

**P-70****Extractives from *Eusideroxylon Zwageri* and *Potoxylon Melagangai* Against white-Rot Fungi**Faiezah Abdullah<sup>1,3,\*</sup>, Ismail Jusoh<sup>2</sup> and Zaini Assim<sup>3</sup>

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Belian (*Eusideroxylon zwageri*) and Malagangai (*Potoxylon melagangai*) are two of the most durable timbers in Malaysia. The durability of the timbers is influenced by their extractives constituents. The heartwood of both woods was extracted using acetone by Soxhlet. The crude extracts were sub-sequentially fractionated using solvent of increasing polarity. Acetone extracts were then exposed to two white-rot fungi, namely *Pycnoporus coccineus* and *Schizophyllum commune*. The extractives removed by acetone were 11.66% and 12.26% from *E. zwageri* and *P. melagangai* woods, respectively. The acetone extracts of *E. zwageri* was reduced to 7.95% and 4.46% after exposure to *P. coccineus* and *S. commune*, respectively. For *P. melagangai* acetone extracts reduced to 4.84% and 2.77% after exposure to the same fungi. *P. coccineus* was found to degrade wood extractives more efficiently compare to *S. commune*. Among common compounds found from fractionated extractives were 5-octadecene, palmitic acid and 4-tetradecanol while compounds highly degraded were 9-octadecene, 4-tetradecanol and 2-propenoic acid. Vanillin, 1-nitro-3,5-dimethoxyphenyl-ethylene, 2,4-dimethoxy-5,6-dimethylbenzaldehyde, benzenamine and 5-allyl-1,2,3-trimethoxybenzene compounds derived after wood exposure to both fungi. Cytotoxicity test against brine-shrimp, *Artemia salina* indicated that the extractives were toxic. LC<sub>50</sub> of acetone crude extracts of *E. zwageri* and *P. melagangai* were obtained at 0.8 µg/ml and 56.2 µg/ml, respectively.

**Keywords:** *Eusideroxylon zwageri*, *Potoxylon melagangai*, extractives, white-rot fungi.

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