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## INFLUENCE OF PRINTING MICROCLIMATE PARAMETERS ON ISOPROPYL ALCOHOL EMISSION

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### Abstract

The concentrations of isopropyl alcohol were monitored during the working time (8 hours) in three different printing plants (two sheet-fed offset and one digital) in Novi Sad, Serbia, using portable gas chromatograph. The concentration levels were below the recommended limits by the U.S. National Institute for Occupational Safety and Health. Unequal presence of isopropyl alcohol in printing plants involved a multiple linear regression analysis of microclimate parameters using program ORIGIN 5.0. The results of multiple linear regression confirmed that the microclimate conditions in the digital printing plant generate the lowest values of isopropyl alcohol concentrations due to the installed ventilation fans in comparison with other two sheet-fed offset printing plants. Multiple regression models can be evaluated to predict the values for total isopropyl alcohol concentrations due to the humidity, temperature and light intensity.

*Key words:* gas chromatography, indoor air, isopropyl alcohol, printing, regression model

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