

AN ABSTRACT OF A THESIS

DETERMINATION OF IODINE PARTITION COEFFICIENTS WITH  
WATER AND POTASSIUM IODIDE

Prasad B. Koneru

Master of Science in Chemical Engineering

An apparatus was designed and constructed to measure the partition coefficients of iodine in water. Partition coefficients were measured both at high and low concentrations and in the presence of potassium iodide. Effect of acid concentration and temperature were also studied.

It was noted that the partition coefficient increases as the concentration of iodine is lowered and decreases as the pH is lowered. Addition of potassium iodide to the solution increased the value of the partition coefficient appreciably.

On the assumption that elemental iodine is the only volatile species, water/gas-phase partition coefficients have been calculated from available equilibrium constants.

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Prasad B. Koneru

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CERTIFICATE OF APPROVAL OF THESIS

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Prasad B. Koneru

Graduate Advisory Committee:

W.D. Hallard Nov 2, 1979  
Chairman date

Robert T. Sundell Nov 2, 1979  
Member date

John C. McGehee Nov. 2 1979  
Member date

Approved for the Faculty:

Martin Peters

Dean, Graduate School

November 3, 1979

Date