

## TC 1: Terminology

*BIML contact: Willem Kool*

### Secretariat

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ISO - Organisation Internationale de Normalisation	IEC - Commission Electrotechnique Internationale
CECIP - Comité Européen des Fabricants d'Instruments de Pesage	IUPAP - International Union of Pure and Applied Physics
IUPAC - International Union of Pure and Applied Chemistry	IFCC - International Federation of Clinical Chemistry

### Publications

V 1 - 2000 : International vocabulary of terms in legal metrology (VIML) (bilingual French-English) /  
Vocabulaire international des termes de métrologie légale (VIML) (bilingue français-anglais) - Confirmed  
1/1/2000 - Under revision

### Projects

p 2: Revision of V1 (VIML), status: 3 CD

## TC 2: Units of measurement

*BIML contact: Willem Kool*

### Secretariat

Dr. Richard Goblirsch  
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IEC - Commission Electrotechnique Internationale	ISO - Organisation Internationale de Normalisation, TC 12
CECIP - Comité Européen des Fabricants d'Instruments de Pesage	IUPAP - International Union of Pure and Applied Physics
IUPAC - International Union of Pure and Applied Chemistry	

### Publications

D 2 - 2007 : Legal units of measurement - Confirmed 12/4/2007

### Projects

## TC 3: Metrological control

*BIML contact: Willem Kool*

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IEC - Commission Electrotechnique Internationale

ISO - Organisation Internationale de Normalisation

CECIP - Comité Européen des Fabricants d'Instruments  
de Pesage

### Publications

R 34 - 1979 : Accuracy classes of measuring instruments - Confirmed 10/31/1974 - Under revision  
R 42 - 1981 : Metal stamps for verification officers - Confirmed 10/31/1977 - Under revision  
D 1 - 2004 : Elements for a Law on Metrology - Confirmed 7/1/2005 - Under revision  
D 3 - 1979 : Legal qualification of measuring instruments - Confirmed 1/1/1979 - Under revision  
G 1 - 104 - 2009 : Evaluation of measurement data - An introduction to the "Guide to the expression of uncertainty in measurement" and related documents - Confirmed 10/23/2009

### Projects

p 1: Revision of R 34: Accuracy classes of measuring instruments., To be incorporated into combined revision of D 19 and D 20 (TC 3/SC 1)., status: no document yet  
p 2: Revision D 3: Legal qualification of measuring instruments., To be incorporated into combined revision of D 19 and D 20 (TC 3/SC 1)., status: no document yet  
p 5: Revision R 42: Metal stamps for verification officers., To be incorporated into combined revision of D 19 and D 20 (TC 3/SC 1)., status: no document yet  
p 6: Revision of D 1, status: 1 CD  
*Project leader: Prof. Manfred Kochsiek, GERMANY*

## TC 3/SC 1: Pattern Approval and verification

*BIML contact: Willem Kool*

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ISO - Organisation Internationale de Normalisation  
CECIP - Comité Européen des Fabricants d'Instruments de Pesage  
IEC - Commission Electrotechnique Internationale

### Publications

D 13 - 1986 : Guidelines for bi- or multilateral arrangements on the recognition of: test results - pattern approvals - verifications - Confirmed 1/1/1986 - Under revision  
D 19 - 1988 : Pattern evaluation and pattern approval - Confirmed 1/1/1988 - Under revision  
D 20 - 1988 : Initial and subsequent verification of measuring instruments and processes - Confirmed 1/1/1988 - Under revision  
D 27 - 2001 : Initial verification of measuring instruments using the manufacturer's quality management system - Confirmed 1/1/2001

### Projects

p 1: Revision D 19: Pattern evaluation and pattern approval., Revision combined with D 20 incorporating elements of R 34, R 42 and D 3., status: no document yet  
p 2: Revision D 20: Initial and subsequent verification of measuring instruments and processes., Revision combined with D 19 incorporating elements of R 34 and D 3., status: no document yet  
p 4: Revision D 13: Guidelines for bi- or multilateral arrangements on the recognition of: test results - pattern approvals - verifications., Postponed pending progress of p7 + p8 of TC3/SC5, status: no document yet

## TC 3/SC 2: Metrological supervision

*BIML contact: Willem Kool*

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CECIP - Comité Européen des Fabricants d'Instruments  
de Pesage

### Publications

D 9 - 2004 : Principles of metrological supervision - Confirmed 10/26/2004  
D 12 - 1986 : Fields of use of measuring instruments subject to verification - Confirmed 1/1/1986  
D 16 - 2011 : Principles of assurance of metrological control - Confirmed 7/18/2011

### Projects

## TC 3/SC 3: Reference materials

*BIML contact: Luis Mussio*

### Secretariat

Dr. Elena Osintseva  
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ISO - Organisation Internationale de Normalisation, TC 158	CEN - Comité Européen de Normalisation
IUPAC - International Union of Pure and Applied Chemistry	IFCC - International Federation of Clinical Chemistry

### Publications

D 18 - 2008 : The use of certified reference materials in fields covered by metrological control exercised by national services of legal metrology. Basic principles - Confirmed 1/7/2009

### Projects

## TC 3/SC 4: Application of statistical methods

*BIML contact: Willem Kool*

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### Liaisons

ISO - Organisation Internationale de Normalisation

IWA - International Water Association

MARCOGAZ - Technical Association of the European Natural Gas Industry

AQUA - Association Européenne des fabricants de compteurs d'eau

EUREAU - European union of national associations of water suppliers and waste water services

CITEF - Association des Fabricants Européens de Compteurs d'Electricité

EURELECTRIC/UNIPED - Union of the Electricity Industry

FACOGAZ - Association des Fabricants Européens de Compteurs de Gaz

### Publications

### Projects

p 1: Surveillance of utility meters in service on the basis of sampling inspections, status: 3 CD

## TC 3/SC 5: Conformity assessment

*BIML contact: Luis Mussio*

### Secretariat

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC 176/SC 1	IEC - Commission Electrotechnique Internationale
ILAC - International Laboratory Accreditation	IAF - International Accreditation Forum
CECOD - Comité de Fabricants Européens de Systèmes de Mesurage du Pétrole	FACOGAZ - Association des Fabricants Européens de Compteurs de Gaz
CECIP - Comité Européen des Fabricants d'Instruments de Pesage	

### Publications

- D 29 - 2008 : Guide for the application of ISO/IEC Guide 65 to assessment of measuring instrument certification bodies in legal metrology - Confirmed 11/26/2008
- D 30 - 2008 : Guide for the application of ISO/IEC 17025 to the assessment of Testing Laboratories involved in legal metrology - Confirmed 12/1/2008 - Under revision

### Projects

- p 2: Expression of uncertainty in measurement in legal metrology applications, status: 1 CD
- p 5: Guide for the application of ISO/IEC Guide 65 to the assessment of certification bodies in legal metrology, status: no document yet
- p 7: Revision of B3 OIML Certificate System for Measuring Instruments, status: 2 CD
- p 8: Revision of B 10-1 Framework for a Mutual Acceptance Arrangement on OIML Type Evaluations (MAA), status: 1 CD
- p 10: Guide for the application of ISO/IEC 17021 to the assessment of quality system certification bodies in the field of legal metrology, status: no document yet
- p 11: Guide for the application of ISO 9001 to legal metrology controls, status: no document yet
- p 12: Revision of OIML D 30, status: no document yet



## TC 4: Measurement standards and calibration and verification devices

*BIML contact: Willem Kool*

### Secretariat

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IEC - Commission Electrotechnique Internationale	IFCC - International Federation of Clinical Chemistry
CIE - Commission Internationale de l'Eclairage	

### Publications

D 5 - 1982 : Principles for the establishment of hierarchy schemes for measuring instruments - Confirmed 1/1/1982 - Under revision

D 8 - 2004 : Measurement standards. Choice, recognition, use, conservation and documentation - Confirmed 5/15/2004

D 10 - 2007 : ILAC-G24/OIML D 10: Guidelines for the determination of recalibration intervals of measuring equipment used in testing laboratories - Confirmed 5/31/2007

D 23 - 1993 : Principles for metrological control of equipment used for verification - Confirmed 1/1/1993 - Under revision

### Projects

p 1: Principles for the selection and expression of metrological characteristics of standards and devices used for calibration and verification, status: 1 CD

p 2: Revision D 5: Principles for the establishment of hierarchy schemes for measuring instruments, status: 2 CD

p 6: Revision D 23: Principles for metrological control of equipment used for verification, Postponed, waiting for TC 3/SC 5 project p2, status: no document yet

## TC 5: General requirements for measuring instruments

*BIML contact: Willem Kool*

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CECOD - Comité de Fabricants Européens de Systèmes  
de Mesurage du Pétrole

CECIP - Comité Européen des Fabricants d'Instruments  
de Pesage

### Publications

### Projects

## TC 5/SC 1: Environmental conditions

*BIML contact: Willem Kool*

### Secretariat

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CECIP - Comité Européen des Fabricants d'Instruments de Pesage	

### Publications

D 11 - 2004 : General requirements for electronic measuring instruments - Confirmed 10/31/2008 - Under revision

### Projects

p 1: Revision of D 11 "General requirements for electronic measuring instruments  
Note: during its 43rd Meeting, the CIML decided to change the name and the scope of TC 5/SC 1 and therefore, to extend the scope of D 11., status: 1 CD

## TC 5/SC 2: Software

*BIML contact: Ian Dunmill*

### Secretariat

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de Mesurage du Pétrole

CECIP - Comité Européen des Fabricants d'Instruments  
de Pesage

### Publications

D 31 - 2008 : General requirements for software controlled measuring instruments

### Projects

p 2: New project "Methods and means for Verification", status: no document yet

## TC 6: Prepackaged products

*BIML contact: Willem Kool*

### Secretariat

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FEA - Fédération Européenne des Aérosols

ISO - Organisation Internationale de Normalisation

CEN - Comité Européen de Normalisation

CECIP - Comité Européen des Fabricants d'Instruments  
de Pesage

Codex Alimentarius

IEC - Commission Electrotechnique Internationale

FIVS - Federation Internationale des Vins et Spiritueux

### Publications

R 79 - 1997 : Labeling requirements for prepackaged products - Confirmed 10/31/1997 - Under revision

R 87 - 2004 : Quantity of product in prepackages - Confirmed 10/31/2003 - Under revision

R 87 - erratum - 2008 : Erratum (2008.06.16) to R 87 (Edition 2004) Quantity of product in prepackages -  
Confirmed 10/31/2007 - Under revision

### Projects

p 1: OIML certificate for prepackaged goods, status: 3 CD

p 2: Revision of R 79 "Labeling requirements for prepackaged products", status: 2 CD

p 3: Revision R 87 "Quantity of product in Prepackages", status: no document yet

p 4: Methods for determining the quantity of product in prepackages, status: no document yet

## **TC 7: Measuring instruments for length and associated quantities**

*BIML contact: Ian Dunmill*

### **Secretariat**

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### **Liaisons**

ISO - Organisation Internationale de Normalisation, TC 172

### **Publications**

R 35 - 1 - 2007 : Material measures of length for general use. Part 1: Metrological and technical requirements - Confirmed 10/31/2007

### **Projects**

p 2: Test methods to revised R 35-1, status: 2 CD  
p 3: Test Report Format to revised R 35-1, status: 2 CD

## TC 7/SC 1: Measuring instruments for length

*BIML contact: Ian Dunmill*

### Secretariat

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SWITZERLAND

### Liaisons

ISO - Organisation Internationale de Normalisation

### Publications

R 24 - 1975 : Standard one metre bar for verification officers - Confirmed 10/26/2007

R 66 - 1985 : Length measuring instruments - Confirmed 10/31/1985 - Under revision

R 98 - 1991 : High-precision line measures of length - Confirmed 10/31/2008

### Projects

p 2: Revision R 66: Length measuring instruments, status: no document yet

## **TC 7/SC 3: Measurement of areas**

*BIML contact: Ian Dunmill*

### **Secretariat**

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### **Publications**

R 136 - 1 - 2004 : Instruments for measuring the areas of leathers - Confirmed 10/31/2004

R 136 - 2 - 2006 : Instruments for measuring the areas of leathers. Part 2: Test Report Format - Confirmed 10/31/2006

### **Projects**



## **TC 7/SC 4: Measuring instruments for road traffic**

*BIML contact: Ian Dunmill*

### **Secretariat**

Dr. Ambler Thompson  
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### **Liaisons**

IEC - Commission Electrotechnique Internationale

### **Publications**

R 21 - 2007 : Taximeters. Metrological and technical requirements, test procedures and test report format - Confirmed 10/31/2007  
R 55 - 1981 : Speedometers, mechanical odometers and chronotachographs for motor vehicles. Metrological regulations - Confirmed 10/31/1981 - Under revision  
R 91 - 1990 : Radar equipment for the measurement of the speed of vehicles - Confirmed 10/31/1990 - Under revision

### **Projects**

p 2: Revision of R 55: Speedometers, mechanical odometers and chronotachographs for motor vehicles, status: no document yet  
p 3: Revision of R 91: Radar equipment for the measurement of the speed of vehicles, status: no document yet

## **TC 7/SC 5: Dimensional measuring instruments**

*BIML contact: Ian Dunmill*

### **Secretariat**

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ISO - Organisation Internationale de Normalisation

### **Publications**

R 129 - 2000 : Multi-dimensional measuring instruments - Confirmed 10/31/1999

### **Projects**

p 1: Revision R 129: Multi-dimensional measuring instrument, status: no document yet

## TC 8: Measurement of quantities of fluids

*BIML contact: Luis Mussio*

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC 48/SC 6

CEN - Comité Européen de Normalisation

MARCOGAZ - Technical Association of the European Natural Gas Industry

### Publications

- R 40 - 1981 : Standard graduated pipettes for verification officers - Confirmed 10/31/1977 - Under revision
- R 41 - 1981 : Standard burettes for verification officers - Confirmed 10/31/1977 - Under revision
- R 43 - 1981 : Standard graduated glass flasks for verification officers - Confirmed 10/31/1977 - Under revision
- R 63 - 1994 : Petroleum measurement tables - Confirmed 10/31/1994 - Under revision
- R 119 - 1996 : Pipe provers for testing of measuring systems for liquids other than water - Confirmed 10/31/1996 - Under revision
- R 120 - 2010 : Standard capacity measures for testing measuring systems for liquids other than water - Confirmed 10/31/2009
- R 138 - 2007 : Vessels for commercial transactions - Confirmed 10/31/2007
- R 138 - Amend - 2009 : Vessels for commercial transactions (Amendment 2009) - Confirmed 10/31/2009
- D 25 - 2010 : Vortex meters used in measuring systems for fluids - Confirmed 10/31/2009
- D 26 - 2010 : Glass delivery measures - Automatic pipettes - Confirmed 10/31/2009

### Projects

- p 2: Test report format for vessels, status: no document yet
- p 3: Combined revision of R 40, R 41 & R 43 on standard volumetric measures, status: no document yet
- p 4: Test report format for standard volumetric measures, status: no document yet
- p 5: Revision of R 63 "Petroleum measurement tables", status: no document yet
- p 6: Revision R 119 "Pipe provers", status: no document yet

## TC 8/SC 1: Static volume and mass measurement

*BIML contact: Luis Mussio*

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC 28/SC 1

CEN - Comité Européen de Normalisation

MARCOGAZ - Technical Association of the European Natural Gas Industry

CECOD - Comité de Fabricants Européens de Systèmes de Mesurage du Pétrole

### Publications

R 71 - 2008 : Fixed storage tanks. General requirements - Confirmed 10/31/2008 - Under revision  
R 80 - 1 - 2009 : Road and rail tankers with level gauging. Part 1: Metrological and technical requirements - Confirmed 3/15/2009  
R 85 - 1&2 - 2008 : Automatic level gauges for measuring the level of liquid in stationary storage tanks. Part 1: Metrological and technical requirements. Part 2: Metrological control and tests - Confirmed 10/31/2008 - Under revision  
R 85 - 3 - 2008 : Automatic level gauges for measuring the level of liquid in stationary storage tanks. Part 3: Report Format for type evaluation - Confirmed 10/31/2008 - Under revision  
R 95 - 1990 : Ships' tanks - General requirements - Confirmed 10/31/1990 - Under revision  
R 125 - 1998 : Measuring systems for the mass of liquids in tanks - Confirmed 10/31/2008

### Projects

p 5: Revision R 95, Postponed, status: no document yet  
p 6: Revision R 80 (Part. 2: Metrological control and tests, Part 3: Test Report Format), status: 1 CD  
*Project leader: Dr.G. Wendt, GERMANY*  
p 7: Revision of R 71, status: no document yet  
*Project leader: Mr.Ralph A. Richter, UNITED STATES*  
p 8: Revision of R 85, status: no document yet  
*Project leader: Mr.Ralph A. Richter, UNITED STATES*

## TC 8/SC 3: Dynamic volume and mass measurement (liquids other than water)

*BIML contact: Luis Mussio*

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC 28/SC 2

CEN - Comité Européen de Normalisation

CECOD - Comité de Fabricants Européens de Systèmes de Mesurage du Pétrole

ISO - Organisation Internationale de Normalisation, TC 28/SC 1

MARCOGAZ - Technical Association of the European Natural Gas Industry

### Publications

R 105 - 1993 : Direct mass flow measuring systems for quantities of liquids (including Annexes A and B) - Confirmed 10/31/1993

R 105 - C - 1995 : Direct mass flow measuring systems for quantities of liquids - Annex C: Test report format - Confirmed 10/31/1995

R 117 - 1 - 2007 : Dynamic measuring systems for liquids other than water. Part 1: Metrological and technical requirements - Confirmed 10/31/2007

R 118 - 1995 : Testing procedures and test report format for pattern examination of fuel dispensers for motor vehicles - Confirmed 10/31/1995

### Projects

p 2: R 117-2: Measuring systems for liquids other than water - Part 2: Test methods., This project includes OIML R 118 revision., status: 1 CD

p 3: Measuring systems for liquids other than water - Part 3: Evaluation Report Format., This project includes the revision of OIML R 118., status: 1 WD

## TC 8/SC 5: Water meters

*BIML contact: Luis Mussio*

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC 30  
IWA - International Water Association

CEN - Comité Européen de Normalisation  
AQUA - Association Européenne des fabricants de compteurs d'eau

### Publications

R 49 - 1 - 2006 : Water meters intended for the metering of cold potable water and hot water. Part 1: Metrological and technical requirements - Confirmed 10/31/2008 - Under revision  
R 49 - 2 - 2006 : Water meters intended for the metering of cold potable water and hot water. Part 2: Test methods - Confirmed 10/31/2008  
R 49 - 3 - 2006 : Water meters intended for the metering of cold potable water and hot water. Part 3: Test report format - Confirmed 10/31/2008 - Under revision

### Projects

p 2: Revision of R 49-1, R 49-2, R 49-3  
This revision is carried out in collaboration with ISO TC 30/SC 7 and CEN 92, status: 2 CD

## TC 8/SC 6: Measurement of cryogenic liquids

*BIML contact: Luis Mussio*

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC 28/SC 2

ISO - Organisation Internationale de Normalisation, TC 28/SC 1

MARCOGAZ - Technical Association of the European Natural Gas Industry

### Publications

R 81 - 1998 : Dynamic measuring devices and systems for cryogenic liquids - Confirmed 10/31/2007 - Under revision

R 81 - D - 2006 : Dynamic measuring devices and systems for cryogenic liquids - Annex D: Test report format - Confirmed 10/31/2007 - Under revision

### Projects

p 1: Revision of OIML R 81, status: no document yet

## TC 8/SC 7: Gas metering

*BIML contact: Luis Mussio*

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CECOD - Comité de Fabricants Européens de Systèmes de Mesurage du Pétrole	FACOGAZ - Association des Fabricants Européens de Compteurs de Gaz
NGVA - Natural and bio Gas Vehicle Association	IGU - International Gas Union
IANGV - International Association for Natural Gas Vehicles	MARCOGAZ - Technical Association of the European Natural Gas Industry

### Publications

R 137 - 1&2 - 2012 : Gas meters. Part 1 Metrological and technical requirements and Part 2 Metrological controls and performance tests  
R 139 - 2007 : Compressed gaseous fuel measuring systems for vehicles - Confirmed 10/31/2007 - Under revision  
R 140 - 2007 : Measuring systems for gaseous fuel - Confirmed 10/31/2007

### Projects

p 3: R 137-2: Gas meters - Part 2 Test methods, status: 2 CD  
p 4: Revision of OIML R 139 Compressed gaseous fuels measuring systems for vehicles, status: 2 WD



## TC 9: Instruments for measuring mass and density

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### Liaisons

IEC - Commission Electrotechnique Internationale

CECIP - Comité Européen des Fabricants d'Instruments  
de Pesage

### Publications

R 60 - 2000 : Metrological regulation for load cells - Confirmed 10/31/2008 - Under revision

### Projects

p 1: Revision of R 60 "Metrological Regulation for Load Cells", status: no document yet

## TC 9/SC 1: Nonautomatic weighing instruments

*BIML contact: Ian Dunmill*

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### Liaisons

ISO - Organisation Internationale de Normalisation

CECIP - Comité Européen des Fabricants d'Instruments  
de Pesage

### Publications

R 76 - 1 - 2006 : Non-automatic weighing instruments. Part 1: Metrological and technical requirements -  
Tests - Confirmed 10/31/2006

R 76 - 2 - 2007 : Non-automatic weighing instruments. Part 2: Test report format - Confirmed 10/31/2007

### Projects

## TC 9/SC 2: Automatic weighing instruments

*BIML contact: Ian Dunmill*

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### Liaisons

ISO - Organisation Internationale de Normalisation

COPAMA - Confederation of Packaging Machinery Associations

CECIP - Comité Européen des Fabricants d'Instruments de Pesage

### Publications

R 50 - 1 - 1997 : Continuous totalizing automatic weighing instruments (belt weighers). Part 1: Metrological and technical requirements - Tests - Confirmed 10/31/1997 - Under revision

R 50 - 2 - 1997 : Continuous totalizing automatic weighing instruments (belt weighers). Part 2 : Test report format - Confirmed 10/31/1997 - Under revision

R 51 - 1 - 2006 : Automatic catchweighing instruments. Part 1: Metrological and technical requirements - Tests - Confirmed 10/31/2006

R 51 - 1-erratum - 2010 : Erratum (2010.08.09) to R 51-1:2006 Automatic catchweighing instruments. Part 1: Metrological and technical requirements - Tests

R 51 - 2 - 2006 : Automatic catchweighing instruments. Part 2: Test report format - Confirmed 10/30/2006

R 61 - 1 - 2004 : Automatic gravimetric filling instruments. Part 1 : Metrological and technical requirements - Tests - Confirmed 9/30/2004

R 61 - 2 - 2004 : Automatic gravimetric filling instruments. Part 2: Test report format - Confirmed 10/31/2004

R 106 - 2 - 1997 : Automatic rail-weighbridges. Part 2 : Test report format - Confirmed 10/31/1997 - Under revision

R 107 - 1 - 2007 : Discontinuous totalizing automatic weighing instruments (totalizing hopper weighers). Part 1: Metrological and technical requirements - Tests - Confirmed 10/31/2007

R 107 - 2 - 2007 : Discontinuous totalizing automatic weighing instruments (totalizing hopper weighers). Part 2: Test report format - Confirmed 10/31/2008

R 134 - 1 - 2006 : Automatic instruments for weighing road vehicles in motion and measuring axle loads. Part 1: Metrological and technical requirements – Tests - Confirmed 10/31/2006

R 134 - 2 - 2009 : Automatic instruments for weighing road vehicles in motion and measuring axle loads. Part 2: Test report format

### Projects

p 3: Revision of R 106 Parts 1 and 2, (Part. 1: DR currently with BIML for online CIML approval and Part. 2: 3 CD), status: 3 CD

p 7: Revision of R 50. Part 1, status: 2 CD

p 8: Revision of R 61 2004E - Automatic Gravimetric Filling Instruments, status: no document yet

## **TC 9/SC 3: Weights**

*BIML contact: Ian Dunmill*

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### **Liaisons**

CECIP - Comité Européen des Fabricants d'Instruments  
de Pesage

### **Publications**

R 47 - 1979 : Standard weights for testing of high capacity weighing machines - Confirmed 10/31/1978

R 52 - 2004 : Hexagonal weights - Metrological and technical requirements - Confirmed 7/13/2004

R 111 - 1 - 2004 : Weights of classes E1, E2, F1, F2, M1, M1-2, M2, M2-3 and M3. Part 1: Metrological and technical requirements - Confirmed 10/31/2004

R 111 - 2 - 2004 : Weights of classes E1, E2, F1, F2, M1, M1-2, M2, M2-3 and M3. Part 2: Test report format - Confirmed 10/31/2004

D 28 - 2004 : Conventional value of the result of weighing in air (Revision of R 33)

### **Projects**

## TC 9/SC 4: Densities

*BIML contact: Ian Dunmill*

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### Liaisons

OIV - Organisation Internationale de la Vigne et du Vin

ISO - Organisation Internationale de Normalisation, TC 34/SC 4

CECIP - Comité Européen des Fabricants d'Instruments de Pesage

ICC - Association Internationale des Sciences et Technologies Céréalières

### Publications

R 15 - 1974 : Instruments for measuring the hectolitre mass of cereals - Confirmed 10/31/1970  
R 22 - 1975 : International alcoholometric tables - Confirmed 4/25/2005 - Under revision  
R 44 - 1985 : Alcoholometers and alcohol hydrometers and thermometers for use in alcoholometry - Confirmed 10/31/1985

### Projects

p 2: Revision R 22: International alcoholometric tables, status: no document yet  
p 3: Hierarchy scheme for density-measuring instruments, status: 2 CD

## **TC 10: Instruments for measuring pressure, force and associated quantities**

*BIML contact: Willem Kool*

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### **Liaisons**

ISO - Organisation Internationale de Normalisation

### **Publications**

R 23 - 1975 : Tire pressure gauges for motor vehicles - Confirmed 10/31/1973 - Under revision

### **Projects**

p 1: Revision R 23: Tire pressure gauges for motor vehicles, status: 2 CD

## **TC 10/SC 1: Pressure balances**

*BIML contact: Willem Kool*

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### **Liaisons**

ISO - Organisation Internationale de Normalisation

### **Publications**

R 110 - 1994 : Pressure balances - Confirmed 10/31/1994

### **Projects**

p 1: Pressure transducers with (4-20) mA or (10-50) mA output signal, status: 4 CD

## TC 10/SC 2: Pressure gauges with elastic sensing elements

*BIML contact: Willem Kool*

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### Liaisons

ISO - Organisation Internationale de Normalisation

### Publications

R 53 - 1982 : Metrological characteristics of elastic sensing elements used for measurement of pressure.  
Determination methods - Confirmed 10/31/1982

R 101 - 1991 : Indicating and recording pressure gauges, vacuum gauges and pressure-vacuum gauges  
with elastic sensing elements (ordinary instruments) - Confirmed 10/31/2000 - Under revision

R 109 - 1993 : Pressure gauges and vacuum gauges with elastic sensing elements (standard instruments) -  
Confirmed 10/31/2006 - Under revision

### Projects

p 1: Pressure gauges with elastic sensing elements, status: 3 CD

p 2: Revision R101: Indicating and recording pressure gauges, vacuum gauges and pressure-vacuum  
gauges with elastic sensing elements (ordinary instruments)., Revision combined with revision R 109 (see  
p3)., status: 1 CD

p 3: Revision R 109: Pressure gauges and vacuum gauges with elastic sensing elements (standard  
instruments)., Combined revision of R 101 and R 109 is being developed by the Subcommittee., status: 1 CD



## **TC 10/SC 3: Barometers**

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### **Publications**

R 97 - 1990 : Barometers - Confirmed 10/31/1990 - Under revision

### **Projects**

p 1: Revision R 97: Barometers, status: no document yet

## **TC 10/SC 4: Material testing machines**

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### **Liaisons**

ISO - Organisation Internationale de Normalisation, TC 164

### **Publications**

R 65 - 2006 : Force measuring system of uniaxial material testing machines - Confirmed 10/31/2006

### **Projects**

# **TC 11: Instruments for measuring temperature and associated quantities**

*BIML contact: Luis Mussio*

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## **Liaisons**

ISO - Organisation Internationale de Normalisation, TC  
163/SC 1

IEC - Commission Electrotechnique Internationale

EHP - Euroheat & Power

## **Publications**

R 75 - 1 - 2002 : Heat meters. Part 1: General requirements - Confirmed 10/31/2009  
R 75 - 2 - 2002 : Heat meters. Part 2: Type approval tests - Confirmed 10/31/2009  
R 75 - 3 - 2006 : Heat meters. Part 3: Test Report Format - Confirmed 10/31/2009

## **Projects**

# TC 11/SC 1: Resistance thermometers

*BIML contact: Luis Mussio*

## Secretariat

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## Liaisons

ISO - Organisation Internationale de Normalisation, TC  
48/SC 3

IEC - Commission Electrotechnique Internationale

## Publications

R 84 - 2003 : Platinum, copper, and nickel resistance thermometers (for industrial and commercial use) -  
Confirmed 10/31/2009

## Projects

## **TC 11/SC 2: Contact thermometers**

*BIML contact: Luis Mussio*

### **Secretariat**

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### **Liaisons**

ISO - Organisation Internationale de Normalisation, TC  
48/SC 3

IEC - Commission Electrotechnique Internationale

### **Publications**

R 133 - 2002 : Liquid-in-glass thermometers - Confirmed 2/3/2010

### **Projects**

## TC 11/SC 3: Radiation thermometers

*BIML contact: Luis Mussio*

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC  
48/SC 3

CIE - Commission Internationale de l'Eclairage

### Publications

R 18 - 1989 : Visual disappearing filament pyrometers - Confirmed 10/31/2008 - Under revision  
R 48 - 2004 : Tungsten ribbon lamps for the calibration of radiation thermometers - Confirmed 10/31/2009  
R 141 - 2008 : Procedure for calibration and verification of the main characteristics of thermographic instruments - Confirmed 10/31/2008  
D 24 - 1996 : Total radiation pyrometers - Confirmed 10/31/2008

### Projects

p 3: Standard black body radiator for the temperature range from - 50°C to 2500°C, status: 3 CD  
p 5: Revision of R 18, status: no document yet

## TC 12: Instruments for measuring electrical quantities

*BIML contact: Willem Kool*

### Secretariat

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### Liaisons

IEC - Commission Electrotechnique Internationale  
ESMIG - European Smart Metering Industry Group

EURELECTRIC/UNIPED - Union of the Electricity Industry

### Publications

### Projects

- p 1: Revision R 46: Active electrical energy meters for direct connection of class 2., status: 6 CD
- p 2: Verification of watthour meters, status: no document yet

## TC 13: Measuring instruments for acoustics and vibration

*BIML contact: Ian Dunmill*

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC 43

IEC - Commission Electrotechnique Internationale

### Publications

- R 58 - 1998 : Sound level meters - Confirmed 10/31/1998 - Under revision
- R 88 - 1998 : Integrating-averaging sound level meters - Confirmed 10/31/1998 - Under revision
- R 102 - 1992 : Sound calibrators (including Annex A) - Confirmed 10/31/1992 - Under revision
- R 102 - B&C - 1995 : Sound calibrators - Annexes B and C: Test methods for pattern evaluation and test report format - Confirmed 1/1/1995 - Under revision
- R 103 - 1992 : Measuring instrumentation for human response to vibration - Confirmed 10/31/1992 - Under revision
- R 104 - 1993 : Pure-tone audiometers (including Annexes A to E) - Confirmed 10/31/1993 - Under revision
- R 104 - F - 1997 : Pure-tone audiometers - Annex F: Test report format - Confirmed 10/31/1997 - Under revision
- R 122 - 1996 : Equipment for speech audiometry - Confirmed 10/31/1996
- R 122 - C - 1999 : Equipment for speech audiometry - Annex C: Test report format - Confirmed 10/31/1999
- R 130 - 2001 : Octave-band and one-third-octave-band filters - Confirmed 10/31/2000

### Projects

- p 2: Revision R 103: Measuring instrumentation for human response to vibration., status: no document yet
- p 3: Revision R 102: Sound calibrators (including Annex A), status: 1 WD
- p 4: Revision R 104: Pure-tone audiometers, status: no document yet
- p 5: Combined revision of R 58 + R 88: Connected with the ongoing revision of IEC 61672 Sound level meters., status: no document yet

## **TC 14: Measuring instruments used for optics**

*BIML contact: Ian Dunmill*

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### **Liaisons**

ISO - Organisation Internationale de Normalisation, TC 172      IEC - Commission Electrotechnique Internationale  
CIE - Commission Internationale de l'Eclairage

### **Publications**

R 93 - 1999 : Focimeters - Confirmed 10/31/2004

### **Projects**



## TC 15: Measuring instruments for ionizing radiations

*BIML contact: Ian Dunmill*

### Secretariat

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### Liaisons

IAEA - Agence Internationale de l'Energie Atomique

ISO - Organisation Internationale de Normalisation, TC 85

IEC - Commission Electrotechnique Internationale

ICRU - International Commission on Radiation Units and  
Measurements

### Publications

### Projects

# **TC 15/SC 1: Measuring instruments for ionizing radiations used in medical applications**

*BIML contact: Ian Dunmill*

## **Secretariat**

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ISO - Organisation Internationale de Normalisation

IEC - Commission Electrotechnique Internationale

ICRU - International Commission on Radiation Units and  
Measurements

## **Publications**

D 21 - 1990 : Secondary standard dosimetry laboratories for the calibration of dosimeters used in  
radiotherapy - Confirmed 1/1/1990

## **Projects**

p 1: Measurement of radionuclides pollution, status: no document yet

p 2: Reference dosimetry system for ionizing radiation processing, status: no document yet

p 3: Radiation protection dosimetry for area monitoring, status: no document yet

p 4: Dosimeters and dose-rate meters of beta-radiation for application in therapy., status: 1 WD

## **TC 15/SC 2: Measuring instruments for ionizing radiations used in industrial processes**

*BIML contact: Ian Dunmill*

### **Secretariat**

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ISO - Organisation Internationale de Normalisation

IEC - Commission Electrotechnique Internationale  
ICRU - International Commission on Radiation Units and Measurements

### **Publications**

R 127 - 1999 : Radiochromic film dosimetry system for ionizing radiation processing of materials and products - Confirmed 2/3/2010  
R 131 - 2001 : Polymethylmethacrylate (PMMA) dosimetry systems for ionizing radiation processing of materials and products - Confirmed 2/3/2010  
R 132 - 2001 : Alanine EPR dosimetry systems for ionizing radiation processing of materials and products - Confirmed 2/3/2010

### **Projects**

## TC 16: Instruments for measuring pollutants

*BIML contact: Ian Dunmill*

### Secretariat

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### Liaisons

ISO - Organisation Internationale de Normalisation

### Publications

### Projects

## TC 16/SC 1: Air pollution

*BIML contact: Ian Dunmill*

### Secretariat

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC 22/SC 5

IEC - Commission Electrotechnique Internationale

IUPAC - International Union of Pure and Applied Chemistry

### Publications

R 99 - 1&2 - 2008 : Instruments for measuring vehicle exhaust emissions. Part 1: Metrological and technical requirements. Part 2: Metrological controls and performance tests - Confirmed 10/31/2008

R 99 - 3 - 2008 : Instruments for measuring vehicle exhaust emissions. Part 3: Report Format - Confirmed 10/31/2008

R 143 - 2009 : Instruments for the continuous measurement of SO<sub>2</sub> in stationary source emissions - Confirmed 11/17/2009

### Projects

p 1: (combined projects p1 and p3) Continuous measuring instruments for CO and NO<sub>x</sub> emissions, status: 1 CD

*Project leader: Mr. Alexey B. Diatlev, RUSSIAN FEDERATION*

## TC 16/SC 2: Water pollution

*BIML contact: Ian Dunmill*

### Secretariat

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC 147/SC 1      IEC - Commission Electrotechnique Internationale

IUPAC - International Union of Pure and Applied Chemistry

### Publications

R 83 - 2006 : Gas chromatograph/mass spectrometer systems for the analysis of organic pollutants in water - Confirmed 10/31/2006  
R 100 - 1991 : Atomic absorption spectrometers for measuring metal pollutants in water - Confirmed 10/31/1991 - Under revision  
R 116 - 2006 : Inductively coupled plasma atomic emission spectrometers for the measurement of metal pollutants in water - Confirmed 10/31/2007

### Projects

p 2: Revision R 100: Atomic absorption spectrometer systems for measuring metal pollutants in water., status: 2 CD

## TC 16/SC 3: Pesticides and other pollutant toxic substances

*BIML contact: Ian Dunmill*

### Secretariat

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC 190      IEC - Commission Electrotechnique Internationale  
IUPAC - International Union of Pure and Applied Chemistry

### Publications

R 82 - 2006 : Gas chromatographic systems for measuring the pollution from pesticides and other toxic substances - Confirmed 10/31/2006  
R 112 - 1994 : High performance liquid chromatographs for measurement of pesticides and other toxic substances - Confirmed 10/31/1994 - Under revision

### Projects

p 2: Revision R 112: High performance liquid chromatographs for measurement of pesticides and other toxic substance., status: no document yet

## TC 16/SC 4: Field measurements of hazardous (toxic) pollutants

*BIML contact: Ian Dunmill*

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC 158      IUPAC - International Union of Pure and Applied Chemistry

### Publications

R 113 - 1994 : Portable gas chromatographs for field measurements of hazardous chemical pollutants - Confirmed 10/31/1994  
R 123 - 1997 : Portable and transportable X-ray fluorescence spectrometers for field measurement of hazardous elemental pollutants - Confirmed 10/31/1997  
D 22 - 1991 : Guide to portable instruments for assessing airborne pollutants arising from hazardous wastes - Confirmed 1/1/1991 - Under revision

### Projects

p 1: Guide to air sampling devices for toxic chemical pollutants at hazardous waste sites., status: 1 WD  
p 2: FTIR (Fourier transform infrared) spectrometers for measurement of air pollutants, status: 1 CD  
p 3: Revision D 22 (incorporating p 2): Guide to portable instruments for assessing airborne pollutants arising from hazardous wastes., status: no document yet



## TC 17: Instruments for physico-chemical measurements

*BIML contact: Luis Mussio*

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### Liaisons

ISO - Organisation Internationale de Normalisation

ICC - Association Internationale des Sciences et  
Technologies Céréalières

IEC - Commission Electrotechnique Internationale

### Publications

### Projects

## TC 17/SC 1: Humidity

*BIML contact: Luis Mussio*

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### Liaisons

ISO - Organisation Internationale de Normalisation, TC  
34/SC 4

ICC - Association Internationale des Sciences et  
Technologies Céréalières

### Publications

R 59 - 1984 : Moisture meters for cereal grains and oilseeds - Confirmed 10/31/2003 - Under revision  
R 92 - 1989 : Wood-moisture meters - Verification methods and equipment: general provisions - Confirmed  
9/24/2010

### Projects

p 1: Revision R 59: Moisture meters for cereal grains and oilseeds., status: 5 CD

## **TC 17/SC 2: Saccharimetry**

*BIML contact: Luis Mussio*

### **Secretariat**

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### **Liaisons**

OIV - Organisation Internationale de la Vigne et du Vin

ISO - Organisation Internationale de Normalisation, TC 93

ICUMSA - International Commission for Uniform Methods  
of Sugar Analysis

### **Publications**

R 14 - 1995 : Polarimetric saccharimeters graduated in accordance with the ICUMSA International Sugar Scale - Confirmed 10/31/2009

R 108 - 1993 : Refractometers for the measurement of the sugar content of fruit juices - Confirmed 10/31/2008

R 124 - 1997 : Refractometers for the measurement of the sugar content of grape musts - Confirmed 10/31/2009

R 142 - 2008 : Automated refractometers: Methods and means of verification - Confirmed 10/31/2008

### **Projects**

## TC 17/SC 3: pH-metry

*BIML contact: Luis Mussio*

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### Liaisons

ISO - Organisation Internationale de Normalisation

IEC - Commission Electrotechnique Internationale

IUPAC - International Union of Pure and Applied Chemistry

### Publications

R 54 - 1981 : pH scale for aqueous solutions - Confirmed 10/31/1981 - Under revision

### Projects

p 1: Revision R 54: pH scale for aqueous solutions, status: 1 CD

p 2: Method of carrying out pH-measurements and certification methods of solution for verification of pH-meters., status: no document yet

## TC 17/SC 4: Conductometry

*BIML contact: Luis Mussio*

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### Liaisons

IEC - Commission Electrotechnique Internationale

IUPAC - International Union of Pure and Applied Chemistry

### Publications

R 56 - 1981 : Standard solutions reproducing the conductivity of electrolytes - Confirmed 10/31/1981 - Under revision

R 68 - 1985 : Calibration method for conductivity cells - Confirmed 10/31/1985 - Under revision

### Projects

p 1: -1: "Traceability of electrolytic conductivity measurements results" (preliminary title of IR), status: no document yet

## TC 17/SC 5: Viscosimetry

*BIML contact: Luis Mussio*

### Secretariat

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### Liaisons

ISO - Organisation Internationale de Normalisation

### Publications

R 69 - 1985 : Glass capillary viscometers for the measurement of kinematic viscosity. Verification method - Confirmed 10/31/1985  
D 17 - 1987 : Hierarchy scheme for instruments measuring the viscosity of liquids - Confirmed 1/1/1987

### Projects

p 1: Reference standard liquids (Newtonian viscosity standard for the calibration and verification of viscometers), status: 2 CD

## **TC 17/SC 6: Gas analysis**

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### **Secretariat**

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### **Liaisons**

ISO - Organisation Internationale de Normalisation, TC 158

IEC - Commission Electrotechnique Internationale

### **Publications**

### **Projects**

## TC 17/SC 7: Breath testers

*BIML contact: Luis Mussio*

### Secretariat

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### Liaisons

ISO - Organisation Internationale de Normalisation

IEC - Commission Electrotechnique Internationale

### Publications

R 126 - 1998 : Evidential breath analyzers - Confirmed 10/31/1997 - Under revision

### Projects

p 1: Revision R 126 Evidential breath analysers., status: 7 CD

p 2: Test procedures and test report format for the evaluation of portable breath testers used in open air (Annexes to R 126)., status: 7 CD



## **TC 17/SC 8: Instruments for quality analysis of agricultural products**

*BIML contact: Luis Mussio*

### **Secretariat**

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### **Liaisons**

ISO - Organisation Internationale de Normalisation, TC  
34/SC 4

### **Publications**

### **Projects**

p 1: Measuring instruments used for protein determination in grains, status: 2 CD

## **TC 18: Medical measuring instruments**

*BIML contact: Ian Dunmill*

### **Secretariat**

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### **Liaisons**

WHO - Organisation Mondiale de la Santé

ISO - Organisation Internationale de Normalisation, TC 172

### **Publications**

R 128 - 2000 : Ergometers for foot crank work - Confirmed 10/31/1999

### **Projects**

p 1: Ophthalmic instruments - Impression and applanation tonometers., status: 4 CD

## **TC 18/SC 1: Blood pressure instruments**

*BIML contact: Ian Dunmill*

### **Secretariat**

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### **Liaisons**

WHO - Organisation Mondiale de la Santé

IEC - Commission Electrotechnique Internationale

### **Publications**

R 16 - 1 - 2002 : Mechanical non-invasive sphygmomanometers - Confirmed 10/31/2002 - Under revision  
R 16 - 2 - 2002 : Non-invasive automated sphygmomanometers - Confirmed 10/31/2002 - Under revision

### **Projects**

p 1: Revision of "None-invasive mechanical sphygmomanometers", OIML R 16-1, Approved by the 43rd CIML Meeting on October. 31, 2008, status: 1 CD  
p 2: Revision of "None-invasive sphygmomanometers", OIML R 16-2, Approved by the 43rd CIML Meeting on October. 31, 2008, status: 1 WD

## **TC 18/SC 2: Medical thermometers**

*BIML contact: Ian Dunmill*

### **Secretariat**

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### **Liaisons**

ISO - Organisation Internationale de Normalisation

IEC - Commission Electrotechnique Internationale

### **Publications**

R 7 - 1979 : Clinical thermometers, mercury-in-glass with maximum device - Confirmed 10/31/1978 - Under revision

R 114 - 1995 : Clinical electrical thermometers for continuous measurement - Confirmed 10/31/1995

R 115 - 1995 : Clinical electrical thermometers with maximum device - Confirmed 10/31/1995

### **Projects**

p 1: Revision R 7: Clinical thermometers, mercury-in-glass with maximum device., status: 1 CD

p 2: Clinical infrared ear thermometers, status: no document yet

## TC 18/SC 4: Bio-electrical instruments

*BIML contact: Ian Dunmill*

### Secretariat

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### Liaisons

IEC - Commission Electrotechnique Internationale

### Publications

R 89 - 1990 : Electroencephalographs - Metrological characteristics - Methods and equipment for verification - Confirmed 10/31/1990 - Under revision  
R 90 - 1990 : Electrocardiographs - Metrological characteristics - Methods and equipment for verification - Confirmed 10/31/1990 - Under revision

### Projects

p 1: Electrodes for electrocardiographs and electroencephalographs - Methods and means for verification., status: 1 CD  
p 2: Electrocardioscopes - Metrological characteristics - Methods and means for verification., status: 1 CD  
p 3: Digital electrocardiographs and electrocardioscopes - Metrological characteristics - Methods and means for verification., status: 2 CD  
p 4: Revision R 90: Electrocardiographs including Test report format 'developed earlier)..., status: 2 CD  
p 5: Analyzing electrocardiographs. Metrological requirements. Methods and means of verification., status: no document yet  
p 6: Revision R 89: Electroencephalographs - Metrological characteristics - Methods and equipment for verification., status: 1 WD

## **TC 18/SC 5: Measuring instruments for medical laboratories**

*BIML contact: Ian Dunmill*

### **Secretariat**

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### **Liaisons**

WHO - Organisation Mondiale de la Santé	ISO - Organisation Internationale de Normalisation
IEC - Commission Electrotechnique Internationale	IFCC - International Federation of Clinical Chemistry

### **Publications**

R 26 - 1978 : Medical syringes - Confirmed 10/31/1973 - Under revision  
R 78 - 1989 : Westergren tubes for measurement of erythrocyte sedimentation rate - Confirmed 10/31/1989  
R 135 - 2004 : Spectrophotometers for medical laboratories - Confirmed 10/31/2004

### **Projects**

p 1: Electronic blood cell counting chambers., status: no document yet  
p 4: Revision R 26: Medical syringes., status: 4 CD