A Series of α,β-unsaturated ketones (chalcones) have been synthesized by the Claisen-Schmidt condensation of substituted thiophene-2-carbaldehyde with 1-(2,5-dichlorothiophen-3-yl) ethanone or 1-(5-chlorothiophen-2-yl) ethanone in the presence of alcohol as methanol and aqueous alkaline base as sodium hydroxide. The structures of chalcones were established by IR, ^{1}H NMR,^{13}C NMR and MS spectral analysis.

P107

IN-VITRO ANTIOXIDANT ACTIVITIES OF THE FRUITS PEEL OF C*ITRUS MACROPTERA* MONT. VAR. ANNAMENSIS

Siti Nur Atiqah Md Othman[1], Norazah Basar*[1], Satyajit Dey Sarker[2]

[1]*Department of Chemistry, Faculty of Science, Universiti Teknologi Malaysia, 81310 Johor Bahru, Johor, Malaysia*
[2]*Department of Pharmacy, School of Applied Science, University of Wolverhampton, MM Building, Molineux Street, Wolverhampton WV1 1SB, West Midland, UK*
*Corresponding author: norazah@kimia.fs.utm.my

In-vitro antioxidant activities of the fruit peels of *Citrus macroptera* were studied in the present work. Ferric reducing antioxidant power (FRAP) and 2,2-diphenyl-1-picrylhydrazyl (DPPH) radical scavenging assays were performed to evaluate the antioxidant properties of the fractions from *n*-hexane and methanol crude extracts from the fruit peels of this plant. Results suggested that all fractions from methanol crude extract showed good antioxidant activities. Meanwhile, all fractions from *n*-hexane extract exhibited as weak antioxidant properties. The results were comparable with standard ascorbic acid. The potency of antioxidant activities of the fruits peel of *C. macroptera* depends on the type of extracts.

P108

C-CURARINE ANALOGOUS INDOLIC EPOXY-1,5-DIAZOCINES AS CANCER-SELECTIVE CYTOTOXIC AGENTS

Hapipah Mohd Ali*[1], Fadhil Lafta Faraj[1], Hamid Khaledi[1], Hamed Karimian[2]

[1]*Department of Chemistry, Faculty of Science, University of Malaya, 50603 Kuala Lumpur, Malaysia*
[2]*Department of Pharmacy, Faculty of Medicine, University of Malaya, 50603 Kuala Lumpur, Malaysia*
*Corresponding author: hapipah@um.edu.my

Dimerization of 2-(diformylmethylene)-3,3-dimethylindole by the action of tosyl chloride (TsCl) led to the creation of an epoxy-[1,5]-diazocine bicycle. The structure of the molecule resembles that of the naturally occurring C-curarine. The molecule showed significant cytotoxicity against four cancer lines, MCF-7, MDAMB-231, COAV and HT-29, but not toward the normal cell, CCD. A series of substituted 2-(diformylmethylene)-3,3-dimethylindole were accordingly dimerized and the products were studied for their cytotoxic activities.