

## **Frequencies of gas oscillations in a pipe with a concentrated heat source**

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### **Abstract**

It is known that the location of the heat source significantly affects the frequency of acoustic oscillations in the channels. The case of a step change in the sound speed is investigated. In this article, linear distribution of sound speed in hot gas is considered. The well-known equations are used to calculate frequencies of the gas oscillations. The analysis shows that the movement of the flame from the down up in an open tube causes a nonmonotonic change in the resonant frequency. The calculation results are in good agreement with the experimental data.

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