Comparison of Different Methods for Modelling of the Lignite Combustion Process in Power Plant “Kosova B”

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Abstract: The great power of blocks in Power Plant “Kosova B” requires determining the conditions for recognition of physic-chemical properties of fuels, constructive conditions, exploitation conditions of units and especially the combustion process in the steam generator. The right solution of problems relating with the burning of coal obtained using kinetic-diffusive regime. The duration of burning coal particles will be given in support of the diffusive theory, material balance according to Knor’s, Gumz’s theory, Ledinegg, etc. In support of these theory-methods, the duration of burning coal dust depends on the diameter particles, exit gasses temperature, excess air coefficient, the amount of exit gasses, density of fuels, etc. The methodology of the paper based on laboratory research and design of mathematical model of kinetic process of burning lignite in steam generators of Power Plant “Kosova B”.

Key words: lignite, modelling, kinetics, the process of combustion, Power Plant “Kosova B”

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