

## THE RAPID ESTIMATION OF UNOXIDISED AND OXIDISED POLYPHENOLS IN TEA SOLUTION USING HPLC

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The relative concentration of unoxidised and oxidised polyphenols present in tea liquor is now known to determine the taste of the beverage. (1) Too high a quantity of unoxidised polyphenols gives rise to a harsh greenish taste in the beverage. The methods which had been used in the past to estimate the relative proportions of unoxidised and oxidised polyphenol in solution are generally time consuming. This paper reports the details of a method whereby both unoxidised and oxidised polyphenols could be estimated sequentially after fractionation on the HPLC. An isochratic elution mode (5% acetic acid) was used for the elution of unoxidised polyphenols while a gradient elution mode (59.5% water + 0.5% acetic acid + 40% acetone) was used for the elution of oxidised polyphenols from the same sample. The usefulness of this method is illustrated by the results obtained from a controlled fermentation experiment.

### References

1. Sanderson, G. W., *et al.*  
Contribution of polyphenolic compounds to the taste of tea. In: *Am. Chem. Soc. Symposium Series*.(26) (1976).