Approaches to the distribution optimization of a fine aerosol for fire extinguishing by thermochemical generator

© A.N. Bobrov, A.R. Polyanskiy

Bauman Moscow State Technical University, Moscow, 105005, Russia

The paper focuses on the production diversification of rocket engine, which results in developing high-performance equipment such as the thermochemical generator of a fine water aerosol for fire extinguishing. Changing conditions and objectives of the work determine some new engineering issues, which were not considered in the design of rocket engines before. This article presents the results of a theoretical and experimental research aimed at optimizing the distribution of a fine water aerosol for fire extinguishing in a given room. The findings could be useful in the development of aerosol fire extinguishing systems.

Keywords: diversification of production of rocket engines, fire extinguishing, thermochemical generator of a fine water aerosol.

Bobrov A.N. (b. 1961) graduated from Bauman Moscow Higher Technical School in 1984. Ph.D., Assoc. Professor of the Rocket Engines Department of Bauman Moscow State Technical University. Fields of scientific interests include study of the processes in rocket engines. e-mail: alexbobr@mail.ru

Polyanskiy A.R. (b. 1949), Ph.D., Assoc. Professor of the Rocket Engines Department of Bauman Moscow State Technical University. Fields of scientific interests include study of gas dynamics of rocket engines. e-mail: korolev100-rd@mail.ru