11.
Bölüm

Palmiye Budama Artığı Peletlerinde Torefikasyon Sıcaklığı ve Bekleme Süresinin Su Emilim Direncine Etkisi

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1. Giriş

Biyokütle enerjisi, yenilenebilir enerji kaynakları içerisinde fosil yakıtlarla rekabet edebilecek düzeyde olup, Dünyada kömür ve petrolden sonra gelen üçüncü önemli enerji kaynağıdır (Magdziarz vd., 2017). Ortaya çıktıkları bölgede, biyokütle kaynakları kaba forma, yüksek nem içeriğine ve düşük yığın yoğunluğuna sahiptirler (Rentizelas vd., 2009). Biyokütlenin katı yakıt olarak kullanımında en etkin yollardan biri peletleme işlemidir. Peletleme işlemi yüksek yoğunluk, taşıma ve depolama faaliyetlerinin iyileştirilmesi, düzgün ve homojen geometrik şekil sağlayarak biyokütlenin otomatik yakma sistemlerinde verimli bir şekilde kullanılmasına olanak sağlar (Holm vd., 2006; Mani vd., 2003; Werther vd., 2000).

Pelet yakıtları, bilinen yakıt özellikleri, optimize edilmiş peletleme teknolojileri ve sürdürülebilir hammadde temini nedeniyle genellikle orman endüstrisi artıklarından üretilmektedir. Dünya çapında artan odun peleti üretimi,

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