Synthesis, Characterization and Antioxidant Activity of 2-Halobenzoyl Thiourea Bearing alpha- and beta-alanine

By: Nyah, N (Nyah, Nuziana)1 2, Mohamed, NA (Mohamed, Nor Azanti)1 2, Danis, DS (Danis, Dony Susanti)1 2

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Abstract
Six new 2-halobenzoylthioureas 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 MR spectra showed the presence of important bands of the compounds while the H-1-NMR and C-13-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-alanines have increased the beta-carotene bleaching and DPPH scavenging activities of the compounds.

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Author Information
Reprint Address: Nyah, N (reprint author)
Addresses:
1 2 Int Islamic Uni Malaysia, Kulluyah Sci, Dept Chem, Jalan Sultan Ahmad Shah, Kuantan 25200, Malaysia
E-mail Addresses: nurziana@ium.edu.my

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