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(57) Abstract :

The present invention discloses a system and method for fabricating highly conductive natural fiber composites for use in electronic devices. Traditional natural fiber composites, known for their mechanical strength and sustainability, have limited application in electronics due to poor electrical conductivity. This invention overcomes this limitation by introducing a novel process where natural fibers such as jute, flax, hemp, or sisal are treated and coated with conductive materials, including graphene, carbon nanotubes, or silver nanoparticles. The coated fibers are then integrated into a polymer matrix to form a composite material that combines the lightweight, eco-friendly properties of natural fibers with enhanced electrical conductivity. The invention provides a scalable and environmentally sustainable solution for developing conductive composites, enabling their use in a variety of electronic applications, including circuit boards, sensors, and wearable electronics. Accompanied Drawing [FIGS. 1-2]

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