Enyzmed pretreated empty palm fruit bunch for biofuel production

Abstract

Lignin peroxidase (LiP) and manganese peroxidase (MnP) enzymes were used to pre-treat empty fruit bunch (EPFB) before pyrolysis. Statistical analysis indicated that at 71.6%, LiP demonstrated greater lignin degradation compared to 67.9% MnP. Interestingly, the pretreatment sample has resulted in higher bio-oil yield compared to the untreated sample. Both LiP-treated and MnP-treated EPFB yielded approximately 30 wt% of bio-oil compared to 20 wt% of yield for the untreated sample.