
(MRA)

2003. 6.

(The Global MRA)

Mutual Recognition
of National Measurement Standards and
of Calibration and Measurement Certificates
issued by National Metrology Institute(NMI)

MRA (*M*utual *R*ecognition *A*greement)

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- 가 /

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- WTO() TBT()

- / (APLAC, ILAC)

MRA

- 가 가 (NMS)

- NMI /

- 1 가

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- 가 NMI가

- 가 , (RMO)

- CIPM 가 (, IAEA)

MRA

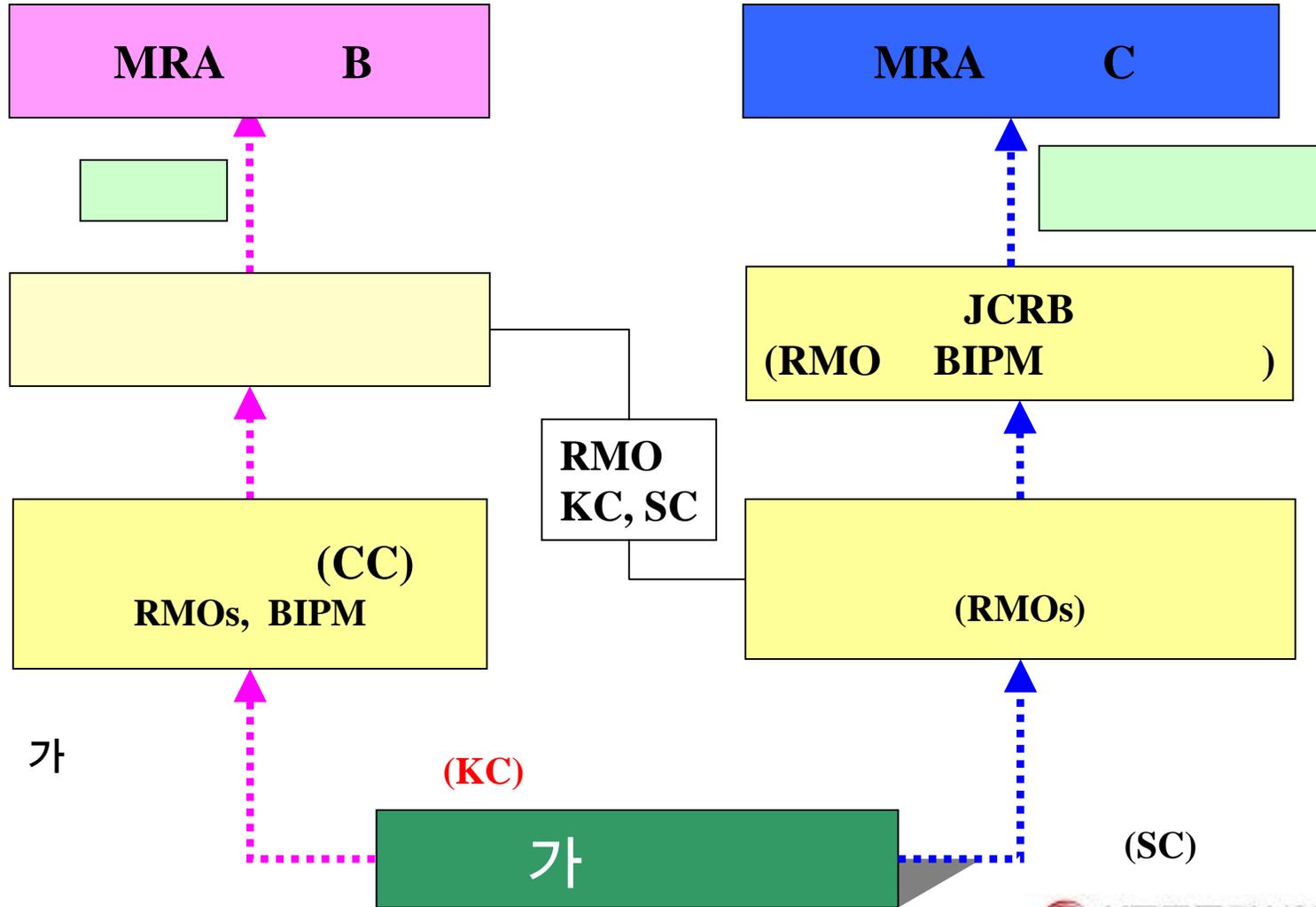
- (key comparison; **KC**) : *Appendix B*

- NMI (**CMC**) 가: *Appendix C*

Peer review

NMI 가

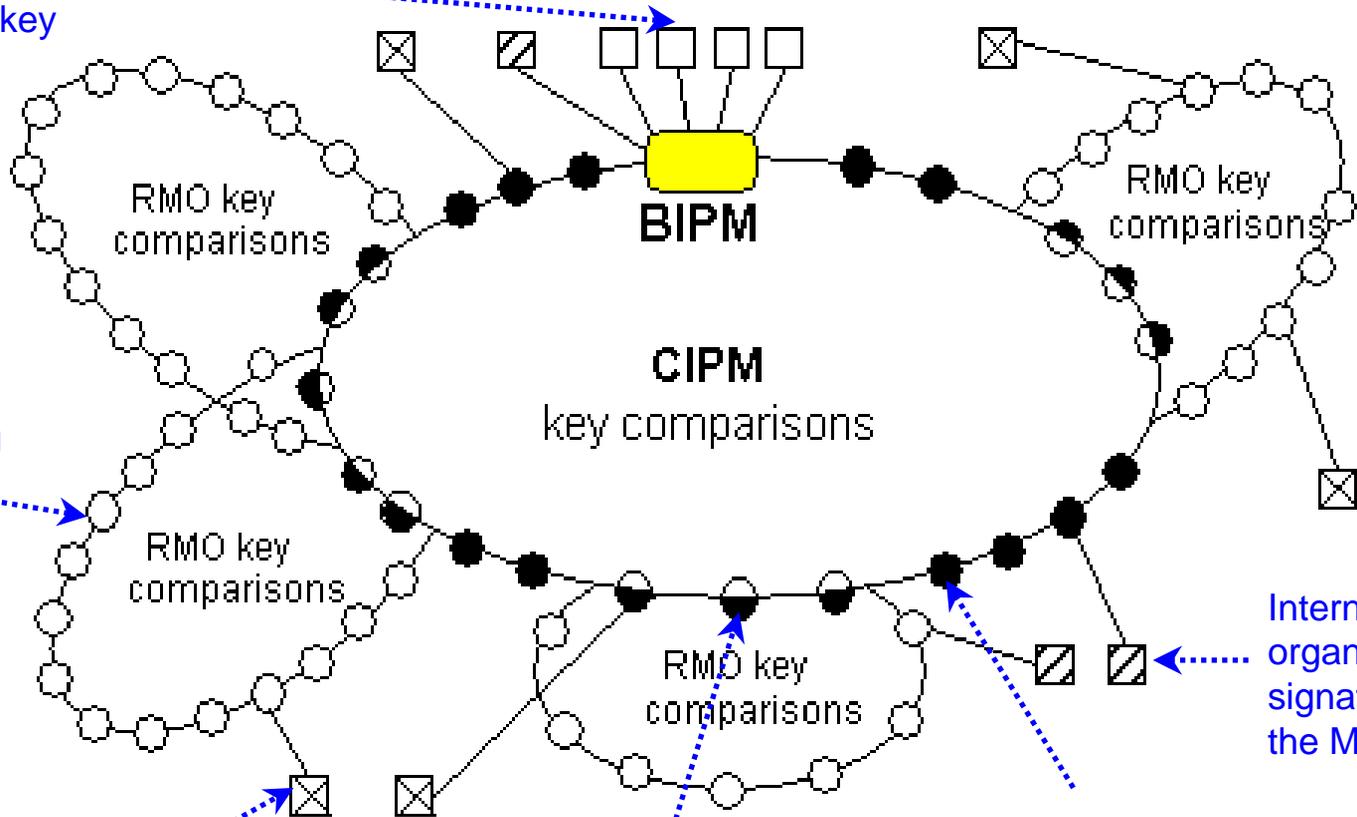
MRA



NMI participating in ongoing BIPM key comparisons

NMI participating in RMO key comparisons

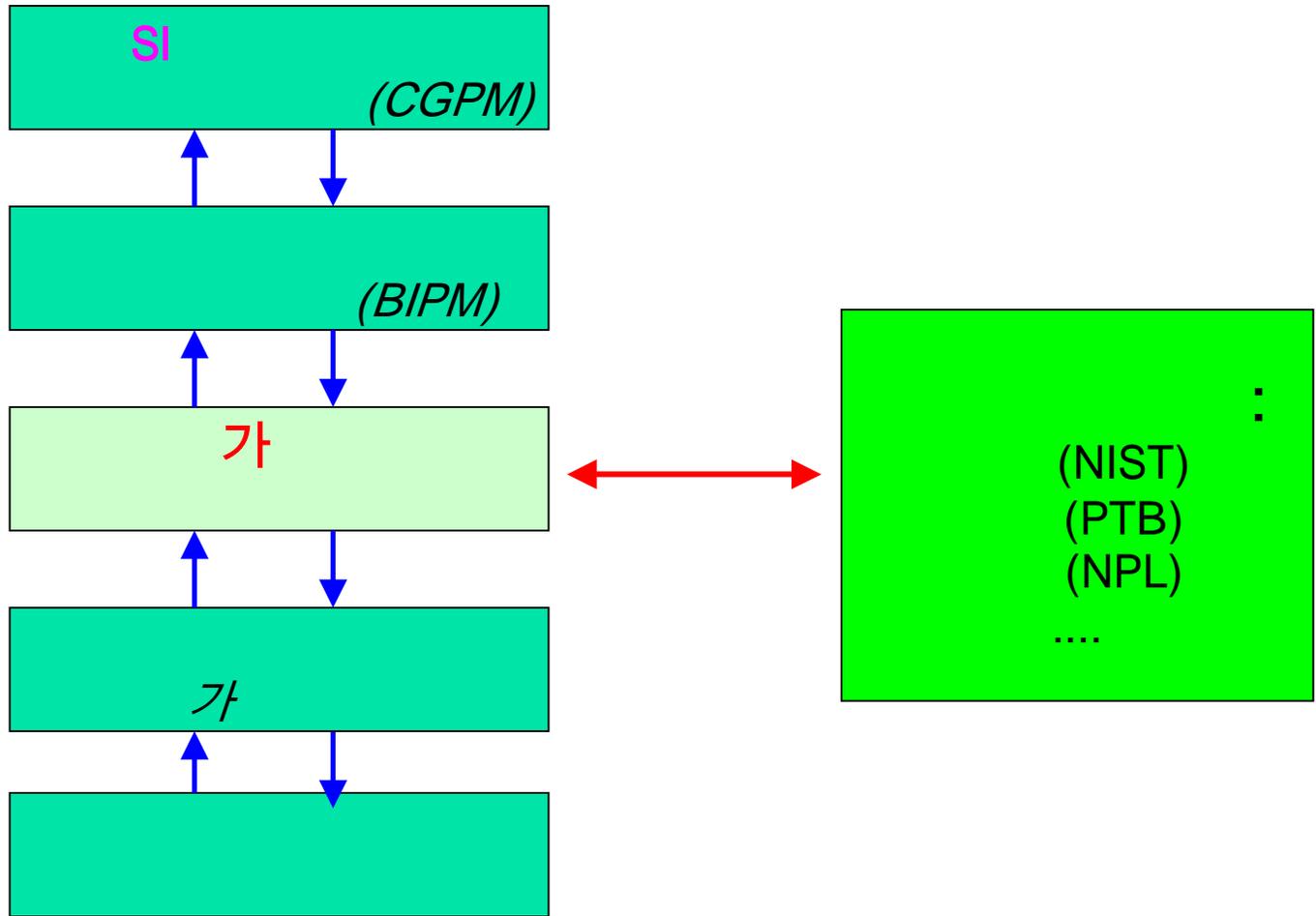
NMI participating in a bilateral key comparison



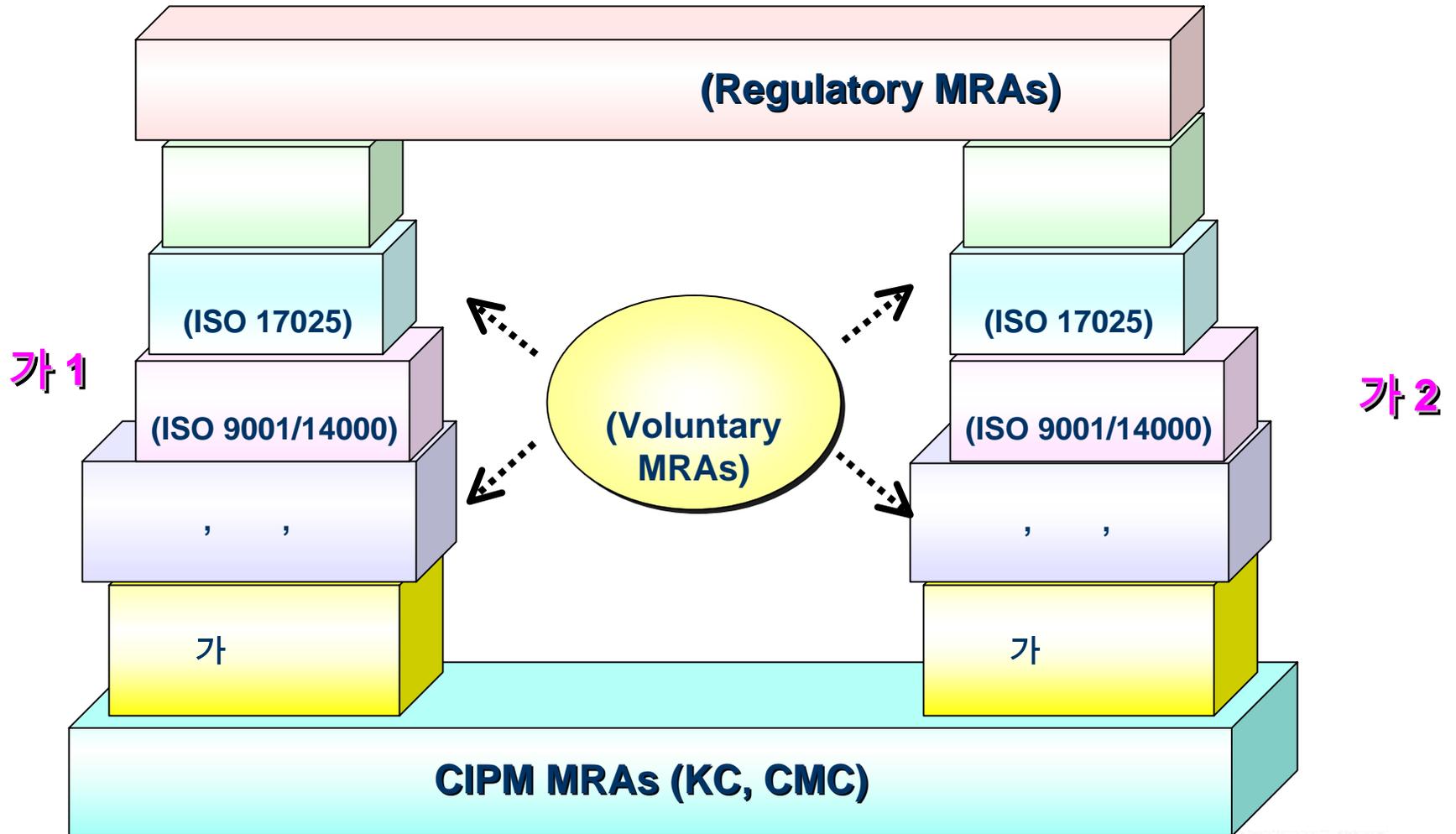
International organization signatory to the MRA

NMI participating in CIPM key comparisons and in regional metrology organization (RMO) key comparisons

National metrology institute (NMI) participating in CIPM key comparisons



MRA



ISO/IEC 17025

2003. 6.

International
Standard

ISO/IEC 17025

*General Requirements
for the competence
of testing and calibration laboratories*
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ISO (*International Organization for Standardization*)

IEC (*International Electrotechnical Commission*)

ISO/IEC 17025

1.

2.

3.

4. (*Management requirements*) - 14

5. (*Technical requirements*) - 10

A () ISO/IEC 17025 ISO 9001:1994 ISO 9002:1994

B ()

1.

2.

3.

5. (10)

5.1

5.2

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5.4

5.5

5.6

5.7

5.8

5.9

5.10

1. (scope)

1.1

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1.1

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1.2

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2.

(Normative references)

- **ISO 9001 : 1994**,
- , , , 가
- **ISO 9002 : 1994**,
- , 가
→ **ISO 9001 : 2000** .
- **ISO/IEC Guide 2** :
- **VIM** (International Vocabulary of Basic and General Term in Metrology) :
, BIPM, IEC, IFCC, ISO, IUPAC, OIML

3.

(Terms and Definitions)

ISO/IEC Guide 2 VIM

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ISO 9002 : 1994

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(General)

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5.1.2

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5.2 (Personnel)

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5.2.2

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5.2.3 ...

5.2.4. ...

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5.3

(Accommodation and environment conditions)

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5.3.2 ...

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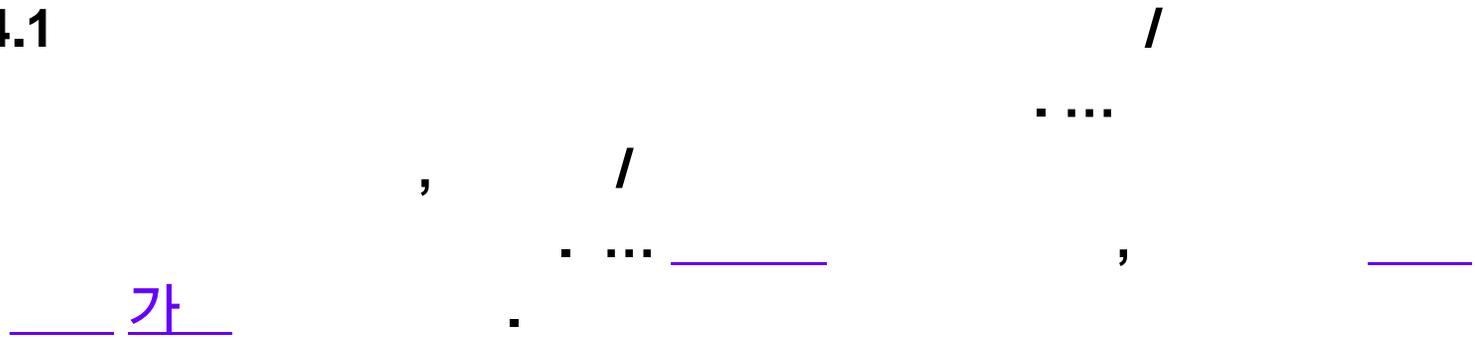
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5.4

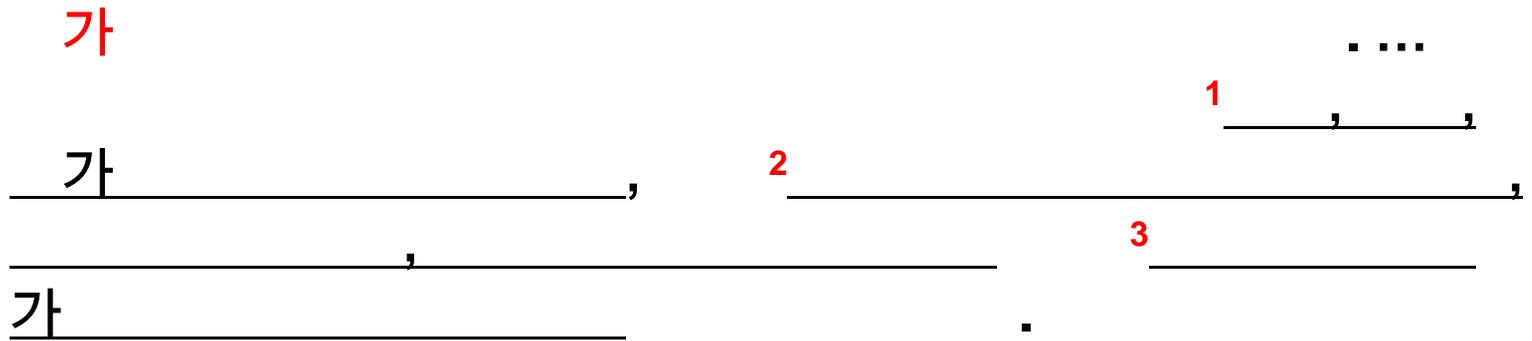
(1)

(Test and calibration methods and method validation)

5.4.1



5.4.2



5.4

(2)

(Test and calibration methods and method validation)

5.4.3, 5.4.4 ...

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- (a)
- (b)
- (c)
- (d)
- (e)
- (f)
- (g)

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(3)

(Test and calibration methods and method validation)

(h)

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(i) / /

(j) ,

(k)

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(4)

(Test and calibration methods and method validation)

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5.4.5.1

5.4.5.2

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(Test and calibration methods and method validation)

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5.4.6.1.

5.4.6.3 ...

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(6)

(Test and calibration methods and method validation)

5.4.7

5.4.7.1

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5.4.7.2 a)

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5.5 (Equipment)

5.5.3 _____

5.5.5 ... _____ ...

- a) _____ ;
- b) _____ ;
- c) 가 _____ (5.5.2) ;
- d) _____ ;
- e) 가 _____ ;
- f) ... _____ , ...
- g) _____ ,
- h) _____ ,

5.5.10 _____ , _____ .

5.6

(Measurement traceability)

5.6.1

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5.6.3.3

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5.7 *(Sampling)*

5.7.1

(substance),

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5.9

(Assuring the quality of test and calibration results)

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e)

5.10

(Reporting the results)

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5.10.3

5.10.3.1 5.10.2

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5.10

(Reporting the results)

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5.10.4

5.10.4.1 5.10.2

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5.10.4.4

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5.10.6

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