The followings are facilities which are provided for shared use to any person who engages in scientific and technological research and development outside the National Institute for Materials Science.

(※ : Available Use for The Nanotechnology Platform Program: by Ministry of Education, Culture, Sports and Technology.)

1. Research Network and Facility Services Division
   1) Materials Manufacturing and Engineering Station
      1. Cold crucible levitation melting furnace
      2. 5kg vacuum induction furnace
      3. 20kg vacuum induction furnace
      4. Pressure electro slag remelting furnace
      5. Forging machine
      6. 2Hi hot rolling machine
      7. Caliber rolling machine
      8. 4Hi cold rolling machine
      9. 70ton swaging machine
     10. 18ton swaging machine
     11. Furnace for forging and rolling(max.1,250℃)
     12. Movable furnace for forging and rolling(max.1,200℃)
     13. Deformation rate control caliber rolling machine
     14. Furnace for caliber rolling(max.1,250℃)
     15. Furnace(max.1,400℃)
     16. Furnace for annealing(max.850℃)
     17. Electron beam welding machine
     18. Lath cutting machine for glass working
     19. High vacuum evacuation device for glass working

Inquiry about Materials Manufacturing and Engineering Station
E-Mail: NAKAMURA.Terumi=nims.go.jp (Please change [ = ] to [ @ ])
Please see this site: http://www.nims.go.jp/gwsp1/index-e.html
2) Materials Analysis Station

1. Glow Discharge Mass Spectrometer (GDMS)
2. Micro Energy Dispersive X-ray Fluorescence Spectrometer (Micro-EDXRF)
3. Sequential Type Inductively Coupled Plasma Optical Emission Spectrometer (Sequential Type ICP-OES)
4. Simultaneous Type Inductively Coupled Plasma Optical Emission Spectrometer (Simultaneous Type ICP-OES)
5. Double wavelength CCD-type single crystal diffractometer with low-temperature equipment (DW CCD diffractometer with LT)
6. Field Emission Electron Probe Micro-Analyzer (FE-EPMA)
7. Ultra Low Voltage Field Emission Scanning Electron Microscope (Low Voltage FE-SEM)
9. Cross-section Polisher (CP)
10. Scanning Auger Electron Microprobe (CHA Type AES) (JAMP-9500F)
11. Scanning Auger Electron Microprobe (CMA Type AES) (PHI 680) ※
12. X-ray Photoelectron Spectroscopy (Micro-XPS)
15. Field Emission Scanning Electron Microscope (FE-SEM) (JSM-6500F)
16. Scanning Electron Microprobe (JSM-6510)
17. Nitrogen/Oxygen Determination (LECO TC650) · Hydrogen Determination (LECO RH404) · Carbon/Sulfur Determination (LECO CS444LS)
18. Inductively Coupled Plasma Atomic Emission Spectrometer (720 ICP-OES)
19. Double Focusing Magnetic Sector Field ICP-MS
20. Femtosecond Laser System
21. Inductively Coupled Plasma Optical Emission Spectrometer (Sequential Type ICP-OES)
22. LT/HT Powder X-ray diffractometer
23. High-power and high-sensitivity type powder X-ray diffractometer
24. Compact type powder X-ray diffractometer
25. Time-of-flight Secondary Ion Mass Spectrometry (TOF-SIMS) ※
26. High-sensitivity type powder X-ray diffractometer
27. Ion chromatograph system
Inquiry about Materials Analysis Station
E-Mail: analysis=nims.go.jp (Please change [ = ] to [ @ ])

3) Transmission Electron Microscopy Station
1. Real working environment physical characterization TEM(JEM-ARM200F) ※
2. 300kV transmission electron microscope(Tecnai G2 F30) ※
3. 200 kV field-emission transmission electron microscope(JEM-2100F1) ※
4. 200 kV field-emission transmission electron microscope(JEM-2100F2) ※
5. 200kV transmission electron microscope(JEM-2100) ※
6. Focused Ion Beam systems (JEM-9320FIB, JEM-9310FIB1, JEM-9310FIB2, JIB-4000) ※
7. Field emission scanning electron microscope(JSM-7000F) ※
8. 200kV transmission electron microscope(JEM-2000FX) ※
9. Ultramicrotome(Leica EM UC6) ※
10. HRTEM Analysis system ※
11. Electron tomography analysis system
12. TEM sample preparation apparatus ※
13. 300kV field emission transmission electron microscope(JEM-3000F) ※
14. High voltage transmission electron microscope(JEM-ARM1000)
15. Atomic-resolution analytical electron microscope(FEI-Titan Cubed) ※
16. Scanning transmission electron microscope(HD-2300C)
17. Cold-FEG transmission electron microscope(HF-3000S) ※
18. Cold-FEG Lorentz microscope(HF-3000L) ※
19. 100kV transmission electron microscope(JEM-1010)
20. 200kV transmission electron microscope(JEM-2000EX)
21. Ultrahigh vacuum transmission electron microscope(JEM2000VF)
22. Dual Beam system ※

Inquiry about Transmission Electron Microscopy Station
E-Mail: TAKEGUCHI.Masaki=nims.go.jp (Please change [ = ] to [ @ ])
Please see this site: http://www.nims.go.jp/tem/eng/
(※ : Available Use for The Nanotechnology Platform Program; by Ministry Education, Culture, Sports and Technology.
Please see this site: http://www.nims.go.jp/nmcp/eng/index.html)

4) Synchrotron X-ray Station At SPring-8
1. Hard x-ray photoelectron spectrometer with an automatic sample exchange
2. Hard X-ray Photoelectron Spectrometer ※
3. High-resolution X-ray powder diffractometer ※
4. 8-axis diffractometer for structural analysis of functional thin films ※

Inquiry about Synchrotron X-ray Station At SPring-8
E-Mail: BL15XUoffice=ml.nims.go.jp (Please change [=] to [@])
Please see this site: http://www.nims.go.jp/webram/index_e.html

5) High Magnetic Field Station
1. Hybrid Magnet
2. Water-Cooled Magnet
3. 18T Superconducting Magnet
4. 15T Split-Paired Magnet
5. 10T Cryocooler-Cooled Magnet
6. Vibrating Sample Magnetometer (VSM)
7. 12T Cryocooler-Cooled Magnet
8. 20T Superconducting Magnet with dilution refrigerator
9. 20T Superconducting Magnet with 3He cryostat
10. 17T Superconducting Magnet with 4He VTI cryostat
11. 500 MHz Solid-State NMR (I) ※
12. 500 MHz Solid-State NMR (II) ※
13. 300 MHz Solid-State NMR
14. 930MHz Solid-State NMR Magnet
15. Advanced magneto-optical system
16. 800MHz Solid-State NMR ※
17. Large Bore 17T Magnet
18. Cryocoil MAS Probe
19. Devices for optical observation and control of material processings under high magnetic fields

Inquiry about High Magnetic Field Station
E-Mail: SHIMIZU.Tadashi=nims.go.jp (Please change [=] to [@])
Please see this site: http://www.nims.go.jp/TML/english/
(※ : Available Use for The Nanotechnology Platform Program: by Ministry Education,
6) Nanotechnology Innovation Station --- Nano-fabrication Group

1. 100kV-EB Writer  ※
2. Laser Lithography System  ※
3. Mask Aligner  ※
4. Nano-Imprint Lithography System  ※
5. Automatic Sputtering System  ※
6. UHV Sputtering System  ※
7. E-gun Evaporator  ※
8. UHV E-gun Evaporator  ※
9. Atomic Layer Deposition System  ※
10. Plasma-Enhanced CVD System  ※
11. CCP-RIE System  ※
12. ICP-RIE System  ※
13. Silicon Deep-RIE System  ※
14. High Power ICP-RIE System  ※
15. FIB-SEM Dual Beam System  ※
16. Rapid Thermal Annealing System  ※
17. Thermal Oxidation and Annealing Furnace  ※
18. FE-SEM  ※
19. Atomic Force Microscope  ※
20. 3D Measurement Laser Microscope  ※
21. Dicing Saw  ※
22. Automatic Scriber  ※
23. Chemical Mechanical Polishier  ※
24. Wire Bonder  ※
25. Room Temperature Probing System  ※
26. Cryogenic Probing System  ※
27. 125kV-EB Writer  ※
28. Maskless Lithography System  ※
29. Wet Station  ※
30. CAD System  ※
31. Clean Room  ※
32. Wafer RTA system  ※
33. High-pressure jet liftoff system ※
34. XPS (X-ray Photoelectron Spectroscopy)
35. Spectroscopic Elipsometer
36. FE-SEM+EDX
37. Surface Profilometer
38. E-beam Evaporator
39. Resistive Heating Evaporator
40. Sputtering System #1
41. Sputtering System #2
42. Pulsed Laser Deposition System (PLD)
43. Atomic Layer Deposition System (ALD)
44. E-beam Drawing System
45. Contact mask aligner
46. Dry Etching System
47. Plasma Asher
48. Focused Ion Beam System
49. Dicing Saw
50. Room Temperature Prober
51. Low Temperature Prober
52. Wire Bonder
53. RTA (Rapid Thermal Annealing Furnace: 6 inch)
54. RTA (Rapid Thermal Annealing Furnace: 20 mm)
55. Oxidation Furnace
56. Cleanroom at Namiki-site
57. Atomic Force Microscopy

E-Mail: HANAGATA.Nobutaka@nims.go.jp (Please change [ = ] to [ @ ])
(※: Available Use for The Nanotechnology Platform Program; by Ministry Education,
Culture, Sports and Technology.
Inquiry about Nanofabrication Platform
E-Mail: NIF-office@nims.go.jp (Please change [at] to [ @ ])
Please see this site: http://www.nims.go.jp/nfp/

7) Nanotechnology Innovation Station --- Nano-biotechnology Group
   1. LC/MS/MS
   2. Confocal laser scanning fluorescence microscope
   3. NMR
4. Total Internal Reflection Fluorescence Microscope
5. Nano-search microscope
6. Raman microscope
7. Real time PCR
8. Surface plasmon resonance analyzer (Biacore)
9. Circular dichroism spectropolarimeter
10. Recycling GPC
11. Desk Top Electron Microscope
12. Freezing microtome
13. Plate reader
14. Glove Box
15. LC/MS/MS (Q-exactive)
16. Microarray scanner
17. Laser Micro Dissection system
18. Cell sorter and analyzer
19. Fluorescent Microscopes
20. Bio-molecule centrifuges and chromatographs
21. Material preparation instruments
22. Material analysis instruments
23. Photometers
24. Nanomaterial analysis instruments
25. Analytical GPCs
26. FT-IR spectrometer

E-Mail: HANAGATA.Nobutaka=nims.go.jp (Please change [ = ] to [ @ ] )

(※ : Available Use for The Nanotechnology Platform Program; by Ministry Education, Culture, Sports and Technology.
Inquiry about Molecules and Materials Synthesis Platform
E-Mail: SML/office[at]nims.go.jp (Please change [at ] to [ @ ] )
Please see this site: http://www.nims.go.jp/mmsp/en/

8) Microstructural Characterization Platform
1. Low Temperature Scanning Tunneling Microscope with superconducting magnets
2. Environment-Control Frequency-Modulation Scanning Probe Microscope
3. Real working environmental electron holography microscope
4. Multifunction Scanning Probe Microscope
5. Atom-discriminating electron microscope (JEM-3100FEF)
6. Ceramics sample preparation facilities
7. Focused ion beam system (Hitachi FB-2000S)
8. Low Temperature Scanning Tunneling Microscope
9. 3D multi-scale triple-beam analytical microscope
10. Damage-less TEM specimen milling apparatus
11. Microfocus X-ray CT
12. Helium Ion Microscope
13. Surface area and pore size analyzer by gas sorption
14. Spin-polarized low energy electron microscope

Inquiry about Microstructural Characterization Platform
E-Mail: nims-hub=nims.go.jp (Please change [ = ] to [ @ ])
Please see this site: http://www.nims.go.jp/nmcp/eng/index.html

2. Center for Research on Energy and Environmental Materials Division --- Battery Research Platform
1. Super-Dry Room
2. Cell Assembly Equipment
3. FTIR
4. Laser Raman Microscope
5. Ellipsometer
7. TG/MS
8. Compact SEM
9. Laser Microscope
10. Viscometer
11. Battery Charge/Discharge System
12. Precision Electrochemical Measurement System
13. Single-Particle Measurement System
14. ICP/MS
15. LC/MS
16. Ion Chromatography
17. O2,N2,H2 analyzer
18. GD-OES
19. GC/MS
20. Mass Spectroscopy
21. XRF
22. XPS
23. HAXPES
24. XRD
25. BET
26. Particle Size Analyzer
27. Environment-controlled SPM
28. TOF-SIMS
29. TEM/STEM
30. FIB
31. FIB-SEM
32. SEM
33. Scanning Auger Electron Spectroscopy
34. Cross-section polisher

Inquiry about Battery Research Platform
E-Mail: Battery-PF[at]nims.go.jp (Please change [at ] to [ @ ])
Please see this site: http://www.nims.go.jp/brp/nims/en/index.html

3. Center for Materials Research by Information Integration Division --- Data Platform
   1. NIMS Materials Database (MatNavi)

Inquiry about Data Platform
E-Mail: matnavi-ss[=]ml.nims.go.jp (Please change [=] to [@])
Please see this site: http://mits.nims.go.jp/en