



## Virtual Conference on Chemistry and its Applications

Chemical Sciences for the New Decade

9 - 13 August 2021

# Virtual Conference on Chemistry and its Applications

9<sup>th</sup> to 13<sup>th</sup> August 2021

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ISBN: 978-999-99949-783-0

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**Antibacterial, Anti-Oxidant and Cytotoxic Activities of the Stem Bark of  
*Archidendron jiringa* (Jack) I. C. Nielsen**

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*Archidendron jiringa* (Jack) I. C. Nielsen is a species of the genus *Archidendron*, including the Fabaceae family which is known as *Jengkol*. *Jengkol* contains secondary metabolites that exhibited biological activities, such as antibacterial, antifungal, anticancer and anti-oxidant properties. This study has been carried out on extraction and fractionation of *A. jiringa* stem bark and tested the antibacterial, cytotoxic and anti-oxidant activity of the extract and fraction of *jengkol* stem bark. Extraction and fractionation are conducted in several steps, including sample preparation, maceration and fractionation using vacuum liquid chromatography and column chromatography. The results of bioactivities tested performed that among three extracts obtained, ethyl acetate extract showed the most activity against *B. subtilis* and *E. coli* by using disc diffusion method. In addition, the toxicity screening displayed that all tested extracts and fractions were toxic with the LC<sub>50</sub> values ranging of 250–750 ppm. Furthermore, all extracts and fractions showed good anti-oxidant activity with the IC<sub>50</sub> values ranging of 0.740–7.203 ppm.