

Initiative Excellence in Africa 100 PhDs for Africa



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Research field Material Sciences

PhD title

Development and characterization of a composite material composed of banana leaf fibers and a biosourced resin





Keywords

- fibers
- banana leaf vein
- plant resin
- bio-composite
- tannin

Summary

Our study focuses on the exploitation of agricultural waste and untapped local resources, more specifically the fibers from the main vein of the banana leaf and bio-based resins, into composites. We prioritize organic resins extracted from plant bark (tannin), with the aim of producing a 100%

natural and biodegradable material. The work consists in carrying out, first, the extraction and the overall characterization of the constituents which are the fibers and the resin, then, the development and characterization of the composite material.



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