

MORPHOLOGICAL AND THERMOANALYTICAL STUDY OF MODIFIED AVOCADO SEEDS STARCH WITH LACTIC ACID

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Abstract. Avocado seeds starch was investigated after the modification with lactic acid using thermogravimetry and differential thermal analysis (TG-DTA), differential scanning calorimetry (DSC), X-ray powder diffraction (XRD) and scanning electron microscopy (SEM). After the modification, there was a decrease in the thermal stability of the starch, also the parameters measured by differential scanning calorimetry showed lower values. These results can be correlated with the reduction in the relative crystallinity observed by XRD. There was no difference in the morphology of the granules, which presented an oval and rounded shape. These results are important for the food industry, since lactic acid is used to optimise the properties of starches.

Keywords: avocado starch, lactic acid, modification, thermal analysis.

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