

Determination of the Concentration of some Elements
in the Effluent Material of the Electricity Plant "N.Tesla"-Obrenovac

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From the viewpoint of environmental concern it is necessary to monitor the elements contained in the effluent material of thermo-electric power plants which are known to use huge amounts of low grade coals. The three samples of those potential pollutants were analysed using the x-fluorescence method (a Si(Li) detector and Cd¹⁰⁹ for excitation). The material was pressed into pastiles of 25 mm in diameter. Concentrations listed in the table were obtained by the internal standard method. Increased presence of Ga, As, Se and Mo in the first sample is ascribed only to the quality of that particular batch of coal used, what shows the necessity of constant monitoring of the quality of the coal which will be used for burning.

Table

Element	Concentration (ppm)		
	Sample 1	Sample 2	Sample 3
V	6 ^{±1}	13 ^{±2}	16 ^{±2}
Ga	110 ^{±4}	6 ^{±1}	6 ^{±1}
Ge	5 ^{±1}	2 ^{±1}	2 ^{±1}
As	414 ^{±8}	42 ^{±3}	18 ^{±2}
Se	126 ^{±4}	3 ^{±1}	4 ^{±1}
Nb	2 ^{±1}	19 ^{±2}	18 ^{±2}
Mo	338 ^{±6}	8 ^{±1}	8 ^{±1}
U	11 ^{±1}	7 ^{±1}	8 ^{±1}

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