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Characterization chemical and functional of coconut mesocarp from Nayarit Mexico

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The fruit of the coconut (*Cocos nucifera* L) is formed by a thick layer corresponding to 35% of coconut called mesocarp; it is composed of hard fibers embedded in a main parenchymal tissue. The coconut mesocarp has different uses in the ornamental industry; potential applications in analytical chemistry and treatment of industrial effluents. The objective of this work was to characterize chemically the coconut mesocarp by a proximate analysis, characterization of fibers and functional assessment. The coconut was from the state of Nayarit in Mexico. Obtaining in dried sample in g/100 g sample of 5.54 ashes; 5.18 proteins; 4.10 ether extract; 34.63 crude fiber and 42.97 of nitrogen-free extract. We know that the chemical composition of mesocarp depends on the variety, ripeness of the fruit and place of culture; in this case the fresh mesocarp had high humidity content (83.5%). Likewise, from total dietary fiber were obtained the following results: 35.9% cellulose, 18.56% hemicellulose, 19.38% residual lignin acid, this results will be used as a basis for future research on solid fermentation. Presenting a high water absorption capacity of 7.16 g water/g dry simple; water retention capacity of 3.86 mL water/g dry sample; oil absorption capacity of 4.99 g oil/g dried sample and uptake ions capacity of 0.97meq H⁺, it can be used as absorbent in the removal of heavy metals. Fibers and coir dust consisting mainly of lignin, cellulose and hemicellulose that confer good absorption capacity and water retention then the mesocarp can be used in bakery.

Biography

Jimenez Sanchez M is currently from Tecnológico de Monterrey Estado de Mexico.

Notes: