The 9th International Colloquium on Scanning Probe Microscopy
Condensed Program

12/6 (Thu.)	12/7 (Fri.)	12/8 (Sat.)
	Session 5 (8:00-10:20)	Session 9 (08:30-10:15)
	08:00-08:40 S5-1 (Invited-S)	08:30-09:00 S9-1 (Invited)
	08:40-09:20 S5-2 (Invited-S)	09:00-09:15 S9-2
	09:20-09:35 S5-3	09:15-09:30 S9-3
	09:35-09:50 S5-4	09:30-09:45 S9-4
	09:50-10:05 S5-5	09:45-10:00 S9-5
	10:05-10:20 S5-6	10:00-10:15 S9-6
	Break (10:20-10:35)	Break (10:15-10:30)
	Session 6 (10:35-12:15)	Session 10 (10:30-12:15)
	10:35-11:15 S6-1 (Invited-S)	10:30-11:00 S10-1 (Invited)
	11:15-11:30 S6-2	11:00-11:15 S10-2
	11:30-11:45 S6-3	11:15-11:30 S10-3
	11:45-12:00 S6-4	11:30-11:45 S10-4
	12:00-12:15 S6-5	11:45-12:00 S10-5
	Lunch (12:15-13:05)	12:00-12:15 S10-6
	Session 7 (13:15-15:25)	Closing Remark (12:15-12:30)
	13:15-13:55 S7-1 (Invited-S)	
Opening (14:00-14:10)	13:55-14:25 S7-2 (Invited)	
Session 1 (14:10-15:20)	14:25-14:40 S7-3	
14:10-14:50 S1-1 (Invited-S)	14:40-14:55 S7-4	
14:50-15:20 S1-2 (Invited)	14:55-15:10 S7-5	
Break (15:20-15:40)	15:10-15:25 S7-6	
Session 2 (15:35-16:50)	Break (15:25-15:40)	
15:35-16:05 S2-1 (Invited)	Session 8 (15:40-17:25)	
16:05-16:35 S2-2 (Invited)	15:40-16:10 S8-1 (Invited)	
16:35-16:50 S2-3	16:10-16:25 S8-2	
Session 3 (16:50-17:35)	16:25-16:40 S8-3	
Short Presentation by Exhibitors	16:40-16:55 S8-4	
Dinner(18:00-19:20)	16:55-17:10 S8-5	
Session 4 (19:30-21:30)	17:10-17:25 S8-6	
Poster Session	Banquet (19:00-)	

The 9th International Colloquium on Scanning Probe Microscopy

薄膜・表面物理分科会特別研究会「走査型プローブ顕微鏡（15)」

Atagawa, 2001.12.6-8

organized by
Thin Film and Surface Physics Division of Japan Society of Applied Physics

sponsored by
Japan Society of Applied Physics

December 6 (Thursday)

14:00-14:10 Opening ***(K. Uozumi)***

ORAL: INVITED-S (35+5min), INVITED (25+5min), GENERAL (10+5min)

14:10-15:20 Session 1 ***(H. Shigekawa)***

S1-1 (INVITED-S)

Simulations on Formation and Observation of Nano-scale Objects
K. Terakura (RICS /AIST)

S1-2 (INVITED)

Synthesis and Properties of New Superconductors with Layered and Cage Structures
S. Yamanaka (Hiroshima Univ.)

15:20-15:35 Break

15:35-16:50 Session 2 ***(M. Kageshima)***

S2-1 (INVITED)

Nanometry of Single Motor Proteins, Kineshin
H. Higuchi (Tohoku Univ.)

S2-2 (INVITED)

Single-Molecule Physiology under an Optical Microscope:
How Molecular Machines May Work
K. Kinosita. Jr. (Inst. Mol. Sci. and Teikyo Univ.)

S2-3

DNA Spin Mapping-Observation of Spin States in Biomolecules by Probe Microscope
M. Sawamura[1,2], H. Hosoi[1,2], A. Subagyo[2], K. Sueoka[2] and K. Mukasa[2]
([1]CAST, [2]Hokkaido Univ.)

16:50-17:35 Session 3 ***(O. Takeuchi)***

Short Presentation by Exhibitors

1. Tokyo Instruments Inc. ((株）東京インスツルメンツ)
   NT-MDT SPM
2. Unisoku Co., Ltd. ((株) ユニソク)
   Unisoku SPM systems
3. JEOL Ltd. (日本電子(株))
   Introduction to the JEOL SPM series
4. ULVAC-PHI, INC. (アルバック・ファイ(株))
   UHV-AFM, High Performance Multi-Technique SPM for Nanotechnology Resarch

5. Olympus Optical Corp. Ltd. (**オリンパスプロマーケティング (株)**)
   Fishing a Molecule with the Molecular Force Microscope NVB2000
6. SHIMADZU CORPORATION ((**株) 島津製作所**)
   Introduction of Ambient SPM and Environment Controlled SPM
7. NIHON VEECO K.K. (**日本ビーコ(株)**)
   Digital Instruments SPM and ^{TM}Microscope SPM
   New Technology of DI SPM
8. Kyoto Instruments ((**資)京都インスツルメンツ**)
   Introduction of AFM Extender
9. TOYO Corporation ((**株)東陽テクニカ**)
   Nano-R ; Nano Metrology system
10. Seiko Instruments Inc (**セイコーインスツルメンツ(株)**)
    Scanning Probe Microscope System SPI3800N Series

18:00-19:20 Diner

19:30-21:30 Session 4 *------Poster------*

POSTER: width = 180 cm, height = 100 cm

December 7 (Friday)

8:00-10:20 Session 5 *(T. Yamada)*

S5-1 (INVITED-S)

Nanomechanics:A Road to Future Technologies
C. Gerber (IBM Zurich)

S5-2 (INVITED-S)

Single Molecular Switches
Weiss P. S. (Pennsylvania State Univ.)

S5-3

Acetate Molecules Aligned in the Formate Monolayer Prepared on the TiO_2(110) Surface
H. Uetsuka, A. Sasahara and H. Onishi (KAST)

S5-4

Inelastic Tunneling Spectroscopy Water and Hydrocarbon Molecule on Metal Surface
H. Fukidome, Y. Kim, T. Komeda, M. Kawai (RIKEN)

S5-5

Chemical Reaction Through Vibrationnal Heating with Tunneling Electrons; Dehydrogenation of Trans-2-Butene Adsorbed on Pd(110)
Y. Kim, T. Komeda, M. Kawai (RIKEN)

S5-6

Tunneling Current-Induced Motions of a Single Molecule on Pd(110)
Y. Sainoo[1], Y. Kim[2], H. Fukidome[2], T. Komeda[2], M. Kawai[2] and H. Shigekawa[1]
([1] Univ. of Tsukuba and CREST, [2] RIKEN)

10:20-10:35 Break

10:35-12:15 Session 6 *(S. Hasegawa)*

S6-1 (INVITED-S)

Metal Contacts to Single Molecules
Lindsay S. M. (Arizona State Univ.)

S6-2

Electrical Conductance Measurement through $ErSi_2$ Nanowire Using Double-Probe Scanning Tunneling Microscopy
H. Tanaka[1], Y. Shingaya[1], T. Nakayama[1,2], and M. Aono[1,2,3]
([1]RIKEN, [2]JSTC, [3]Osaka Univ.)

S6-3

Current Imaging on InAs Wires by Contact-mode AFM
S. Ono[1], M. Takeuchi[2],and T. Takahashi[1]
([1]Univ. of Tokyo, [2]Inst. of Phy. and Chem. Reserch)

S6-4

Modification of Electron Density in Surface States: Standing Wave Observation on Pd Overlayers by STM
Y. Hasegawa[1] and T. Sakurai[2] ([1]Univ. of Tokyo, [2]Tohoku Univ.)

S6-5

Theoretical Study on Nanoscale Conduction through Surface States
K. Kobayashi (Ochanomizu Univ.)

12:15-13:05 Lunch

13:15-15:25 Session 7 ***(M. Yoshimura)***

S7-1 (INVITED-S)

Latest Perspectives on SiGe Quantum Dots: Formation, Stucture, Morphology, and Electrical Properties
M. G. Lagally (Univ. of Wisconsin-Madison)

S7-2 (INVITED)

Growth and Physics of Semiconductor Quantum Dots for Optoelectronics Applications
Y. Arakawa (Univ. of Tokyo)

S7-3

Atomic Structure of Ge/Si(113)-2x2 Reconstruction
K. Sumitomo[1], Z. Zhang[1], J. Nakamura[2], H. Omi[1], A. Natori[2], and T. Ogino[1]
([1]NTT Basic Research Lobaoratories, [2]Univ. of Electro-Comunications)

S7-4

Morphology of the Step Bunches on Si(111) Surface Patterned with Arrays of Holes
F. Lin, K. Sumitomo, H. Hibino, and T. Ogino (NTT Basic Research Laboratories)

S7-5

Fabrication of Single Hole Transistor on Hydrogen-terminated Diamond Using AFM Anodic Oxidation Process
H. Seo[1], M. Tachiki[1,2], T. Banno[1,2], Y. Sumikawa[1], H. Umezawa[1,2], H. Kawaraba[1,2]
([1]Waseda Univ., [2]CREST JST)

S7-6

High Resolution True UHV SEM for Nanotechnology
M. Maier and C. Wuelker (OMICRON)

15:25-15:40 Break

15:40-17:25 Session 8 ***(H. Onishi)***

S8-1 (INVITED)

Imaging, 3D-Measurement and Control of Atomic Force Using NC-AFM
S. Morita and Y. Sugawara (Osaka Univ.)

S8-2

Experimental Study on Energy Dissipation Induced by Displacement Current in Non-contact AFM Imaging of Molecular Thin Films
T. Fukuma[1], K. Umeda[1], K. Kobayashi[2], H. Yamada[1], K. Matsushige[1]
([1]Kyoto Univ., [2]International Innovation Center, Kyoto Univ.)

S8-3

Electrostatic Force Measurement with Atomic Resolution Using Noncontact Atomic Force Microscopy
K. Okamoto, Y. Sugawara, and S. Morita (Osaka Univ.)

S8-4

Photo-absorption Characterization on Surface InAs Nanostructures
Using Light-illuminated STM
K. Takada[1], M. Takeuchi[2], T. Takahashi[1] ([1]Univ. of Tokyo, [2]RIKEN)

S8-5

Adhesion Force Measurement for Hydrogen-terminated Diamond Surface and AFM Local Insulated Area
K. Sugata[1,2], M. Tachiki[1,2], Y. Kaibara[1] and H. Kawarada[1,2]
([1]Waseda Univ., [2]CREST JST)

S8-6

Nanoscale Characterization of Hydrogenated and Oxidized Bdoped Homoepitaxial Diamond by Conductive Atomic Force Microscopy
L. Zhang[1], T. Sakai[1,2], H. Yoshida[1,2], S. Yamanaka[3], and H. Okushi[3]
([1]Toshiba Corporation,[2] FCT project/JFCC, [3]AIST)

19:00- Banquet (Dinner Party)

December 8 (Saturday)

8:30-10:15 Session 9 *(K. Kobayashi)*

S9-1 (INVITED)

First and Second Order Resonance Raman Process in Graphite and Single Wall Carbon Nanotube
R. Saito[1], A. Grueneis[1], L. G. Cancado[2], M. A. Pimenta[2], A. Jorio[3], A. G. Souza Filho[4], G. Dresselhaus[3] and M. S. Dresselhaus[3]
([1]Univ. of Electro-Comm., [2]Univ. Federal de Minas Gerais, [3]MIT, [4]Univ. Federal do Ceará)

S9-2

Scanning Probe Microscope Lithography of Silicon Using a Combination of a Carbon Nanotube Tip and a Polysilane Film as a Mask
A. Okazaki, S. Akita and Y. Nakayama
(Osaka Prefecture Univ.)

S9-3

Carbon Nanotube Tip for Scanning Tunneling Microscopy-Improvement in Fabrication Process
H. Abe[1,2], W. Mizutani[1], T. Shimizu[1], A. Ando[3], H. Tokumoto[1], Y. Nakayama[4]
([1]AIST, [2]JST, [3]AIST-nanoelectronics Research Institute, [4]Osaka Prefecture Univ.)

S9-4

Quantitative Analysis of the Magnetic Properties of Metal Capped Carbon Nanotube Probe
N. Yoshida, T. Arie, S. Akita and Y. Nakayama
(Osaka Prefecture Univ.)

S9-5

Local Probing of Photothermal Vibrations with Dual-beam Heterodyne Optical Excitation
M. Tomoda and O. B. Wright (Hokkaido Univ.)

S9-6

Local Mapping of Thermal Properties with Optical Heterodyne Force Microscopy
N. Shiraishi[1], M. Tomoda[1], K. Inagaki[1], O. V. Kolosov[2] and O. B. Wright[1]
([1]Hokkaido Univ., [2]Univ. of Oxford)

10:15-10:30 Break

10:30-12:15 Session 10 ***(M. Tomitori)***

S10-1 (INVITED)

A High-speed Atomic Force Microscope for Observing Biological Macromolecules in Action
T. Ando[1], N. Kodera[1], D. Mqruyama[1], E. Takai[1], K. Saito[1] and A. Toda[2]
([1]Kanazawa Univ., [2]Olympus Co.)

S10-2

Millions of Nanocantilevers and Towards Atomic Force Microscopy up to 100 MHz
H. Kawakatsu, D. Saya, S. Kawai, A. Kato, H. Toshiyoshi and H. Fujita
(Univ. of Tokyo)

S10-3

Scanning Capacitance Force Microscopy
K. Kobayashi[1], H. Yamada[2], K. Matsushige[1,2]
([1]International Innovation Center, Kyoto Univ., [2]Kyoto Univ.)

S10-4

Prospect of Hybrid SNOM/STM with ITO/Au Coated Optical Fiber Probe
K. Nakajima[1], D. Fujita[2], M. Hara[1]
([1]RIKEN, [2]Nanophysics Research Group, Nanomaterials Labo)

S10-5

Nano-scale Optical Spectroscopic Studies of Local Electronic Structures in Semiconductors by Scanning Tunneling Microscopy
A. Hida, Y. Mera and K. Maeda (Univ. of Tokyo)

S10-6

Development of Femto-second Time-resolved Scanning Tunneling Microscopy
O. Takeuchi and H. Shigekawa (Univ. of Tsukuba, CREST)

12:15-12:30 Closing Remark ***(H. Asahi)***

Poster Session (December 6, 20:00-22:00)

1. Nanofabrication Using AFM Lithography for Molecular Devices.
   M. Kato, M. Ishibashi, S. Heike, T. Hasizume (ARL, Hitachi, Ltd.)

2. Fabrication Process of Fine Electrodes Using Shadow Mask Evaporation and Tip-induced Local Oxidation
   T. Akai[1], T. Abe[1], M. Ishibashi[2], M. Kato[2], S. Heike[2], T. Shimomura[1], T. Hashizume[2] and K. Ito[1]
   ([1]Univ. of Tokyo, [2]ARL, Hitachi, Ltd.)

3. The Atomic-scale Removal Mechanism During Si Tip Scratching on Si and SiO_2 Surfaces in Aqueous KOH with an Atomic Force Microscope
   F. Katsuki, A. Saguchi and W. Takahashi (Sumitomo Metal Ind., Ltd.)

4. Nano-patterning of Alkyl Monolayers Covalently Bound on Si(111) Surfaces with Atomic Force Microscopy
   M. Ara[1], H. Graaf[2], and H. Tada[1, 2] ([1]Graduate Univ. for Advanced Studies, [2]Institute for Molecular Science, Okazaki National Research Institutes)

5. Formation and Control of One-dimensional Nanostructure of C_{60} on Si(111)
   M. Nakaya[1, 2], T. Nakayama[1], A. Hashimoto[2], A. Yamamoto[2] and M. Aono[1, 3]
   ([1]RIKEN, [2]Fukui Univ., [3]Osaka Univ.)

6. Removal and Deposition of Silicon Atoms on Si(111)7x7 by Using Nearcontact Atomic Force Microscope
   N. Oyabu, M. Mikami, N. Nakata, Y. Sano, Y. Sugawara, S. Morita (Osaka Univ.)

7. Fabrication of Sharp Tetrahedral Probes with Platinum Coating
   M. Kitazawa[1] and A. Toda[2]
   ([1]Micro Comp. Eng. Dep. OLYMPUS Opt. Co., LTD., [2]Sci. Equip. Div. OLYMPUS Opt. Co., LTD.

8. Fabrication of Nanocantilever Chip and Multi Probe AFM Chip
   D. Saya[1], S. Kawai[1], A. Kato[1], H. Toshiyoshi[1], G. Hashiguchi[2], H. Fujita[1] and H. Kawakatsu[1]
   ([1]Univ. of Tokyo, [2]Kagawa Univ.)

9. Activation and Optical Displacement Readout of 2D Silicon Cantilever Array
   A. Kato[1], M. Nagashio[2], D. Saya[1], G. Hashiguch[3], D. Kobayashi[2], H. Toshiyoshi[1], H. Fujita[1]
   and H. Kawakatsu[1] ([1]Univ. of Tokyo, [2]Tokyo Denki Univ., [3]Kagawa Univ.)

10. Comparison Between Laser Interferometer and Crystal Periodicity Observed by a Friction Force Microscope
    Y. Hoshi, A. Kato, T. Kawagishi and H. Kawakatsu (Univ. of Tokyo)

11. Mapping of Lateral Vibration Amplitude of the Tip at Sub-Atomic Level in Contact Mode Atomic Force Microscopy
    T. Kawagishi, A. Kato, S. Kawai, Y. Hoshi and H. Kawakatsu (Univ. of Tokyo)

12. A Novel AFM Head Operating up to 100 MHz
    S. Kawai, D. Saya, H. Toshiyoshi, H. Fujita and H. Kawakatsu (Univ. of Tokyo)

13. Carbon Nanotube Tip for Scanning Tunneling Microscopy
    K. Ojima, M. Ishikawa, M. Yoshimura and K. Ueda (Toyota Technological Institute)

14. A Current Measurment Using Carbon Nanotube Probe of Contact Mode AFM
    M. Ishikawa, M. Yoshimura and K. Ueda (Toyota Technological Institute)

15. Length Adjustment of Carbon Nanotube Probe by Electron Bombardment
    S. Akita and Y. Nakayama (Osaka Prefecture Univ.)

16. Carbon Nanotube Probes for Local Electrical Measurements
    A. Ando[1], T. Shimizu[2], Y. Nakayama[3] and H. Tokumoto[1,2] ([1]AIST, [2]JRCAT, [3]Osaka Prefecture Univ.)

17. Scattering Angle Dependence of Energy Spectra of Backscattered Electrons in an STM Setup
    M. Hirade, T. Arai and M. Tomitori (JAIST)

18. Simultaneous Imaging of ncAFM with Damping for Germanium Islands Grown on a Si(111)7x7 Surface
    T. Arai and M. Tomitori (JAIST)

19. Local Electronic Structure on TiO_2 Surface under UV Light Irradiation
Y. Li, Donghong Yin and M. Komiyama (Inst. Mol. Sci. NRI)

20. Nanoscale Variation of Photo-induced Bandbending Relaxation on Si(001)
O. Takeuchi, S. Yoshida and H. Shigekawa (Univ. of Tsukuba, CREST)

21. STM-BH Imaging of Ba Adsorbed Si(111)7×7 Surface
Y. Yamashita, S. Kurokawa, and A. Sakai (Kyoto Univ.)

22. STM/LBH Observation of the Cs Adsorbed Pt(111) Surface
Y. Yamada, A. Sinserp, M. Sasaki, S. Yamamoto (Univ. of Tsukuba)

23. Rotation of Trans-2-butene on Pd(110) Studied by STM and NEXAFS
S. Katano[1, 2], Y. Kim[1], M. Furukawa[1], H. Ogasawara[3], T. Komeda[1], H. S. Kato[1], A. Nilsson[3], M. Kawai[1] and K. Domen[2] ([1]RIKEN, [2]Tokyo Institute of Technology, [3]Uppsala Univ., Sweden)

24. STM-Induced Light Emission From Free-Base Porphyrin Molecules
Z.-C. Dong[1], A. Kar[1], Z.-Q. Zou[1], D.Fujita[1], H. Nejo[1], S. Yokoyama[2], T. Yamada[2], S. Mashiko[2]
([1]NIMS, [2]Comm. Research Lab.)

25. Inelastic Tunneling Spectroscopy (IETS) Measured on Hydrocarbon Molecules on Pd(110) Surface
T. Komeda, Y. Kim, and M. Kawai (RIKEN)

26. Tunneling Spectroscopy of a W(111) Surface by Scanning Tunneling Microscopy with [111]-oriented W Tips
M. Nagai[1] and M. Tomitori[2] ([1]KEK, [2]JAIST)

27. Clean (1x1) and Oxygen-induced c(2x2) Structures on Nb(100) by STM
B. An[1], S. Fukuyama[1], K. Yokogawa[1] and M. Yoshimura[2] ([1]AIST, [2] Toyota Technological Institute)

28. Electronic Properties of Self-organized InGaAs Quantum Dots on GaAs(311)B Substrate Studied by Conductive AFM
Y. Okada[1], M. Miyagi[1], H. Shigekawa[1, 2], and M. Kawabe[1] ([1]Univ. of Tsukuba, [2]CREST, JST)

29. NC-AFM Imaging of Oxygen Adsorbed Si(111)7×7
R. Nishi, S. Araragi, K. Shirai, Y. Sugawara, S. Morita (Osaka Univ.)

30. Atomic Scale Observation of Domain Boundaries on c(2×2) Fe(001) Thin Film Surfaces
H. Oka[1], A. Subagyo[1], M. Sawamura[2], K. Sueoka[1] and K. Mukasa[1]
([1]Hokkaido Univ., [2]Center for Advanced Sci. and Technol. Hokkaido Univ.)

31. Local Density of States Image Measurement of Oxidation Induced Defects on Si (111) Surfaces
N. Horiguchi, D. Yamatani, T. Hasegawa, K. Murai and M. Miyao
(Muroran Institute of Technology)

32. Electric and Structural Property of Barium Silicide Formed on Si(100)
K. Ojima, M. Yoshimura and K. Ueda (Toyota Technological Institute)

33. STM Observations on Graphitization of 6H-SiC Surface
B. An, S. Fukuyama and K. Yokogawa (AIST)

34. Scanning Tunneling Microscopy Study of the Formation of Nanoscale Defects on 6H-SiC Surfaces during Annealing at High Temperatures
M. Yoshimura, K. Ojima and K. Ueda (Toyota Technological Institute)

35. Ag-induced Si(110) Surface Reconstructions Observed by Scanning Tunneling Microscopy
M. Yoshimura, K. Ojima and K. Ueda (Toyota Technological Institute)

36. Hydrogen Interaction with B/Si(111) Surfaces
M. Yoshimura, K. Ojima and K. Ueda (Toyota Technological Institute)

37. STM study of (3x 3)-Sn, Pb/Si(111) surface
H. Morikawa, K. Horikoshi and S. Hasegawa (Univ. of Tokyo)

38. Structural Phase Transition of Si(100) Clean Surface Observed below 50K
S. Yoshida, O. Takeuchi, K. Hata and H. Shigekawa (Univ. of Tsukuba, CREST)

39. STM/STS Investigations on Local Electronic Structures in Heavily Pb-doped $Bi_2Sr_2CaCu_2O_y$ Single Crystals
G. Kinoda[1], S. Nakao[2, 3], T. Motohashi[2, 3], Y. Nakayama[2, 3], J. Shimoyama[2, 3], K. Kishio[2, 3], T. Hanaguri[2, 3], K. Kitazawa[2, 3], T. Hasegawa[1, 3] ([1]Tokyo Institute of Technology, [2]Univ. of Tokyo, [3]SORST)

40. Direct Observation of Josephson Vortices in Heavily Pb-doped $Bi_2Sr_2CaCu_2O_y$ with a Scanning SQUID Microscope
J. Kasai[1], N. Okazaki[3], Y. Nakayama[2], T. Motohashi[2], J. Shimoyama[2, 4], K. Kishio[2, 4], H. Koinuma[1, 3] and T. Hasegawa[1,3,4] ([1]Tokyo Institute of Technology, [2]Univ. of Tokyo, [3]COMET, [4] SORST)

41. Carbon Nanotube Ring Transistor Measured with Dual-probe STM
T. Shigemtsu, H. Watanebe, C. Manabe and M. Shimizu (Fuji Xerox Co., Ltd.)

42. Triple-probe Atomic Force Microscope: Measuring a Single DNA Molecule Device
K. Shimotani, H. Watanabe, C. Manabe, T. Shigematsu, M. Shimizu (Fuji Xerox Co., Ltd)

43. The Detail of the Bond Breaking Process Measured by High-Sampling Rate Chemical Force Microscope
M. Fujita[1], O. Takeuchi[1], S. Yasuda[1], S. P. Jarvis[2], I. Suzuki[3], M. Komiyama[4] and H. Shigekawa[1]
([1]Univ. of Tsukuba-CREST, [2]NRI-AIST, [3]Tohoku Univ., [4]Univ. of Tokyo)

44. Imaging Electrical Double-Layer Force Using Electrostatic Force Microscopy in Aqueous Solution
Y. Hirata[1], H. Ohtani[2], Y. Wada[2], T. Inoue[1], H. Yokoyama[1], and F. Mizutani[1]
([1]AIST, [2]Tokyo Institute of Technology)

45. STM/STS on the Self-Assembled Monolayers of a Ruthenium(II) Complex
K. Miyake[1], T. Ishida[1], S. Yasuda[2], H. Shigekawa[2], M. Inoue[3], M. Haga[3], and S. Sasaki[1]
([1]AIST, [2]Univ. of Tsukuba, CREST, [3]Chuo Univ.)

46. Improvement of Force Modulation Mode with SPM for Imaging Viscoelasticity of Living Cells
M. Nagayama[1], H. Haga[1], Y. Tanaka[2], Y. Hirai[2], M. Kabuto[2] and K. Kawabata[1]
([1]Hokkaido Univ., [2]Osaka Prefecture Univ.)

47. Atomic Force Microscopy Observation of Acidic Phospholipid / neutral Phospholipid Mixed System
S. Taguchi and N. Wakayama (Toin Univ. of Yokohama)

48. The Study of Self-assembled Monolayer Surfaces Prepared by Microcontact Printing Methods Using Adhesive Force Mapping in Water
F. Sato, H. Okui, U. Akiba, K. Suga and M. Fujihira (Tokyo Institute of Technology)

49. Observation of Molecular Protrusions from Self-Assembled Monolayer Surface by Scanning Tunneling Microscopy
S. Wakamatsu, S. Fujii, A. Nakasa, U. Akiba and M. Fujihira (Tokyo Institute of Technology)

50. A New Class of Self-Assembled Monolayers: Disulfide Derivatives with bicyclo[2.2.2]octane Moieties on Au(111)
S. Fujii, U. Akiba and M. Fujihira (Tokyo Institute of Technology)

51. Quantitative Measurement of Dielectric Properties Using Electro-conductive Cantilever
K. Ohara and Y. Cho (Tohoku Univ.)

52. Fabrication of Nanometer-scale Pattern Using Current Controlled Scanning Probe Lithography
T. Miyazaki[1], K. Kobayashi[2], H. Yamada[1] and K. Matsushige[1]
([1]Kyoto Univ., [2]Int. Innovation Center, Kyoto Univ.)

53. Kelvin Probe Force Microscopy of Organic Field Effect Transistor of Single Molecular Film
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54. High-resolution Imaging of Organic Molecules by Non-contact AFM in Moderate Vacuum Environments
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