Regulation of the burning rate of a pyrotechnic composition based on magnesium and sodium nitrate additives of different type and particle size

© S.V. Shibanov[1], D.A. Yagodnikov[2] , V.I. Sarabev[1], G.A. Danilova[1], V.S. Kachaun[1]

[1]Research Institute of Applied Chemistry, Moscow Region, Sergiev Posad, 141313, Russia
[2]Bauman Moscow State Technical University, Moscow, 105005, Russia

The article considers the results of influence of inorganic fluorides and iron oxide with different dispersion on the burning characteristics of the pyrotechnic composition based on magnesium and sodium nitrate. It shows the laws of burning rate of the studied compounds depending on the type of the additive and the degree of increase the burning rate using different additive content. It was established that under all other equal conditions the effect of increasing of the burning rate under high pressure is mainly caused by the increase of the exponent in the law of burning rate. The article also shows the ability to control the burning rate by the appending of the necessary amount of additive.

Keywords: *pyrotechnic composition, fluorides of metals, ultra- and nanodispersed powders, burning rate.*

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Shibanov S.V., Senior researcher, Research Institute of Applied Chemistry. Specialist in design and development of high-metallized pyrotechnic compositions. Author of more than 10 works in the field of production and application of ultra- and nanodispersed components in powersaturated systems. e-mail: shiban4@mail.ru

Yagodnikov D.A., Dr. Sci. (Engineering), professor, head of the Rocket Engines Department of the Bauman Moscow State Technical University. Author of more than 220 publications in the field of experimental and theoretical studies of working processes in rocket engines and development of contactless diagnostic methods of rocket and jet engines. e-mail: daj@bmstu.ru

Sarabev V.I., Dr. Sci. (Engineering), professor, head of the Department — The chief designer of the direction, Research Institute of Applied Chemistry. Author of more than 250 publications in the field of research and development of pyrotechnic compositions and products based on this compositions. e-mail: niiph@niiph.ru

Danilova G.A., Process Engineer, Research Institute of Applied Chemistry. Specialist in design and production of pyrotechnic compositions for various purposes.

Kachaun V.S., Process Engineer, Research Institute of Applied Chemistry. Specialist in testing of pyrotechnic compositions for various purposes.