

## Synthesis of Lignin-Based Polyester for Eco-Friendly Applications

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In this study, a novel lignin-based polyester was investigated for eco-friendly composite applications. Kraft lignin was copolymerized with polycaprolactone-diol in the presence of diacid in order to incorporate the biodegradable lignin blocks in the polyester chains. The synthesized polymer was characterized by various thermal characterization techniques exhibiting a good thermal stability up to 300°C. The developed synthesis technique may be used in various eco-friendly composite applications.