

## "Gas Reference Laboratory: establishment and development"

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The use of Certified Reference Materials (CRM) in chemical analysis provides traceability to user's results and assures the quality of them. New international, European and national regulations fix concentration limits for defined chemical pollutants and new Reference Materials have to be produced in order to give traceability to the subsequent legal controls performed.

Exist several kinds of Reference Materials, one of them are Gas Reference Mixtures. Those gas mixtures are used in several measurement procedures, among them, calibration of gas detectors or gas analysers, industrial procedures, medicine, etc. So, it is necessary to have Gas Reference Mixtures for the suitable compound in the suitable level of composition in order to guarantee the traceability and the quality of the obtained results. In that way they can be accepted by customers and other laboratories.

In CEM Gas Reference Laboratory Primary Gas Reference Mixtures are produced. Initially they were produced to give traceability to the metrological controls on the gas analysers used to check the vehicles emissions (petrol engines). Nowadays the number of analytes and level of concentrations has been increased, for example with Synthetic Natural Gas. The aim of this laboratory is focussing in the needs of the national industry to give them national traceability.