

AN ABSTRACT OF A THESIS

BOILING HEAT TRANSFER TO LIQUID MIXTURES

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Master of Science--Chemical Engineering

Pool nucleate boiling heat transfer data were obtained for benzene, toluene, acetone, benzene-toluene mixtures, and acetone-benzene mixtures on a steam heated brass tube at atmospheric pressure. The results were compared with the nucleate boiling correlations of McNelly, of Borishanskiy and Minchenko, and of Chang and Snyder. The experimental data for the pure components differed from the McNelly correlation by less than ± 20 per cent, and that of Borishanskiy and Minchenko by less than ± 20 per cent. The experimental data for the mixtures differed from the McNelly correlation by less than ± 30 per cent, and that of Borishanskiy and Minchenko by less than ± 25 per cent. The peak nucleate boiling heat flux data for all the liquids differed from the Chang and Snyder correlation by less than ± 25 per cent.

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A Thesis
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the Faculty of the Graduate School
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In Partial Fulfillment
of the Requirements for the Degree
MASTER OF SCIENCE
Chemical Engineering

by
Kuo Chien Hsu
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To the Faculty of the Graduate School:

I am submitting herewith a thesis written by Kuo Chien Hsu entitled "Boiling Heat Transfer to Liquid Mixtures". I recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Chemical Engineering.



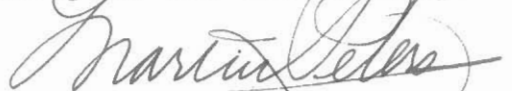
Major Professor

We have read this thesis and recommend its acceptance:


John C. McGee


Donald R. Lee

Accepted for the Faculty:



Dean of the Graduate School