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New antioxidants containing ,3-dioxane-4,6-dione moiety

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several 1,3-dioxane-4,6-dione moieties aliphatic chains through hererocyclic linker (compounds 1). The second attractive tool for Similarly, we have attached arylmethyl Meldrum's acids to long saturated and unsaturated covalent-bonding of active compounds to lipid carriers, which is well-known strategy in effect in different types of media are substituted Meldrum's acids. In order to modify the different products. A new type of antioxidants with recognizable free radical scavenging for some antioxidants, e.g., Irganox 3114 contains four phenolic units attached to the core. delivering biologically active ingredients is dendrimers. 4 Such approach has been used also medicinal chemistry.² It is successfully used for modification of antioxidants, too.³ properties of these antioxidants, we have focused into two directions. The first direction is Inspired by these examples, we obtained a few dendrimeric compounds 2 decorated with Antioxidants are widely used in various areas for increasing oxidative stability of

obtained and, secondly, the Knoevenagel condensation and reduction of corresponding arylidene compound was realized. Antiradical activity of all synthesized compounds 1 and 2 firstly, an aldehyde decorated with an alkyl chain or a core with several aldehyde units was were analyzed by DPPH and GO tests. The retrosynthetic analysis of reagents lead to similar route for both compounds 1 and 2:

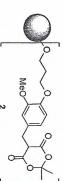


Figure 1. General structures of target compounds 1 and 2.

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