

H Kumar Wickramasinghe

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

118
papers

10,070
citations

40
h-index

100
g-index

122
ext. papers

10,960
ext. citations

5.2
avg, IF

5.93
L-index

#	Paper	IF	Citations
118	Tunneling based ten attomolar DNA biosensor. <i>AIP Advances</i> , 2021 , 11, 065226	1.5	
117	Observation of nanoscale opto-mechanical molecular damping as the origin of spectroscopic contrast in photo induced force microscopy. <i>Nature Communications</i> , 2020 , 11, 5691	17.4	7
116	Giant Circular Dichroism at Visible Frequencies Enabled by Plasmonic Ramp-Shaped Nanostructures. <i>ACS Photonics</i> , 2019 , 6, 924-931	6.3	40
115	Sharply Focused Azimuthally Polarized Beams with Magnetic Dominance: Near-Field Characterization at Nanoscale by Photoinduced Force Microscopy. <i>ACS Photonics</i> , 2018 , 5, 390-397	6.3	20
114	Near-field nanoprobng using Si tip-Au nanoparticle photoinduced force microscopy with 120:1 signal-to-noise ratio, sub-6-nm resolution. <i>Optics Express</i> , 2018 , 26, 26365-26376	3.3	23
113	Detecting stimulated Raman responses of molecules in plasmonic gap using photon induced forces. <i>Optics Express</i> , 2018 , 26, 31439-31453	3.3	3
112	Exclusive Magnetic Excitation Enabled by Structured Light Illumination in a Nanoscale Mie Resonator. <i>ACS Nano</i> , 2018 , 12, 12159-12168	16.7	18
111	Unscrambling Structured Chirality with Structured Light at the Nanoscale Using Photoinduced Force. <i>ACS Photonics</i> , 2018 , 5, 4360-4370	6.3	13
110	Protein fishing from single live cells. <i>Journal of Nanobiotechnology</i> , 2018 , 16, 67	9.4	3
109	In pursuit of photo-induced magnetic and chiral microscopy. <i>EPJ Applied Metamaterials</i> , 2018 , 5, 7	0.8	5
108	In situ mRNA isolation from a microfluidic single-cell array using an external AFM nanoprobe. <i>Lab on A Chip</i> , 2017 , 17, 1635-1644	7.2	29
107	Coaxial atomic force microscope probes for dielectrophoresis of DNA under different buffer conditions. <i>Applied Physics Letters</i> , 2017 , 110, 073701	3.4	10
106	Measurement of laterally induced optical forces at the nanoscale. <i>Applied Physics Letters</i> , 2017 , 110, 063103	3.4	8
105	Photo-induced force vs power in chiral scatterers 2017 ,		1
104	Unveiling magnetic and chiral nanoscale properties using structured light and nanoantennas 2017 ,		2
103	Contrast and imaging performance in photo induced force microscopy. <i>Optics Express</i> , 2017 , 25, 26923-26938	9.3	18
102	Nanoscale chemical imaging by photoinduced force microscopy. <i>Science Advances</i> , 2016 , 2, e1501571	14.3	158

101	Integrated Electrowetting Nanoinjector for Single Cell Transfection. <i>Scientific Reports</i> , 2016 , 6, 29051	4.9	8
100	Stimulated Raman spectroscopy and nanoscopy of molecules using near field photon induced forces without resonant electronic enhancement gain. <i>Applied Physics Letters</i> , 2016 , 108, 233107	3.4	9
99	Linear and Nonlinear Optical Spectroscopy at the Nanoscale with Photoinduced Force Microscopy. <i>Accounts of Chemical Research</i> , 2015 , 48, 2671-9	24.3	84
98	Photoinduced magnetic force between nanostructures. <i>Physical Review B</i> , 2015 , 92,	3.3	15
97	Imaging Nanoscale Electromagnetic Near-Field Distributions Using Optical Forces. <i>Scientific Reports</i> , 2015 , 5, 10610	4.9	50
96	Ultrafast pump-probe force microscopy with nanoscale resolution. <i>Applied Physics Letters</i> , 2015 , 106, 083113	3.4	53
95	Billion-fold increase in tip-enhanced Raman signal. <i>ACS Nano</i> , 2014 , 8, 3421-6	16.7	53
94	Gradient and scattering forces in photoinduced force microscopy. <i>Physical Review B</i> , 2014 , 90,	3.3	72
93	Raman spectroscopy and microscopy based on mechanical force detection. <i>Applied Physics Letters</i> , 2011 , 99, 161103-1611033	3.4	58
92	Experimental and Theoretical Study of the New Image Force Microscopy Principle (Invited Paper). <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1318, 1		1
91	Targeted messenger RNA profiling of transfected breast cancer gene in a living cell. <i>Analytical Biochemistry</i> , 2011 , 408, 342-4	3.1	12
90	Image force microscopy of molecular resonance: A microscope principle. <i>Applied Physics Letters</i> , 2010 , 97,	3.4	102
89	Selective probing of mRNA expression levels within a living cell. <i>Applied Physics Letters</i> , 2009 , 95, 83117	3.4	29
88	Localized electroporation and molecular delivery into single living cells by atomic force microscopy. <i>Applied Physics Letters</i> , 2008 , 93, 153111	3.4	19
87	Nanoscale quantitative stress mapping with atomic force microscopy. <i>Applied Physics Letters</i> , 2007 , 90, 113111	3.4	9
86	Ultrafast molecule sorting and delivery by atomic force microscopy. <i>Applied Physics Letters</i> , 2006 , 88, 183105	3.4	17
85	Ultra-high-density phase-change storage and memory. <i>Nature Materials</i> , 2006 , 5, 383-7	27	276
84	Thermally assisted recording beyond traditional limits. <i>Applied Physics Letters</i> , 2004 , 84, 810-812	3.4	53

83	Resolution test for apertureless near-field optical microscopy. <i>Journal of Applied Physics</i> , 2002 , 91, 3363-3368	13
82	Strength of the electric field in apertureless near-field optical microscopy. <i>Journal of Applied Physics</i> , 2001 , 89, 5774-5778	2.5 191
81	Progress in scanning probe microscopy. <i>Acta Materialia</i> , 2000 , 48, 347-358	8.4 60
80	Thermal proximity imaging of hard-disk substrates. <i>IEEE Transactions on Magnetics</i> , 2000 , 36, 3997-4004	2 2
79	Atomic force microscopy of work functions on the nanometer scale. <i>Applied Physics Letters</i> , 1999 , 74, 2641-2642	3.4 29
78	Measurement of trench depth by infrared interferometry. <i>Optics Letters</i> , 1999 , 24, 1702-4	3 6
77	Optical data storage read out at 256 Gbits/in.2. <i>Applied Physics Letters</i> , 1997 , 71, 1-3	3.4 74
76	Scattering spectroscopy of molecules at nanometer resolution. <i>Applied Physics Letters</i> , 1996 , 68, 2475-2477	60
75	Scanning Interferometric Apertureless Microscopy at 10 Angstrom Resoultion 1996 , 131-141	1
74	Toward accurate metrology with scanning force microscopes. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1995 , 13, 2335	25
73	Scanning interferometric apertureless microscopy: optical imaging at 10 angstrom resolution. <i>Science</i> , 1995 , 269, 1083-5	33.3 559
72	Related Scanning Techniques. <i>Springer Series in Surface Sciences</i> , 1995 , 209-231	0.4
71	Method for imaging sidewalls by atomic force microscopy. <i>Applied Physics Letters</i> , 1994 , 64, 2498-2500	3.4 142
70	Apertureless near-field optical microscope. <i>Applied Physics Letters</i> , 1994 , 65, 1623-1625	3.4 475
69	Force microscopy with actively stabilized differential fiber detection mechanism. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1993 , 11, 758-762	2.9 1
68	Detection of high- and low-frequency vibrations using a feedback- stabilized differential fiber optic interferometer. <i>Optical Engineering</i> , 1993 , 32, 1879	1.1 6
67	3. Extensions of STM. <i>Methods in Experimental Physics</i> , 1993 , 77-94	
66	EXTENSIONS OF STM 1993 , 77-94	1

65	Attractive mode force microscopy using a feedback-controlled fiber interferometer. <i>Review of Scientific Instruments</i> , 1992 , 63, 5373-5376	1.7	6
64	Scanning probe microscopy of thermal conductivity and subsurface properties. <i>Applied Physics Letters</i> , 1992 , 61, 168-170	3.4	149
63	Surface investigations with a Kelvin probe force microscope. <i>Ultramicroscopy</i> , 1992 , 42-44, 268-273	3.1	86
62	Optical absorption spectroscopy by scanning force microscopy. <i>Ultramicroscopy</i> , 1992 , 42-44, 351-354	3.1	17
61	Related Scanning Techniques. <i>Springer Series in Surface Sciences</i> , 1992 , 209-231	0.4	3
60	Kelvin probe force microscopy. <i>Applied Physics Letters</i> , 1991 , 58, 2921-2923	3.4	1855
59	Semiconductor characterization by scanning force microscope surface photovoltage microscopy. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1991 , 9, 1562		65
58	Scanning chemical potential microscope: A new technique for atomic scale surface investigation. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1991 , 9, 537		13
57	Lateral dopant profiling in semiconductors by force microscopy using capacitive detection. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1991 , 9, 703		80
56	Scanned Probes Old and New. <i>AIP Conference Proceedings</i> , 1991 ,	0	4
55	Microscopy of chemical-potential variations on an atomic scale. <i>Nature</i> , 1990 , 344, 317-319	50.4	91
54	Scanning probe microscopy: Current status and future trends. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1990 , 8, 363-368	2.9	64
53	Lateral dopant profiling on a 100 nm scale by scanning capacitance microscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1990 , 8, 895-898	2.9	32
52	Scanned-Probe Microscopes. <i>Scientific American</i> , 1989 , 261, 98-105	0.5	122
51	Optical absorption microscopy and spectroscopy with nanometre resolution. <i>Nature</i> , 1989 , 342, 783-785	50.4	88
50	Absolute optical ranging with 200-nm resolution. <i>Optics Letters</i> , 1989 , 14, 542-4	3	31
49	Lateral dopant profiling with 200 nm resolution by scanning capacitance microscopy. <i>Applied Physics Letters</i> , 1989 , 55, 1662-1664	3.4	137
48	Magnetic force microscopy with 25 nm resolution. <i>Applied Physics Letters</i> , 1989 , 55, 2357-2359	3.4	50

47	Noise reduction technique for scanning tunneling microscopy. <i>Applied Physics Letters</i> , 1988 , 53, 1503-1505	3.4	34
46	High-resolution capacitance measurement and potentiometry by force microscopy. <i>Applied Physics Letters</i> , 1988 , 52, 1103-1105	3.4	612
45	High-resolution force microscopy of in-plane magnetization. <i>Journal of Microscopy</i> , 1988 , 152, 863-869	1.9	5
44	High-resolution magnetic imaging of domains in TbFe by force microscopy. <i>Applied Physics Letters</i> , 1988 , 52, 244-246	3.4	171
43	Measurement of in-plane magnetization by force microscopy. <i>Applied Physics Letters</i> , 1988 , 53, 1446-1448	3.4	55
42	High-resolution magnetic imaging by force microscopy (invited) (abstract). <i>Journal of Applied Physics</i> , 1988 , 63, 2948-2948	2.5	2
41	Differential scanning tunnelling microscopy. <i>Journal of Microscopy</i> , 1988 , 152, 599-604	1.9	7
40	Photothermal Imaging with Sub-100-nm Spatial Resolution. <i>Springer Series in Optical Sciences</i> , 1988 , 364-369	3.4	15
39	High-resolution force microscopy of in-plane magnetization. <i>Perspectives in Condensed Matter Physics</i> , 1988 , 219-225		
38	Study of dynamic current distribution in logic circuits by Joule displacement microscopy. <i>Applied Physics Letters</i> , 1987 , 50, 167-168	3.4	10
37	Acoustic-jet plating of gold and copper at 7.5 MHz. <i>Applied Physics Letters</i> , 1987 , 50, 383-385	3.4	4
36	Atomic force microscope force mapping and profiling on a sub 100-Å scale. <i>Journal of Applied Physics</i> , 1987 , 61, 4723-4729	2.5	1180
35	Magnetic imaging by force microscopy with 1000 Å resolution. <i>Applied Physics Letters</i> , 1987 , 50, 1455-1457	3.4	952
34	Optical ranging by wavelength multiplexed interferometry. <i>Journal of Applied Physics</i> , 1986 , 60, 1900-1903	3.4	59
33	Scanning thermal profiler. <i>Applied Physics Letters</i> , 1986 , 49, 1587-1589	3.4	330
32	Nonlinear photothermal imaging. <i>Applied Physics Letters</i> , 1986 , 48, 218-220	3.4	32
31	Differential Laser Heterodyne Micrometrology. <i>Optical Engineering</i> , 1985 , 24, 926	1.1	8
30	Scattering matrix approach to thermal wave propagation in layered structures. <i>Journal of Applied Physics</i> , 1985 , 58, 122-131	2.5	50

29	Scanning differential phase contrast optical microscope: application to surface studies. <i>Applied Optics</i> , 1985 , 24, 2373-9	1.7	35
28	Acoustic microscopy: present and future. <i>IEE Proceedings A: Physical Science Measurement and Instrumentation Management and Education Reviews</i> , 1984 , 131, 282		6
27	Simultaneous scanning optical and acoustic microscopy. <i>Electronics Letters</i> , 1983 , 19, 159	1.1	3
26	Confocal surface acoustic wave microscopy. <i>Applied Physics Letters</i> , 1983 , 42, 411-413	3.4	22
25	Scanning acoustic microscopy: a review. <i>Journal of Microscopy</i> , 1983 , 129, 63-73	1.9	26
24	OPTICAL HETERODYNE TECHNIQUES FOR PHOTOACOUSTIC AND PHOTOTHERMAL DETECTION. <i>Journal De Physique Colloque</i> , 1983 , 44, C6-191-C6-196		5
23	Thermodisplacement imaging of current in thin-film circuits. <i>Electronics Letters</i> , 1982 , 18, 700	1.1	13
22	Differential phase contrast optical microscope with 1 A -depth resolution. <i>Electronics Letters</i> , 1982 , 18, 973	1.1	14
21	Differential phase contrast in the acoustic microscope. <i>Electronics Letters</i> , 1982 , 18, 92	1.1	4
20	Recent developments in scanning acoustic microscopy. <i>Radio and Electronic Engineer</i> , 1982 , 52, 479		4
19	SAW attenuation measurement in the acoustic microscope. <i>Electronics Letters</i> , 1982 , 18, 955	1.1	16
18	Dichromatic Differential Phase Contrast Microscopy. <i>IEEE Transactions on Sonics and Ultrasonics</i> , 1982 , 29, 321-326		2
17	NDE of Solids with a Mechanically BScanned Acoustic Microscope. <i>Acoustical Imaging</i> , 1982 , 113-123		0
16	Mechanically scanned B-scan system for acoustic microscopy of solids. <i>Applied Physics Letters</i> , 1981 , 39, 305-307	3.4	8
15	Recent progress in scanning acoustic microscopy. <i>Physics in Technology</i> , 1981 , 12, 111-113		
14	Acoustic microscopy in biophysics. <i>Advances in Biological and Medical Physics</i> , 1980 , 17, 325-64		2
13	Acoustic microscopy in gases. <i>Electronics Letters</i> , 1980 , 16, 9	1.1	16
12	Contrast and imaging performance in the scanning acoustic microscope. <i>Journal of Applied Physics</i> , 1979 , 50, 664-672	2.5	57

11	Acoustic microscopy with mechanical scanningA review. <i>Proceedings of the IEEE</i> , 1979 , 67, 1092-1114	14.3	203
10	Contrast in reflection acoustic microscopy. <i>Electronics Letters</i> , 1978 , 14, 305	1.1	32
9	Photoacoustics on a microscopic scale. <i>Applied Physics Letters</i> , 1978 , 33, 923-925	3.4	87
8	Image enhancement in the scanning acoustic microscope using analogue filters. <i>Electronics Letters</i> , 1977 , 13, 776	1.1	9
7	Phase imaging in reflection with the acoustic microscope. <i>Applied Physics Letters</i> , 1977 , 31, 791-793	3.4	95
6	Nonlinear imaging of an edge in the scanning acoustic microscope. <i>Journal of Applied Physics</i> , 1977 , 48, 4951-4954	2.5	11
5	Acoustic microscopy of the human retina and pigment epithelium. <i>Investigative Ophthalmology and Visual Science</i> , 1977 , 16, 660-6		13
4	Phase imaging with the scanning acoustic microscope. <i>Electronics Letters</i> , 1976 , 12, 637	1.1	17
3	Background subtraction in surface-wave holography. <i>Electronics Letters</i> , 1975 , 11, 526	1.1	
2	High Frequency Acoustic Holography in Solids 1974 , 121-132		2
1	A Fabry-Perot acoustic surface vibration detector - application to acoustic holography. <i>Journal Physics D: Applied Physics</i> , 1973 , 6, 677-687	3	25