Danuta Milczarek, Izabela Tarka: Emission of Toxic Gases Emitted during the Combustion of Materials Used Rail Vehicles

The article presents the results of research on the impact of heat radiation intensity on the thermal distribution of nonmetallic materials used in the construction of rail vehicles. The results of tests carried out within the internal project entitled „Emission of toxic gases emitted during the combustion of materials as a function of heat radiation intensity using the FTIR detection method" were used in the research. Combustion products and their emission rate during a potential fire of rail vehicles were analyzed. The times of the most intensive emissions of respective gases were determined, which allowed estimating the safe evacuation time.

Keywords: railway, fire safety, fire behavior, test methods, toxicity, FTIR, rail vehicels, heat radiation intensity