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F-ALKYLATED HETEROCYCLIC COMPOUNDS: SYNTHESIS AND PHARMACOLOGICAL ACTIVITY OF LONG CHAIN PERFLUOROALKYLATED BENZOTHAZINES AND THEIR PRECURSORS

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We tried to evaluate perturbation effects brought by long F-alkylated chain at the level of electronic, structural and pharmacological properties.

The direct insertion of a long perfluoroalkyl chain on an heterocyclic substrate, usually giving bad results, we used multistep methods with intermediates of synthesis. From commercial or industrial starting materials ($R_F I$, $R_F CO_2 H$, $R_F C_2 H_4 I$, $(R_F SO_2)_2 Zn$), we obtained new F-alkyl intermediates (called 1st and 2nd generation intermediates).

Further cyclization by usual methods lead us a lot of homologs of hydrocarbonated heterocyclic compounds. In this work we show the synthesis of these compounds and we discuss diuretic and antihypertensive activities of 3-F-alkyl 1,2,4-benzothiadiazine 1,1-dioxides with a long F-alkyl chain. Results are compared to those obtained with the classic Furosemide. Promising effects were obtained, specially to the low level of K^+ elimination.