

Meeting	2016 TMS Annual Meeting & Exhibition
Symposium	Characterization of Minerals, Metals, and Materials
Presentation Title	LL-66: Biodegradable Composite Development Incorporated With Acai Biomass
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On-Site Speaker (Planned)	Celio Hitoshi Wataya
Abstract Scope	<p>The aim of this study was to investigate the mechanical, morphological and thermal properties of biodegradable composites based on aliphatic-aromatic copolyester/polylactic acid blends (PBAT/PLA blends) incorporated by acai (<i>Euterpe oleracea</i> Mart) biomass, an abundant byproduct of the acai fruit agro industry. The biodegradable polymeric composites were prepared by melting extrusion process using a twin-screw extruder machine. The fibers removed from the acai biomass were used to reinforce the biodegradability of PBAT/PLA blends as the matrix. The influence of the acai biomass addition on the properties of the composites was investigated by using tensile and impact tests, SEM, DSC, and XRD analysis, correlation between the properties was discussed. The addition of acai biomass on biodegradable PBAT/PLA blends showed that it is possible to obtain interesting property gains in biodegradable polymer by using waste from renewable sources.</p>
Proceedings Inclusion?	Planned: A print-only volume