**Discussion Heading** 

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## **Comments on the article "Thermic and caloric equations** of state of real gas with small number of parameters"

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## Abstract

It is shown that the application of the Keesom potential, which depends on temperature, instead of the potential of interaction of two electrical dipole moments gives incorrect results for second virial coefficients of substances consisting of polar molecules. The article of Kaplun A.B. and Meschalkin A.B. "Thermic and caloric equations of state of real gas with small number of parameters. High temperature. 2010. Vol.48. No.5. P.692-698." has intrinsic discrepancies, the second virial coefficients and the equations of states of water and carbon dioxide of this article have no molecular statistical mechanical foundation.