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# Solubility and solution thermodynamics of 2-methyl-4-nitroaniline in eleven organic solvents at elevated temperatures

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## ABSTRACT

The knowledge of solubility and solution thermodynamics for 2-methyl-4-nitroaniline in different solvents is essential for its purification and further theoretical studies. In this work, the solid-liquid equilibrium for 2-methyl-4-nitroaniline in eleven pure organic solvents (methanol, ethanol, *n*-propanol, isopropanol, *n*-butanol, toluene, ethyl acetate, acetonitrile, 2-butanone, acetone and cyclohexane) was established with the isothermal saturation method at temperatures  $T = (278.15$  to  $313.15)$  K under pressure of 101.2 kPa, and the solubility of 2-methyl-4-nitroaniline in these solvents were determined by a high-performance liquid chromatography (HPLC). In general, the mole

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