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**Synthesis, characterization and antioxidant activity of 2-halobenzoyl thiourea bearing  $\alpha$ - and  $\beta$ -alanine** (Article)

Nghah, N. , Mohamed, N.A., Darnis, D.S.

Department of Chemistry, Kulliyah of Science, International Islamic University Malaysia, Jalan Sultan Ahmad Shah, Kuantan, Malaysia

## Abstract

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Six new 2-halobenzoylthiourea compounds bearing  $\alpha$ - and  $\beta$ -alanine have been successfully synthesized and characterized using CHNS microelemental analysis and spectroscopic methods including FTIR, UV-Vis and NMR. Microelemental analysis data of the compounds were in agreement with the theoretical values. The FTIR spectra showed the presence of important bands of the compounds while the  $^1\text{H-NMR}$  and  $^{13}\text{C-NMR}$  exhibited the expected chemical shifts. The compounds exerted weak antioxidant activity in DPPH scavenging test and moderate to good activity in  $\beta$ -carotene bleaching test. The inclusion of halogen atoms has facilitated the released of hydrogen atoms and introduction of  $\alpha$ - and  $\beta$ -alanine have increased the  $\beta$ -carotene bleaching and DPPH scavenging activities of the compounds. © 2016, Chiang Mai University. All rights reserved.

## Author keywords

2-halobenzoyl thiourea; Alanine and antioxidant

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