John S Petersen

List of Publications by Year
in descending order

53	366	1684188 5	1720034 7
papers	citations	h-index	g-index

53	53	53	139
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Elucidating complex triplet-state dynamics in the model system isopropylthioxanthone. IScience, 2022, 25, 103600.	4.1	12
2	EUV resist chemical gradient enhancement by UV flood exposure for improvement in EUV resist resolution, process control, roughness, sensitivity and stochastic defectivity. , 2020, , .		2
3	Calibrated PSCAR stochastic simulation. , 2019, , .		1
4	Oxygen effects in thin films for high-resolution , 3-color lithography. , 2019, , .		0
5	Unraveling the EUV photoresist reactions: which, how much, and how do they relate to printing performance. , 2019, , .		2
6	PSCAR optimization to reduce EUV resist roughness with sensitization using Resist Formulation Optimizer (RFO) (Conference Presentation). , 2019, , .		0
7	The state of the art in multicolor visible photolithography. , 2018, , .		1
8	Unraveling the role of photons and electrons upon their chemical interaction with photoresist during EUV exposure. , 2018, , .		2
9	Benchmarking 3-color photoresists for multiphoton absorption lithography. , 2018, , .		1
10	Thin films for high-resolution, 3-color lithography. , 2018, , .		0
11	Constructing a robust PSCARTM process for EUV (Conference Presentation). , 2018, , .		0
12	2-Colour photolithography. Physical Chemistry Chemical Physics, 2014, 16, 8731.	2.8	35
13	Writing wavy metal 1 shapes on 22-nm logic wafers with less shot count. Proceedings of SPIE, 2010, , .	0.8	11
14	Interference assisted lithography for patterning of 1D gridded design. Proceedings of SPIE, 2009, , .	0.8	18
15	Imaging study of positive and negative tone weak phase-shifted 65 nm node contacts. , 2005, , .		0
16	An integrated imaging system for the 45-nm technology node contact holes using polarized OAI, immersion, weak PSM, and negative resists. , 2005, 5754, 488.		4
17	Programmable lithography engine (ProLE) grid-type supercomputer and its applications. , 2003, , .		2
18	Evaluation of SCAA mask technology as a pathway to the 65-nm node. , 2003, , .		1

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19	Resist requirements in the era of resolution enhancement techniques. , 2003, 5039, 15.		2
20	Development of a sub-100-nm integrated imaging system using chromeless phase-shifting imaging with very high NA KrF exposure and off-axis illumination. , 2002, , .		2
21	Imaging 100 nm contacts with high transmission attenuated phase shift masks. , 2002, 4889, 1242.		2
22	Complex 2D pattern lithography at Î»/4 resolution using chromeless phase lithography (CPL). , 2002, 4691, 196.		10
23	<title>Development of a sub-100nm integrated imaging system using chromeless phase-shifting imaging with very high NA KrF exposure and off-axis illumination</title>. , 2002, 4692, 298.		0
24	<title>Developing an integrated imaging system for the 70-nm node using high numerical aperture ArF lithography</title>. , 2002, , .		2
25	Multiple pitch transmission and phase analysis of six types of strong phase-shifting masks. , 2001, , .		11
26	Modeling the impact of thermal history during post-exposure bake on the lithographic performance of chemically amplified resists. , 2001, , .		24
27	Phase phirst! An improved strong-PSM paradigm. , 2001, , .		15
28	Binary halftone chromeless PSM technology for Î»/4;optical lithography. , 2001, , .		12
29	Optical proximity strategies for desensitizing lens aberrations. , 2001, , .		4
30	Analytical description of antiscattering and scattering bar assist features. , 2000, 4000, 77.		14
31	High-transmission attenuated PSM: benefits and limitations through a validation study of 33%, 20%, and 6% transmission masks. , 2000, 4000, 1163.		8
32	Optimization of 300-mm coat, exposure, and develop processes for 180-nm and smaller features. , 1999, 3678, 947.		1
33	Resolution enhancement with high-transmission attenuating phase-shift masks. , 1999, , .		8
34	Resolution and DOF improvement through the use of square-shaped illumination. , 1999, 3679, 408.		1
35	Design of 200-nm, 170-nm, and 140-nm DUV contact sweeper high-transmission attenuating phase-shift mask: II. Experimental results. , 1999, , .		3
36	Imaging contrast improvement for 160-nm line features using subresolution assist features with binary, six percent ternary attenuated phase-shift mask with process-tuned resist. , 1999, 3679, 55.		5

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37	<title>Assessment of a hypothetical road map that extends optical lithography through the 70-nm technology node</title>. , 1999, 3741, 73.		0
38	Optical extension at the 193-nm wavelength. , 1999, , .		2
39	Influences of off-axis illumination on optical lens aberration. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 3405.	1.6	5
40	Assessment of a hypothetical roadmap that extends optical lithography through the 70-nm technology node. , 1998, , .		15
41	Aberration evaluation and tolerancing of 193-nm lithographic objective lenses. , 1998, 3334, 269.		2
42	Design and analysis of manufacturable alternating phase-shifting masks. , 1998, , .		14
43	Design of 200-nm, 170-nm, and 140-nm DUV contact sweeper high-transmission attenuating phase-shift mask through simulation I. , 1998, , .		10
44	Illumination pupil filtering using modified quadrupole apertures. , 1998, , .		9
45	Designing dual-trench alternating phase-shift masks for 140-nm and smaller features using 248-nm KrF and 193-nm ArF lithography. , 1998, 3412, 503.		5
46	Effect of phase error on 180-nm and 250-nm grouped-line KrF lithography using an alternating phase-shift mask. , 1997, 3096, 375.		0
47	Process development for 180-nm structures using interferometric lithography and i-line photoresist. , 1997, , .		10
48	Advanced FTIR techniques for photoresist process characterization. , 1997, , .		3
49	The formation of acid diffusion wells in acid catalyzed photoresists. Microelectronic Engineering, 1997, 35, 169-174.	2.4	13
50	Examination of isolated and grouped feature bias in positive-acting chemically amplified resist systems. , 1996, , .		11
51	<title>Characterization and modeling of a positive-acting chemically amplified resist</title>. , 1995, , .		21
52	<title>Nonconstant diffusion coefficients: short description of modeling and comparison to experimental results</title>. , 1995, , .		29
53	Submicron imaging at 248.3nm: A lithographic performance review and initial process performance screening of Megaposit SNR 248-1.0 photo resist.. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 1990, 3, 305-317.	0.3	1