

J Alexander Liddle

List of Publications by Year in descending order

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235
papers

6,336
citations

76196

40
h-index

82410

72
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242
all docs

242
docs citations

242
times ranked

7319
citing authors

#	ARTICLE	IF	CITATIONS
1	Soft X-ray microscopy at a spatial resolution better than 15â€%nm. <i>Nature</i> , 2005, 435, 1210-1213.	13.7	795
2	Integration of Colloidal Nanocrystals into Lithographically Patterned Devices. <i>Nano Letters</i> , 2004, 4, 1093-1098.	4.5	507
3	Nanomanufacturing: A Perspective. <i>ACS Nano</i> , 2016, 10, 2995-3014.	7.3	176
4	Low-cost, low-loss microlens arrays fabricated by soft-lithography replication process. <i>Applied Physics Letters</i> , 2003, 82, 1152-1154.	1.5	145
5	Vacuum ultraviolet rare gas excimer light source. <i>Review of Scientific Instruments</i> , 1997, 68, 1360-1364.	0.6	113
6	One-kilobit cross-bar molecular memory circuits at 30-nm half-pitch fabricated by nanoimprint lithography. <i>Applied Physics A: Materials Science and Processing</i> , 2005, 80, 1173-1178.	1.1	113
7	Absorption and luminescence studies of free-standing porous silicon films. <i>Physical Review B</i> , 1994, 49, 5386-5397.	1.1	106
8	Methods to assess the impact of UV irradiation on the surface chemistry and structure of multiwall carbon nanotube epoxy nanocomposites. <i>Carbon</i> , 2014, 69, 194-205.	5.4	105
9	Soft X-ray microscopy of nanomagnetism. <i>Materials Today</i> , 2006, 9, 26-33.	8.3	104
10	Roadmap on emerging hardware and technology for machine learning. <i>Nanotechnology</i> , 2021, 32, 012002.	1.3	104
11	Characterizing the Three-Dimensional Structure of Block Copolymers <i>via</i> Sequential Infiltration Synthesis and Scanning Transmission Electron Tomography. <i>ACS Nano</i> , 2015, 9, 5333-5347.	7.3	98
12	Solid state quantum computer development in silicon with single ion implantation. <i>Journal of Applied Physics</i> , 2003, 94, 7017-7024.	1.1	97
13	Sub-38 nm resolution tabletop microscopy with 13 nm wavelength laser light. <i>Optics Letters</i> , 2006, 31, 1214.	1.7	95
14	10-nm Channel Length Pentacene Transistors. <i>IEEE Transactions on Electron Devices</i> , 2005, 52, 1874-1879.	1.6	94
15	Lithographically directed self-assembly of nanostructures. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2004, 22, 3409.	1.6	92
16	Magneto-Optical Observation of Picosecond Dynamics of Single Nanomagnets. <i>Nano Letters</i> , 2006, 6, 2939-2944.	4.5	85
17	Tuning Magnetic Domain Structure in Nanoscale La _{0.7} Sr _{0.3} MnO ₃ Islands. <i>Nano Letters</i> , 2006, 6, 1287-1291.	4.5	81
18	Kilohertz Rotation of Nanorods Propelled by Ultrasound, Traced by Microvortex Advection of Nanoparticles. <i>ACS Nano</i> , 2014, 8, 8300-8309.	7.3	81

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19	Implementation of an imprint damascene process for interconnect fabrication. Journal of Vacuum Science & Technology B, 2006, 24, 1283.	1.3	77
20	Lithography, metrology and nanomanufacturing. Nanoscale, 2011, 3, 2679.	2.8	76
21	Quantum-Dot Fluorescence Lifetime Engineering with DNA Origami Constructs. Angewandte Chemie - International Edition, 2013, 52, 1193-1197.	7.2	71
22	Finite element modeling of SCALPEL masks. , 1999, , .		70
23	Cross-linked Polymer Replica of a Nanoimprint Mold at 30 nm Half-pitch. Nano Letters, 2005, 5, 179-182.	4.5	70
24	Electrical activation and electron spin coherence of ultralow dose antimony implants in silicon. Applied Physics Letters, 2006, 88, 112101.	1.5	69
25	Nanoparticle Manufacturing - Heterogeneity through Processes to Products. ACS Applied Nano Materials, 2018, 1, 4358-4385.	2.4	68
26	Projection electron-beam lithography: A new approach. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1991, 9, 2996.	1.6	66
27	Bending Soft Block Copolymer Nanostructures by Lithographically Directed Assembly. Macromolecules, 2006, 39, 2435-2437.	2.2	65
28	The Evolution of Carbon Nanotube Network Structure in Unidirectional Nanocomposites Resolved by Quantitative Electron Tomography. ACS Nano, 2015, 9, 6050-6058.	7.3	62
29	Status of EUV micro-exposure capabilities at the ALS using the 0.3-NA MET optic. , 2004, 5374, 881.		60
30	Fast, bias-free algorithm for tracking single particles with variable size and shape. Optics Express, 2008, 16, 14064.	1.7	59
31	Nanoimaging with a compact extreme-ultraviolet laser. Optics Letters, 2005, 30, 2095.	1.7	58
32	Size dependent damping in picosecond dynamics of single nanomagnets. Applied Physics Letters, 2007, 90, 202504.	1.5	54
33	Nanomanufacturing with DNA Origami: Factors Affecting the Kinetics and Yield of Quantum Dot Binding. Advanced Functional Materials, 2012, 22, 1015-1023.	7.8	54
34	The Nanolithography Toolbox. Journal of Research of the National Institute of Standards and Technology, 2016, 121, 464.	0.4	54
35	Materials analysis with a position-sensitive atom probe. Journal of Microscopy, 1989, 154, 215-225.	0.8	53
36	20-nm-resolution Soft x-ray microscopy demonstrated by use of multilayer test structures. Optics Letters, 2003, 28, 2019.	1.7	51

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37	Fabrication of platinum nanoparticles and nanowires by electron beam lithography (EBL) and nanoimprint lithography (NIL): comparison of ethylene hydrogenation kinetics. <i>Catalysis Letters</i> , 2005, 100, 115-124.	1.4	49
38	Multifocus microscopy with precise color multi-phase diffractive optics applied in functional neuronal imaging. <i>Biomedical Optics Express</i> , 2016, 7, 855.	1.5	47
39	Parallel Fabrication of Sub-50-nm Uniformly Sized Nanoparticles by Deposition through a Patterned Silicon Nitride Nanostencil. <i>Nano Letters</i> , 2005, 5, 1129-1134.	4.5	45
40	3D Particle Trajectories Observed by Orthogonal Tracking Microscopy. <i>ACS Nano</i> , 2009, 3, 609-614.	7.3	44
41	Integration of Scanning Probes and Ion Beams. <i>Nano Letters</i> , 2005, 5, 1087-1091.	4.5	43
42	Reflection mode imaging with nanoscale resolution using a compact extreme ultraviolet laser. <i>Optics Express</i> , 2005, 13, 3983.	1.7	43
43	Dielectric Characterization by Microwave Cavity Perturbation Corrected for Nonuniform Fields. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2014, 62, 2149-2159.	2.9	43
44	Stochastic scattering in charged particle projection systems: A nearest neighbor approach. <i>Journal of Applied Physics</i> , 1995, 78, 6888-6902.	1.1	41
45	Measuring the Structure of Epitaxially Assembled Block Copolymer Domains with Soft X-ray Diffraction. <i>Macromolecules</i> , 2010, 43, 433-441.	2.2	40
46	Multiple electrokinetic actuators for feedback control of colloidal crystal size. <i>Lab on A Chip</i> , 2012, 12, 4063.	3.1	39
47	Three-Dimensional Real-Time Tracking of Nanoparticles at an Oil-Water Interface. <i>Langmuir</i> , 2012, 28, 9181-9188.	1.6	38
48	Fabrication of Metallic Nanodots in Large-Area Arrays by Mold-to-Mold Cross Imprinting (MTMCI). <i>Nano Letters</i> , 2005, 5, 2557-2562.	4.5	37
49	Cavity-Enhanced Magneto-optical Observation of Magnetization Reversal in Individual Single-Domain Nanomagnets. <i>Nano Letters</i> , 2005, 5, 1413-1417.	4.5	36
50	New Insights into Sequential Infiltration Synthesis. <i>ECS Transactions</i> , 2015, 69, 147-157.	0.3	35
51	Crystallographic aspects of pore formation in gallium arsenide and silicon. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1997, 75, 525-539.	0.8	32
52	Subnanometer localization accuracy in widefield optical microscopy. <i>Light: Science and Applications</i> , 2018, 7, 31.	7.7	32
53	At-wavelength alignment and testing of the 0.3 NA MET optic. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2004, 22, 2956.	1.6	31
54	High-Resolution Imaging and Spectroscopy at High Pressure: A Novel Liquid Cell for the Transmission Electron Microscope. <i>Microscopy and Microanalysis</i> , 2015, 21, 1629-1638.	0.2	31

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55	High-speed, high-purity separation of gold nanoparticleâ€“DNA origami constructs using centrifugation. <i>Soft Matter</i> , 2014, 10, 7370.	1.2	29
56	Nonaqueous development of silsesquioxane electron beam resist. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2004, 22, 3497.	1.6	28
57	Quantum dot-DNA origami binding: a single particle, 3D, real-time tracking study. <i>Chemical Communications</i> , 2013, 49, 907-909.	2.2	28
58	Metal-Induced Assembly of a Semiconductor Island Lattice: Ge Truncated Pyramids on Au-Patterned Si. <i>Nano Letters</i> , 2005, 5, 2070-2073.	4.5	27
59	Simultaneous positioning and orientation of single nano-wires using flow control. <i>RSC Advances</i> , 2013, 3, 2677.	1.7	27
60	Optical tracking of nanoscale particles in microscale environments. <i>Applied Physics Reviews</i> , 2016, 3, .	5.5	27
61	Fabrication of 2-dimensional platinum nanocatalyst arrays by electron beam lithography: ethylene hydrogenation and CO-poisoning reaction studies. <i>Topics in Catalysis</i> , 2006, 39, 123-129.	1.3	26
62	Space charge effects in projection charged particle lithography systems. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1995, 13, 2404.	1.6	25
63	Nanoscale topography control for the fabrication of advanced diffractive optics. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2003, 21, 2980.	1.6	25
64	Variable Field Analytical Ultracentrifugation: II. Gravitational Sweep Sedimentation Velocity. <i>Biophysical Journal</i> , 2016, 110, 103-112.	0.2	25
65	Low-temperature Growth of Carbon Nanotubes Catalyzed by Sodium-Based Ingredients. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 9204-9209.	7.2	25
66	25-nm mechanically buttressed high aspect ratio zone plates: Fabrication and performance. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2004, 22, 3186.	1.6	24
67	Multiscale metrologies for process optimization of carbon nanotube polymer composites. <i>Carbon</i> , 2016, 108, 381-393.	5.4	24
68	Transport in submicrometer buried mesotaxial cobalt silicide wires. <i>Applied Physics Letters</i> , 1993, 62, 387-389.	1.5	22
69	3D TEM Tomography of Templated Bilayer Films of Block Copolymers. <i>Advanced Functional Materials</i> , 2014, 24, 7689-7697.	7.8	22
70	Electron scattering and transmission through SCALPEL masks. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1998, 16, 3385.	1.6	21
71	Shot noise models for sequential processes and the role of lateral mixing. <i>Journal of Vacuum Science & Technology B</i> , 2006, 24, 1902.	1.3	21
72	Super-resolution Optical Measurement of Nanoscale Photoacid Distribution in Lithographic Materials. <i>ACS Nano</i> , 2012, 6, 9496-9502.	7.3	21

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73	Nanoscale deformation in polymers revealed by single-molecule super-resolution localization orientation microscopy. <i>Materials Horizons</i> , 2019, 6, 817-825.	6.4	21
74	Mask fabrication for projection electron-beam lithography incorporating the SCALPEL technique. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1991, 9, 3000.	1.6	20
75	Fabrication of high-efficiency multilayer-coated gratings for the EUV regime using e-beam patterned substrates. <i>Optics Communications</i> , 2004, 229, 109-116.	1.0	20
76	The SCattering with Angular Limitation in Projection Electron-Beam Lithography (SCALPEL) System. <i>Japanese Journal of Applied Physics</i> , 1995, 34, 6663-6671.	0.8	19
77	A dual-mode actinic EUV mask inspection tool. , 2005, 5751, 660.		19
78	PULSED LASER ATOM PROBE ANALYSIS OF TERNARY AND QUATERNARY III-V EPITAXIAL LAYERS. <i>Journal De Physique Colloque</i> , 1988, 49, C6-509-C6-514.	0.2	18
79	An analytical model of stochastic interaction effects in projection systems using a nearest-neighbor approach. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1994, 12, 3508.	1.6	18
80	Probe shape measurement in an electron beam lithography system. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2004, 22, 2897.	1.6	18
81	Preliminary results from a prototype projection electron-beam stepper-scattering with angular limitation projection electron beam lithography proof-of-concept system. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> . 1996. 14. 3825.	1.6	17
82	Dose modification proximity effect correction scheme with inherent forward scattering corrections. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1997, 15, 2309.	1.6	17
83	Quantum Computer Development with Single Ion Implantation. <i>Quantum Information Processing</i> , 2004, 3, 233-245.	1.0	17
84	The innovator's non dilemma: the case of next generation lithography. <i>Managerial and Decision Economics</i> , 2008, 29, 407-423.	1.3	17
85	Molecular Precision at Micrometer Length Scales: Hierarchical Assembly of DNA Protein Nanostructures. <i>ACS Nano</i> , 2017, 11, 6623-6629.	7.3	17
86	Compositional homogeneity of metalorganic chemical vapor deposition grown III-V compound semiconductor epilayers. <i>Journal of Applied Physics</i> , 1991, 69, 250-256.	1.1	16
87	EUV interferometric testing and alignment of the 0.3-NA MET optic. , 2004, 5374, 64.		16
88	The link between nanoscale feature development in a negative resist and the Hansen solubility sphere. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2009, 47, 2091-2105.	2.4	16
89	Aligned carbon nanotube morphogenesis predicts physical properties of their polymer nanocomposites. <i>Nanoscale</i> , 2019, 11, 16327-16335.	2.8	16
90	Imaging at High Spatial Resolution: Soft X-Ray Microscopy to 15nm. <i>Journal of Biomedical Nanotechnology</i> , 2006, 2, 75-78.	0.5	16

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91	Ion implantation with scanning probe alignment. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 2798.	1.6	15
92	Simultaneous positioning and orientation of a single nano-object by flow control: theory and simulations. New Journal of Physics, 2011, 13, 013027.	1.2	15
93	New insights into subsurface imaging of carbon nanotubes in polymer composites via scanning electron microscopy. Nanotechnology, 2015, 26, 085703.	1.3	15
94	Advancing the ion beam thin film planarization process for the smoothing of substrate particles. Microelectronic Engineering, 2005, 77, 369-381.	1.1	14
95	Profile evolution of Cr masked features undergoing HBr-inductively coupled plasma etching for use in 25nm silicon nanoimprint templates. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 2073.	1.6	14
96	Fabrication of 30 nm pitch imprint moulds by frequency doubling for nanowire arrays. Nanotechnology, 2006, 17, 4956-4961.	1.3	14
97	Chemical Nanomachining of Silicon by Gold-Catalyzed Oxidation. Nano Letters, 2007, 7, 2009-2013.	4.5	14
98	Space-charge effects in projection electron-beam lithography: Results from the SCALPEL proof-of-lithography system. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 476.	1.6	13
99	Strategies for integration of donor electron spin qubits in silicon. Microelectronic Engineering, 2006, 83, 1814-1817.	1.1	13
100	Sculpting Semiconductor Heteroepitaxial Islands: From Dots to Rods. Physical Review Letters, 2007, 98, 106102.	2.9	13
101	Noncontact conductivity and dielectric measurement for high throughput roll-to-roll nanomanufacturing. Scientific Reports, 2015, 5, 17019.	1.6	13
102	Giant Surface Conductivity Enhancement in a Carbon Nanotube Composite by Ultraviolet Light Exposure. ACS Applied Materials & Interfaces, 2016, 8, 23230-23235.	4.0	13
103	Revealing thermodynamics of DNA origami folding via affine transformations. Nucleic Acids Research, 2020, 48, 5268-5280.	6.5	13
104	Application of position sensitive atom probe to the study of the microchemistry and morphology of quantum well interfaces. Applied Physics Letters, 1989, 54, 1555-1557.	1.5	12
105	A background dose proximity effect correction technique for scattering with angular limitation projection electron lithography implemented in hardware. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1995, 13, 2504.	1.6	12
106	The SCALPEL proof of concept system. Microelectronic Engineering, 1997, 35, 477-480.	1.1	12
107	Scanning x-ray microscopy investigations into the electron-beam exposure mechanism of hydrogen silsesquioxane resists. Journal of Vacuum Science & Technology B, 2006, 24, 3048.	1.3	12
108	Resonant Microwave Absorption in Thermally Deposited Au Nanoparticle Films Near Percolation Coverage. Langmuir, 2013, 29, 9010-9015.	1.6	12

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109	Trade-off between the Mechanical Strength and Microwave Electrical Properties of Functionalized and Irradiated Carbon Nanotube Sheets. ACS Applied Materials & Interfaces, 2016, 8, 9327-9334.	4.0	12
110	Failure Mechanisms in DNA Self-Assembly: Barriers to Single-Fold Yield. ACS Nano, 2021, 15, 3284-3294.	7.3	12
111	Choice of system parameters for projection electron-beam lithography: Accelerating voltage and demagnification factor. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1992, 10, 2776.	1.6	11
112	Single ion implantation with scanning probe alignment. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 2992.	1.6	11
113	Error budget analysis of the SCALPEL(R) mask for sub-0.2 μ m lithography. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1995, 13, 2483.	1.6	10
114	Formation of 15-nm scale Coulomb blockade structures in silicon by electron beam lithography with a bilayer resist process. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 3115.	1.6	10
115	Design and fabrication of a high-efficiency extreme-ultraviolet binary phase-only computer-generated hologram. Applied Optics, 2007, 46, 2581.	2.1	10
116	Fracture Strength of Thin Ceramic Membranes. Materials Research Society Symposia Proceedings, 1994, 338, 501.	0.1	9
117	Design, fabrication, and characterization of high-efficiency extreme-ultraviolet diffusers. Applied Optics, 2004, 43, 5323.	2.1	9
118	Cure temperature influences composite electrical properties by carbon nanotube-rich domain formation. Composites Science and Technology, 2016, 133, 23-32.	3.8	9
119	<title>SCALPEL system</title>. , 1994, , .		8
120	SCALPEL proof-of-concept system: preliminary lithography results. , 1997, , .		8
121	Finite element analysis of SCALPEL wafer heating. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 2883.	1.6	8
122	Microlens Arrays for Optoelectronic Devices.. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2002, 15, 497-515.	0.1	8
123	Resist Requirements and Limitations for Nanoscale Electron-Beam Patterning. Materials Research Society Symposia Proceedings, 2002, 739, 151.	0.1	8
124	Theoretical model of errors in micromirror-based three-dimensional particle tracking. Optics Letters, 2010, 35, 1905.	1.7	8
125	Stress-induced pattern-placement errors in thin membrane masks. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 3528.	1.6	7
126	Application of transmission electron detection to SCALPEL mask metrology. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 2167.	1.6	7

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127	Commercialization of SCALPEL masks. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 3582.	1.6	7
128	SCALPEL mask-membrane charging. Microelectronic Engineering, 1999, 46, 223-226.	1.1	7
129	Extreme ultraviolet binary phase gratings: Fabrication and application to diffractive optics. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 1136-1140.	0.9	7
130	Nanoscale pattern transfer for templates, NEMS, and nano-optics. , 2007, , .		7
131	Ultra-flat coplanar electrodes for controlled electrical contact of molecular films. Review of Scientific Instruments, 2011, 82, 123901.	0.6	7
132	Staining Block Copolymers using Sequential Infiltration Synthesis for High Contrast Imaging and STEM tomography. Microscopy and Microanalysis, 2015, 21, 611-612.	0.2	7
133	Analysis and uncertainty quantification of DNA fluorescence melt data: Applications of affine transformations. Analytical Biochemistry, 2020, 607, 113773.	1.1	7
134	DNA Origami Design: A How-To Tutorial. Journal of Research of the National Institute of Standards and Technology, 2021, 126, .	0.4	7
135	The Self-Report Delinquency Scale From the National Longitudinal Study of Adolescent to Adult Health Among At-Risk for Delinquency Youths. Violence and Victims, 2019, 34, 120-135.	0.4	7
136	Mask detection for alignment and registration in a high-throughput projection electron lithography tool. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1992, 10, 2780.	1.6	6
137	Proximity Effect Correction in Projection Electron Beam Lithography (Scattering with Angular) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T 6672-6678.	0.8	6
138	Resist Design Considerations for Direct Write and Projection Electron-Beam Lithography Technologies.. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 1996, 9, 663-675.	0.1	6
139	Mechanical Modeling of Projection Electron-Beam Lithography Masks. Japanese Journal of Applied Physics, 1997, 36, 7564-7569.	0.8	6
140	Dynamic analysis of a SCALPEL mask during electron-beam exposure. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 3587.	1.6	6
141	Critical issues for developing a high-throughput SCALPEL system for sub-0.18-um lithography generations. , 1998, 3331, 673.		6
142	Mask membrane distortions due to pattern transfer for electron-beam lithography (SCALPEL) masks. Microelectronic Engineering, 1999, 46, 259-262.	1.1	6
143	Space-charge results from the SCALPEL proof-of-concept system. , 1999, , .		6
144	Writing strategy for a high-throughput SCALPEL system. , 1999, 3676, 194.		6

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145	EUV interferometry of the 0.3-NA MET optic. , 2003, , .		6
146	Grain Structure in Block Copolymer Thin Films Studied by Guided Wave Depolarized Light Scattering. <i>Macromolecules</i> , 2005, 38, 4282-4288.	2.2	6
147	Metrology of DSA process using TEM tomography. <i>Proceedings of SPIE</i> , 2015, , .	0.8	6
148	Enhanced durability of carbon nanotube grafted hierarchical ceramic microfiber-reinforced epoxy composites. <i>Carbon</i> , 2017, 125, 63-75.	5.4	6
149	ALLOY CARBIDE PRECIPITATION IN A HIGH COBALT-NICKEL SECONDARY HARDENING STEEL. <i>Journal De Physique Colloque</i> , 1986, 47, C7-223-C7-231.	0.2	6
150	<title>Design of a low-brightness highly uniform source for projection electron-beam lithography (SCALPEL)</title>., 1997, , .		5
151	Fabrication and commercialization of scalpel masks. , 1998, , .		5
152	Thin film stress mapping using an integrated sensor. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1999, 17, 2714.	1.6	5
153	Determination of the possible magnitude of the charging effect in a SCALPEL mask membrane. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1999, 17, 2888.	1.6	5
154	Initial wafer heating analysis for a SCALPEL lithography system. <i>Microelectronic Engineering</i> , 1999, 46, 235-238.	1.1	5
155	Analytical model of the "Shot Noise" effect in photoresist. <i>Microelectronic Engineering</i> , 1999, 46, 365-368.	1.1	5
156	Spatial coherence in electron-beam patterning. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2010, 28, 1048-1055.	0.6	5
157	Modeling the Electromagnetic Scattering Characteristics of Carbon Nanotube Composites Characterized by 3-D Tomographic Transmission Electron Microscopy. <i>IEEE Open Journal of Antennas and Propagation</i> , 2020, 1, 142-158.	2.5	5
158	So, You Want to Have a Nanofab? Shared-Use Nanofabrication and Characterization Facilities: Cost-of-Ownership, Toolset, Utilization, and Lessons Learned. <i>Journal of Research of the National Institute of Standards and Technology</i> , 2020, 125, 125009.	0.4	5
159	Metrology of scattering with angular limitation projection electron lithography masks. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1997, 15, 2197.	1.6	4
160	Critical dimension control at stitched subfield boundaries in a high-throughput SCALPEL [®] system. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1998, 16, 3197.	1.6	4
161	Mechanical and thermal modeling of the SCALPEL mask. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1999, 17, 2878.	1.6	4
162	200-mm SCALPEL mask development. , 1999, , .		4

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