

Accepted Manuscript

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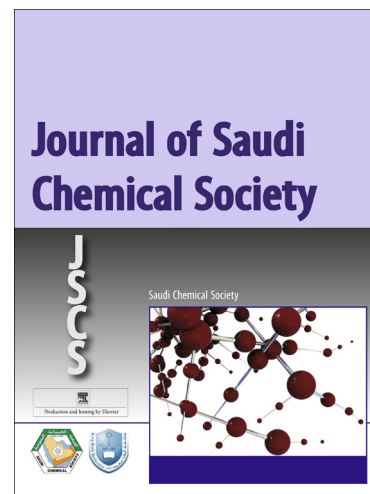
PII: S1319-6103(16)30051-5
DOI: <http://dx.doi.org/10.1016/j.jscs.2016.06.003>
Reference: JSCS 824

To appear in: *Journal of Saudi Chemical Society*

Received Date: 1 June 2016
Revised Date: 26 June 2016
Accepted Date: 29 June 2016

Please cite this article as: S-l. Chen, S-p. Xie, C-l. Fan, J-g. Guo, X-k. Li, Microstructure and performance of carbonization products of component from soft coal pitch, *Journal of Saudi Chemical Society* (2016), doi: <http://dx.doi.org/10.1016/j.jscs.2016.06.003>

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Microstructure and performance of carbonization products of component from soft coal pitch

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Abstract: Pitch is constituted of aromatic hydrocarbon, which is one kind of organic liquid with high viscosity. The soft coal pitch was divided into different group component by solvent extraction, and the different fractions of soft coal pitch were carbonized separately. The relationship between the microstructures of carbonization products and the chemical compositions of group components were investigated in this paper. Results show that the structure and morphology of the carbonization products from pitch were significantly influenced by the chemical composition of the group components. The main microstructure of the toluene soluble (TS) fraction-derived carbonization product is streamline and partial regional type. The microstructure of products from toluene insoluble (TI) fraction is mosaic and regional type. The structure of toluene insoluble-quinoline soluble (TI-QS) fraction-derived carbonization product is mainly streamline type. Nevertheless, the carbonization product from quinoline insoluble (QI) fraction is constituted with isotropy micron grade isotropic particles.

Keywords: Soft coal pitch; organic structure; group component; carbonization; microstructure; performance

Introduction

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