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## **SLOW PYROLYSIS – TOOL FOR IMPROVEMENT OF FUEL PROPERTIES OF LIGNOCELLULOSIC WASTE**

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### **Abstract**

Peach stones, a valuable agro-industrial by-product available in many worldwide countries, comprise a renewable resource, which can be widely applied for multifunctional purposes. Its important advantages such as high-energy value, low ash content, low price and abundance, make peach stones an ideal fuel for energy production, but also for new materials synthesis. Although peach stones pose properties, which allow them to be used with minimal physical/chemical treatment, they often need further modification in order to improve their thermal properties, where slow pyrolysis is frequently used. This study aims to provide a practical and effective solution to the revalorization of wasted biomass originating from the fruit processing industry, through slow pyrolysis to convert this waste into carbonaceous material – biochar. The results presented show the main properties of obtained biochar for its possible applications as a solid fuel, comparing them with the properties of the raw biomass material.

**Keywords:** waste biomass, peach stones, pyrolysis, biochar, fuel properties.

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