

RESEARCH NOTES

高浓度H₂O-NH₃-CO₂体系汽液平衡计算

魏顺安, 张红晶

Chemistry and Chemical Engineering Institute, Chongqing University, Chongqing 400044, China

收稿日期 修回日期 网络版发布日期 接受日期

摘要 A vapor liquid equilibrium model and its related interactive energy parameters based on

UNIQUAC model for the H₂O-NH₃-CO₂ system without solid phase at the conditions of temperature from 30°C to 90°C, pressure from 0.1 MPa to 0.4 MPa, and the maximum NH₃ mass fraction up to 0.4 are provided. This model agrees with experimental data well (average relative error < 1%) and is useful for analysis of industrial urea production.

关键词 [H₂O-NH₃-CO₂ system](#) [vapor liquid equilibrium](#) [high concentration](#) [thermodynamic model](#)

分类号

DOI:

Calculation of H₂O-NH₃-CO₂ Vapor Liquid Equilibria at High Concentration Conditions

WEI Shun'an, ZHANG Hongjing

Chemistry and Chemical Engineering Institute, Chongqing University, Chongqing 400044, China

Received Revised Online Accepted

Abstract A vapor liquid equilibrium model and its related interactive energy parameters based on UNIQUAC model for the H₂O-NH₃-CO₂ system without solid phase at the conditions of temperature from 30°C to 90°C, pressure from 0.1 MPa to 0.4 MPa, and the maximum NH₃ mass fraction up to 0.4 are provided. This model agrees with experimental data well (average relative error < 1%) and is useful for analysis of industrial urea production.

Key words [H₂O-NH₃-CO₂ system](#); [vapor liquid equilibrium](#); [high concentration](#); [thermodynamic model](#)

通讯作者:

魏顺安

作者个人主页: 魏顺安; 张红晶

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF \(753KB\)](#)

▶ [\[HTML全文\] \(0KB\)](#)

▶ [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 "[H₂O-NH₃-CO₂ system](#)" 的 相关文章

▶ 本文作者相关文章

· [魏顺安](#)

· [张红晶](#)