醇类液体的热压力系数及内压

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摘要　　本文测定25-85℃温度范围内正戊醇.正己醇.正庚醇和正辛醇的热压力系数,发现这些醇类液体的内压几乎不随温度而变,本文还将修正的vander waals 模型推广到了醇类液体,与非缔合液体一样,它们的排斥体积亦与密度呈线性关系.但是,模型参数之比B/A^2不再是个常数,而是随醇分子中碳原子数的增多而快速地减小, 这个比值可作为合能力的一种量度.
关键词　辛醇　戊醇　庚醇　己醇　内压　热压力系数　VAN DER WAALS模型　缔合液体
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Thermal pressure coefficient and internal pressure for alcohol liquids

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Abstract The thermal pressure coefficients of liqs. for 1-pentanol, 1-hexanol, 1-heptanol, and 1-octanol have been measured over the temperature range of 25~85癮. It is found that their internal pressures don't vary much with temperature The modified van der Waals model is applied to the alcohol liqs. As nonassocg. liqs., their excluded vol. can also be expressed as a linear function of d. However, the ratio of the model parameters, B/A2 is not a constant and decreases speedily with increase of the no. of carbon atoms in the alcohol mol. This ratio may be considered as a measure of the ability of self-assocn. for alcs.

Key words OCTANOL   PENTANOL   HEPTANOL   HEXANOL   INTRINSIC PRESSURE   ASSOCIATED LIQUID

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