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Estimation of Pool Boiling Heat Transfer Coefficients of Ethanol-Water Mixtures

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摘要 Based on the analysis of the principles of heat and mass transfer from the liquid bulk to bubble surface during nucleation, a new estimation method to predict the heat transfer of the nucleate pool boiling in binary mixtures is proposed in this paper by using the heat and mass transfer analogy (Colburn analogy) at the bubble surface transfer layers. With the use of Thome' s concept of boiling range, an approximate method is derived to realize the calculation. The predicted results by this method are in good agreement with the experimental data from different sources.

关键词 [heat transfer](#) [boiling](#) [water-ethanol mixture](#) [estimation](#).

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Key words [heat transfer](#); [boiling](#); [water-ethanol mixture](#); [estimation](#).

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