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## Phosphorus, Sulfur, and Silicon and the Related Elements

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### SYNTHESIS AND DESULFURATION OF THIANAPHTHEN-3-CARBOXYLIC ACID DERIVATIVES

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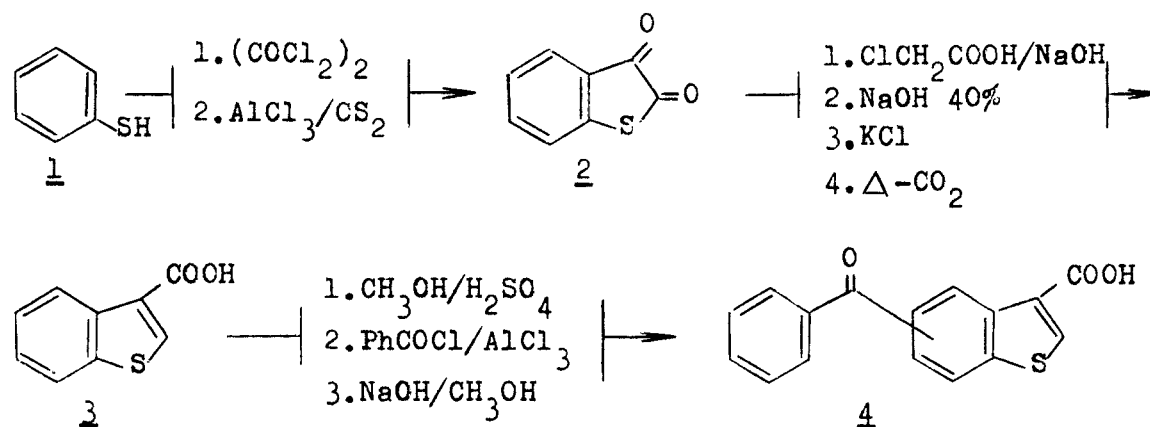
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# SYNTHESIS AND DESULFURATION OF THIANAPHTHEN-3-CARBOXYLIC ACID DERIVATIVES

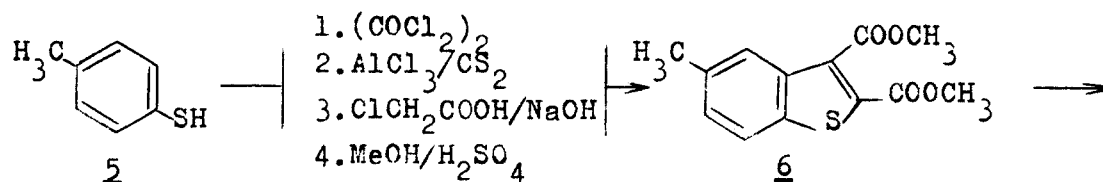
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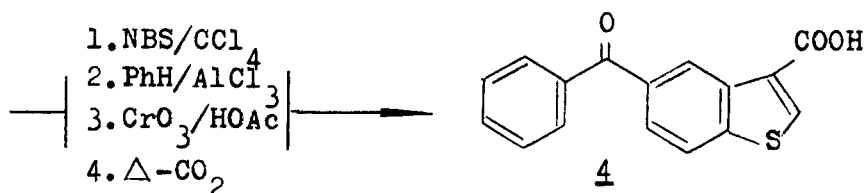
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Recently, we have been interested in the synthesis of some heterocyclic compounds as potential antiinflammatory agents<sup>1</sup>. Derivatives of thianaphthen-3-carboxylic acid might also show such activity. Therefore, a rational synthetic pathway for these compounds was developed:



Last step in the synthesis i.e. benzoylation, gave two isomers in the ratio 3,5 : 1, total yield 36%. To prove the structure of isomers obtained, 5-benzoyl derivative was synthesized in multistep procedure starting with p-thiocresol:





The compounds thus obtained were treated with Raney nickel undergoing desulfuration and yielding derivatives of phenylpropionic acid. Isomer ratio and position of electrophilic attack on thi-anaphthen-3-carboxylic acid methyl ester will be discussed, as well as the products obtained under different desulfuration conditions.

#### References:

- 1) M. Žinić, D. Kolbah, N. Blažević, V. Šunjić and F. Kajfež, J. Heterocyclic Chem. 14, 1225 (1977).