National Metrology Institute of Japan
Certified Reference Material

National Institute of Advanced Industrial Science and Technology
AIST

# NMIJ CRM

## NMIJ CRMs are produced by National Metrology Institute of Japan.

**Certified value is determined by accurate measurement procedures including primary methods.**

Production according to quality management system based on **ISO Guide 34.**

Certification and Production according to **ISO Guide 35.**

Traceable to **SI.**

Uncertainty evaluation in accordance with **GUM.**

**Our CRMs can be used for**

**Calibration** of instruments,

**Validation** of analytical methods and measurement results,

**Quality Control** for analytical methods.

## Industrial Material for EPMA

| CRM | Description | Certified Constituents | Unit Size |
|---|---|---|---|
| 1001-a~1005-a | Fe-Cr Alloy for EPMA, 5-40 % Cr | Cr | 4 mm × 10 mm × 15 mm |
| 1006-a~1010-a | Fe-Ni Alloy for EPMA, 5-60 % Ni | Ni | 3 or 4 mm × 10 mm × 15 mm |
| 1011-b~1015-b | Carbon Steel for EPMA, 0.1-0.7 % C | C | 3 mm × 10 mm × 15 mm |
| 1017-a | Stainless Steel for EPMA | Cr, Ni, Fe | 3 mm × 10 mm × 10 mm |
| 1018-a | Ni(36 %)-Fe Alloy for EPMA | Ni, Fe | 2.5 mm × 10 mm × 10 mm |

## Industrial Material

| CRM | Description | Certified Constituents | Unit Size |
|---|---|---|---|
| 1016-a | Fe-Cr Alloy (Cr 40 %) | Cr: (39.48 ± 0.083) % *<br>Fe: (60.10 ± 0.42) % * | 30 mm ϕ × 6 mm |
| 5202-a | $SiO_2$/Si Multilayer Film | Thickness from the 2nd to 5th layer | 13 mm × 13 mm |
| 5203-a | GaAs/AlAs Super Lattice | Thickness from the 2nd to 6th layer | 15 mm × 15 mm |
| 5601-a | Synthetic Fused Silica for Positron Hole-size Measurements | *ortho*-Positronium life time: (1.62 ± 0.05) ns | 1.5 mm × 15 mm × 15 mm |
| 5602-a | Polycarbonate for Positron Hole-size Measurements ***New!*** | *ortho*-Positronium life time: (2.10 ± 0.05) ns | 2.0 mm × 15 mm × 15 mm |

* amount of mass fraction

| CRM | Description | Certified Constituents | Reference Constituents | Unit Size |
|---|---|---|---|---|
| 8001-a | Fine Silicon Carbide Powder for Fine Ceramics (α-phase) | Elements(6) | Elements(12) | 50 g |
| 8002-a | Fine Silicon Carbide Powder for Fine Ceramics (β-phase) | Elements(10) | Elements(9) | 50 g |
| 8003-a | Fine Silicon Nitride Powder for Fine Ceramics (Direct Nitridation) I | Elements(13) | Elements(6) | 25 g |
| 8004-a | Fine Silicon Nitride Powder for Fine Ceramics (Direct Nitridation) II | Elements(10) | Elements(9) | 25 g |
| 8005-a | Fine Silicon Nitride Powder for Fine Ceramics (Liquid Interfacial Reaction) | Elements(6) | Elements(7) | 25 g |

## High Purity Inorganic Material

| CRM | Description | Certified Value | Unit Size |
|---|---|---|---|
| 3001-a | Potassium Hydrogen Phthalate | (100.00 ± 0.027) %* | 50 g |
| 3003-a | Arsenic(III) Trioxide ***New!*** | (100.001 ± 0.018) %** | 10 g |
| 3004-a | Amidosulfuric Acid ***New!*** | (99.986 ± 0.010) %‡ | 25 g |
| 3005-a | Sodium Carbonate ***New!*** | (99.970 ± 0.016) %‡‡ | 50 g |

*mass fraction: total acid expressed as potassium hydrogen phthalate
**mass fraction: total reductant expressed as arsenic(III) trioxide
‡mass fraction: total acid expressed as amidosulfic acid
‡‡mass fraction: total base expressed as sodium carbonate

**for more infomation, see our web site http://www.nmij.jp/english/service/C/**

## Organic (High Purity Standard)

| CRM | Description | Certified Value* | Unit Size |
|---|---|---|---|
| 4001-a | Ethanol | (99.895 ± 0.050) % | 15 ml |
| 4002-a | Benzene | (99.992 ± 0.003) % | 15 ml |
| 4003-a | Toluene | (99.984 ± 0.013) % | 15 ml |
| 4004-a | 1,2-Dichloroethane | (99.97 ± 0.02) % | 15 ml |
| 4011-a | *o*-Xylene | (99.933 ± 0.002) % | 15 ml |
| 4012-a | *m*-Xylene | (99.80 ± 0.02) % | 15 ml |
| 4013-a | *p*-Xylene | (99.865 ± 0.010) % | 15 ml |
| 4019-a | Bromoform (Tribromomethane) | (99.96 ± 0.03) % | 5 ml |
| 4020-a | Bromodichloromethane | (99.93 ± 0.04) % | 5 ml |
| 4021-a | Ethylbenzene | (99.88 ± 0.03) % | 15 ml |
| 4022-b | Diethyl Phthalate | (99.74 ± 0.09) % | 1.5 ml |

| CRM | Description | Certified Value/ Constituents | Unit Size |
|---|---|---|---|
| 4030-a | Bisphenol A | (99.92 ± 0.06) % * | 1.5 g |
| 4036-a | Dibromochloromethane | (99.97 ± 0.03) % * | 5 ml |
| 4039-a | 1,4-Dichlorobenzene | (99.99 ± 0.03) % * | 5 g |
| 4040-a | Acrylonitrile | (99.97 ± 0.08) % ** | 15 ml |
| 4055-a | Styrene ***Coming Soon!*** | (99.8 ± 0.3) % ** | 10 ml |
| 5401-a | Cyclohexane for Thermal analysis ***Coming Soon!*** | Thermo dynamic properties (4) | 1.5 ml |

* amount of substance fraction **mass fraction

## Organic (Standard Solution)

| CRM | Description | Certified Value | Unit Size |
|---|---|---|---|
| 4202-a | *p,p'*-DDE in Isooctane | (10.06 ± 0.20) mg/kg | 1 g |
| 4203-a | γ-HCH in Isooctane | (10.05 ± 0.12) mg/kg | 1 g |
| 4206-a | PCB28 in Isooctane | (10.04 ± 0.17) mg/kg | 1 g |
| 4207-a | PCB153 in Isooctane | (10.13 ± 0.17) mg/kg | 1 g |
| 4208-a | PCB170 in Isooctane | (9.96 ± 0.20) mg/kg | 1 g |
| 4209-a | PCB194 in Isooctane | (9.99 ± 0.16) mg/kg | 1 g |
| 4210-a | PCB70 in Isooctane | (9.93 ± 0.18) mg/kg | 1 g |
| 4211-a | PCB105 in Isooctane | (9.69 ± 0.23) mg/kg | 1 g |
| 4213-a | Benzo[*a*]pyrene in Isooctane | (99.2 ± 3.9) mg/kg | 1 g |
| 4214-a | *p,p'*-DDT, *p,p'*-DDE, *p,p'*-DDD, γ-HCH in Isooctane | DDT: (9.85 ± 0.14) mg/kg<br>DDE: (10.01 ± 0.09) mg/kg<br>DDD: (10.06 ± 0.08) mg/kg<br>HCH: (10.02 ± 0.07) mg/kg | 1 g |
| 4215-a | Sulfur in Toluene | (0.98 ± 0.02) mg/kg | 5 ml |
| 4216-a* | Sulfur in Toluene (blank) ***Coming Soon!*** | (19 ± 5) μg /kg | 30 ml |

*NMIJ RM

## Organic (for Clinical Chemistry)

| CRM | Description | Certified Value | Unit Size |
|---|---|---|---|
| 6001-a | Cholesterol | (99.9 ± 0.1) % * | 1 g |
| 6005-a | Creatinine | (99.9 ± 0.2) % * | 2 g |
| 6006-a | Urea | (99.9 ± 0.1) % * | 10 g |
| 6007-a | Hydrocortisone ***New!*** | (99.3 ± 0.2) % * | 200 mg |
| 6201-a | C-reactive Protein Solution | (39.5 ± 1.9) μmol /kg | 2 ml |

*mass fraction

**for more infomation, see our web site http://www.nmij.jp/english/service/C/**

## Polymer

| CRM | Description | $M_w$* | $M_w/M_n$‡ | Unit Size |
|---|---|---|---|---|
| 5001-a | Polystyrene 2400 | 2423 ± 20 | 1.050 ± 0.016 | 0.2 g |
| 5002-a | Polystyrene 500 | 501.7 ± 6.8 | 1.150 ± 0.030 | 0.4 g |
| 5004-a | Polystyrene 1000 | 1012.9 ± 8.6 | 1.167 ± 0.019 | 0.5 g |
| 5005-a | Poly(Ethylene Glycol) 400 | 431.2 ± 5.7 | - | 1 g |
| 5006-a | Poly(Ethylene Glycol) 1000 | 1084.7 ± 20.8 | - | 1 g |
| 5007-a | Poly(Ethylene Glycol) 1500 | 1601.0 ± 66.8 | - | 1 g |

| CRM | Description | $M_w$ (g/mol) * | Unit Size |
|---|---|---|---|
| 5008-a | Polystyrene (Polydisperse) | 276,000 ± 15,000 | 5 g |

* mass-average molecular mass ‡polydispersity index

## Environment

| CRM | Description | Certified Constituents | Unit Size |
|---|---|---|---|
| 7202-a | Trace Elements in River Water (Elevated Level) | Elements (19) | 250 ml |
| 7302-a | Trace Elements in Marine Sediment | Elements (14) | 60 g |
| 7303-a | Trace Elements in Lake Sediment | Elements (14) | 60 g |
| 7304-a | PCBs and Organochlorine Pesticides in Marine Sediment (High Pollutant Concentrations) | PCBs (14)<br>Pesticides (4) | 60 g |
| 7305-a | PCBs and Organochlorine Pesticides in Marine Sediment (Low Pollutant Concentrations) | PCBs (14)<br>Pesticides (4) | 60 g |
| 7306-a | Organotins in Marine Sediment | Organotins (5) | 15 g |
| 7307-a | PAHs in Fresh Water Lake Sediment | PAHs (18) | 60 g |
| 7401-a | Chlorinated Pesticides in Dogfish Liver Oil | Pesticides (2) | 1 g |
| 7902-a | PCBs in Insulation Oil (High Concentrations) | PCBs (11) | 2.5 ml |
| 7903-a | PCBs in Insulation Oil (Low Concentrations) | PCBs (11) | 10 ml |
| 7904-a | PCBs in Fuel Oil | PCBs (10) | 2.5 ml |
| 7905-a | PCBs in Fuel Oil (PCB blank) | PCBs (11) | 10 ml |

## Environment (Food)

| CRM | Description | Certified Constituents | Unit Size |
|---|---|---|---|
| 7402-a | Trace Elements, Arsenobetaine and Methylmercury in Cod Fish Tissue | Elements (13)<br>Arsenobetaine<br>Methylmercury | 10 g |
| 7403-a | Trace Elements, Arsenobetaine and Methylmercury in Swordfish Tissue ***Coming Soon!*** | Elements (14)<br>Arsenobetaine<br>Methylmercury | 10 g |
| 7501-a | Trace Elements in White Rice Flour (Cd Level I) | Elements (11) | 20 g |
| 7502-a | Trace Elements in White Rice Flour (Cd Level II) | Elements (18) | 20 g |
| 7503-a | Arsenic Compounds and Trace Elements in White Rice Flour ***Coming Soon!*** | Elements (6)<br>Arsenic compounds (3) | 20 g |
| 7504-a | Pesticides in Unpolished Rice ***New!*** | Pesticides (2) | 25 g |

**for more infomation, see our web site http://www.nmij.jp/english/service/C/**

## Environment (for Chemical Speciation)

| CRM | Description | Certified Value | Unit Size |
|---|---|---|---|
| 7901-a | Arsenobetaine Solution | (24.40 ± 0.62) mg/kg | 10 ml |
| 7912-a | Arsenate [As(V)] Solution ***New!*** | (99.53 ± 1.67) mg/kg | 50 ml |
| 7913-a | Dimethylarsinic Acid Solution ***Coming Soon!*** | (25.11 ± 0.70) mg/kg | 10 ml |

## for Green Procurement

| CRM | Description | Certified Constituents | Unit Size |
|---|---|---|---|
| 8102-a | Heavy Metals (Cd, Cr, Pb) in ABS Resin Pellet - Low Concentration | Elements (3) | 25 g |
| 8103-a | Heavy Metals (Cd, Cr, Pb) in ABS Resin Pellet - High Concentration | Elements (3) | 25 g |
| 8105-a | Heavy Metals (Cd, Cr, Pb) in ABS Resin Disk - Low Concentration | Elements (3) | 30 mm ϕ × 2 mm |
| 8106-a | Heavy Metals (Cd, Cr, Pb) in ABS Resin Disk - High Concentration | Elements (3) | 30 mm ϕ × 2 mm |
| 8112-a | Heavy Metals (Cd, Cr, Hg, Pb) in ABS Resin Pellet - Low Concentration | Elements (4) | 25 g |
| 8113-a | Heavy Metals (Cd, Cr, Hg, Pb) in ABS Resin Pellet - High Concentration | Elements (4) | 25 g |
| 8115-a | Heavy Metals (Cd, Cr, Hg, Pb) in ABS Resin Disk - Low Concentration | Elements (4) | 30 mm ϕ × 2 mm |
| 8116-a | Heavy Metals (Cd, Cr, Hg, Pb) in ABS Resin Disk - High Concentration | Elements (4) | 30 mm ϕ × 2 mm |
| 8123-a | Heavy Metals (Cd, Cr, Hg, Pb) in PVC Resin Pellet - High Concentration ***New!*** | Elements (4) | 25 g |
| 8133-a | Heavy Metals (Cd, Cr, Hg, Pb) in PP Resin Pellet - High Concentration | Elements (4) | 25 g |
| 8136-a | Heavy Metals (Cd, Cr, Hg, Pb) in PP Resin Disk - High Concentration ***New!*** | Elements (4) | 30 mm ϕ × 2 mm |

| CRM | Description | Certified Value | Unit Size |
|---|---|---|---|
| 8107-a | Bisphenol A in Polycarbonate | (35.7 ± 2.8) mg/kg | 10 g |
| 8108-a | Polybrominated Diphenyl Ethers in Polystyrene | (317 ± 14) mg/kg | 30 mm ϕ × 2 mm |
| 8109-a | Polybrominated Diphenyl Ethers in Poly(Vinyl Chloride) Resin ***New!*** | (333 ± 13) mg/kg | 30 mm ϕ × 2 mm |
| 8110-a | Polybrominated Diphenyl Ethers in Polystyrene (High Concentration) | (886 ± 28) mg/kg | 30 mm ϕ × 2 mm |

## Gas

| CRM | Description | Certified Value‡ |
|---|---|---|
| 3401-a | Nitrogen Monoxide | (99.925 ± 0.069) % * |
| 3402-a | Sulfur Dioxide | (99.99944 ± 0.00048) % * |
| 3403-a | Dinitrogen Oxide in Nitrogen (High Concentration) | (316.2 ± 1.8) μmol / mol |
| 3404-b | Oxygen | (99.9999 ± 0.0007) % * |
| 3406-a | Carbon Monoxide | (99.99723 ± 0.00093) % * |
| 3407-a | Carbon Dioxide | (99.99951 ± 0.00036) % * |

| CRM | Description | Certified Value‡ |
|---|---|---|
| 4041-a | Vinyl Chloride | (100.0 ± 0.1) %* |
| 4042-a | 1,3-Butadiene | (99.7 ± 0.6) %* |
| 4051-b | Methane | (99.9999 ± 0.0001) %* |
| 4052-a | Propane | (99.99 ± 0.01) %* |

| CRM | Description | Certified Value‡ |
|---|---|---|
| 4403-a | Sulfur Hexafluoride and Carbon Tetrafluoride in Nitrogen with Emission level | $SF_6$: (85.34 ± 0.33) μmol / mol<br>$CF_4$: (86.84 ± 0.41) μmol / mol |
| 4404-a | Sulfur Hexafluoride and Carbon Tetrafluoride in Nitrogen (0.5 %) | $SF_6$: (5031 ± 25) μmol / mol<br>$CF_4$: (5831 ± 29) μmol / mol |
| 4405-a | Hexafluoroethane and Carbon Tetrafluoride in Nitrogen (0.5 %) | $C_2F_6$: (5131 ± 26) μmol / mol<br>$CF_4$: (5032 ± 25) μmol / mol |

* amount of substance fraction

‡An example of the certified value is shown in table above.
The certified value is slightly different in each cylinder.

# Distributors

NMIJ CRMs are distributed only through the following companies.
Please contact these companies about purchase.

| | Industrial Material for EPMA | Industrial Material | High purity Inorganic Material | Organic | Polymer | Environ-mental | for Green Procurement | Gas |
|---|---|---|---|---|---|---|---|---|
| **General Science Corporation**<br>802 AkasakaBelgoBldg, 3-11-14, Akasaka, Minato-ku, Tokyo, 107-0052, Japan<br>TEL:+81-3-3583-0731<br>FAX:+81-3-3584-6247<br>http://www.shibayama.co.jp<br>E-mail: gsc@shibayama.co.jp | ● | ● | ● | ● | ● | ● | ● | |
| **GL Science Inc.**<br>6-22-1, Nishishinjuku, Shinjuku-ku, Tokyo, 163-1130, Japan<br>TEL:+81-3-5323-6611<br>FAX:+81-3-5323-6622<br>http://www.gls.co.jp/<br>E-mail: info@gls.co.jp | - | - | ● | ● | ● | ● | ● | - |
| **Kanto Chemicals Co. Inc.**<br>3-11-5 Nihonbashi-honcho, Chuo-ku, Tokyo, 103-0023, Japan<br>TEL:+81-3-3663-7631<br>FAX:+81-3-3667-8277<br>http://www.kanto.co.jp<br>E-mail: reag-info@gms.kanto.co.jp | ● | ● | ● | ● | ● | ● | ● | - |
| **SeishinTrading Co. Ltd.**<br>SanshinBldg. 1-2-1, Sannomiya-cho, Chuo-ku, Kobe. 650-0021, Japan<br>TEL: +81-78-391-5391<br>FAX: +81-78-331-5735<br>E-mail: info@seishin-syoji.co.jp | ● | ● | ● | ● | ● | ● | ● | - |
| **Shimadzu Corporation**<br>1-3 Kanda-nishikicho, Chiyoda-ku, Tokyo, 101-8448, Japan<br>TEL:+81-3-3219-5730<br>FAX:+81-3-3219-5557<br>http://www.an.shimadzu.co.jp<br>E-mail: surface@group.shimadzu.co.jp | - | - | - | - | - | - | ● | - |
| **Sowa Science Corporation**<br>Maruyama Bldg, 2-10-7, Taito, Taito-ku, Tokyo, 110-0016, Japan<br>TEL: +81-3-3833-8899/8477<br>FAX: +81-3-3833-8894<br>E-mail: sowasci@yahoo.co.jp | - | - | - | - | ● | - | - | - |
| **Sumitomo Metal Technology, Inc.**<br>1-8, Fuso-cho, Amagasaki, Hyogo, 660-0891, Japan<br>TEL:+81-6-6489-5777<br>FAX:+81-6-6489-5759<br>E-mail: tanaka-hjm@smt-co.com | ● | - | - | - | - | - | - | - |
| **Tomoe Shokai Co,Ltd**<br>1702-2, Kise, Tsukuba, Ibaraki, 305-0022, Japan<br>TEL: +81-29-857-2663<br>FAX: +81-29-857-5993<br>http://www.tomoeshokai.co.jp<br>E-mail: y-nakamu@tomoeshokai.co.jp | - | - | - | - | - | - | - | ● |
| **Wako Pure Chemical Industries, Ltd.**<br>3-1-2, Doshomachi, Chuo-ku, Osaka, Osaka, 540-8605, Japan<br>TEL: +81-6-6203-3741<br>http://www.e-reagent.com<br>E-mail: export@wako-chem.co.jp | ● | ● | ● | ● | ● | ● | ● | - |

# NMIJ Certified Reference Material List

### Industrial Material for EPMA

| | |
|---|---|
| 1001-a~1005-a | Fe-Cr Alloy for EPMA, 5-40 % Cr |
| 1006-a~1010-a | Fe-Ni Alloy for EPMA, 5-60 % Ni |
| 1011-b~1015-b | Carbon Steel for EPMA, 0.1-0.7 % C |
| 1017-a | Stainless Steel for EPMA |
| 1018-a | Ni(36 %)-Fe Alloy for EPMA |

### Industrial Material

| | |
|---|---|
| 1016-a | Fe-Cr Alloy (Cr 40 %) |
| 5202-a | $SiO_2$/Si Multilayer Film |
| 5203-a | GaAs/AlAs Super Lattice |
| 5601-a | Synthetic Fused Silica for Positron Hole-size Measurements |
| 5602-a | Polycarbonate for Positron Hole-size Measurements ***New!*** |
| 8001-a | Fine Silicon Carbide Powder for Fine Ceramics (α-phase) |
| 8002-a | Fine Silicon Carbide Powder for Fine Ceramics (β-phase) |
| 8003-a | Fine Silicon Nitride Powder for Fine Ceramics(Direct Nitridation)I |
| 8004-a | Fine Silicon Nitride Powder for Fine Ceramics(Direct Nitridation)II |
| 8005-a | Fine Silicon Nitride Powder for Fine Ceramics (Liquid Interfacial Reaction) |

### High Purity Inorganic Material

| | |
|---|---|
| 3001-a | Potassium Hydrogen Phthalate |
| 3003-a | Arsenic(III) Trioxide ***New!*** |
| 3004-a | Amidosulfuric Acid ***New!*** |
| 3005-a | Sodium Carbonate ***New!*** |

### Organic (High Purity Material)

| | |
|---|---|
| 4001-a | Ethanol |
| 4002-a | Benzene |
| 4003-a | Toluene |
| 4004-a | 1,2-Dichloroethane |
| 4011-a | *o*-Xylene |
| 4012-a | *m*-Xylene |
| 4013-a | *p*-Xylene |
| 4019-a | Bromoform (Tribromomethane) |
| 4020-a | Bromodichloromethane |
| 4021-a | Ethylbenzene |
| 4022-b | Diethyl Phthalate |
| 4030-a | Bisphenol A |
| 4036-a | Dibromochloromethane |
| 4039-a | 1,4-Dichlorobenzene |
| 4040-a | Acrylonitrile |
| 4055-a | Styrene ***Coming Soon!*** |
| 5401-a | Cyclohexane for Thermal Analysis ***Coming Soon!*** |

### Organic (Standard Solution)

| | |
|---|---|
| 4202-a | *p,p'*-DDE in Isooctane |
| 4203-a | γ-HCH in Isooctane |
| 4206-a | PCB28 in Isooctane |
| 4207-a | PCB153 in Isooctane |
| 4208-a | PCB170 in Isooctane |
| 4209-a | PCB194 in Isooctane |
| 4210-a | PCB70 in Isooctane |
| 4211-a | PCB105 in Isooctane |
| 4213-a | Benzo[*a*]pyrene in Isooctane |
| 4214-a | *p,p'*-DDT, *p,p'*-DDE, *p,p'*-DDD, γ-HCH in Isooctane |
| 4215-a | Sulfur in Toluene |
| 4216-a* | Sulfur in Toluene (blank) ***Coming Soon!*** |

* NMIJ RM

### Organic (for Clinical Chemistry)

| | |
|---|---|
| 6001-a | Cholesterol |
| 6005-a | Creatinine |
| 6006-a | Urea |
| 6007-a | Hydrocortisone ***New!*** |
| 6201-a | C-reactive Protein Solution |

### Polymer

| | |
|---|---|
| 5001-a | Polystyrene 2400 |
| 5002-a | Polystyrene 500 |
| 5004-a | Polystyrene 1000 |
| 5005-a | Poly(Ethylene Glycol) 400 |
| 5006-a | Poly(Ethylene Glycol) 1000 |
| 5007-a | Poly(Ethylene Glycol) 1500 |
| 5008-a | Polystyrene (Polydisperse) |

### Environment

| | |
|---|---|
| 7202-a | Trace Elements in River Water (Elevated Level) |
| 7302-a | Trace Elements in Marine Sediment |
| 7303-a | Trace Elements in Lake Sediment |
| 7304-a | PCBs and Organochlorine Pesticides in Marine Sediment (High Pollutant Concentrations) |
| 7305-a | PCBs and Organochlorine Pesticides in Marine Sediment (Low Pollutant Concentrations) |
| 7306-a | Organotins in Marine Sediment |
| 7307-a | PAHs in Fresh Water Lake Sediment |
| 7401-a | Chlorinated Pesticides in Dogfish Liver Oil |
| 7902-a | PCBs in Insulation Oil (High Concentrations) |
| 7903-a | PCBs in Insulation Oil (Low Concentrations) |
| 7904-a | PCBs in Fuel Oil |
| 7905-a | PCBs in Fuel Oil (PCB blank) |

### Environment (Food)

| | |
|---|---|
| 7402-a | Trace Elements, Arsenobetaine and Methylmercury in Cod Fish Tissue |
| 7403-a | Trace Elements, Arsenobetaine and Methylmercury in Swordfish Tissue ***Coming Soon!*** |
| 7501-a | Trace Elements in White Rice Flour (Cd Level I) |
| 7502-a | Trace Elements in White Rice Flour (Cd Level II) |
| 7503-a | Arsenic Compounds and Trace Elements in White Rice Flour ***Coming Soon!*** |
| 7504-a | Pesticides in Unpolished Rice ***New!*** |

### Environment (for Chemial Speciation)

| | |
|---|---|
| 7901-a | Arsenobetaine Solution |
| 7912-a | Arsenate [As(V)] Solution ***New!*** |
| 7913-a | Dimethylarsinic Acid Solution ***Coming Soon!*** |

### for Green Procurement

| | |
|---|---|
| 8102-a | Heavy Metals (Cd, Cr, Pb) in ABS Resin Pellet - Low Concentration |
| 8103-a | Heavy Metals (Cd, Cr, Pb) in ABS Resin Pellet - High Concentration |
| 8105-a | Heavy Metals (Cd, Cr, Pb) in ABS Resin Disk - Low Concentration |
| 8106-a | Heavy Metals (Cd, Cr, Pb) in ABS Resin Disk - High Concentration |
| 8112-a | Heavy Metals (Cd, Cr, Hg, Pb) in ABS Resin Pellet - Low Concentration |
| 8113-a | Heavy Metals (Cd, Cr, Hg, Pb) in ABS Resin Pellet - High Concentration |
| 8115-a | Heavy Metals (Cd, Cr, Hg, Pb) in ABS Resin Disk - Low Concentration |
| 8116-a | Heavy Metals (Cd, Cr, Hg, Pb) in ABS Resin Disk - High Concentration |
| 8123-a | Heavy Metals (Cd, Cr, Hg, Pb) in PVC Resin Pellet - High Concentration ***New!*** |
| 8133-a | Heavy Metals (Cd, Cr, Hg, Pb) in PP Resin Pellet - High Concentration |
| 8136-a | Heavy Metals (Cd, Cr, Hg, Pb) in PP Resin Disk - High Concentration ***New!*** |
| 8107-a | Bisphenol A in Polycarbonate |
| 8108-a | Polybrominated Diphenyl Ethers in Polystyrene |
| 8109-a | Polybrominated Diphenyl Ethers in Poly(Vinyl Chloride) Resine ***New!*** |
| 8110-a | Polybrominated Diphenyl Ethers in Polystyrene (High Concentration) |

### Gas

| | |
|---|---|
| 3401-a | Nitrogen Monoxide |
| 3402-a | Sulfur Dioxide |
| 3403-a | Dinitrogen Oxide in Nitrogen (High Concentration) |
| 3404-b | Oxygen |
| 3406-a | Carbon Monoxide |
| 3407-a | Carbon Dioxide |
| 4041-a | Vinyl Chloride |
| 4042-a | 1,3-Butadiene |
| 4051-b | Methane |
| 4052-a | Propane |
| 4403-a | Sulfur Hexafluoride and Carbon Tetrafluoride in Nitrogen with Emission Level |
| 4404-a | Sulfur Hexafluoride and Carbon Tetrafluoride in Nitrogen (0.5 %) |
| 4405-a | Hexafluoroethane and Carbon Tetrafluoride in Nitrogen (0.5 %) |

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