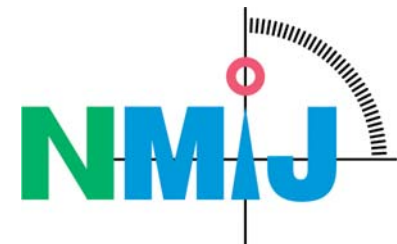


Lineup of new NMIJ CRMs in March. 2011

- Trace Elements in Tea Leaf Powder
- L-Alanine
- L-Leucine
- L-Arginine
- L-Lysine Monohydrochloride
- Dichloromethane
- Sulfur in Toluene – High Concentration
- Isotropic Graphite for Thermal Diffusivity Measurement

National Metrology Institute of Japan (NMIJ)
AIST



Environmental CRMs (Food)

NMIJ CRM 7505-a

Trace Elements in Tea Leaf Powder

◆ Certified values

	Mass fraction (%)
Ca	0.450 ± 0.015
K	1.59 ± 0.05
Mg	0.301 ± 0.010
P	0.339 ± 0.011

	Mass fraction (mg/kg)
Al	709 ± 26
B	19.7 ± 0.9
Ba	20.4 ± 0.7
Cd	0.0139 ± 0.0012
Cu	19.2 ± 0.7
Fe	82.1 ± 2.8
Li	0.57 ± 0.05
Mn	760 ± 26
Na	7.2 ± 0.5
Ni	5.5 ± 0.3
Pb	0.094 ± 0.006
Rb	7.2 ± 0.4
Sr	9.0 ± 0.3
Zn	22.7 ± 0.8

◆ Scope

Quality control, evaluation, or validation of analytical methods or analytical instruments in determination of trace elements in tree leaves or similar matrices.

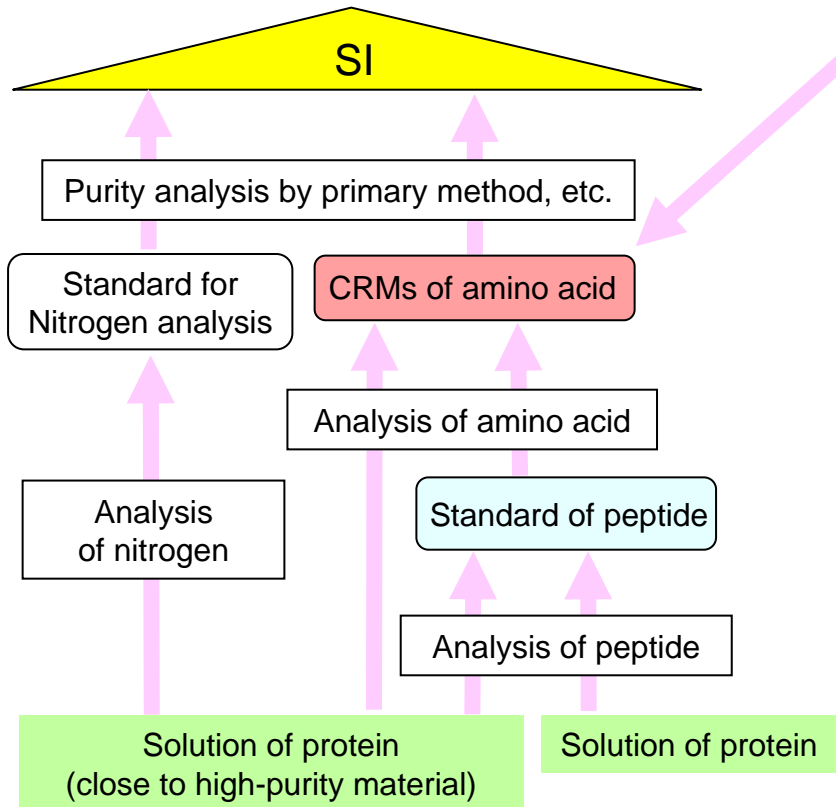
◆ Content 20 g



Organic CRMs (for clinical chemistry)

◆ Scope

Preparation of standard solution for amino analysis



NMIJ CRM

6011-a, 6012-a, 6017-a, 6018-a

L-Alanine

L-Leucine

L-Arginine

L-Lysine Monohydrochloride



◆ Certified values (mass fraction)

(99.9 ± 0.2)% [L-Alanine]

(99.9 ± 0.2)% [L-Leucine]

(99.8 ± 0.2)% [L-Arginine]

(99.8 ± 0.2)% [L-Lysine Monohydrochloride]

◆ Content

0.5 g for each CRM

Organic CRMs (Standard Solution)

NMIJ CRM 4217-a

Sulfur in Toluene – High Concentration

◆ Scope

Controlling the precision of analysis or confirming the validity of instruments during the determination of (5 – 10) mg/kg sulfur in liquid samples.

◆ Certified value (mass fraction)
(7.81 ± 0.14) mg/kg

◆ Content
10 mL



Organic CRMs (High Purity Material)

NMIJ CRM 4005-a

Dichloromethane

◆ Scope

Preparation of standard gas,
standard solution, etc.

◆ Certified value (mole fraction)
(99.99 ± 0.01) %

◆ Content
15 mL



CRMs for Thermophysical Properties

NMIJ CRM 5804-a

Isotropic Graphite for Thermal Diffusivity Measurement

◆ Scope

Calibration or confirming the validity of instruments for thermal diffusivity measurement

◆ Certified value at representative temperature (Thermal diffusivity)

[at 300 K] $1.00 \times 10^{-4} \text{ m}^2\text{s}^{-1}$

[Relative expanded uncertainty 6%]

[at 1500 K] $1.39 \times 10^{-5} \text{ m}^2\text{s}^{-1}$

[Relative expanded uncertainty 7%]

◆ Content, size

4 disks

(In the case of sample 1, $10 \text{ mm } \phi \times 1.4 \text{ mm}$)

