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SYNTHESIS OF SALICYLTHIOAMIDES AND 4 H-1, 3, 2 BENZOXAZAPHOSPHORIN-DERIVATIVES

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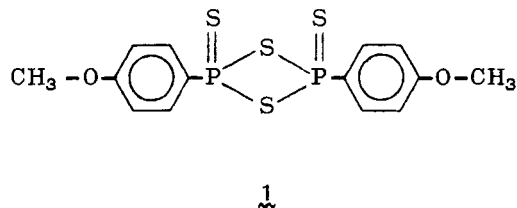
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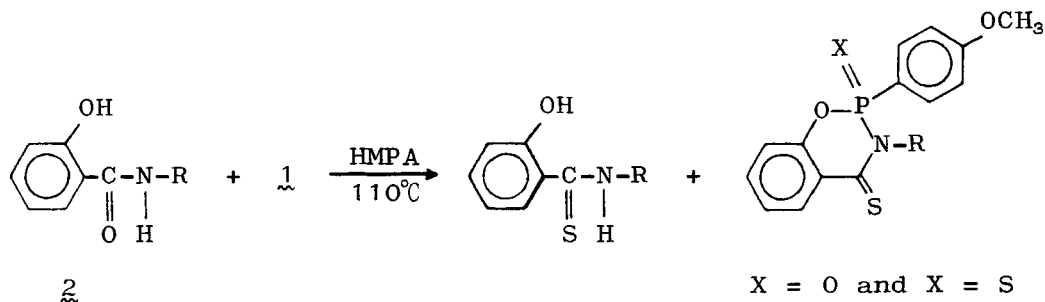
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Recent studies have shown that the dimer of *p*-methoxyphenylthionophosphinesulfide, **1**, is a very superior thiation reagent, as ketones, amides, and esters are in most cases quantitatively converted to their thio-analogues.



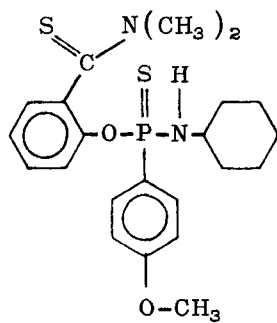
In the case of secondary *o*-hydroxybenzamides, the main product is the corresponding thioamide, but also two benzoxazaphosphorin derivatives are obtained (Scheme 1) in low to moderate yields.



SCHEME 1

The structure of the benzoxazaphosphorine-derivatives is based on X-ray-analyses and ^1H -, ^{13}C -, and ^{31}P -NMR-, UV-, IR-, and MS-data will be given.

In the reaction of cyclohexylsalicylamide (2, $\text{R} = \text{---}\text{C}_6\text{H}_{11}$) with 1 in HMPA at 140°C , only one product besides the thioamide was obtained. This product is believed to be the phosphoramidate 3.



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