

# Recycling

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## On the valorization of agro resource of Tizi Ouzou: Extraction for pectin from melon rinds and their application

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The main objective of this work was to study the valorization of agricultural wastes and byproducts of food in our country; we opted for extracting pectin from melon rinds. Pectins are a very useful class of active ingredients and are identified as multifunctional compounds with several pharmacological activities. Pectin yields obtained using aluminum sulfate and aluminum chloride as precipitating agents is 6.916% and 9.166% respectively. The pectins IR spectra obtained revealed that these pectins have two broad absorption bands at 3400 cm<sup>-1</sup> and 3396 cm<sup>-1</sup> which seems to correspond to the type of vibration  $\nu$  elongation of the hydroxyl group (OH). The presence of peaks at about 1740 cm<sup>-1</sup> and 1269 cm<sup>-1</sup> appears to correspond to the C=O bonds of the uronic acids and esters. The bands found in the pectins extracted with aluminum sulfate (1743 cm<sup>-1</sup>) and (1239.15 cm<sup>-1</sup>) can be attributed to sugars or non-esterified acid that especially are found in pectins. Pectins precipitated by aluminum sulfate showed a microstructure similar to those of commercial pectins. These substances could be a primary source for the development of new products for many industries.

### Biography

Benahmed Djilali Adiba has completed his PhD from Algeria University of Boumerdes. He is currently a Teacher at the University of Mouloud Mammeri of Tizi-Ouzou.

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