRO-3H-INDOLE-3-ILYDEN)ETHYL]BENZAMIDES

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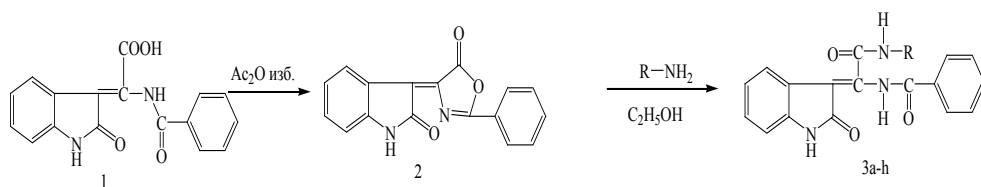
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With the purpose of base encroachment of biologically active compounds as nootropic medicines we have synthesized the range of alkylamides of (2-oxo-1,2-dihydro-3H-indol-3-ylidene)-2-hydroxy-acetic acid.

The synthesis of the target products has been carried out using of 2-phenyl-4-(2-oxoindoliniliden-3)-5-oxazolone (2) obtained by reacting acid (1) with an excess of acetic anhydride as a precursor. N-[(1Z)-2-(alkylamino)-2-oxo-1-(2-oxo-1,2-dihydro-3H-indole-3-ylidene)ethyl]benzamides 3a-h have been obtained by heating (2) water bath with equimolar amount of respective alkylamines for 20 minutes using ethanol as a solvent.

Synthesis has been carried out according to the following scheme:



where: R= CH₃; C₂H₅; C₃H₇; iso-C₃H₇; C₄H₉; C₆H₁₃; CH₂C₆H₅; (CH₂)₂C₆H₅

N-[(1Z)-2-(alkylamino)-2-oxo-1-(2-oxo-1,2-dihydro-3H-indole-3-ylidene)ethyl]benzamides are yellow crystalline substances with high melting points. The substances are insoluble in water, but soluble in such organic solvents as dimethylformamide, 1,4-dioxane.

The structure of the compounds synthesized have been confirmed by the data of the elemental analysis, spectral data, X-ray diffraction analysis (compound 3b) and their individuality has been proved by thin-layer chromatography.