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THE CENTRAL LABORATORY OF COKE PRODUCTION AT PJSC «ARCELORMITTAL KRYVYI RIH» IN PRESENT-DAY CONDITIONS

© **O.P. Chernousova, N.V. Mukina** (Coke Production of PJSC «ArcelorMittal Kryvyi Rih», 50095, Dnipropetrovsk region, Kryvyi Rih, Kryvorizhstal str., 1, Ukraine), **A.Yu. Martynova**, PhD in Technical Sciences (State Enterprise "Ukrainian State Research Coal Chemical Institute (UHIN)", 61023, Kharkov, Vesnina st., 7, Ukraine)

The article discusses the scientific and methodological organization of analytical control at the coke production of PJSC "ArcelorMittal Kryvyi Rih" (CP AMKR), as well as the results of ongoing scientific and methodological measures to ensure confidence in the results of measurements carried out in the central laboratory (CL CP AMKR).

Thus, the CL CP AMKR was one of the first in the industry to put into use the test installation "KARBOTEST", which allows without the involvement of third parties to carry out important laboratory research and enables the laboratory staff to quickly develop recommendations for optimizing the composition of coal charges and improving the quality of coke. The unit is designed to test the coking process of coal mixtures and certain grades of coal concentrates under temperature conditions similar to those in coke oven batteries.

CL CP AMKR introduces express methods for the analysis of chemical coking products and was one of the first to introduce a refractometric method for determining the mass fraction of distillate up to 180 ° C in crude benzene. The use of this method can significantly reduce the measurement time, avoiding the cumbersome distillation procedure, and reduce the sample volume for analysis from 100 cm^3 to a few drops.

In order to ensure the uniformity, quality of measurements and tests, the CL on an ongoing basis takes part in interlaboratory comparative tests of almost all types of raw materials and products entering and produced by it. These are the products that are stable over time in terms of their quality indicators, for example, coal coke, as well as products whose individual indicators can change over time (crude benzene, coal tar, etc.).

Keywords: measurement, quality control, coal concentrates, coke, chemical products, qualification confirmation, experimental coking, uncertainty, interlaboratory experiment, accreditation.

Corresponding author A.P. Chernousova, e-mail: Elena.Chernousova@arcelormittal.com