SPECIFIC FEATURES OF INHIBITOR CONSUMPTION WHILE PREVENTING IGNITION

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Abstract: It is shown that at preventing ignition of combustible gas mixtures, inhibitor concentration, as well as other starting reagents remains virtually unchanged. According to the theory of chain branching reactions, this regularity is due to the fact that the molecular reactants react mainly with the active intermediates, concentration of which is negligible beyond the flammability region. A practically important method of determining the rate of consumption of the inhibitor, as well as components of the combustible mixture, is provided.

Keywords: consumption of inhibitor; ignition limit; chain branching; the rate constant of inhibition; ethanol

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