

An Overview of the Advantages and Limitations of Methods for Latex Characterisation

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An outline of the concept of particle size, size distribution and averages is presented. With improvements in electronics and microprocessing, the computation of particle sizes is greatly simplified through the use of 'black-boxes' which enable size calculations to be made with the minimum of effort. A brief, general survey of the methods and instruments available for particle sizing suitable for the characterisation of latexes is discussed. However, instrumentation can become an expensive capital expenditure, for equipment which might only be used sporadically by someone whose main interest is in the study of latex colloids, their preparation and their properties, but not measurement per se. Hence, a simple manual counting technique to determine particle size is demonstrated.

An example of the particle size measurement of the same latex but using different instruments, along with some of the problems that may arise in measurement are also discussed with examples of how these difficulties can appear.