Kei Kobayashi

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3070309/publications.pdf

Version: 2024-02-01

49 papers	2,182 citations	331259 21 h-index	214527 47 g-index
50 all docs	50 docs citations	50 times ranked	1745 citing authors

#	Article	IF	Citations
1	Development of low noise cantilever deflection sensor for multienvironment frequency-modulation atomic force microscopy. Review of Scientific Instruments, 2005, 76, 053704.	0.6	325
2	True atomic resolution in liquid by frequency-modulation atomic force microscopy. Applied Physics Letters, 2005, 87, 034101.	1.5	316
3	Visualizing water molecule distribution by atomic force microscopy. Journal of Chemical Physics, 2010, 132, 194705.	1.2	153
4	Analog frequency modulation detector for dynamic force microscopy. Review of Scientific Instruments, 2001, 72, 4383-4387.	0.6	135
5	True molecular resolution in liquid by frequency-modulation atomic force microscopy. Applied Physics Letters, 2005, 86, 193108.	1.5	125
6	Visualization of hydration layers on muscovite mica in aqueous solution by frequency-modulation atomic force microscopy. Journal of Chemical Physics, 2013, 138, 184704.	1.2	107
7	Immunoactive two-dimensional self-assembly of monoclonal antibodies in aqueous solution revealed by atomic force microscopy. Nature Materials, 2014, 13, 264-270.	13.3	104
8	Atomic-Resolution Imaging of Graphiteâ€“Water Interface by Frequency Modulation Atomic Force Microscopy. Applied Physics Express, 2011, 4, 125102.	1.1	77
9	Dopant profiling on semiconducting sample by scanning capacitance force microscopy. Applied Physics Letters, 2002, 81, 2629-2631.	1.5	71
10	Atomic-resolution three-dimensional hydration structures on a heterogeneously charged surface. Nature Communications, 2017, 8, 2111.	5.8	57
11	True-molecular resolution imaging by frequency modulation atomic force microscopy in various environments. Applied Physics Letters, 2005, 86, 034103.	1.5	56
12	Molecular Resolution Imaging of Protein Molecules in Liquid Using Frequency Modulation Atomic Force Microscopy. Applied Physics Express, 2009, 2, 095007.	1.1	50
13	Molecular-scale noncontact atomic force microscopy contrasts in topography and energy dissipation on c(4Ã—2) superlattice structures of alkanethiol self-assembled monolayers. Journal of Applied Physics, 2004, 95, 1222-1226.	1.1	44
14	Orientation control of poly(vinylidenefluoride-trifluoroethylene) crystals and molecules using atomic force microscopy. Applied Physics Letters, 2003, 82, 4050-4052.	1.5	42
15	Effect of water adsorption on microscopic friction force on SrTiO3(001). Journal of Applied Physics, 2003, 93, 3223-3227.	1.1	39
16	Monotonic Damping in Nanoscopic Hydration Experiments. Physical Review Letters, 2013, 110, 066102.	2.9	37
17	Reduction of frequency noise and frequency shift by phase shifting elements in frequency modulation atomic force microscopy. Review of Scientific Instruments, 2011, 82, 033702.	0.6	32
18	Molecular-scale quantitative charge density measurement of biological molecule by frequency modulation atomic force microscopy in aqueous solutions. Nanotechnology, 2015, 26, 285103.	1.3	29

#	Article	IF	Citations
19	Surface potential measurements by the dissipative force modulation method. Review of Scientific Instruments, 2004, 75, 4589-4594.	0.6	26
20	Electrospray deposition producing ultra-thin polymer films with a regular surface structure. Soft Matter, 2009, 5, 593-598.	1.2	25
21	Atomic-Level Viscosity Distribution in the Hydration Layer. Physical Review Letters, 2019, 122, 116001.	2.9	23
22	Atomic-Scale Three-Dimensional Local Solvation Structures of Ionic Liquids. Journal of Physical Chemistry Letters, 2020, 11, 1343-1348.	2.1	21
23	Frequency-modulation atomic force microscopy at high cantilever resonance frequencies using the heterodyne optical beam deflection method. Review of Scientific Instruments, 2005, 76, 126110.	0.6	20
24	Electrospray induced ferroelectricity in poly(vinylidene fluoride) thin films. Journal of Materials Chemistry, 2010, 20, 8272.	6.7	20
25	Interlayer Resistance and Edge-Specific Charging in Layered Molecular Crystals Revealed by Kelvin-Probe Force Microscopy. Journal of Physical Chemistry C, 2015, 119, 3006-3011.	1.5	20
26	Molecular-scale investigations of structures and surface charge distribution of surfactant aggregates by three-dimensional force mapping. Journal of Chemical Physics, 2014, 140, 054704.	1.2	19
27	Photothermal excitation setup for a modified commercial atomic force microscope. Review of Scientific Instruments, 2014, 85, 023703.	0.6	19
28	Visualization of Au Nanoparticles Buried in a Polymer Matrix by Scanning Thermal Noise Microscopy. Scientific Reports, 2017, 7, 42718.	1.6	19
29	Atomic-Scale 3D Local Hydration Structures Influenced by Water-Restricting Dimensions. Langmuir, 2018, 34, 9114-9121.	1.6	17
30	Molecular-scale visualization and surface charge density measurement of Z-DNA in aqueous solution. Scientific Reports, 2019, 9, 6851.	1.6	17
31	Increase in carrier mobility of organic ultrathin-film transistor with increasing molecular layers investigated by Kelvin probe force microscopy. Journal of Applied Physics, 2005, 97, 124503.	1.1	15
32	Dynamic force microscopy at high cantilever resonance frequencies using heterodyne optical beam deflection method. Applied Physics Letters, 2004, 85, 6287-6289.	1.5	13
33	Noncontact-mode scanning capacitance force microscopy towards quantitative two-dimensional carrier profiling on semiconductor devices. Applied Physics Letters, 2007, 90, 083101.	1.5	13
34	Influence of grain boundary on electrical properties of organic crystalline grains investigated by dual-probe atomic force microscopy. Applied Physics Letters, 2013, 103, .	1.5	13
35	Investigation of Local Hydration Structures of Alkanethiol Self-Assembled Monolayers with Different Molecular Structures by FM-AFM. Langmuir, 2018, 34, 15189-15194.	1.6	11
36	Immunoactivity of self-assembled antibodies investigated by atomic force microscopy. RSC Advances, 2018, 8, 29378-29384.	1.7	10

#	Article	IF	Citations
37	Influence of Al-doped ZnO and Ga-doped ZnO substrates on third harmonic generation of gold nanoparticles. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 71, 91-95.	1.3	9
38	Flexible DNA Path in the MCM Double Hexamer Loaded on DNA. Biochemistry, 2017, 56, 2435-2445.	1.2	9
39	Low-Background Tip-Enhanced Raman Spectroscopy Enabled by a Plasmon Thin-Film Waveguide Probe. Analytical Chemistry, 2021, 93, 7699-7706.	3.2	9
40	Improving sensitivity in electrostatic force detection utilizing cantilever with tailored resonance modes. Applied Physics Letters, 2007, 90, 053113.	1.5	7
41	Visualization of anisotropic conductance in polydiacetylene crystal by dual-probe frequency-modulation atomic force microscopy/Kelvin-probe force microscopy. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C4D24-C4D28.	0.6	7
42	Structured Water Molecules on Membrane Proteins Resolved by Atomic Force Microscopy. Nano Letters, 2022, 22, 2391-2397.	4.5	6
43	Molecular-Scale Solvation Structures of Ionic Liquids on a Heterogeneously Charged Surface. Journal of Physical Chemistry Letters, 2020, 11, 8094-8099.	2.1	5
44	Surface charge density measurement of a single protein molecule with a controlled orientation by AFM. Biophysical Journal, 2021, 120, 2490-2497.	0.2	4
45	Model Supported Morphology Control of Electrospray Deposited Poly(vinylidene fluoride) Film. Macromolecular Symposia, 2007, 249-250, 322-329.	0.4	3
46	Nanomechanics of self-assembled surfactants revealed by frequency-modulation atomic force microscopy. Nanoscale, 2022, 14, 4626-4634.	2.8	1
47	Morphological and functional characterizations of SnO₂ electron extraction layer on transparent conductive oxides in lead-halide perovskite solar cells. Applied Physics Letters, 2022, 120, 191604.	1.5	1
48	Structures and Electrical Properties of Self-Assembled Monolayers of Alkanethiol and Alkanedithiol. Molecular Crystals and Liquid Crystals, 1998, 316, 167-170.	0.3	0
49	Surface Potential Measurements of Organic Thin-Film Transistors by Kelvin-Probe Force Microscopy. Journal of the Vacuum Society of Japan, 2017, 60, 392-396.	0.3	0