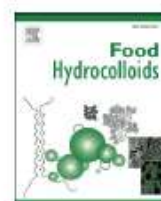




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## Functional and digestibility properties of sago (*Metroxylon sagu*) starch modified by microwave heat treatment

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### ABSTRACT

Sago starch is an underutilized starch due to its low functionality in the formulation of food products. Starch modification can enhance the functionality and functional food properties such as solubility and resistant starch content, respectively. The sago starch was treated by microwave heat treatment with two different pre-treatment which were washing (WMHT) or cold-soaking (SMHT). The modified starches exhibit better solubility in water (95 °C), oil and water binding capacity, and resistant starch (RS) content of cooked samples compared to its native. Additionally, an increase in amylose content and degree of double helix together with morphological changes on the starch granules (WMHT) were also observed. In conclusion, the changes in granules morphology and availability of amylose content by the treatments had influenced the improved some of the starch functionality and RS content. Further study is required to determine the potential of the modified starch as a low glycaemic food ingredient.