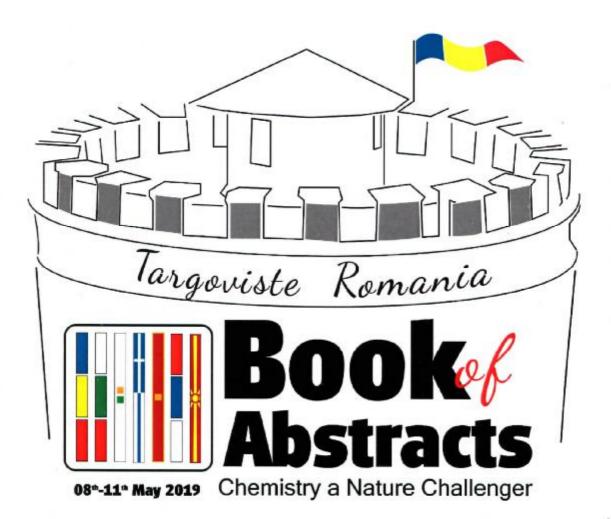
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S3_P_16

SYNTHESIS AND ANTITUMOUR ACTIVITY OF TWO DEPHENYLATED (-)-GONIOFUFURONE ANALOGUES

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Abstract. (-)-Goniofufurone (1) is a synthetic styryl lactone that exhibits significant antitumor activity. In the search for new and more potent antitumor agents, the synthesis of lactones 5 and 6 was planned from D-glucose. Compounds 5 and 6 are designed as dephenylated analogues of 1 (Figure 1). The results of the evaluation of antiproliferative activity of 5 and 6 against a number of human tumor cell lines, as well as the structure–activity relationship (SAR), will be presented and discussed in details.

$$\begin{array}{c} C_7H_{16}Br \text{ or } \\ C_8H_{17}Br, \\ Ag_2O, AgOT1 \\ \text{aps. Et}_2O, \\ \text{reflux} \end{array} \begin{array}{c} OR \\ H_2, 10\% \text{ Pd/C} \\ \text{aps. Et}OH, \text{ rf} \end{array} \begin{array}{c} OR \\ H_2, 10\% \text{ Pd/C} \\ \text{aps. Et}OH, \text{ rf} \end{array} \begin{array}{c} OR \\ OH \\ OH \\ OH \end{array}$$

Keywords: lactone; synthesis; structure-activity relationship.

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