Olive Leaves as a Source of Vegetable Extracts for the Leather Industry

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Abstract:

Leather is one of the materials mostly used by men, whether in the form of clothing, footwear, furniture or leathergoods. However, as a natural material, the animal skin is vulnerable to the temperature, microbial attack and mechanical stress. These features can be improved with the tanning industry by several physical and chemical treatments that are applied to transform the skin into leather. Vegetable tannins, syntans, mineral and organic agents are applied to improve putrefaction resistance and thermal stability to the skin.

This study aimed to develop a way to produce a vegetable extract from olive leaves for application in vegetable tanning of leather. A system for tannin extraction from olive leaves was developed and a tanning process for application of the extract obtained, and the leather obtained was evaluated for shrinkage temperature and physical-mechanical resistances. An olive leaves extract with 25% of solids was produced and used with mimosa extract in a tanning process. The shrinkage temperature of the leather obtained was 78°C, and the physical-mechanical resistances were good. These findings provide a basis for further research and for pilot scale work.

Keywords:

olive leaves, tanning, leather, vegetable extracts.