OPTIMIZATION OF POWER PLANT BURNING PROCESS IN ORDER TO MINIMIZE POLLUTANTS EMISSIONS AND THE LOST HEAT

Corneliu Cojocaru¹*, Matei Macoveanu¹, Valeriu Nagacevschi²

¹Technical University of Iasi, Department of Environmental Engineering, Faculty of Industrial Chemistry, Bd. D. Mangeron 71A, 6600 Iasi, Romania
²Technical University of Iasi, Department of Chemical Engineering, Faculty of Industrial Chemistry, Bd. D. Mangeron 71A, 6600 Iasi, Romania

Abstract

According to the mathematical model presented in literature, a program named EMPOLF has been developed in order to predict air pollution. The program affords numerical assessment of the pollutants emissions and dispersions resulted from power plant burning processes. Also, the optimal conditions of the burning process have been established with a view to reduce emissions of pollutants, i.e. type of fuel, air excess coefficient and the dimensions of power plant stack.

Keywords: air pollution, power plant burning process, process optimization

¹* Author to whom all correspondence should be addressed: Phone: +40-32-278683/ Fax: +40-32-275311; Department of Environmental Engineering, Faculty of Industrial Chemistry, Bd. D. Mangeron 71 A, 6600 Iasi, Romania; E-mail: ccojoc@ch.tuiasi.ro