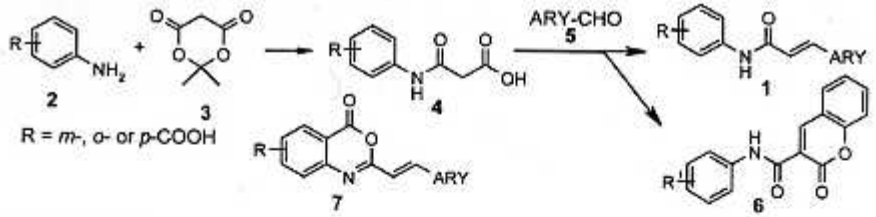
CINNAMOYL ANTHRANILATES AND THEIR STRUCTURE ANALOGUES AS POTENTIAL ANTIOXIDANTS

I. Mierina, I. Neibolte, M. Jure
Riga Technical University

Cinnamoyl anthranilates, also known as avenanthramides **1** (R=*o*-COOH), are found mostly in oats (*Avena Sativa*) [1]; few compounds have been isolated from Clove Pink (*Dianthus caryophyllus*) [2] and eggs of Large White butterfly (*Pieris brassicae*) [3]. These compounds evoke interest due to their antigenotoxic [4], hypolipidemic [5], antiinflamantory, antiirritative, antiproliferative, anticancer, antiitching [6] and antiaterosclerotic activity [7]. Avenanthramides are well known also as antioxidants and free radical scavengers [8].

We synthesized cinnamanilides **1** from aminobenzoic acids **2** and Meldrum's acid **3** according to known procedure [9], described only for cinnamoyl anthranilates (R=*o*-COOH). Knoevenagel condensation of obtained malonic acid monoamides **4** with aromatic aldehydes **5** provided **1**; when salicylic aldehyde was used reaction lead to amides of coumarin-3-carboxylic acid **6**. The antioxidant activity of both cinnamoyl anthranilates **1** and their cyclic analogues 2-styryl-4*H*-3,1-benzoxazin-4-ones **7** was investigated with DPPH test.



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ACKNOWLEDGMENT

This work has been supported by the European Social Fund within the project «Support for the implementation of doctoral studies at Riga Technical University».

ISSN 2029–6401

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