European Journal of
Applied Engineering and Scientific Research

Abstract

Influence of a reinforcement of plant origin on the properties of polyamide 6

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Abstract:

Polymer composites reinforced with natural fibers designed with the lowest possible environmental degradation is the major objective of several scientific researches, we focus on polymer composites with polyamide 6 (PA6) matrix, because they are very abundant materials of the family of common plastics, finding its primary application in several fields such as the automotive, building, furniture and packaging industries.The choice of a reinforcement preventing plant waste responds to the challenge of developing new polymeric materials with advanced physicochemical and thermal properties while respecting the ecosystem.Through this study, we aim to recover natural waste, optimize the properties of polyamide 6 and make it more biodegradable.The rate of reinforcement relative to PA6 varies from 5% to 20% by weight, the impact on the properties of PA 6 was evaluated by IR, DRX, DSC, ATG and pycnometry.

Biography:

Oumayma oulidi obtained her bachelor's degree in chemistry in 2015 from Moulay Ismail university and her master's degree in organic chemistry and environment in 2018 from Ibn Tofail university (Morocco). she is a doctoral student in the chemistry department of Moulay.

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Citation: Oumayma oulidi ref; Influence of a reinforcement of plant origin on the properties of polyamide 6 Smart Materials Webinar 2020; October12.2020, UAE, Dubai