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Thermogravimetric analysis coupled with mass spectrometry of spent mushroom substrate and its fractions

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Highlights

- Pyrolysis of spent mushroom substrate and its fractions is investigated
- Spent mushroom substrate gives the highest yield of tar and gas
- Deconvolution of DTG curves and volatile products elucidate stages of pyrolysis
- The highest char production yield is achieved for pyrolysis of peat fraction

Abstract

This study aimed at determination of the char, tar and gas production yield during pyrolysis of the spent mushroom substrate left after cultivation, as well as its individual components, namely the casing layer and the mushroom substrate. The pyrolysis process was carried out in a thermobalance combined with a mass spectrometer. Based on the analysis of mass losses, it

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