

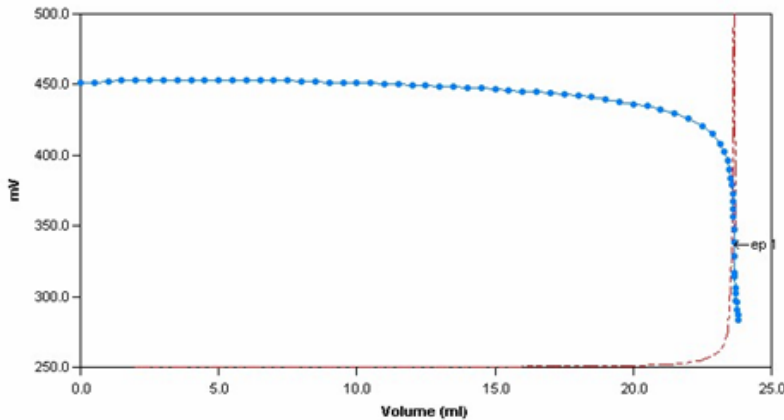
Method Abstract #20

Reducing Sugars in Wine

Scope and Application This method determines the quantity of reducing sugars in wine samples. This method is a variation of Rebelein's (Gold Coast) Method.

Method Summary The reducing sugar concentration is determined by adding an alkaline salt solution and copper sulfate solution to wine samples, followed by a short heating step. The samples are then quickly cooled and an excess of sulfuric acid and potassium iodide is added. The samples are then titrated with sodium thiosulfate to an inflection endpoint determined by a redox electrode. This method can be extremely time-consuming when run manually, but all sample preparation, heating, cooling and titrations can be completed automatically by the system.

Sample Titration Curve



Method Performance

Parameter	Specification
Measuring Range*	2.5 – 180 g/L
MDL**	2.5 ppm
RSD @ 2.5g/L	3.69% or +/- 0.09 ppm
RSD @ 25g/L	3.13% or +/- 0.78 ppm
RSD @ 95g/L	2.00% or +/- 1.9 ppm
RSD for white wine (2.95g/L)	2.03% or +/- 0.06 ppm
RSD for red wine (10.46g/L)	4.80% or +/- 0.50 ppm

*Data for this measuring range was obtained using laboratory prepared standards formulated from sucrose. Higher levels were obtained by using dilutions, and may be expanded further.

**The Method Detection Limit (MDL) was determined based on data obtaining a coefficient of variance better than 30%. Results may differ depending on laboratory practices and sample matrix.