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Mechanism of Carbon Deposition within Char derived from Oil Palm Empty Fruit Bunch

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MATERIALS CHARACTERIZATION USING X-RAYS AND RELATED TECHNIQUES

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Abstract

This paper describes the reaction mechanism to deposit pyrolytic carbon within porous body of char derived from oil palm empty fruit bunch (EFB) via an integrated pyrolysis-tar decomposition process, which employs chemical vapor infiltration method. This process was developed to produce a value-added EFB-derived char and to make EFB able to be utilized as a supplementary solid biofuel. The product, namely carbon-deposited char, was characterized in comparison with metallurgical coke breeze used in iron-steel industry.

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