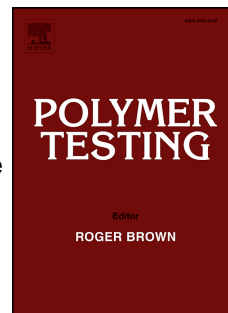


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# Determination of Average Molecular Weight of Guar Gum by A Simple Twice Headspace Extraction Gas Chromatographic Technique

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## Abstract:

This paper proposed a new method for the determination of the viscosity average molar mass of guar gum, based on a volatile tracer assisted twice headspace extraction gas chromatographic technique. The feasibility study showed that n-butanol was a suitable tracer to be used in this method. The results showed that the present method had a good precision (with the relative standard deviation  $< 0.86\%$ ) and good accuracy (in which the relative differences were within 7.94% when compared with the reference method). The present method is simple and practical. It can conduct an automated measurement when a batch sample testing is required.

**Keywords:** Molecular weight; Guar gum; n-Butanol; Twice headspace extraction; Gas chromatography

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