ERRATUM

C. L. Tien, A hydrodynamic model for nucleate pool boiling, Int. J. Heat Mass Transfer, 5, 533-540 (1962).

IT HAS BEEN BROUGHT to the author's attention that the heuristic argument on page 535 of the above paper regarding the heat-transfer result in the inverted stagnation flow is incorrect. Indeed, a close examination of the boundary-layer equations shows that both the momentum and the energy transport in such a flow are different from those in the stagnation flow. As a consequence, the relation between the heat-transfer coefficient and the boundary layer thickness, equation (11), and the heat-transfer correlation, equation (15), can only be regarded as semi-empirical, and not as analytical results based on a definite physical model.

The favorable experimental evidence, such as given in the paper and in the recent work by Marcus and Dropkin (ASME Paper No. 64-WA/HT-4), however, does indicate the following two possibilities: (1) the inverted stagnation flow possesses a similar heat-transfer behavior, as in the stagnation flow, or (2) the stagnation flow pattern exists in certain regions such as in the region between bubble columns where the liquid flows toward the wall.