

CHEMICAL ENGINEERING DATA

丙烯在仲丁醇-水溶液中溶解度的测定与关联

刘国柱<sup>a</sup>, 吴玉龙<sup>a,b</sup>, 任永利<sup>a</sup>, 米镇涛<sup>a</sup>

<sup>a</sup> School of Chemical Engineering and Technology, Tianjin University, Tianjin 300072, China

<sup>b</sup> Department of Chemical Engineering, Tsinghua University, Beijing 100084, China

收稿日期 修回日期 网络版发布日期 接受日期

**摘要** In order to obtain solubility data of propylene in 2-butanol+water solutions, gas-liquid equilibrium(GLE) experiment was carried out at 303.15-333.15 K, 0.3-1.2 MPa with static equilibrium still. Original massratios of 2-butanol to water are 1: 0, 9: 1, 8: 2 and 7: 3, respectively. The equilibrium data are correlated with anempirical correlation. The average relative deviation (ARD) between experimental and calculated values is 2.15%,and the maximum relative deviation (MRD) is less than 5%.

**关键词** [solubility](#) [propylene](#) [2-butanol+water](#) [gas-liquid equilibrium](#)

分类号

**DOI:**

**Measurement and Correlation of Solubility for Propylene in 2-Butanol+Water Solutions**

LIU Guozhu<sup>a</sup>, WU Yulong<sup>a,b</sup>, REN Yongli<sup>a</sup>, MI Zhentao<sup>a</sup>

<sup>a</sup> School of Chemical Engineering and Technology, Tianjin University, Tianjin 300072, China

<sup>b</sup> Department of Chemical Engineering, Tsinghua University, Beijing 100084, China

Received Revised Online Accepted

**Abstract** In order to obtain solubility data of propylene in 2-butanol+water solutions, gas-liquid equilibrium(GLE) experiment was carried out at 303.15-333.15 K, 0.3-1.2 MPa with static equilibrium still. Original massratios of 2-butanol to water are 1: 0, 9: 1, 8: 2 and 7: 3, respectively. The equilibrium data are correlated with anempirical correlation. The average relative deviation (ARD) between experimental and calculated values is 2.15%,and the maximum relative deviation (MRD) is less than 5%.

**Key words** [solubility](#); [propylene](#); [2-butanol+water](#); [gas-liquid equilibrium](#)

通讯作者:

刘国柱

作者个人主页: 刘国柱<sup>a</sup>; 吴玉龙<sup>a,b</sup>; 任永利<sup>a</sup>; 米镇涛<sup>a</sup>

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF](#)(1141KB)

▶ [\[HTML全文\]](#)(0KB)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [引用本文](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中 包含“solubility”的 相关文章](#)

▶ 本文作者相关文章

· [刘国柱<sup>a</sup>](#)

· [吴玉龙<sup>a</sup>](#)

· [b](#)

· [任永利<sup>a</sup>](#)

· [米镇涛<sup>a</sup>](#)