

Primary Methods for Establishing Traceability of Chemical Measurements of the SI Units

Plática Invitada

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ABSTRACT

There is a growing need for a world-wide comparability of measurement results in chemistry. It is driven by the continuing globalisation of trade and economy but also common requirements for human live and well-being such as health, environmental issues or food safety. Traceable chemical measurements are, however, also required for general metrological problems such as the determination of natural constants.

Whenever possible, the demand is best satisfied on the basis of primary measurement methods, traceable to the SI. There is a standing need for new measurement techniques and protocols for such primary methods in order to tackle new groups of analytes with highest accuracy and/or for largely improved detection limits.

Due to the great variety and complexity of chemical measurement tasks, the establishment of traceability in the field of chemistry requires concentration of the efforts on the most urgent demands. Some examples, problems and possible solutions are discussed.