

Distribution features of acoustic waves in cokes

© Nadezhda V. Pykhova,¹⁺ Nikolay V. Negutorov,²⁺ and Alexander I. Kuznetsov²

¹ *Chemical Technology and Computational Chemistry Division. Cheliabinsk State University.*

Molodogvardeytshev St., 70b. Cheliabinsk, 454021. Russia. Phone: +7 (351) 799-70-66.

E-mail: pihovanv@yandex.ru

² *Department of automated control systems for combat use, a branch of Military Training Scientific Center of Military Air Forces «Military Air Academy» in Chelyabinsk.*

*Supervising author; ⁺Corresponding author

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Abstract

Ultrasonic method of sounding coaxial researched oil cokes. Oil cokes are solid precursors carbon-carbon composite materials. Carbon-carbon composites have varying degrees of anisometry structure and density. Apparent and true density, total porosity of samples cokes are defined. Measured time and calculated the speed of propagation of ultrasonic waves in two mutually perpendicular directions. Coefficients of ultrasonic wave velocity anisotropy calculated. The degree of structure of coke is defined. Anisometry degree was assessed using an optical method in accordance with GOST 26 132-84. The dependence of ultrasonic wave propagation velocity of properties and parameters of the structure of samples of petroleum cokes. Samples of petroleum cokes have varying degrees of anisometry structure and varying density. Correlations linking structure parameters and properties of cokes with ultrasonic wave propagation velocity value received. Increase in the density of coke and reducing the number of pores increases the speed of propagation of ultrasonic waves in coke. Ultrasonic sounding coaxial method in can be used to study petroleum cokes without destruction.

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