



<b>Thesis Title</b>	Determination of Acetic Acid in Vinegar Fermentation Broth by Flow Injection Analysis		
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### Abstract

A flow injection analysis system incorporating a dialysis cell has been proposed for the separation and determination of acetic acid. The method was based on the separation of acetic acid out from the sample via a dialysis membrane and which was then reacted with a reagent consisting of potassium iodate and potassium iodide resulting in iodine. The absorbance of yellow-coloured iodine was measured at 350 nm and was proportional to the acetic acid concentration present in the sample. The optimum conditions for determining acetic acid by flow injection colourimetry were established and linear calibration curves over the ranges 0.05-1.00% w/v, 1.00-2.00% w/v and 2.00-5.00% w/v of acetic acid were obtained. The precision of the method was 1.35% (n=12) with a detection limit of 0.03% w/v. The proposed method has been applied to the determination of acetic acid in vinegar fermentation broth and commercially available vinegar samples.