

Volumetric Transfer of Liquids

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1. Summary

Although volumetric measurements are usually less accurate than gravimetric based measurements, volumetric measurements are still in common use due to the convenience, and often higher throughput, that may be afforded by automatic pipettes. Analysts should be aware of the performance limitations that can be expected for methods that rely on volumetric measurements, and precautions that must be observed to achieve the best results. This presentation highlights the use of different types of automatic pipettes and demonstrates pipetting operations for aqueous and organic liquids. Topics include pipette tip selection, positive displacement and air displacement pipettes, operation of mechanical and electronic pipettes, and performance expectations.¹

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