

Lloyd J Whitman

List of Publications by Year in descending order

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53
papers

6,099
citations

94433

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206112

48
g-index

53
all docs

53
docs citations

53
times ranked

6193
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonsilicon, Non-von Neumann Computing—Part II. Proceedings of the IEEE, 2020, 108, 1211-1218.	21.3	2
2	Nonsilicon, Non-von Neumann Computing—Part I [Scanning the Issue]. Proceedings of the IEEE, 2019, 107, 11-18.	21.3	14
3	Direct-write polymer nanolithography in ultra-high vacuum. Beilstein Journal of Nanotechnology, 2012, 3, 52-56.	2.8	7
4	Controlled and Efficient Hybridization Achieved with DNA Probes Immobilized Solely through Preferential DNA-Substrate Interactions. Analytical Chemistry, 2010, 82, 2803-2810.	6.5	101
5	Detection of mitochondrial DNA with the compact bead array sensor system (cBASS). Proceedings of SPIE, 2009, , .	0.8	0
6	Self-Assembled Monolayers of Alkanethiols on InAs. Langmuir, 2009, 25, 12185-12194.	3.5	32
7	Particle Tracking Single Protein-Functionalized Quantum Dot Diffusion and Binding at Silica Surfaces. Langmuir, 2009, 25, 3509-3518.	3.5	9
8	Reusable, compression-sealed fluid cells for surface mounting to planar substrates. Lab on A Chip, 2009, 9, 1468.	6.0	9
9	Magnetic labeling, detection, and system integration. Biosensors and Bioelectronics, 2008, 24, 1-13.	10.1	187
10	The nanopatterning of a stimulus-responsive polymer by thermal dip-pen nanolithography. Soft Matter, 2008, 4, 1844.	2.7	30
11	Characterization and Controlled Properties of DNA Immobilized on Gold Surfaces. Kobunshi Ronbunshu, 2008, 65, 46-57.	0.2	3
12	Independent control of grafting density and conformation of single-stranded DNA brushes. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9-14.	7.1	204
13	Passivation of W-structured type-II superlattice long-wave infrared photodiodes. , 2007, 6542, 51.		10
14	Formation of Primary Amines on Silicon Nitride Surfaces: A Direct, Plasma-Based Pathway to Functionalization. Langmuir, 2007, 23, 4400-4404.	3.5	40
15	Controlling interfacial disorder and strain of W-structured type-II superlattices using As ₂ flux. Journal of Crystal Growth, 2007, 303, 515-519.	1.5	7
16	Nucleobase Orientation and Ordering in Films of Single-Stranded DNA on Gold. Journal of the American Chemical Society, 2006, 128, 2-3.	13.7	153
17	Engineering electron and hole tunneling with asymmetric InAs quantum dot molecules. Applied Physics Letters, 2006, 89, 233110.	3.3	144
18	Direct Writing of a Conducting Polymer with Molecular-Level Control of Physical Dimensions and Orientation. Journal of the American Chemical Society, 2006, 128, 6774-6775.	13.7	64

#	ARTICLE	IF	CITATIONS
19	Alkanethiols on Platinum: Multicomponent Self-Assembled Monolayers. <i>Langmuir</i> , 2006, 22, 2578-2587.	3.5	113
20	W-structured type-II superlattice-based long- and very long wavelength infrared photodiodes. , 2005, , .		26
21	Detection Limits for Nanoscale Biosensors. <i>Nano Letters</i> , 2005, 5, 803-807.	9.1	612
22	Incorporating fluorescent dyes and quantum dots into magnetic microbeads for immunoassays. <i>BioTechniques</i> , 2004, 36, 602-609.	1.8	57
23	Nanoscale deposition of solid inks via thermal dip pen nanolithography. <i>Applied Physics Letters</i> , 2004, 85, 1589-1591.	3.3	155
24	Quantitative Characterization of DNA Films by X-ray Photoelectron Spectroscopy. <i>Langmuir</i> , 2004, 20, 429-440.	3.5	185
25	Nanoscale Inking, Melting, and Soldering With a Heated Atomic Force Microscope Cantilever Tip. , 2004, , 509.		0
26	Chemical and electronic properties of sulfur-passivated InAs surfaces. <i>Surface Science</i> , 2003, 523, 231-240.	1.9	116
27	Design and performance of GMR sensors for the detection of magnetic microbeads in biosensors. <i>Sensors and Actuators A: Physical</i> , 2003, 107, 209-218.	4.1	330
28	Quantitative Analysis and Characterization of DNA Immobilized on Gold. <i>Journal of the American Chemical Society</i> , 2003, 125, 5219-5226.	13.7	377
29	Patterning of Narrow Au Nanocluster Lines Using V ₂ O ₅ Nanowire Masks and Ion-Beam Milling. <i>Nano Letters</i> , 2003, 3, 135-138.	9.1	49
30	Base-Dependent Competitive Adsorption of Single-Stranded DNA on Gold. <i>Journal of the American Chemical Society</i> , 2003, 125, 9014-9015.	13.7	437
31	Cross-sectional scanning tunneling microscopy of Mn-doped GaAs: Theory and experiment. <i>Physical Review B</i> , 2003, 68, .	3.2	43
32	Thiol Diffusion and the Role of Humidity in Dip Pen Nanolithography. <i>Physical Review Letters</i> , 2002, 88, 156104.	7.8	178
33	Thermal conductivity of AlAs _{0.07} Sb _{0.93} and Al _{0.9} Ga _{0.1} As _{0.07} Sb _{0.93} alloys and (AlAs) ₁ /(AlSb) ₁₁ digital-alloy superlattices. <i>Journal of Applied Physics</i> , 2002, 92, 4994-4998.	2.5	56
34	Initial stages of Sb ₂ deposition on InAs(001). <i>Surface Science</i> , 2001, 478, 1-8.	1.9	6
35	A DNA array sensor utilizing magnetic microbeads and magnetoelectronic detection. <i>Journal of Magnetism and Magnetic Materials</i> , 2001, 225, 138-144.	2.3	238
36	Effects of As ₂ versus As ₄ on InAs/GaSb heterostructures: As-for-Sb exchange and film stability. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001, 19, 1626.	1.6	38

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37	The BARC biosensor applied to the detection of biological warfare agents. <i>Biosensors and Bioelectronics</i> , 2000, 14, 805-813.	10.1	418
38	Structure of III-Sb(001) Growth Surfaces: The Role of Heterodimers. <i>Physical Review Letters</i> , 2000, 84, 4649-4652.	7.8	67
39	Engineered heterostructures of 6.1-Angstrom III-V semiconductors for advanced electronic and optoelectronic applications. , 1999, 3790, 13.		13
40	Frenkel-Kontorova Model of Vacancy-Line Interactions on Ga/Si(112). <i>Physical Review Letters</i> , 1999, 83, 1818-1821.	7.8	50
41	Structure of Ge(113): Origin and Stability of Surface Self-Interstitials. <i>Physical Review Letters</i> , 1998, 81, 5177-5180.	7.8	41
42	Influence of substrate surface reconstruction on the growth and magnetic properties of Fe on GaAs(001). <i>Physical Review B</i> , 1997, 56, 8163-8168.	3.2	187
43	The structure of silicon surfaces from (001) to (111). <i>Surface Science</i> , 1997, 392, 69-85.	1.9	177
44	Structure and Stability of Si(114) $\sqrt{2}\times\sqrt{2}$. <i>Physical Review Letters</i> , 1996, 77, 687-690.	7.8	86
45	Nucleation and growth of Fe on GaAs(001)-(2 \times 4) studied by scanning tunneling microscopy. <i>Physical Review B</i> , 1996, 53, R10481-R10484.	3.2	56
46	A Stable High-Index Surface of Silicon: Si(5 5 12). <i>Science</i> , 1995, 269, 1556-1560.	12.6	116
47	Manipulation of Adsorbed Atoms and Creation of New Structures on Room-Temperature Surfaces with a Scanning Tunneling Microscope. <i>Science</i> , 1991, 251, 1206-1210.	12.6	263
48	Geometric and electronic properties of Cs structures on III-V (110) surfaces: From 1D and 2D insulators to 3D metals. <i>Physical Review Letters</i> , 1991, 66, 1338-1341.	7.8	198
49	The chemisorption of chlorosilanes and chlorine on Si(111)7 \times 7. <i>Surface Science</i> , 1990, 232, 297-306.	1.9	142
50	Summary Abstract: The kinetics of CO dissociation on Fe(111). <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1987, 5, 538-539.	2.1	6
51	A new mechanism for K promotion of surface reactions: N ₂ on K β -precovered Fe(111). <i>Journal of Chemical Physics</i> , 1986, 85, 3688-3698.	3.0	63
52	The effects of surface geometry and island formation on alkali β -promoted surfaces: The coadsorption of CO and K on Ni(110). <i>Journal of Chemical Physics</i> , 1985, 83, 4808-4816.	3.0	66
53	Investigation of plasma etching mechanisms using beams of reactive gas ions. <i>Journal of Vacuum Science and Technology</i> , 1981, 18, 349-352.	1.9	118