

Use of Analytical Balances

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1. Summary

The determination of mass is a fundamental component in quantitative analysis, and weighing accuracy is an important factor for most applications. This presentation will highlight the use of different types of analytical balances and will demonstrate weighing operations for solids and liquids. Topics include calibration procedures, operation of mechanical and electronic balances, use of weighing vessels for solids, use of gas tight syringes for liquids, and best practices for solution preparation. Strategies are presented to minimize errors associated with evaporation or other sample losses that might occur with the determination of mass by difference.¹

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