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The Solubilities and the Activity Coefficients of the Three Nitroanilines in Aqueous Solutions of Typical Salts at 85°

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The solubilities of the three nitroanilines in water and in solutions of sodium chloride, barium chloride, potassium sulfate and magnesium sulfate have been determined at 25°. The method involved the reduction and the de-termination of the excess titanous chloride by titration with a standard solution of ferric alum.

The activity coefficients of the anilines were calculated from the solubility data. For any given concentration in the solutions of the four salts the activity coefficients increase in the order: sodium chloride, barium chloride, potassium sulfate, maskensium sulfate. For solutions of all four salts the activity coefficients increase with increase in salt concentration; at the same time the solubilities decrease.

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