Preliminary Screening of Alkaloid using Thin Layer Chromatography (TLC) from *Archidendron pauciflorum* (Jering)

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This Final Year Project Report entitled "**Preliminary Screening of Alkaloid using Thin Layer Chromatography (TLC) from *Archidendron pauciflorum* (Jering)"** was submitted by Muhammad Fikhri bin Natikun, in partial fulfillment of the requirement for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences and was approved by

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ABSTRACT

Archidendron pauciflorum (Jering) is a leguminous tree that is found in South Asia. As there is no scientific study to detect the presence of alkaloid in Jering, this study was carried out to detect the presence of alkaloid in Jering using thin layer chromatography (TLC).The samples were collected from 3 different places namely Bahau, Tanjung Ipoh and Kuala Pilah. Results showed that the acidic level of young Jering from Bahau, Tanjung Ipoh and Kuala Pilah were pH 5.32, pH 5.18 and pH 5.14 while the older Jering from Bahau, Tanjung Ipoh and Kuala Pilah were pH 5.94, pH 6.04 and pH 5.96. At 1:4 ratio, the samples were sonicated and centrifuged with solvent which were chloroform and methanol. TLC was performed at running solvent ratio of 9:1, 8:2, 7:3, 6:4 and 5:5. TLC results viewed under UV light showed the best result from 8:2 ratio by using short (254nm) and long (365nm) UV lamp. From the size comparison of TLC spots obtained, big spot of alkaloid was presence in younger seed from Bahau and Tanjung Ipoh and small spot in Kuala Pilah seed. However, there was one spot of alkaloid in the older seed. From the result, 9 unknown was observed under long wave and 1 unknown from short wave. Unknown A,B,E,F,G,H,I can be found at all area while unknown C at Bahau and Kuala Pilah, unknown D at Tanjung Ipoh and unknown J at Bahau and Tanjung Ipoh. Overall, qualitative analysis using TLC revealed the presence of alkaloid mainly in young seed.