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Decision CIPM/105-28 (2016)

The CIPM decided that the CCU will adopt the same criteria for participation as the other CCs for all meetings in 2018 and beyond. Document CIPM-D-01 will be updated accordingly.

4. Participation in the CCs

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Member status

- 4.2 Membership of the CCs is decided by the CIPM in accordance with the following established criteria. Membership of a Consultative Committee is open to institutions of Member States that are recognized internationally as most expert in the field. This normally requires that they:
- be national laboratories charged with establishing national standards in the field;
- be active in research and have a record of recent publications in research journals of international repute;
- have demonstrated competence by a record of participation in international comparisons organized either by the Consultative Committee, the BIPM or a regional metrology organization.



Rules of procedure for the Consultative Committees (CCs) created by the CIPM, CC working groups and CC workshops

This document was approved by the CIPM in July 2018.

It cancels and replaces CIPM/2005-10, CIPM/2009-66 and CIPM/2012-03 adopted by the CIPM in 2005, 2009 and 2012.

CIPM-D-01 Version 3



What is INRIM

- National Metrology Institute (NMI);
- operates under the authority of the Ministry of Education, University, and Research (MIUR);
- realizes, maintains and develops the national reference standards of the measurement units of the SI;
- supports the traceability of the calibration laboratories of the National Accreditation Body by ensuring the
 quality of the measurement standards and promoting the dissemination of the national standards of the SI
 measurement units.





The Metre Convention

Italy signed "The Metre Convention" on 20th May 1875;

Member State – General Conference on Weights and Measures (CGPM)

International Committee for Weights and Measures (CIPM) – Dr M.L. Rastello;

Members of the Consultative Committees for:

- Acoustics, Ultrasound and Vibration (CCAUV);
- Electricity and Magnetism (CCEM);
- Length (CCL);
- Mass and Related Quantities (CCM);
- Photometry and Radiometry (CCPR);
- Amount of Substance: Metrology in Chemistry and Biology (CCQM);
- Thermometry (CCT);
- Time and Frequency (CCTF);

Member of the CCU Working Group on:

Angles and Dimensionless Quantities in the SI (CCU-WGADQ) – Dr W. Bich;

Joint Committees of the BIPM

Working Group on the Expression of Uncertainty in Measurement (JCGM WG1) – Dr W. Bich (Chairman)



Key and supplementary comparisons (Appendix B)

Refine your search

METROLOGY AREA

- <u>Mass</u> (106)
- <u>Length</u> (49)<u>Electricity</u> and Magnetism (40)
- Thermometry (23)
- Amount of Substance (22)
- Acoustics, Ultrasound, and Vibration (11)
- Photometry and Radiometry (6)
- ime and Frequency (1)

TYPE

- Key comparisons (184)
- Supplementary comparisons (74)
- (74)

STATUS 🗹

- Approved for equivalence (126)
- Approved (63)
- Approved for provisional
- equivalence (24)
- Measurements in progress (15)
- Planned (11)
- Protocol complete (5)
- Report in progress, draft A (5)
- Measurements completed (4)
- Report in progress, draft B (3)
 Continuous, approved for
- equivalence (2)

≥ Result of the search

Your query 'INRIM' produced 258 results

1 <u>2</u> 3[Next >>]

New search

EUROMET.QM- K3 Automo

Comparison type, Field

Status

Automotive emission gases 2000

Key comparison in Amount of Substance, Gases

Approved for equivalence, Results available

CCEM.M- K1

Comparison of low frequency magnetic flux density 2001 -2003

Comparison type, Field

Parameter(s)

Status

Key comparison in Electricity and Magnetism, Magnetism

Frequency: DC to 20 kHz

Approved for equivalence, Results available

EUROMET.EM-S6

Comparison of electric field strength 1997 - 2002

Comparison type, Field

Supplementary comparison in Electricity and Magnetism, AC Voltage, Current, Power, and AC/DC Transfer

Parameter(s)

(s) Frequency: 50 Hz

Status

Approved

EUROMET.EM-S11

Comparison of the measurement of current transformers 1999 - 2000

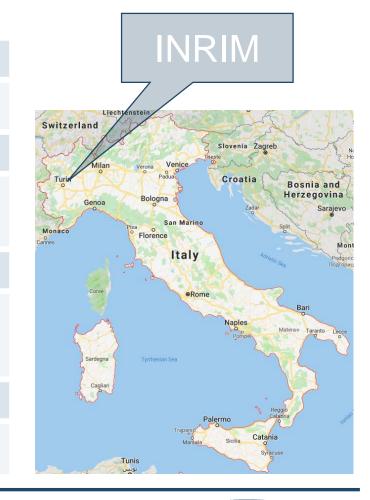
Comparison type, Field

Parameter(s)

Supplementary comparison in Electricity and Magnetism, AC

Voltage, Current, Power, and AC/DC Transfer

Frequency: 50 Hz







Calibration and Measurement Capabilities – (Appendix C)

New search

Refine your search

✓ CMC AREA

- CMCs General Physics (395)
- CMCs Chemistry (9)

▶ PHYSICS

- Temperature (91)
- Dimensional metrology (36)
- High voltage and current (33)
- Sound in air (23)
- DC voltage, current, and
- resistance (23)
- Vibration (17)
- Fluid flow (16)
- Torque, Viscosity, Hardness and Gravity (16)
- Materials (14)
- Electric and magnetic fields (13)
- AC voltage, current, and power
- Radio frequency measurements
- (11)

► CHEMICAL MATERIAL

- aluminium alloy (3)
- ish tissue (2)
- polypropylene (2)
 nitrogen (1)
- synthetic air (1)

→ CHEMICAL ANALYTE >

- chromium (2)
- carbon dioxide (2)
- cadmium (1)
- iron (1)
 arsenic (1)

≥ Result of the search

Your query 'INRIM' produced 404 results

1 2 3 [Next >>]



Complete CMCs in Acoustics, Ultrasound, Vibration for Italy (.PDF file)

Pressure sensitivity level. Laboratory standard microphone type LS1. Measurand unit, dB

(reference: 1 V/Pa)

Absolute expanded uncertainty (k = 2, level of confidence 95 %) in dB: **0.08**

Pressure reciprocity IEC 61094-2:1992

Frequency: 31.5 Hz

Approved on 27 December 2007

Pressure sensitivity level. Laboratory standard microphone type LS1. Measurand unit, dB (reference: 1 V/Pa)

Absolute expanded uncertainty (k = 2, level of confidence 95 %) in dB: **0.05**

Pressure reciprocity IEC 61094-2:1992

Frequency: 63 Hz to 8000 Hz Approved on 27 December 2007

Pressure sensitivity level. Laboratory standard microphone type LS1. Measurand unit, ${f dB}$

(reference: 1 V/Pa)

Absolute expanded uncertainty (k = 2, level of confidence 95 %) in dB: **0.08**

Pressure reciprocity IEC 61094-2:1992

Frequency: 10 kHz

Approved on 27 December 2007

Pressure sensitivity level. Laboratory standard microphone type LS2. Measurand unit, ${f dB}$

(reference: 1 V/Pa)

Absolute expanded uncertainty (k = 2, level of confidence 95 %) in dB: **0.08**

Pressure reciprocity IEC 61094-2:1992 Frequency: 31.5 Hz

Approved on 27 December 2007

Pressure sensitivity level. Laboratory standard microphone type LS2. Measurand unit, dB

(reference: 1 V/Pa)

Absolute expanded uncertainty (k = 2, level of confidence 95 %) in dB: **0.05**

Pressure reciprocity IEC 61094-2:1992

Frequency: 63 Hz to 8000 Hz









2015-2019 – scientific publications «ISI-WoS»



Document Types

ARTICLE (689)

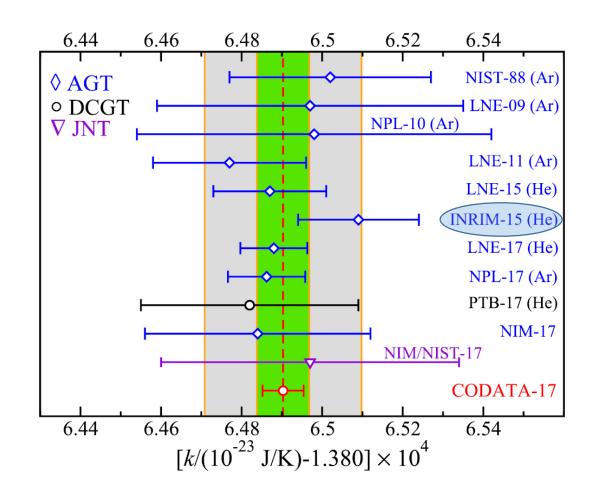
PROCEEDINGS PAPER (71)

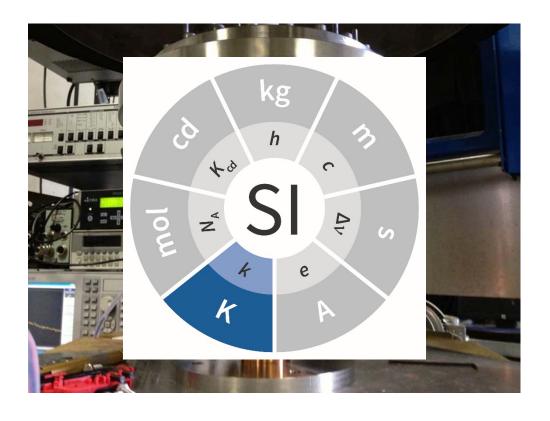
EDITORIAL MATERIAL (42)

REVIEW (17)



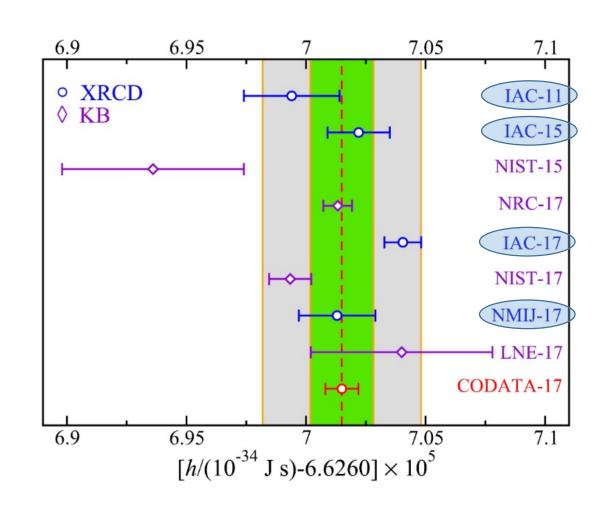
Implementation of the SI







Implementation of the SI









Thank you for your attention