SYNTHESIS AND BIOLOGICAL ACTIVITIES OF SOME NAPHTHOFURANS AS ANALOGUES OF 7.8-BENZOFLAVONES

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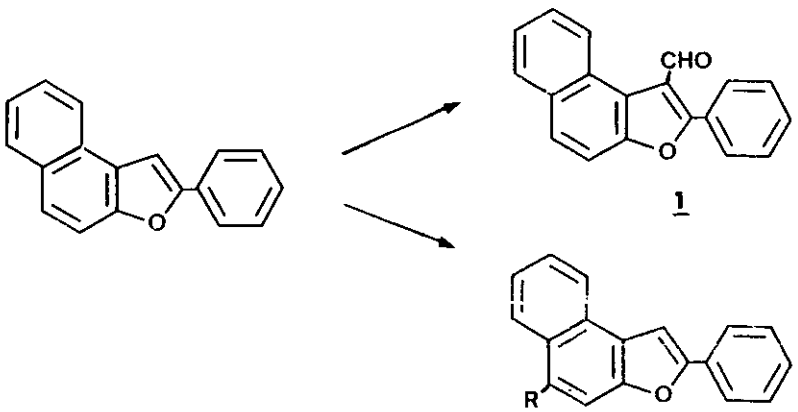
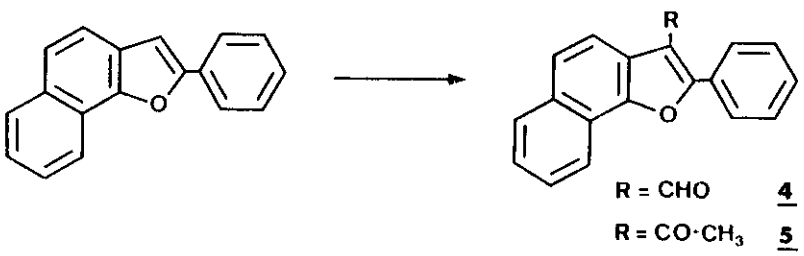
7.8-benzoflavone is known to be a powerful polycyclic hydrocarbons metabolism inhibitor. So, we attempted to synthesize 2-phenyl α- or β-naphthofurans acylated in various positions according to modified Vilsmeir-Haack or Friedel-Crafts reactions.





Then we tested the activity of those compounds on the metabolisation of benzo[a]pyrene incubated with rat liver microsomes and compared the results with the activity of 7.8-benzoflavone.

Compounds **2** and **3** show very interesting activities similar to that of 7.8-benzoflavone on the inhibition of benzo[a]pyrene metabolisation (70 % to 80 % inhibition after 40' incubation). Compounds **1** , **4** and **5** are less active (not over 50 % inhibition).