

Abstract Submitted
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Half-space problem of weak evaporation and condensation

TAKERU YANO, Osaka Univ — The half-space problem of weak evaporation and condensation is considered on the basis of the numerical solution of Boltzmann-Krook-Welander equation. The problem has been studied extensively by Sone and his colleagues for the case of complete-condensation condition. In a previous paper (Fluid Dynamics Research 40 (2008) 474484), the author has introduced a generalized boundary condition and shown that the solution of the problem with the generalized boundary condition can be transformed into the solution with the complete-condensation condition. In the present study, using accurate numerical solutions, we investigate the relation among the data at infinity and the temperature at the interface in the case of the generalized boundary condition, which serves as the boundary condition for the equations of fluid dynamics when weak evaporation or condensation takes place at the interface.

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