

## Accepted Manuscript

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PII: S0021-9614(18)30457-9  
DOI: <https://doi.org/10.1016/j.jct.2018.08.035>  
Reference: YJCHT 5523

To appear in: *J. Chem. Thermodynamics*

Received Date: 4 May 2018  
Revised Date: 21 August 2018  
Accepted Date: 22 August 2018

Please cite this article as: P. Losada-Pérez, C.A. Cerdeiriña, J. Thoen, Asymmetric liquid-liquid criticality in the ideal volumetric mixing approximation, *J. Chem. Thermodynamics* (2018), doi: <https://doi.org/10.1016/j.jct.2018.08.035>

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# Asymmetric liquid-liquid criticality in the ideal volumetric mixing approximation

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We address the question on the validity of the ideal volumetric mixing approximation, a customarily used approach to analyze liquid-liquid phase transitions. Thus, liquid-liquid coexistence curves for the binary mixture composed by nitromethane and 3-pentanol were obtained from direct single-phase mass density measurements as a function of temperature. A reasonable agreement with previously reported data obtained from refractive index measurements has been found, indicating that assuming ideal mixing is rather reasonable. Furthermore, the implications of the ideal volumetric mixing approximation on asymmetric liquid-liquid criticality

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