

The fire detection method includes setting an initial fire detection threshold, measuring the current value of an arbitrary dangerous fire factor, determining the current value of the adaptive threshold, calculating the difference between the current values of the dangerous fire factor and the current values of the adaptive threshold, determining the asymmetric unit function of the calculated current difference, and evaluating the current reliability of fire detection. The initial threshold for fire detection is set according to the initial energy of the fire hazard, taking into account background factors. The current value of the adaptive threshold is determined by exponential filtering with a given adjustment parameter and a time-varying weight determined by the inverse of the current energy of the corresponding measured hazardous factor, taking into account the value of the initial threshold. The assessment of the current reliability of fire detection is carried out by exponential filtering with the same adjustment parameter of the current asymmetric unit function.