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**DEVELOPMENT OF THE METHOD OF FREQUENCY-TEMPORAL REPRESENTATION OF FLUCTUATIONS OF GASEOUS MEDIUM PARAMETERS AT FIRE (p. 44-49)**

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The method of operative frequency-temporal representation of fluctuations of gaseous media parameters at an early stage of fire at premises was developed. The basic assumptions about the peculiarities of dynamics of hazardous factors of gaseous medium at early ignition at premises were stated. The authors created theoretical framework for development of the method, based on the fact that violation of equilibrium state of gaseous medium is translated by the medium to the zone of sensors' localization and responds to emergence of an ignition in premises. The fire source in this case is considered a moving source of disturbances and parameters of the medium carry information about temporal and frequency shifts of disturbances. It was shown that these shifts of disturbances are characterized by the correspondent uncertainty function, which is an invariant with respect to the double Fourier transformation, determined by squared modulus of frequency-temporal energy density of the parameter. The proposed method is a further development of frequency-temporal representations of the Cohen class in case of fluctuations of gaseous medium parameters at early ignitions in premises. The main features of the method are its relative simplicity and the use of data in real time. The verification of the developed method was performed based on the experimental data of the main parameters of the gaseous medium at an early ignition of alcohol, paper, wood, and textiles in the simulation chamber.

**Keywords:** fire source, gaseous medium, equilibrium state, frequency-temporal representation, fire sensors.

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