Mikhail Baklanov

List of Publications by Year
in descending order

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323 papers	9,015 citations	66343 42 h-index	54911 84 g-index
335 all docs	335 docs citations	335 times ranked	5378 citing authors

#	Article	IF	Citations
1	Low dielectric constant materials for microelectronics. Journal of Applied Physics, 2003, 93, 8793-8841.	2.5	1,494
2	Determination of pore size distribution in thin films by ellipsometric porosimetry. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 1385.	1.6	472
3	Disorder-Induced Inhomogeneities of the Superconducting State Close to the Superconductor-Insulator Transition. Physical Review Letters, 2008, 101, 157006.	7.8	274
4	Plasma processing of low-k dielectrics. Journal of Applied Physics, 2013, 113, .	2.5	258
5	Metal-Organic Framework ZIF-8 Films As Low-Îº Dielectrics in Microelectronics. Chemistry of Materials, 2013, 25, 27-33.	6.7	227
6	Superinsulator and quantum synchronization. Nature, 2008, 452, 613-615.	27.8	193
7	Localized Superconductivity in the Quantum-Critical Region of the Disorder-Driven Superconductor-Insulator Transition in TiN Thin Films. Physical Review Letters, 2007, 99, 257003.	7.8	174
8	Non-destructive characterisation of porous low-k dielectric films. Microelectronic Engineering, 2002, 64, 335-349.	2.4	157
9	Pseudogap in a thin film of a conventional superconductor. Nature Communications, 2010, 1, 140.	12.8	149
10	Comparative study of SiOCH low-k films with varied porosity interacting with etching and cleaning plasma. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 1923.	1.6	141
11	Porous low dielectric constant materials for microelectronics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2006, 364, 201-215.	3.4	112
12	Structural Characterization of Mesoporous Organosilica Films for Ultralow-kDielectrics. Journal of Physical Chemistry B, 2003, 107, 4280-4289.	2.6	107
13	Advanced Interconnects: Materials, Processing, and Reliability. ECS Journal of Solid State Science and Technology, 2015, 4, Y1-Y4.	1.8	104
14	Determination of Youngâ€™s Modulus of Porous Low-k Films by Ellipsometric Porosimetry. Electrochemical and Solid-State Letters, 2002, 5, F29.	2.2	99
15	Challenges in the implementation of low-k dielectrics in the back-end of line. Microelectronic Engineering, 2005, 80, 337-344.	2.4	99
16	Porosity in plasma enhanced chemical vapor deposited SiCOH dielectrics: A comparative study. Journal of Applied Physics, 2003, 94, 3427-3435.	2.5	94
17	Magnetic field-induced dissipation-free state in superconducting nanostructures. Nature Communications, 2013, 4, 1437.	12.8	90
18	Characterization of Cu surface cleaning by hydrogen plasma. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 1201.	1.6	89

#	Article	IF	Citations
19	Improving mechanical robustness of ultralow-k SiOCH plasma enhanced chemical vapor deposition glasses by controlled porogen decomposition prior to UV-hardening. Journal of Applied Physics, 2010, 107, .	2.5	81
20	Influence of absorbed water components on SiOCH low-k reliability. Journal of Applied Physics, 2008, 104, .	2.5	77
21	Quantum Metallicity on the High-Field Side of the Superconductor-Insulator Transition. Physical Review Letters, 2007, 98, 127003.	7.8	76
22	Effect of pressure on efficiency of UV curing of CVD-derived low-k material at different wavelengths. Microelectronic Engineering, 2008, 85, 2094-2097.	2.4	72
23	Comparison of techniques to characterise the density, porosity and elastic modulus of porous low-k SiO2 xerogel films. Microelectronic Engineering, 2002, 60, 133-141.	2.4	66
24	Effects of oxygen and fluorine on the dry etch characteristics of organic low-k dielectrics. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 372.	1.6	63
25	Nondestructive Determination of Pore Size Distribution in Thin Films Deposited on Solid Substrates. Electrochemical and Solid-State Letters, 1999, 2, 192.	2.2	61
26	Critical properties of nanoporous low dielectric constant films revealed by Brillouin light scattering and surface acoustic wave spectroscopy. Applied Physics Letters, 2002, 80, 4594-4596.	3.3	60
27	Superconductivity on the localization threshold and magnetic-field-tuned superconductor-insulator transition in TiN films. JETP Letters, 2004, 79, 337-341.	1.4	59
28	Depth-profiling of elastic inhomogeneities in transparent nanoporous low-k materials by picosecond ultrasonic interferometry. Applied Physics Letters, 2009, 95, .	3.3	59
29	Nanoscale Noncontact Subsurface Investigations of Mechanical and Optical Properties of Nanoporous Low-<i>k</i> Material Thin Film. ACS Nano, 2012, 6, 1410-1415.	14.6	59
30	Tuning the Pore Size of Ink-Bottle Mesopores by Atomic Layer Deposition. Chemistry of Materials, 2012, 24, 1992-1994.	6.7	59
31	The Removal of Copper Oxides by Ethyl Alcohol Monitored In Situ by Spectroscopic Ellipsometry. Journal of the Electrochemical Society, 2003, 150, G300.	2.9	57
32	Quantification of processing damage in porous low dielectric constant films. Microelectronic Engineering, 2006, 83, 2287-2291.	2.4	56
33	Effect of Porogen Residue on Chemical, Optical, and Mechanical Properties of CVD SiCOH Low-k Materials. Electrochemical and Solid-State Letters, 2009, 12, H292.	2.2	56
34	Superconducting phase transitions in ultrathin TiN films. Europhysics Letters, 2012, 97, 17012.	2.0	56
35	Capacitance measurements and k-value extractions of low-k films. Microelectronic Engineering, 2010, 87, 2391-2406.	2.4	54
36	The mechanism of low-k SiOCH film modification by oxygen atoms. Journal of Applied Physics, 2010, 108, .	2.5	53

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37	<i>In Situ</i> Monitoring of Atomic Layer Deposition in Nanoporous Thin Films Using Ellipsometric Porosimetry. Langmuir, 2012, 28, 3852-3859.	3.5	51
38	Porogen residues detection in optical properties of low-k dielectrics cured by ultraviolet radiation. Thin Solid Films, 2010, 518, 4266-4272.	1.8	50
39	Effect of Pore Structure of Nanometer Scale Porous Films on the Measured Elastic Modulus. Langmuir, 2013, 29, 12025-12035.	3.5	47
40	Low-<i>k</i>films modification under EUV and VUV radiation. Journal Physics D: Applied Physics, 2014, 47, 025102.	2.8	47
41	Ultra-low-k cyclic carbon-bridged PMO films with a high chemical resistance. Journal of Materials Chemistry, 2012, 22, 8281.	6.7	44
42	Electrical Reliability Challenges of Advanced Low-k Dielectrics. ECS Journal of Solid State Science and Technology, 2015, 4, N3065-N3070.	1.8	44
43	Characterization of a Molecular Sieve Coating Using Ellipsometric Porosimetry. Langmuir, 2007, 23, 12811-12816.	3.5	43
44	Direct observation of the 1/E dependence of time dependent dielectric breakdown in the presence of copper. Applied Physics Letters, 2011, 98, 032107.	3.3	43
45	Diffusion barrier integrity evaluation by ellipsometric porosimetry. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 220.	1.6	42
46	Optical Property Changes in Low-k Films upon Ultraviolet-Assisted Curing. Journal of the Electrochemical Society, 2008, 155, G115.	2.9	42
47	Effect of porogen residue on electrical characteristics of ultra low-k materials. Microelectronic Engineering, 2011, 88, 990-993.	2.4	42
48	Comparative Study of Pore Size of Low-Dielectric-Constant Porous Spin-on-Glass Films Using Different Methods of Nondestructive Instrumentation. Japanese Journal of Applied Physics, 2001, 40, L323-L326.	1.5	40
49	Mechanical Stability of Porous Low-k Dielectrics. ECS Journal of Solid State Science and Technology, 2015, 4, N3058-N3064.	1.8	40
50	Damage Reduction and Sealing of Low-k Films by Combined He and NH[sub 3] Plasma Treatment. Electrochemical and Solid-State Letters, 2007, 10, G76.	2.2	38
51	Ultraviolet-Assisted Curing of Polycrystalline Pure-Silica Zeolites:â€‰ Hydrophobization, Functionalization, and Cross-Linking of Grains. Journal of the American Chemical Society, 2007, 129, 9288-9289.	13.7	38
52	Impact of VUV photons on SiO2 and organosilicate low-k dielectrics: General behavior, practical applications, and atomic models. Applied Physics Reviews, 2019, 6, .	11.3	38
53	Removal of Plasma-Modified Low-k Layer Using Dilute HF: Influence of Concentration. Electrochemical and Solid-State Letters, 2005, 8, F21.	2.2	37
54	Effect of UV wavelength on the hardening process of porogen-containing and porogen-free ultralow-k plasma-enhanced chemical vapor deposition dielectrics. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, .	1.2	37

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55	Porous structure of SiO2 films synthesized at low temperature and pressure. Thin Solid Films, 1989, 171, 43-52.	1.8	36
56	Morphological Control of Nanoporous Films by the Use of Functionalized Cyclodextrins as Porogens. Advanced Functional Materials, 2004, 14, 277-282.	14.9	36
57	Zeolite-Inspired Low-kDielectrics Overcoming Limitations of Zeolite Films. Journal of the American Chemical Society, 2008, 130, 17528-17536.	13.7	36
58	SELECTIVE REMOVAL OF HIGH-<i>K</i>GATE DIELECTRICS. Chemical Engineering Communications, 2009, 196, 1475-1535.	2.6	36
59	Controllable Change of Porosity of 3-Methylsilane Low-k Dielectric Film. Electrochemical and Solid-State Letters, 2001, 4, F3.	2.2	35
60	Evidence of Large Voids in Pureâ€Silicaâ€Zeolite Lowâ€<i>k</i> Dielectrics Synthesized by Spinâ€on of Nanoparticle Suspensions. Advanced Materials, 2008, 20, 3110-3116.	21.0	34
61	Influence of porosity on electrical properties of low-k dielectrics. Microelectronic Engineering, 2012, 92, 59-61.	2.4	33
62	From quantum corrections to magnetic-field-tuned superconductorâ€“insulator quantum phase transition in TiN films. Physica B: Condensed Matter, 2005, 359-361, 500-502.	2.7	32
63	Intrinsic effect of porosity on mechanical and fracture properties of nanoporous ultralow-<i>k</i> dielectrics. Applied Physics Letters, 2012, 101, 123109.	3.3	32
64	Role of copper in time dependent dielectric breakdown of porous organo-silicate glass low-k materials. Applied Physics Letters, 2011, 99, 222110.	3.3	31
65	Damage Free Cryogenic Etching of a Porous Organosilica Ultralow-k Film. ECS Solid State Letters, 2012, 2, N5-N7.	1.4	31
66	Modification of organosilicate glasses low-k films under extreme and vacuum ultraviolet radiation. Applied Physics Letters, 2013, 102, .	3.3	31
67	Improved Plasma Resistance for Porous Low-k Dielectrics by Pore Stuffing Approach. ECS Journal of Solid State Science and Technology, 2015, 4, N3098-N3107.	1.8	31
68	Effect of energetic ions on plasma damage of porous SiCOH low-k materials. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 450-459.	1.2	30
69	Low Damage Cryogenic Etching of Porous Organosilicate Low-k Materials Using SF₆/O₂/SiF₄. ECS Journal of Solid State Science and Technology, 2013, 2, N131-N139.	1.8	29
70	Surface characterization of a low dielectric constant polymerâ€“SiLK[sup âˆ—] polymer, and investigation of its interface with Cu. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 2336.	1.6	28
71	Pore Structure of Modified Cyclic Silsesquioxane Thin Films Made Porous Using a Cyclodextrins-Based Porogen. Journal of Physical Chemistry B, 2004, 108, 8953-8959.	2.6	28
72	Impact of Plasma Pretreatment and Pore Size on the Sealing of Ultra-Low-<i>k</i> Dielectrics by Self-Assembled Monolayers. Langmuir, 2014, 30, 3832-3844.	3.5	28

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73	Properties of porous HSQ-based films capped by plasma enhanced chemical vapor deposition dielectric layers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 109.	1.6	27
74	Quantum-critical region of the disorder-driven superconductorâ€“insulator transition. Physica C: Superconductivity and Its Applications, 2008, 468, 316-321.	1.2	27
75	Effects of He Plasma Pretreatment on Low-k Damage during Cu Surface Cleaning with NH[sub 3] Plasma. Journal of the Electrochemical Society, 2010, 157, H565.	2.9	27
76	Defect-induced bandgap narrowing in low-k dielectrics. Applied Physics Letters, 2015, 107, 082903.	3.3	27
77	Low temperature oxidation and selective etching of chemical vapor deposition a-SiC:H films. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 1281.	1.6	26
78	Enhancement of ALCVDâ„¢ TiN growth on Siâ€“Oâ€“C and Î±-SiC:H films by O2-based plasma treatments. Microelectronic Engineering, 2002, 60, 59-69.	2.4	26
79	Diffusion of solvents in thin porous films. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 300, 111-116.	4.7	26
80	Effect of ultraviolet curing wavelength on low-k dielectric material properties and plasma damage resistance. Thin Solid Films, 2011, 519, 3619-3626.	1.8	26
81	Spacious and mechanically flexible mesoporous silica thin film composed of an open network of interlinked nanoslabs. Journal of Materials Chemistry, 2011, 21, 7692.	6.7	24
82	Pore sealing of k 2.0 dielectrics assisted by self-assembled monolayers deposited from vapor phase. Microelectronic Engineering, 2014, 120, 240-245.	2.4	24
83	Comparative study of PECVD SiOCH low-k films obtained at different deposition conditions. Microelectronic Engineering, 2002, 64, 361-366.	2.4	23
84	A Discussion of the Practical Importance of Positron Annihilation Lifetime Spectroscopy Percolation Threshold in Evaluation of Porous Low-KDielectrics. Japanese Journal of Applied Physics, 2004, 43, 247-248.	1.5	23
85	Hyperactivated resistance in TiN films on the insulating side of the disorder-driven superconductor-insulator transition. JETP Letters, 2008, 88, 752-757.	1.4	23
86	Recombination of O and H Atoms on the Surface of Nanoporous Dielectrics. IEEE Transactions on Plasma Science, 2009, 37, 1697-1704.	1.3	23
87	Study of metal barrier deposition-induced damage to porous low-k materials. Microelectronic Engineering, 2011, 88, 3030-3034.	2.4	23
88	Pore Sealing of Porous Ultralow-k Dielectrics by Self-Assembled Monolayers Combined with Atomic Layer Deposition. ECS Solid State Letters, 2012, 1, P42-P44.	1.4	23
89	Interaction of F atoms with SiOCH ultra-low-<i>k</i>films: I. Fluorination and damage. Journal Physics D: Applied Physics, 2015, 48, 175203.	2.8	23
90	Evaluation of Mechanical Properties of Porous OSG Films by PFQNM AFM and Benchmarking with Traditional Instrumentation. Langmuir, 2020, 36, 9377-9387.	3.5	23

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91	Internal matrix structure of low-Îº mesoporous silica and its relation to mechanical properties. Journal of Non-Crystalline Solids, 2004, 349, 189-199.	3.1	22
92	Ultraviolet-Assisted Curing of Organosilicate Glass Low-k Dielectric by Excimer Lamps. Journal of the Electrochemical Society, 2008, 155, G231.	2.9	22
93	A new procedure to seal the pores of mesoporous low-k films with precondensed organosilica oligomers. Chemical Communications, 2012, 48, 2797.	4.1	22
94	Vacuum ultra-violet damage and damage mitigation for plasma processing of highly porous organosilicate glass dielectrics. Journal of Applied Physics, 2015, 118, .	2.5	22
95	Effect of Bridging and Terminal Alkyl Groups on Structural and Mechanical Properties of Porous Organosilicate Films. ECS Journal of Solid State Science and Technology, 2017, 6, N182-N188.	1.8	22
96	Reaction of Trimethylchlorosilane in Spin-On Silicalite-1 Zeolite Film. Langmuir, 2008, 24, 4894-4900.	3.5	21
97	Multi-step reaction mechanism for F atom interactions with organosilicate glass and SiO_{<i>x</i>}films. Journal Physics D: Applied Physics, 2016, 49, 345203.	2.8	21
98	Characterization of spin-on zeolite films prepared from Silicalite-1 nanoparticle suspensions. Microporous and Mesoporous Materials, 2009, 118, 458-466.	4.4	20
99	Damage free integration of ultralow-k dielectrics by template replacement approach. Applied Physics Letters, 2015, 107, .	3.3	20
100	Effect of terminal methyl groups concentration on properties of organosilicate glass low dielectric constant films. Japanese Journal of Applied Physics, 2018, 57, 07MC01.	1.5	20
101	Minimizing plasma damage and in situ sealing of ultralow-k dielectric films by using oxygen free fluorocarbon plasmas. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 2198.	1.6	19
102	Electron spin resonance study of defects in low-Îº oxide insulators (Îº=2.5â€“2.0). Microelectronic Engineering, 2011, 88, 1503-1506.	2.4	19
103	Atomic Layer Deposition of TiO₂ on Surface Modified Nanoporous Low-<i>k</i> Films. Langmuir, 2013, 29, 12284-12289.	3.5	19
104	Influence of porosity on dielectric breakdown of ultralow-k dielectrics. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 050604.	1.2	19
105	Advanced PECVD SiCOH low-k films with low dielectric constant and/or high Youngâ€™s modulus. Microelectronic Engineering, 2014, 120, 225-229.	2.4	19
106	Cryogenic etching of porous low-k dielectrics in CF3Br and CF4 plasmas. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	1.2	19
107	Highâ€rate deposition of aâ€Si:H films using a flow plasmaâ€“chemical method with electron beam activation. Journal of Applied Physics, 1996, 79, 7274-7277.	2.5	18
108	Characterisation of Low-K Dielectric Films by Ellipsometric Porosimetry. Materials Research Society Symposia Proceedings, 2000, 612, 421.	0.1	18

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109	The effect of He plasma treatment on properties of organosilicate glass low-k films. Journal of Applied Physics, 2011, 109, 043303-043303-11.	2.5	18
110	Cryogenic etching processes applied to porous low-<i>k</i>materials using SF₆/C₄F₈plasmas. Journal Physics D: Applied Physics, 2015, 48, 435202.	2.8	18
111	Experimental and theoretical study of RF capacitively coupled plasma in Arâ€“CF₄â€“CF₃I mixtures. Plasma Sources Science and Technology, 2015, 24, 055006.	3.1	18
112	Effect of porosity and pore size on dielectric constant of organosilicate based low-k films: An analytical approach. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	1.2	18
113	Effect of silylation on triethoxyfluorosilane xerogel films by means of atmospheric pressure drying. Thin Solid Films, 2005, 471, 145-153.	1.8	17
114	Stiffening and hydrophilisation of SOG lowâ€<i>k</i> material studied by ellipsometric porosimetry, UV ellipsometry and laserâ€induced surface acoustic waves. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 829-832.	1.8	17
115	Quantitative characterization of pore stuffing and unstuffing for postporosity plasma protection of low-k materials. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, .	1.2	17
116	Interaction of F atoms with SiOCH ultra low-k films. Part II: etching. Journal Physics D: Applied Physics, 2015, 48, 175204.	2.8	17
117	Effects of Methyl Terminal and Carbon Bridging Groups Ratio on Critical Properties of Porous Organosilicate Glass Films. Materials, 2020, 13, 4484.	2.9	17
118	Initial stages of the interaction of nitrous oxide and oxygen with the (100) silicon surface under low pressures. Reactivity of Solids, 1989, 7, 1-18.	0.3	16
119	Bulk Properties of MOCVD-Deposited HfO[sub 2] Layers for High k Dielectric Applications. Journal of the Electrochemical Society, 2004, 151, F228.	2.9	16
120	A theoretical and experimental study of atomic-layer-deposited films onto porous dielectric substrates. Journal of Applied Physics, 2005, 98, 083515.	2.5	16
121	Optical properties of TiN thin films close to the superconductorâ€“insulator transition. New Journal of Physics, 2009, 11, 113017.	2.9	16
122	Effect of bake/cure temperature of an advanced organic ultra low-<i>k</i> material on the interface adhesion strength to metal barriers. Journal of Applied Physics, 2011, 109, .	2.5	16
123	Active species in porous media: Random walk and capture in traps. Microelectronic Engineering, 2011, 88, 694-696.	2.4	16
124	Study of Chemical Vapor Deposition of Manganese on Porous SiCOH Low-k Dielectrics Using Bis(ethylcyclopentadienyl)manganese. Electrochemical and Solid-State Letters, 2012, 15, H176.	2.2	16
125	Study of CoTa alloy as barrier layer for Cu/low-<i>k</i>interconnects. Journal Physics D: Applied Physics, 2017, 50, 405306.	2.8	16
126	Proximity effects and Andreev reflection in a mesoscopic SNS junction with perfect NS interfaces. Physical Review B, 2000, 61, 11340-11343.	3.2	15

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127	Low and Ultralow Dielectric Constant Films Prepared by Plasma-enhanced Chemical Vapor Deposition. , 0, , 1-32.		15
128	Chemisorption of ALD precursors in and on porous low-k films. Microelectronic Engineering, 2013, 106, 81-84.	2.4	15
129	High-resolution electron spin resonance analysis of ion bombardment induced defects in advanced low-Îº insulators (Îºâ€‰=â€‰2.0-2.5). Applied Physics Letters, 2013, 102, .	3.3	15
130	Impact of carbon-doping on time dependent dielectric breakdown of SiO2-based films. Applied Physics Letters, 2015, 106, 072902.	3.3	15
131	Comparison of vacuum ultra-violet emission of Ar/CF₄and Ar/CF₃I capacitively coupled plasmas. Plasma Sources Science and Technology, 2016, 25, 055001.	3.1	15
132	Reentrant Resistive Behavior and Dimensional Crossover in Disordered Superconducting TiN Films. Scientific Reports, 2017, 7, 1718.	3.3	15
133	Effect of water content on the structural properties of porous methyl-modified silicate films. Journal of Sol-Gel Science and Technology, 2019, 92, 273-281.	2.4	15
134	O2 plasma treated biosensor for enhancing detection sensitivity of sulfadiazine in a high-Ðº HfO2 coated silicon nanowire array. Sensors and Actuators B: Chemical, 2020, 306, 127464.	7.8	15
135	Ellipsometric study of the change in the porosity of silica xerogels after chemical modification of the surface with hexamethyldisilazane. Analytical and Bioanalytical Chemistry, 2002, 374, 654-657.	3.7	14
136	Ellipsometric Porosimetry of Porous Low-k Films with Quazi-Closed Cavities. Materials Research Society Symposia Proceedings, 2004, 812, F5.4.1.	0.1	14
137	Integrated diffusionâ€"recombination model for describing the logarithmic time dependence of plasma damage in porous low-k materials. Microelectronic Engineering, 2011, 88, 631-634.	2.4	14
138	Mechanism of Modification of Fluorocarbon Polymer by Ultraviolet Irradiation in Oxygen Atmosphere. ECS Journal of Solid State Science and Technology, 2013, 2, N93-N98.	1.8	14
139	Impact of wavelength of UV light and UV cure time on chemical and mechanical properties of PECVD deposited porous ultra low-k films. Microelectronic Engineering, 2013, 107, 134-137.	2.4	14
140	Mitigation of plasma-induced damage in porous low-<i>k</i>dielectrics by cryogenic precursor condensation. Journal Physics D: Applied Physics, 2016, 49, 175203.	2.8	14
141	Plasma induced damage mitigation in spin-on self-assembly based ultra low-k dielectrics using template residues. Applied Physics Letters, 2017, 110, .	3.3	14
142	Study on the Electrical, Structural, Chemical and Optical Properties of PVD Ta(N) Films Deposited with Different N2 Flow Rates. Coatings, 2021, 11, 937.	2.6	14
143	Kinetics and Mechanism of the Etching of CoSi2 in HFâ€based Solutions. Journal of the Electrochemical Society, 1996, 143, 3245-3251.	2.9	13
144	Oxidation and roughening of silicon during annealing in a rapid thermal processing chamber. Journal of Applied Physics, 1998, 83, 3614-3619.	2.5	13

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145	Anomalous behavior near T c and synchronization of Andreev reflection in two-dimensional arrays of SNS junctions. JETP Letters, 2005, 81, 10-14.	1.4	13
146	Effect of plasma treatments on a low-k dielectric polymer surface. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 1551.	1.6	13
147	Vacuum ultra-violet emission of CF₄and CF₃I containing plasmas and Their effect on low-k materials. Journal Physics D: Applied Physics, 2015, 48, 395202.	2.8	13
148	Dependence of dielectric constant of SiOCH low-k films on porosity and pore size. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, .	1.2	13
149	Silicon dioxide and low-<i>k</i>material sputtering in dual frequency inductive discharge by argon ions with energies from 16 to 200 eV. Journal Physics D: Applied Physics, 2018, 51, 02LT02.	2.8	13
150	Effect of the pore structure on the properties of nanoporous silsesquioxane thin film. Microporous and Mesoporous Materials, 2006, 94, 113-121.	4.4	12
151	Spin-on Dielectric Materials. , 0, , 33-83.		12
152	Evaluation of a New Advanced Low-kMaterial. Japanese Journal of Applied Physics, 2011, 50, 05EB03.	1.5	12
153	Correlation between stress-induced leakage current and dielectric degradation in ultra-porous SiOCH low-k materials. Journal of Applied Physics, 2015, 118, .	2.5	12
154	Fluorine atoms interaction with the nanoporous materials: experiment and DFT simulation. European Physical Journal D, 2017, 71, 1.	1.3	12
155	Characterization of PECVD ultralow dielectric constant porous SiOCH films using triethoxymethylsilane precursor and cinene porogen. Journal Physics D: Applied Physics, 2018, 51, 115103.	2.8	12
156	Effect of thickness scaling on the permeability and thermal stability of Ta(N) diffusion barrier. Applied Surface Science, 2019, 498, 143887.	6.1	12
157	Critical properties and charge transport in ethylene bridged organosilica low-Îº dielectrics. Journal of Applied Physics, 2020, 127, .	2.5	12
158	Effect of terminal methyl group concentration on critical properties and plasma resistance of organosilicate low-k dielectrics. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	2.1	12
159	Characteristics of low-k and ultralow-k PECVD deposited SiCOH films.. Materials Research Society Symposia Proceedings, 2002, 716, 1231.	0.1	11
160	Spectroscopic ellipsometry and ellipsometric porosimetry studies of CVD lowâ€k dielectric films. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1253-1256.	0.8	11
161	Advanced Organic Polymer for the Aggressive Scaling of Low-k Materials. Japanese Journal of Applied Physics, 2011, 50, 04DB01.	1.5	11
162	Effect of the C-bridge length on the ultraviolet-resistance of oxycarbosilane low-k films. Applied Physics Letters, 2016, 108, .	3.3	11

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163	Surface-confined activation of ultra low-k dielectrics in CO2 plasma. Applied Physics Letters, 2016, 108, .	3.3	11
164	Charge transport mechanism in periodic mesoporous organosilica low-k dielectric. Applied Physics Letters, 2019, 115, 082904.	3.3	11
165	A detailed ellipsometric porosimetry and positron annihilation spectroscopy study of porous organosilicate-glass films with various ratios of methyl terminal and ethylene bridging groups. Microporous and Mesoporous Materials, 2020, 306, 110434.	4.4	11
166	Characterisation of HF-last cleaning of ion-implanted Si surfaces. Materials Science in Semiconductor Processing, 1998, 1, 107-117.	4.0	10
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