# China NIL Proficiency Testing Schemes (2022)

As a professional PT provider, NIL has been accredited by China National Accreditation Service Conformity Assessment (CNAS), and all PT schemes provided by NIL are operated in compliance with ISO/IEC 17043:2010 “Conformity assessment—General requirements for proficiency testing”. The international proficiency testing schemes for 2022 are listed in the following Table 1.

**Catalogue**

**Chemical analysis for metal and alloy…………………………………………………………………………..2**

**Mineral and Metallurgical Material ……………………………………………………………………………4**

**Coal and Coke…………………………………………………………………………………………………….6**

**Cement……………………………………………………………………………………………………………..6**

**Soil………………………………………………………………………………………………………………….6**

**Textile………………………………………………………………………………………………………………7**

**RoHS………………………………………………………………………………………………………………7**

**Plastic………………………………………………………………………………………..……………………..8**

**Microstructure of metal Materials……………………………………………………………………………….8**

**Mechanical Properties for metal Materials(special for ISO standard)………………………………………..9**

**Mechanical Properties for Materials (Special for ASTM standard)…………………………………………..12**

**Microstructure of metal Materials (Special for ASTM standard)…………………………………………….13**

**Non-destructive Test for Metallic Material…………………………………………………………………….13**

**Table 1NILProficiency Testing Schemes for 2022**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Metal and Alloy** | | | | | | | | | | |
| **Serial No** | **Title** | | **Test object** | | **Test items** | | **Registration deadline** | | **Fees (USD)** | **Select** |
| NILPT-3032-1 | Determination of C, Si, Mn, P and S in medium and low alloy steel | | Medium and low alloy steel | | C, Si, Mn, P, S | | Apr., 2022 | | 350+  carriage | □Discs  □Chips |
| NILPT-3032-2 | Determination of C, Si, Mn, P and S in medium and low alloy steel | | Medium and low alloy steel | | C, Si, Mn, P, S | | Jul., 2022 | | 350+ carriage | □Discs  □Chips |
| NILPT-3032-3 | Determination of C, Si, Mn, P and S in medium and low alloy steel | | Medium and low alloy steel | | C, Si, Mn, P, S | | Sept., 2022 | | 350+  carriage | □Discs  □Chips |
| NILPT-3033-1 | Determination of Cr, Ni, Cu, Mo and Al in medium and low alloy steel | | Medium and low alloy steel | | Cr, Ni, Cu, Mo, Al | | Apr., 2022 | | 350+ carriage | □Discs  □Chips |
| NILPT-3033-2 | Determination of Cr, Ni, Cu, Mo and Al in medium and low alloy steel | | Medium and low alloy steel | | Cr, Ni, Cu, Mo, Al | | Jul., 2022 | | 350+  carriage | □Discs  □Chips |
| NILPT-3034-1 | Determination of Cr, Ni, Cu, V and Ti in medium and low alloy steel by inductively coupled plasma atomic emission spectrometry | | Medium and low alloy steel | | Cr, Ni, Cu, V, Ti | | Apr., 2022 | | 300+ carriage | □Chips |
| NILPT-3034-2 | Determination of Cr, Ni, Cu, V and Ti in medium and low alloy steel by inductively coupled plasma atomic emission spectrometry | | Medium and low alloy steel | | Cr, Ni, Cu, V, Ti | | Jul., 2022 | | 300+  carriage | □Chips |
| NILPT-3035-1 | Determination of C, Si, Mn, P and S in medium and low alloy steel by spark atomic emission spectrometry | | Medium and low alloy steel | | C, Si, Mn, P, S | | Apr., 2022 | | 350+ carriage | □Discs |
| NILPT-3035-2 | Determination of C, Si, Mn, P and S in medium and low alloy steel by spark atomic emission spectrometry | | Medium and low alloy steel | | C, Si, Mn, P, S | | Jul., 2022 | | 350+  carriage | □Discs |
| NILPT-3036-1 | Determination of Cr, Ni, Cu, Mo and Al in medium and low alloy steel by spark atomic emission spectrometry | | Medium and low alloy steel | | Cr, Ni, Cu, Mo, Al | | Apr., 2022 | | 350+  carriage | □Discs |
| NILPT-3036-2 | Determination of Cr, Ni, Cu, Mo and Al in medium and low alloy steel by spark atomic emission spectrometry | | Medium and low alloy steel | | Cr, Ni, Cu, Mo, Al | | Jul., 2022 | | 350+  carriage | □Discs |
| **Serial No** | **Title** | | **Test object** | | **Test items** | | **Registration deadline** | | **Fees (USD)** | **Select** |
| NIL PT-3037-1 | Determination of Si, Mn, P, Cr, Ni and Ti in stainless steel | | Stainless steel | | Si, Mn, P, Cr, Ni, Ti | | Apr., 2022 | | 350+  carriage | □Discs  □Chips |
| NIL PT-3037-2 | Determination of Si, Mn, P, Cr, Ni and Ti in stainless steel | | Stainless steel | | Si, Mn, P, Cr, Ni, Ti | | Aug., 2022 | | 350+ carriage | □Discs  □Chips |
| NIL PT-3038-1 | Determination of C, Si, Mn, P, S, Cr and Ni in stainless steel by spark atomic emission spectrometry | | Stainless steel | | C, Si, Mn, P, S, Cr, Ni | | Apr., 2022 | | 350+  carriage | □Discs |
| NIL PT-3038-2 | Determination of C, Si, Mn, P, S, Cr and Ni in stainless steel by spark atomic emission spectrometry | | Stainless steel | | C, Si, Mn, P, S, Cr, Ni | | Aug., 2022 | | 350+  carriage | □Discs |
| NIL PT-3039 | Determination of C, Si, Mn, P, S and Cr in Bearing steel | | Bearing steel | | C, Si, Mn, P, S,Cr | | Jul., 2022 | | 350+  carriage | □Discs  □Chips |
| NIL PT-3040 | Determination of C, Si, P, S, Mo in Ferromolybdenum | | Ferromolybdenum | | C, Si, P, S, Mo | | Aug., 2022 | | 350+  carriage | □Chips |
| NIL PT-3041-1 | Determination of carbon and sulfur content in steel | | Steel | | C, S | | Apr., 2022 | | 280+  carriage | □Chips |
| NIL PT-3041-2 | Determination of carbon and sulfur content in steel | | Steel | | C, S | | Jul.,2022 | | 280 +  carriage | □Chips |
| NIL PT-3041-3 | Determination of carbon and sulfur content in steel | | Steel | | C, S | | Sept., 2022 | | 280+  carriage | □Chips |
| NIL PT-3042-1 | Determination of oxygen and nitrogen content in steel | | Steel | | O, N | | Jul.,2022 | | 280 +  carriage | □Chips |
| NIL PT-3042-2 | Determination of oxygen and nitrogen content in steel | | Steel | | O, N | | Sept., 2022 | | 280+  carriage | □Chips |
| NIL PT-3043 | Determination of hydrogen in steel | | Steel | | H | | Sept., 2022 | | 300 +  carriage | □Chips |
| NIL PT-3044 | Determination of Mo, Al, Ti, Nb in High-Temperature Alloy | | High-Temperature Alloy | | Mo, Al, Ti, Nb | | Aug., 2022 | | 400 +  carriage | □Chips |
| NIL PT-3047 | Determination of Si, Mn, P, Al and Ca in ferrosilicon | | Ferrosilicon | | Si, Mn, P, Al, Ca | | Aug., 2022 | | 300+  carriage | □Chips |
| NIL PT-3048 | Determination of C, Si, Mn and P in ferromanganese | | Ferromanganese | | C, Si, Mn, P | | Aug., 2022 | | 300 +  carriage | □Chips |
| NIL PT-3049 | Determination of C, Si, Mn, P,S, Ni,Cr in ferronickel | | Ferronickel | | C, Si, Mn, P,S,Ni,Cr | | Sept., 2022 | | 300 +  carriage | □Chips |
| NIL PT-3050 | Determination of C, Si, Mn, P and Cr in low-carbon ferrochromium | | Low-carbon Ferrochromium | | C, Si, Mn, P, Cr | | Aug., 2022 | | 300 +  carriage | □Chips |
| NIL PT-3051 | Determination of Si, Mn, P and S inSilicon manganese alloy | | Silicon manganese alloy | | Si, Mn, P, S | | Sept., 2022 | | 300+  carriage | □Chips |
| NIL PT-3052 | Determination of C、Si、Mn、P、S、Vand Al inFerrovanadium | | Ferrovanadium | | C、Si、Mn、P、S、V、Al | | Sept., 2022 | | 400+  carriage | □Chips |
| NIL PT-3054 | Determination of Si, Fe, Cu, Mg and Zn in Pure Aluminum | | Pure Aluminum | | Si, Fe, Cu, Mg, Zn | | Oct.,2022 | | 320 +  carriage | □Discs  □Chips |
| NIL PT-3055-1 | Determination of Si, Fe, Cu, Mg and Mn in aluminum alloy | | Aluminum alloy | | Si, Fe, Cu, Mg, Mn | | May., 2022 | | 320+  carriage | □Discs  □Chips |
| NIL PT-3055-2 | Determination of Si, Fe, Cu, Mg and Mn in aluminum alloy | | Aluminum alloy | | Si, Fe, Cu, Mg, Mn | | Aug., 2022 | | 320 +  carriage | □Discs  □Chips |
| NIL PT-3056 | Determination of Si、Fe、Cu、Cr、Ti、Zn in aluminum alloy by spark atomic emission spectrometry | | Aluminum alloy | | Si、Fe、Cu、Cr、Ti、Zn | | Sept., 2022 | | 320 +  carriage | □Discs |
| NIL PT-3057 | Determination of Cu, Mg, Fe and Al in zinc alloy | | Zinc alloy | | Cu, Mg, Fe, Al | | Sept., 2022 | | 320 +  carriage | □Chips |
| NIL PT-3058 | Determination of Sn, Fe, Ni, Al, Si in copper alloy | | Copper alloy | | Sn, Fe, Ni, Al, Si | | Sept., 2022 | | 320 +  carriage | □Discs  □Chips |
| NIL PT-3062 | Determination of Fe, Al, V and Si in titanium alloy | | Titanium alloy | | Fe, Al, V,Si | | Jul.,2022 | | 350 +  carriage | □Chips |
| NIL PT-3063 | Determination of O, N, and H in titanium alloy | | Titanium alloy | | O, N, H | | Oct., 2022 | | 350 + carriage | □Chips |
| **Mineral and Metallurgical Material** | | | | | | | | | | |
| **Serial No** | **Title** | | **Test object** | | **Test items** | | **Registration deadline** | | **Fees (USD)** | **Select** |
| NILPT-3071-1 | Determination of TFe, SiO2, P and S in iron ore | | Iron ore | | TFe, SiO2, P, S | | Apr., 2022 | | 300 +  carriage | □ |
| NILPT-3071-2 | Determination of TFe, SiO2, P and S in iron ore | | Iron ore | | TFe, SiO2, P, S | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3072 | Determination of CaO, MgO and Al2O3 in iron ore | | Iron ore | | CaO, MgO, Al2O3 | | May., 2022 | | 300 +  carriage | □ |
| NILPT-3073 | Determination of TFe and FeO in iron ore | | Iron ore | | TFe, FeO | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3074 | Determination of potassium and sodium in iron ore | | Iron ore | | K, Na | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3075 | Determination of Ca,Si,Mn,Al,P,Mg and Ti in iron oreby X-ray fluorescence spectrometry | | Iron ore | | Ca,Si,Mn,Al,P,Mg,Ti | | Jul., 2022 | | 450 +  carriage | □ |
| NILPT-3077 | Determination of Mn and Ti in iron ore | | Iron ore | | Mn, Ti | | Sept., 2022 | | 300 +  carriage | □ |
| NILPT-3078 | Determination of TMn, TFe, SiO2 and Al2O3 in manganese ore | | Manganese ore | | TMn, TFe, SiO2, Al2O3 | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3079 | Determination of TiO2 and Ni in manganese ore | | Manganese ore | | TiO2, Ni | | Sept., 2022 | | 300 +  carriage | □ |
| NILPT-3080 | Determination of CaF2, SiO2 and TFe in fluorite | | Fluorite | | CaF2, SiO2, TFe | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3081-1 | Determination of SiO2, CaO, MgO, Fe2O3 and Al2O3 in limestone | | Limestone | | SiO2, CaO, MgO, Fe2O3, Al2O3 | | Apr., 2022 | | 300 +  carriage | □ |
| NILPT-3081-2 | Determination of SiO2, CaO, MgO, Fe2O3 and Al2O3 in limestone | | Limestone | | SiO2, CaO, MgO, Fe2O3, Al2O3 | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3082 | Determination of Ni, SiO2, TFe and MgO in nickel ore | | Nickel ore | | Ni, SiO2, TFe, MgO | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3083 | Determination of Zn, Pb and Cu in zinc ore | | Zinc ore | | Zn, Pb, Cu | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3085 | Determination of Zn,As,Pb and Cd in zinc concentrates | | Zinc concentrates | | Zn, As, Pb, Cd | | May., 2022 | | 300 +  carriage | □ |
| NILPT-3087 | Determination of Cu, S, Au and Ag in copper concentrates | | Copper concentrates | | Cu, S, Au ,Ag | | May., 2022 | | 320 +  carriage | □ |
| NILPT-3088 | Determination of Pb, Cu, Zn and As in lead concentrates | | Lead concentrates | | Pb, Cu, Zn, As | | May., 2022 | | 300 +  carriage | □ |
| NILPT-3089 | Determination of Cu, Pb, Zn and Fe in polymetallicore | | Polymetallic ore | | Cu, Pb, Zn, Fe | | May., 2022 | | 300 +  carriage | □ |
| NILPT-3091 | Determination of Al2O3, SiO2, Li2O, CaO and TiO2 in bauxite | | Bauxite | | Al2O3, SiO2, Li2O, CaO, TiO2 | | May., 2022 | | 300 +  carriage | □ |
| NILPT-3092 | Determination of SiO2, CaO, MgO, Fe2O3 and Al2O3 in silicate rock | | Silicate rock | | SiO2, CaO, MgO, Fe2O3, Al2O3 | | May., 2022 | | 300 +  carriage | □ |
| NILPT-3093 | Determination of gold and silver in ore | | Ore | | Au, Ag | | May., 2022 | | 350 +  carriage | □ |
| NILPT-3094 | Determination of Fe, Al and Ca in metallurgical silicon | | Metallurgical silicon | | Fe, Al, Ca | | May., 2022 | | 300 +  carriage | □ |
| NILPT-3096 | Determination of SiO2, CaO, MgO, Al2O3 and Fe2O3 in high-alumina refractories | | High-alumina refractories | | SiO2, CaO,MgO, Al2O3,Fe2O3 | | Jun., 2022 | | 300 +  carriage | □ |
| **Coal and Coke** | | | | | | | | | | |
| **Serial No** | **Title** | | **Test object** | | **Test items** | | **Registration deadline** | | **Fees (USD)** | **Select** |
| NILPT-3099-1 | Proximate analysis of coke | | Coke | | Sulphur,ash, volatile matter | | Apr., 2022 | | 300 +  carriage | □ |
| NILPT-3099-2 | Proximate analysis of coke | | Coke | | Sulphur,ash, volatile matter | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3100-1 | Proximate analysis of coal | | Coal | | Sulphur,ash, volatile matter | | Apr., 2022 | | 300 +  carriage | □ |
| NILPT-3100-2 | Proximate analysis of coal | | Coal | | Sulphur,ash, volatile matter | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3101 | Determination of calorific value of coal | | Coal | | Calorific value | | May., 2022 | | 300 +  carriage | □ |
| **Cement** | | | | | | | | | | |
| **Serial No** | | **Title** | **Test object** | | **Test items** | | **Registration deadline** | | **Fees (USD)** | **Select** |
| NILPT-3115 | | Determination of loss on ignition, magnesium oxide, Calcium oxide and sulfur trioxide in cement | Cement | | Loss on ignition, MgO, CaO,SO3 | | May., 2022 | | 450+  carriage | □ |
| NILPT-3116 | | Determination of chloride ions in cement | Cement | | Chloride ions | | May., 2022 | | 450+ carriage | □ |
| **Soil** | | | | | | | | | | |
| **Serial No** | **Title** | | **Test object** | | **Test items** | | **Registration deadline** | | **Fees (USD)** | **Select** |
| NILPT-3133-1 | Determination of lead and cadmium in soil | | Soil | | Pb ,Cd | | May., 2022 | | 350 +  carriage | □ |
| NILPT-3133-2 | Determination of lead and cadmium content in soil | | Soil | | Pb ,Cd | | Aug., 2022 | | 350 +  carriage | □ |
| NILPT-3134-1 | Determination of nickel,copper,zinc content in soil | | Soil | | Ni,Cu,Zn | | May., 2022 | | 350 +  carriage | □ |
| NILPT-3134-2 | Determination of nickel,copper,zinc content in soil | | Soil | | Ni,Cu,Zn | | Aug., 2022 | | 350 +  carriage | □ |
| NILPT-3135-1 | Determination of total mercury and total arsenic in soil | | Soil | | TotalHg,Total As | | May., 2022 | | 350 +  carriage | □ |
| NILPT-3135-2 | Determination of total mercury and total arsenic in soil | | Soil | | Total Hg ,Total As | | Aug., 2022 | | 350 +  carriage | □ |
| NILPT-3136-1 | Determination of total chromium content in soil | | Soil | | Total Cr | | May., 2022 | | 350 +  carriage | □ |
| NILPT-3136-2 | Determination of total chromium content in soil | | Soil | | Total Cr | | Aug., 2022 | | 350 +  carriage | □ |
| NILPT-3137 | Determination of total phosphorus in soil | | Soil | | Total P | | Aug., 2022 | | 350 +  carriage | □ |
| NILPT-3138 | Determination of total potassium in soil | | Soil | | Total K | | Aug., 2022 | | 350 +  carriage | □ |
| NILPT-3139 | Determination of total nitrogen in soil | | Soil | | Total N | | Aug., 2022 | | 350 +  carriage | □ |
| NILPT-3141-1 | Determination of pH in soil | | Soil | | pH at 25°C | | May., 2022 | | 350 +  carriage | □ |
| NILPT-3141-2 | Determination of pH in soil | | Soil | | pH at 25°C | | Aug., 2022 | | 350 +  carriage | □ |
| **Textile** | | | | | | | | | | |
| **Serial No** | **Title** | | **Test object** | | **Test items** | | **Registration deadline** | | **Fees (USD)** | **Select** |
| NILPT-3341 | Determination of maximum force for textiles | | Textile | | Maximum force(strip method) | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3342 | Determination of tear force using ballistic pendulum method for textiles | | Textile | | Tear force(ballistic pendulum method) | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3346 | Determination of pH in textile | | Textile | | pH | | Jul., 2022 | | 300 +  carriage | □ |
| NILPT-3347 | Determination of formaldehyde in textile (water extraction method) | | Textile | | Formaldehyde | | Aug., 2022 | | 300 +  carriage | □ |
| **RoHS** | | | | | | | | | | |
| **Serial No** | **Title** | | **Test object** | | **Test items** | | **Registration deadline** | | **Fees (USD)** | **Select** |
| NILPT-3359 | Restricted substances in electronic and electrical products – Determination of Pb content in copper and copper alloys | | Electronic and electrical products – copper and copper alloys | | Pb | | Jun., 2022 | | 320 +  carriage | □ |
| NILPT-3360 | Restricted substances in electronic and electrical products – Determination of Pb and Cd content in aluminum and aluminum alloys | | Electronic and electrical products – aluminum and aluminum alloys | | Pb, Cd | | Jun., 2022 | | 320 +  carriage | □ |
| NILPT-3361 | Restricted substances in electronic and electrical products – Determination of Pb and Cd content in zinc and zinc alloys | | Electronic and electrical products – zinc and zinc alloys | | Pb, Cd | | Jun., 2022 | | 320 +  carriage | □ |
| NILPT-3362 | Restricted substances in electronic and electrical products – Determination of noxious substance content in ABS | | Electronic and electrical products – ABS | | Pb, Cd, Hg, Br | | Jul., 2022 | | 400 +  carriage | □ |
| NILPT-3364 | Restricted substances in electronic and electrical products – Determination of flame retardant content in plastic | | Electronic and electrical products – plastic | | BDE-209 | | Jul., 2022 | | 400 +  carriage | □ |
| **Plastic** | | | | | | | | | | |
| **Serial No** | **Title** | | **Test object** | | **Test items** | | **Registration deadline** | | **Fees (USD)** | **Select** |
| NILPT-3365 | Determination of phthalate plasticizers in plastic toy | | Plastic toy materials | | DBP, DEHP, BBP, DINP, DIDP,DNOP | | Aug.2022 | | 450 +  carriage | □ |
| NILPT-3367 | Determination of the melt mass-flow rate (MFR) of thermoplastics(ISO 1133-1) | | Plastics | | MFR | | Jul.2022 | | 450 +  carriage | □ |
| NILPT-3370 | Determination of vicat softening temperature of plastics（ISO 306） | | Plastics | | vicat softening temperature | | Jul.2022 | | 550+  carriage | □ |
| NILPT-3374 | Determination of density of plastic (ISO 1183-1,method A-Immersion method) | | Plastics | | Density | | Jul.2022 | | 450+  carriage | □ |
| NILPT-3375 | Determination of charpy impact properties of plastic (ISO 179-1) | | Plastics | | Charpy notched impact strength | | Jul.2022 | | 550+  carriage | □ |
| NILPT-3376 | Determination of tensile properties of plastic (ISO 527-1/-2) | | Plastics | | stress at yield, strength, stress at 5% strain, strain at yield | | Jul.2022 | | 550+  carriage | □ |
| **Microstructure of metal Materials** | | | | | | | | | | |
| **Serial No** | **Title** | | **Test object** | | **Test items** | | **Registration deadline** | | **Fees (USD)** | **Select** |
| NIL PT-3394 | Determination of average grain size in metallic materials(only for Intercept Procedure) | | Steel(Photo) | | Grain size number | | Apr. 2022 | | 300+  carriage | □ |
| NIL PT-3395 | Determination of average grain size in metallic materials(only for Intercept Procedure) | | Steel(Material object) | | Grain size number | | Aug. 2022 | | 450+  carriage | □ |
| NILPT-3397 | Determination of average grain size in aluminiumalloy(only for Intercept Procedure) | | Aluminium alloy(Photo) | | Grain size number | | Jul. 2022 | | 300+  carriage | □ |
| NILPT-3400 | Determination of depth of decarburization of steels | | Steel | | Depth of total decarburization,Depth of complete decarburization | | Jul. 2022 | | 400+  carriage | □ |
| **Mechanical Properties for metal Materials(special for ISO standard)** | | | | | | | | | | | |
|  | | | | | | | | | | | |
| **Serial No** | **Title** | | **Test object** | **Test items** | | **Registration deadline** | | **Fees (USD)** | | **Select** | |
| NILPT-3425-1 | Brinell hardness test for metallic materials(only for ISO 6506-1) | | Steel | HBW 2.5/187.5 | | May.2022 | | 450+  carriage | | □ | |
| NILPT-3425-2 | Brinell hardness test for metallic materials(only for ISO 6506-1) | | Steel | HBW 2.5/187.5 | | Sept.2022 | | 450+  carriage | | □ | |
| NILPT-3426-1 | Brinell hardness test for metallic materials(only for ISO 6506-1) | | Steel | HBW 5/750 | | Apr.2022 | | 450+  carriage | | □ | |
| NILPT-3426-2 | Brinell hardness test for metallic materials(only for ISO 6506-1) | | Steel | HBW 5/750 | | Aug.2022 | | 450+  carriage | | □ | |
| NILPT-3427-1 | Brinell hardness test for metallic materials(only for ISO 6506-1) | | Steel | HBW 10/3000 | | Apr.2022 | | 450+  carriage | | □ | |
| NILPT-3427-2 | Brinell hardness test for metallic materials(only for ISO 6506-1) | | Steel | HBW 10/3000 | | Aug.2022 | | 450+  carriage | | □ | |
| NIL PT-3428 | Rockwell hardness test for metallic materials  (only for ISO 6508-1) | | Steel | HRA | | Apr.2022 | | 450+  carriage | | □ | |
| NILPT-3429-1 | Rockwell hardness test for metallic materials  (only for ISO 6508-1) | | Steel | HRB | | Apr.2022 | | 450+  carriage | | □ | |
| NILPT-3429-2 | Rockwell hardness test for metallic materials  (only for ISO 6508-1) | | Steel | HRB | | Aug.2022 | | 450+  carriage | | □ | |
| NILPT-3430-1 | Rockwell hardness test for metallic materials  (only for ISO 6508-1) | | Steel | HRC | | Apr.2022 | | 450+  carriage | | □ | |
| NILPT-3430-2 | Rockwell hardness test for metallic materials  (only for ISO 6508-1) | | Steel | HRC | | Jun.2022 | | 450+  carriage | | □ | |
| NILPT-3430-3 | Rockwell hardness test for metallic materials  (only for ISO 6508-1) | | Steel | HRC | | Sept.2022 | | 450+  carriage | | □ | |
| NIL PT-3431 | Vickers hardness test for metallic materials  (only for ISO 6507-1) | | Steel | HV0.2 | | Sept.2022 | | 500+  carriage | | □ | |
| NIL PT-3432 | Vickers hardness test for metallic materials  (only for ISO 6507-1) | | Steel | HV5 | | Aug.2022 | | 450+  carriage | | □ | |
| NILPT-3433-1 | Vickers hardness test for metallic materials  (only for ISO 6507-1) | | Steel | HV10 | | Apr.2022 | | 450+  carriage | | □ | |
| NILPT-3433-2 | Vickers hardness test for metallic materials  (only for ISO 6507-1) | | Steel | HV10 | | Aug.2022 | | 450+  carriage | | □ | |
| NIL PT-3435-1 | Room temperature tensile test for metallic materials (Recommended testing machine: 100kN~300kN. Diameter of sample: Φ10mm, M16 normal screw threaded both ends. Matched chucking heads are required. only for ISO 6892-1 ) | | Steel | *R*m*, R*eL*, A, Z,R*p0.2 | | Mar.2022 | | 600+  carriage | | □ | |
| NIL PT-3435-2 | Room temperature tensile test for metallic materials (Recommended testing machine: 100kN~300kN. Diameter of sample: Φ10mm, M16 normal screw threaded both ends. Matched chucking heads are required. only for ISO 6892-1) | | Steel | *R*m*, R*eL*, A, Z,R*p0.2 | | Sept.2022 | | 600+  carriage | | □ | |
| NIL PT-3436 | Room temperature tensile test for metallic materials (Recommended testing machine: 20kN~50kN. Diameter of sample: Φ5mm, M12 normal screw threaded both ends. Matched chucking heads are required. only for ISO 6892-1 ) | | Steel | *R*m*, R*eL*, A, Z,R*p0.2 | | May.2022 | | 600+  carriage | | □ | |
| NIL PT-3437 | Room temperature tensile test for metallic materials (Recommended testing machine: 50kN~100kN. Diameter of sample: Φ8mm, M14 normal screw threaded both ends. Matched chucking heads are required. only for ISO 6892-1 ) | | Steel | *R*m*, R*eL*, A, Z,R*p0.2 | | Jun.2022 | | 600+  carriage | | □ | |
| NIL PT-3438 | Room temperature tensile test for metallic materials (Recommended testing machine: 300kN~1000kN.Diameter of sample: Φ20mm, Diameter of terminal end: Φ27mm. only for ISO 6892-1) | | Steel | *R*m*, R*eL*, A, Z,R*p0.2 | | Aug.2022 | | 600+  carriage | | ☑ | |
| NILPT-3127-1 | Room temperature tensile test for hot rolled ribbed steel bars (Recommended testing machine: 300kN~1000kN. only for ISO 6892-1) | | Hot rolled ribbed steel bars | *R*m*, R*eL*, A,* | | Mar.2022 | | 550+  carriage | | □ | |
| NILPT-3127-2 | Room temperature tensile test for hot rolled ribbed steel bars (Recommended testing machine: 300kN~1000kN. Only for ISO 6892-1) | | Hot rolled ribbed steel bars | *R*m*, R*eL*, A,* | | Sept.2022 | | 550+  carriage | | □ | |
| NIL PT-3439 | Room temperature tensile test for cold-rolled plate of metallic materials (Recommended testing machine: 20kN~50kN. only for ISO 6892-1) | | Steel-cold rolled plate | *R*m*, A, R*p0.2 | | May.2022 | | 550+  carriage | | □ | |
| NIL PT-3440 | Room temperature tensile test for hot-rolled plate of metallic materials (Recommended testing machine: 100kN~300kN. only for ISO 6892-1) | | Steel-hot rolled plate | *R*m*, R*eL*, A, R*p0.2 | | Apr.2022 | | 550+  carriage | | □ | |
| NIL PT-3441 | Room temperature tensile test for hot-rolled plate of metallic materials (Recommended testing machine: 300kN~600kN. only for ISO 6892-1) | | Steel-hot rolled plate | *R*m*, R*eL*, A, R*p0.2 | | Aug.2022 | | 550+  carriage | | □ | |
| NIL PT-3442 | Elevated temperature tensile test for metallic materials (Recommended testing machine: 50kN~100kN.Diameter of sample: Φ5mm, M10 or M12 normal screw threaded both ends. Matched chucking heads are required. Temperature: ≥300℃. only for ISO 6892-2） | | Steel | *R*m*, A, Z,R*p0.2 | | Jun.2022 | | 600+  carriage | | □ | |
| NIL PT-3444 | Room temperature tensile test for aluminum alloy sheet (Recommended testing machine: 20kN~50kN. only for ISO 6892-1） | | Aluminum alloy | *R*m*, A, R*p0.2 | | Jul.2022 | | 550+  carriage | | □ | |
| NIL PT-3445 | Room temperature tensile test for aluminum alloy steel bars (Recommended testing machine: 20kN~50kN. only for ISO 6892-1） | | Aluminum alloy bars | *R*m*, A, Z ,R*p0.2 | | Jul.2022 | | 550+  carriage | | □ | |
| NIL PT-3447 | Charpy impact test for metallic materials (Striker R=2mm.U notch. Recommended testing machine: ≥150J. only for ISO 148-1) | | Steel | Impact Absorbed Energy *KU*2 | | Mar.2022 | | 500+  carriage | | □ | |
| NIL PT-3448 | Charpy impact test for metallic materials (Striker R=2mm. U notch. Recommended testing machine: ≥300J. only for ISO 148-1) | | Steel | Impact Absorbed Energy *KU*2 | | Sept.2022 | | 500+  carriage | | □ | |
| NIL PT-3449 | Low-temperature Charpy impact test for metallic materials (Striker R=2mm.U notch. Recommended testing machine: ≥150J. only for ISO 148-1) | | Steel | Impact Absorbed Energy *KU*2 | | Aug.2022 | | 500+  carriage | | □ | |
| NIL PT-3450 | Charpy impact test for metallic materials (Striker R=2mm. V notch. Recommended testing machine: ≥150J. only for ISO 148-1) | | Steel | Impact Absorbed Energy *KV*2 | | Apr. 2022 | | 500+  carriage | | □ | |
| NIL PT-3451 | Charpy impact test for metallic materials (Striker R=2mm. V notch. Recommended testing machine: ≥300J. only for ISO 148-1) | | Steel | Impact Absorbed Energy *KV*2 | | Sept. 2022 | | 500+  carriage | | □ | |
| **Mechanical Properties for Materials (Special for ASTM standard)** | | | | | | | | | | | |
| **Serial No** | **Title** | | **Test object** | **Test items** | | **Registration deadline** | | **Fees (USD)** | | **Select** | |
| NILPT-3462 | Room temperature tensile test for metallic materials  (Recommended testing machine:  100kN~300kN. Diameter of sample: Φ12.5mm. only for ASTM E8/E8M) | | Steel | tensile strength ,  lower yield strength, elongation after fracture, reduction of area | | Aug. 2022 | | 650+  carriage | | □ | |
| NILPT-3463 | Elevated temperature tensile test for metallic material (Recommended testing machine: 50kN~100kN. Diameter of sample: Φ6mm, M12 normal screw threaded both ends. Matched chucking heads are required. Temperature: ≥300℃. only for ASTM E21） | | Steel | tensile strength ,  yield strength (offset =0.2%), elongation after fracture, reduction of area | | Aug. 2022 | | 650+  carriage | | □ | |
| NILPT-3464 | Charpy impact test for metallic materials (Striker R=8mm. V notch. Recommended testing machine: ≥150J. only for ASTM E23) | | Steel | Impact Absorbed Energy | | Aug. 2022 | | 550+  carriage | | □ | |
| NIL PT-3465 | Brinell hardness test for metallic materials(for ASTM E10) | | Steel | HBW 10/3000 | | Sept.2022 | | 550+  carriage | | □ | |
| NIL PT-3466 | Rockwell hardness test for metallic materials(for ASTM E18) | | Steel | HRC | | Sept.2022 | | 550+  carriage | | □ | |
| NIL PT-3467 | Vickers hardness test for metallic materials(for ASTM E92) | | Steel | HV10 | | Sept.2022 | | 600+  carriage | | □ | |
| **Microstructure of metal Materials (Special for ASTM standard)** | | | | | | | | | | | |
| **Serial No** | **Title** | | **Test object** | **Test items** | | **Registration deadline** | | **Fees (USD)** | | **Select** | |
| NILPT-3468 | Determination of average grain size in metallic materials (Recommendation for Intercept Procedure. for ASTM E112) | | Steel(Material object) | Grain size number | | Aug. 2022 | | 450+  carriage | | □ | |
| **Non-destructive Test for Metallic Material** | | | | | | | | | | | |
| **Serial No** | **Title** | | **Test object** | **Test items** | | **Registration deadline** | | **Fees (USD)** | | **Select** | |
| NILPT-3477 | Non-destructive tesitng of welds (Ultrasonic testing) | | Steel Plate | Location of indication, length of indication | | Jul. 2022 | | 500+  carriage | | □ | |

**\*Note: For NIL PT-3032-1, NIL PT-3032-2, NIL PT-3032-3, NIL PT-3033-1, NIL PT-3033-2, NIL PT-3037-1, NIL PT-3037-2, NIL PT-3039,NIL PT-3054, NIL PT-3055-1, NIL PT-3055-2, NIL PT-3058, two kinds of samples (discs and chips) are available for different methods(chips sample is available for ICP-AES or Gravimetric Method etc., discs sample is available for XRF or spark-OES method etc.) .**

**Please choose the kind of samples you would like to receive in the registration form.**

**SOME USEFUL INFORMATION OF THE SCHEMES**

## \* How to participate our PT schemes

***Please select the PT schemes in the table 1 and send the order to*** [nil@analysis.org.cn](mailto:nil@analysis.org.cn)

**Information of Laboratory**

Name of Laboratory:

Postal Address & Zip Code:

Contact Person: Country:

E-mail:

Tel:Fax:

**China NIL Research Center for Proficiency Testing**

**Address: No 13GaoliangqiaoXieJie, Haidian District, Beijing 100081, P. R. China**

**Contact Person: Ms. CHEN Jinghua, Ms. YAN Dongxia**

**Fax: +86 10 6218 1163; Phone: +86 10 6218 1064**

**E-mail:** [nil@analysis.org.cn](mailto:nil@analysis.org.cn)

**Website:** <http://english.nil.org.cn>

## \* Test samples (or specimens)

After NIL receives the orders and payments from the participants, test samples will be distributed along with “INSTRUCTIONS TO PARTICIPANTS”, “RESULT SHEET” and “ATC code” to the laboratories participating in the scheme. Some of the samples are prepared and tested for homogeneity by the Standard Material Research Center of CISRI (Central Iron & Steel Research Institute).

## \* Testing method

The samples will be tested by the participant's preferred methods, which are generally used for providing formal reports. However, it is preferable to use international or national consensus standard methods. If a standard method is used, please provide its title name and serial number.

## \* Registration fees

Registration fees should be paid as soon as the laboratory receives invoice from NIL. An invoice will be forwarded to the participating laboratory together with the samples.