

## **Modification of Rk Equation of State for Liquid and Vapor of Ammonia by Genetic Algorithm**

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**Abstract :** Cubic equations of state like Redlich-Kwong (RK) EOS have been proved to be very reliable tools in the prediction of phase behavior. Despite their good performance in compositional calculations, they usually suffer from weaknesses in the predictions of saturated liquid density. In this research, RK equation was modified. The result of this study shows that modified equation has good agreement with experimental data.

**Keywords :** equation of state, modification, ammonia, genetic algorithm

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