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# SYNTHESIS OF SOME SYNTHETIC ANALOGUES FOR SPOROPOLLENIN, NATURAL POLYMER

BY

RAJITHA DESHAPRIYA GUNARATNE

174399

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## ABSTRACT

Sporopollenin is the main structural constituent present in the outer wall (exine) of spores and pollen in vascular plants.

This biomacromolecule has been intrigued researchers due to its highly resistant nature which witnessed by the presence of spores and pollen in sedimentary rocks and coals. The structure and biosynthesis of this biomacromolecule are still largely unknown.

Consideration of the previous facts our aim in this research is to synthesis of synthetic analogous of sporopollenin with various chain length aliphatic ethers/esters substituted aryl ester compounds of *p*-hydroxy benzoic acid derivatives and compare with the natural sporopollenin samples.

Comparison with *Lycopodium* (un treated ) sporopollenin and *Cedrus* (treated) sporopollenin , IR spectroscopic data of our analogues were shown much similar carboxylic acid & ester peaks to the above natural sporopollenin.

We are not yet able to tell all analogous may identical to sporopollenin, but we conclude, It has some similarity to natural compound, need to be further analysis of these analogues.

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