SYNTHESIS OF NEW POTENTIAL ACTIVE TRINORLABDANE COMPOUNDS WITH 1,3-THIAZOLE UNITS

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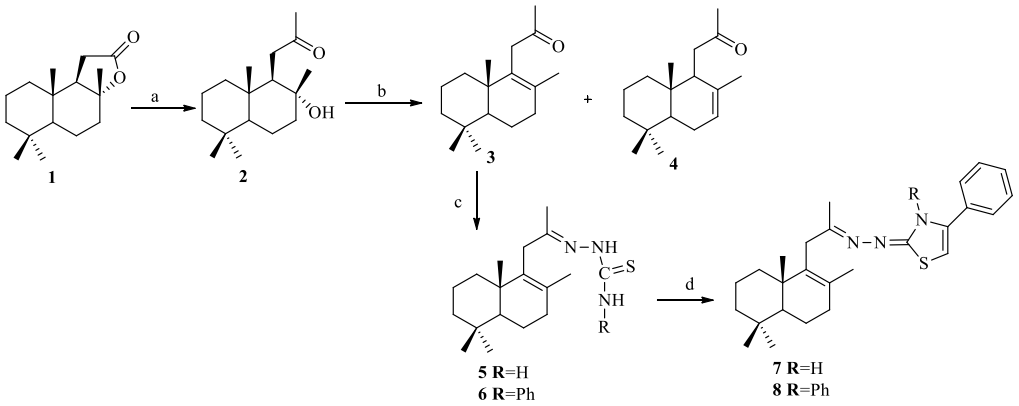
Thiazoles and their derivatives is an important class of biologically active compounds, widespread in nature (e.g. alkaloids)or prepared synthetically (e.g. pharmaceuticals)[1]. The results of investigations devoted to the synthesis of new trinorlabdane compounds containing thiazole structural units are reported.

The key strengths of this research are: accessible starting material, which is commercially available sclareolide **1**, obtained from natural labdane diterpenoide (-)-sclareol,extracted from renewable resources and high probability of biological activities and low toxicity of the title compounds, due to their natural origin. The target trinorlabdanederivatives **7** and **8** containingthiazole units were prepared by interaction of intermediate thiosemicarbazones**5** and **6** with 2-bromoacetophenone under depicted conditions[2]. In turn, the thiosemicarbazones**5** and **6**, were prepared from sclareolide **1**, in 3 steps[3](Scheme).



Reagents: a. CH_3Li/Et_2O, 65%; b.$CH_3SO_2OSiMe_3$, MeCN,80% (in 80:20 ratio);
c. $NH_2NHCSNH_2$ or $NH_2NHCSNHC_6H_5$, EtOH, 71-85%; d. $C_6H_5COCH_2Br$, EtOH, 75-83%.

Scheme

The structure of all synthetized compounds have been established using modern methods of analysis (^1H, ^{13}C and ^{15}N NMR and MS spectrometry).

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