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Titolo	Transverse disciplines in metrology [[electronic resource] ] : proceedings of the 13th International Metrology Congress, 2007, Lille, France // French College of Metrology
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Descrizione fisica	1 online resource (829 p.)
Collana	ISTE ; ; v.50
Disciplina	389.1 620/.0044
Soggetti	Measurement Mathematics Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Transverse Disciplines in Metrology; Table of Contents; Preface; Chemistry - Statistics/Gas Analysis; Certification of a reference material for herbicides in water by way of inter laboratory comparison; Determination of aflatoxin M1 using liquid chromatographic method: comparison between uncertainty obtained from in house validation data and from proficiency test data; Purity analysis in gas metrology; Comparison of two different approaches to evaluate the on line gas chromatography for natural gas Performance characteristics of GF-ASS and some metrological aspects of trace element determination The influence of water density and conductivity variation in a gravimetric calibration method; Hydraulic Quantities; Uncertainty estimation of free surface flow rates determined by ADCP or current meter gauging; Influence of the insertion depth on the response of a hot film anemometer in different wind tunnels; Recent Development of the ITS; The characterization of relative

humidity and temperature probes for use in interlaboratory comparisons

High temperatures: new fixed points and thermodynamic temperature  
Implementation of a polyvalent measurement set-up for temperature and humidity used to characterize thermal and climate chambers: presentation of results; The SI, Now and Tomorrow; Determination of the Avogadro constant: a contribution to the new definition of mass; Development and application of the femtosecond frequency comb; Recent development in time metrology; Original monolithic device of 4-crossed axis with flexure pivots to be used for the French watt balance experiment; The practical realization of the meter in Portugal

Toward an important evolution of the international system of units: what practical impact? Health and Safety; Using proficiency testing results latest alternative method for uncertainty evaluation: application in clinical chemistry; Facilitating reliability and traceability of measurement results in laboratory medicine by certified reference materials; Dosimetric standard for continuous x-rays radiation fields of low and medium energies (< 300 kV); Metrological Tools and Means; The international vocabulary of metrology, 3rd edition: basic and general concepts and associated terms. Why? How?

Current problems of independent laboratories in Europe  
The harmonized European gas cubic meter for natural gas as realized by PTB, NMI-VSL and LNE-LADG and its benefit for the user and metrology; Environment; Traceability of environmental chemical analyses: can fundamental metrological principles meet routine practice? Example of chemical monitoring under the Water Framework Directive; Main standard for refrigerant liquid leak throughputs; Quality aspects of determining key rock parameters for the design and performance assessment of a repository for spent nuclear fuel  
Environment protection measurements by the technical inspection of vehicles

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### Sommario/riassunto

Based on The International Metrology Congress meeting, this reference examines the evolution of metrology, and its applications in industry, environment and safety, health and medicine, economy and quality, and new information and communication technologies; details the improvement of measurement procedures to guarantee the quality of products and processes; and discusses the development of metrology linked to innovating technologies. The themes of the Congress (quality and reliability of measurement, measurement uncertainties, calibration, verification, accreditation, sensory metrology, regul

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