

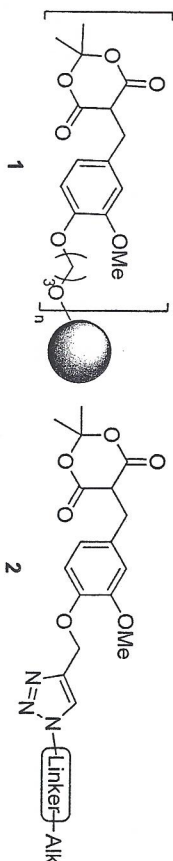
New Antioxidants Containing Moieties of Arylmethyl Meldrum's Acid

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Previously we have demonstrated arylmethyl Meldrum's acids as unique, powerful antioxidants both in lipophilic and hydrophilic media [1]. The only negligible lack of these compounds is limited solubility of few representatives. Thus, to modify solubility and to increase their antiradical activity we are working on dendrimeric derivatives **1** and conjugates **2** containing long alkyl chains. The first step in synthesis of dendrimeric structures **1** was derivatization of polyhydroxyarene core with vanillin. In case of conjugates **2**, vanillin in the first step was modified with tail containing triazole linker. 5-Arylmethyl-2,2-dimethyl-1,3-dioxane-4,6-diones **1** and **2** were obtained from these modified aldehydes in the next 2 steps by Knoevenagel condensation with Meldrum's acid followed by reduction with NaBH_4 of formed arylidene derivatives. All synthesized compounds **1** and **2** were tested for their antiradical activity according to DPPH and GO tests.



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References:

1. Mierina, I.; Jure, M.; Zeberga, S.; Makareviciene, V.; Zicane, D.; Teterē, Z.; Ravina, I. *Eur. J. Lipid Sci. Technol.* **2017**, *119*, article no. 1700172.