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**FERRIC REDUCING ANTIOXIDANT POWER OF CRUDE EXTRACTS FROM
ARTOCARPUS SPECIES****Shajarahunnur Jamil***, Hasnah Mohd Sirat, Norazah Basar, Siti Mariam Abdul Lathiff, Siti Awanis Abdullah, Norzafneza Mohd Arriffin, Masuri Kama Kamaruddin Shah*Department of Chemistry, Faculty of Science, Universiti Teknologi Malaysia, 81310 Johor Bahru, Johor, Malaysia**Corresponding author: shaja@kimia.fs.utm.my

This study was designed to determine antioxidant capacity based on ferric ions reducing abilities of 49 crude extracts from eight *Artocarpus* species. *Artocarpus* species are well known as the source of antioxidant metabolites such as flavonoids, xanthenes and stilbenes. The leaves and heartwoods of *Artocarpus anisophyllus*, *A. fulvicortex*, *A. gomeizianus*, *A. hispidus*, *A. integer*, *A. kemando*, *A. lowii* and *A. rigidus* collected from several locations in Malaysia were extracted successively at room temperature using different polarity of solvents. The ability of *Artocarpus* crude extracts to reduce ferric ions was determined using ferric reducing antioxidant potential (FRAP) assay and expressed as mM FRAP equivalent to $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$. The trend for ferric ions reducing power of these crude extracts varied according to the polarity of the solvents used. Methanol crude extract of the leaves of *A. hispidus* (AHLM) relatively showed strong ferric ion reducing power ranging from 0.69-7.32 mM FRAP equivalent followed by the methanol crude extracts of the barks of *A. rigidus* (ARBM; 0.36-4.13 mM FRAP equivalent) and followed by methanol crude extract of the heartwoods of *A. fulvicortex* (AFHM; 0.32-3.66 mM FRAP equivalent). These results were comparable with the positive standards tested ie. trolox (0.20-2.43 mM FRAP equivalent), BHT (0.09-1.89 mM FRAP equivalent) and BHA (0.02-8.81 mM FRAP equivalent).

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IDENTIFICATION OF ODOR COMPONENTS OF AGARWOOD OIL**Nor Azah Mohamad Ali*¹**, Nurlaila Ismail², Mailina Jamil¹, Muhd Hafizi Zainal¹, Azrina Aziz¹, Sahrim Lias¹, Mohd Nasir Taib²¹*Herbal of Product Development Programme, Natural Product Division, Forest Research Institute Malaysia, 52109 Kepong, Selangor, Malaysia.*²*Faculty of Electrical Engineering, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia**Corresponding author: norazah@frim.gov.my

This paper presents the use of Z-score in assessing the significant chemical compounds extracted by head space solid phase micro extraction (HS-SPME) and gas chromatography – mass spectrometry (GC-MS) analysis of an agarwood oil obtained from Melaka, Malaysia. Two types of SPME fiber; polydimethylsiloxane (PDMS) and divinylbenzene-carboxen-polydimethylsiloxane (DVB-CAR-PDMS) were used. During the extraction analysis, the results showed that at least 27 and 29 compounds were identified using PDMS and DVB-CAR-PDMS fiber, respectively. DVB-CAR-PDMS fiber was found to be more efficient in terms of selectivity of compounds extraction. The application of Z-score showed that eight and eleven marker compounds were determined in PDMS and DVB-CAR-PDMS fibers,