

SURAT PRARCHYAKUL : SYNTHESIS OF ORGANOTIN SULFATE ESTER COMPOUNDS
AS FUNGICIDE. THESIS ADVISER : ASSO. PROF. SOPHON ROENGSAKAMRAN, Ph.D
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Organotin sulfate ester compounds such as tributyltin dodecyl sulfate, tributyltin hexadecyl sulfate and tributyltin octadecyl sulfate were synthesized from nucleophilic substitution reaction of 1-dodecanol, 1-hexadecanol and 1-octadecanol with chlorosulfonic acid to give alkyl hydrogen sulfate products of these alcohol compounds respectively. The alkyl hydrogen sulfate products were treated with bis-(tributyltin)oxide in the suitable condition to give the above said organotin sulfate ester compounds.

These organotin sulfate ester compounds were also tested on fungicidal activity. The compounds exhibit killing Trichoderma sp., Penicillium sp., Syncephalustum sp. and Aspergillus sp. The fungicidal activity of each compound depends upon type of fungus and concentration of the organotin sulfate ester compounds.