

THE OCCURRENCE OF TRACE ELEMENTS IN FLUE GASES FROM  
CIRCULATING FLUIDIZED BED BOILERS  
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**Abstract:** The emission of dust from coal fired furnaces introduces a lot of contamination into the environment, including dangerous metal compounds, which occur as trace elements in hard and brown coal. After the coal is burnt, they are contained in the grains of respirable dust, which creates health hazard. The results of investigations into the distribution of several trace elements in granular composition of ash emitted from CFB boilers used in coal-fired heat and power station are presented. The research material was taken by means of a cascade impactor, enabling a different granulometric fraction to be separated from a stream of dust that penetrated the electrofilter. The ICP-AES method (inductively coupled plasma atomic emission spectroscopy) was used to determine trace elements after prior mineralization of samples by microwave method. The Authors presented the results of measurements and analyses, determining the ranges of trace elements' occurrence in dust, characterizing the distribution in PM1, PM2.5 and PM10 granulometric fractions and determining the emission factors.