titration

The process of determining the quantity of a substance A by adding measured increments of substance B, with which it reacts (almost always as a standardized solution called the titrant, but also by electrolytic generation, as in coulometric titration) with provision for some means of recognizing (indicating) the endpoint at which essentially all of A has reacted. If the endpoint coincides with the addition of the exact chemical equivalence, it is called the equivalence point or stoichiometric or theoretical endpoint, thus allowing the amount of A to be found from known amounts of B added up to this point, the reacting weight ratio of A to B being known from stoichiometry or otherwise.

Terms for varieties of titration can reflect the nature of the reaction between A and B. Thus, there are acid–base, complexometric, chelatometric, oxidation–reduction, and precipitation titrations.

Additionally, the term can reflect the nature of the titrant, such as acidimetric, alkalimetric, and iodometric titrations as well as coulometric titrations, in which the titrant is generated electrolytically rather than being added as a standard solution.

O.B. 47; see also 1990, *62*, 2217