

The Application of Tagged Neutron Method for Elemental Analysis of Material on Conveyors

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The results of the application of the tagged neutron method (TNM) for elemental analysis of the sinter on the conveyor are discussed. The tagged neutron method consists in irradiation of the substance under study by fast neutrons with an energy of 14 MeV and registration of the induced characteristic gamma radiation. Neutron tagging is carried out by an alpha detector built in a neutron generator.

The analyser provides the results of the elemental analysis of sinter each 40-60 c without taking the probe. It gives possibility to correct elemental content of the sinter to provide its stability. Large penetrating power of the 14 MeV neutrons provides information of the elemental content of large layer of the substance up to 300 mm. The results of the year data taking will be presented.