

# Valeri V Afanas'ev

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8853/publications.pdf>

Version: 2024-02-01

339  
papers

10,116  
citations

41627

51  
h-index

64407

83  
g-index

346  
all docs

346  
docs citations

346  
times ranked

7432  
citing authors

#	ARTICLE	IF	CITATIONS
1	CeO <sub>2</sub> Doping of Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> Thin Films for High Endurance Ferroelectric Memories. <i>Advanced Electronic Materials</i> , 2022, 8, .	2.6	5
2	Origin of supertetragonality in BaTiO <sub>3</sub> . <i>Physical Review Materials</i> , 2022, 6, .	1.4	1
3	Doping-induced ferromagnetism in InSe and SnO monolayers. <i>Journal of Computational Electronics</i> , 2021, 20, 88-94.	1.3	8
4	Electron trapping in ferroelectric HfO <sub>2</sub> . <i>Physical Review Materials</i> , 2021, 5, .	1.0	1
5	Processing Stability of Monolayer WS <sub>2</sub> on SiO <sub>2</sub> . <i>Nano Express</i> , 2021, 2, 024004.	1.2	1
6	Internal photoemission of electrons from 2D semiconductor/3D metal barrier structures. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 295101.	1.3	1
7	Efficient Direct Band-Gap Transition in Germanium by Three-Dimensional Strain. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 30941-30949.	4.0	14
8	Two dimensional V <sub>2</sub> O <sub>3</sub> and its experimental feasibility as robust room-temperature magnetic Chern insulator. <i>Npj 2D Materials and Applications</i> , 2021, 5, .	3.9	7
9	Metal induced charge transfer doping in graphene-ruthenium hybrid interconnects. <i>Carbon</i> , 2021, 183, 999-1011.	5.4	10
10	Dangling bond defects in silicon-passivated strained-Si <sub>1-x</sub> Ge <sub>x</sub> channel layers. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 75-79.	1.1	0
11	Two-dimensional gallium and indium oxides from global structure searching: Ferromagnetism and half metallicity via hole doping. <i>Journal of Applied Physics</i> , 2020, 128, 034304.	1.1	12
12	Defect profiling in FEFET Si:HfO <sub>2</sub> layers. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	23
13	Contact resistance at 2D metal/semiconductor heterostructures. <i>Frontiers of Nanoscience</i> , 2020, 17, 127-140.	0.3	0
14	Band alignment at interfaces of two-dimensional materials: internal photoemission analysis. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 413002.	0.7	10
15	Analysis of Oxygen and Nitrogen Redistribution at Interfaces of HfO <sub>2</sub> with Laminate TiN/TiAl/TiN Electrodes. <i>Journal of Physical Chemistry C</i> , 2020, 124, 16171-16176.	1.5	4
16	Mechanisms of TiN Effective Workfunction Tuning at Interfaces with HfO <sub>2</sub> and SiO <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , 2020, 124, 15547-15557.	1.5	18
17	Variations of paramagnetic defects and dopants in geo-MoS <sub>2</sub> from diverse localities probed by ESR. <i>Journal of Chemical Physics</i> , 2020, 152, 234702.	1.2	4
18	Onvic Threshold Switching Ge <sub>x</sub> Se <sub>y</sub> Chalcogenide Materials: Stoichiometry, Trap Nature, and Material Relaxation from First Principles. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 1900672.	1.2	45

#	ARTICLE	IF	CITATIONS
19	Analysis of Transferred MoS <sub>2</sub> Layers Grown by MOCVD: Evidence of Mo Vacancy Related Defect Formation. ECS Journal of Solid State Science and Technology, 2020, 9, 093001.	0.9	9
20	Ferromagnetism and half-metallicity in two-dimensional $M\text{O}_2$ monolayers induced by hole doping. Physical Review Materials, 2020, 4, .	0.9	15
21	Energy Band Alignment of Few-Monolayer WS <sub>2</sub> and WSe <sub>2</sub> with SiO <sub>2</sub> Using Internal Photoemission Spectroscopy. ECS Journal of Solid State Science and Technology, 2020, 9, 093009.	0.9	4
22	Inhibition of Oxygen Scavenging by TiN at the TiN/SiO <sub>2</sub> Interface by Atomic-Layer-Deposited Al <sub>2</sub> O <sub>3</sub> Protective Interlayer. Journal of Physical Chemistry C, 2019, 123, 22335-22344.	1.5	20
23	Material-Selective Doping of 2D TMDC through Al <sub>x</sub> O <sub>y</sub> Encapsulation. ACS Applied Materials & Interfaces, 2019, 11, 42697-42707.	4.0	37
24	Contact Resistance at MoS <sub>2</sub> -Based 2D Metal/Semiconductor Lateral Heterojunctions. ACS Applied Nano Materials, 2019, 2, 760-766.	2.4	19
25	Evaluation of the effective work-function of monolayer graphene on silicon dioxide by internal photoemission spectroscopy. Thin Solid Films, 2019, 674, 39-43.	0.8	7
26	Thermal stability and temperature dependent electron spin resonance characteristics of the As acceptor in geological 2H-MoS <sub>2</sub> . Semiconductor Science and Technology, 2019, 34, 035022.	1.0	2
27	Energy Band Alignment of a Monolayer MoS <sub>2</sub> with SiO <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> Insulators from Internal Photoemission. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800616.	0.8	11
28	Determination of energy thresholds of electron excitations at semiconductor/insulator interfaces using trap-related displacement currents. Microelectronic Engineering, 2019, 215, 110992.	1.1	3
29	Contact resistance at graphene/MoS <sub>2</sub> lateral heterostructures. Applied Physics Letters, 2019, 114, .	1.5	14
30	A Sensitivity Map-Based Approach to Profile Defects in MIM Capacitors From $\int I(V) dV$ and $\int I(C) dC$ . IEEE Transactions on Electron Devices, 2019, 66, 1892-1898.	1.6	28
31	The origin of negative charging in amorphous Al <sub>2</sub> O <sub>3</sub> films: the role of native defects. Nanotechnology, 2019, 30, 205201.	1.3	68
32	Impact of MoS <sub>2</sub> layer transfer on electrostatics of MoS <sub>2</sub> /SiO <sub>2</sub> interface. Nanotechnology, 2019, 30, 055702.	1.3	11
33	Impact of VUV photons on SiO <sub>2</sub> and organosilicate low-k dielectrics: General behavior, practical applications, and atomic models. Applied Physics Reviews, 2019, 6, .	5.5	38
34	Defect localization of metal interconnection lines in 3-dimensional through-silicon-via structures by differential scanning photocapacitance microscopy. Applied Physics Letters, 2018, 112, 071904.	1.5	4
35	Intrinsic electron trapping in amorphous oxide. Nanotechnology, 2018, 29, 125703.	1.3	31
36	Intrinsic charge trapping in amorphous oxide films: status and challenges. Journal of Physics Condensed Matter, 2018, 30, 233001.	0.7	55

#	ARTICLE	IF	CITATIONS
37	Silicene on non-metallic substrates: Recent theoretical and experimental advances. Nano Research, 2018, 11, 1169-1182.	5.8	31
38	Internal Photoemission Metrology of Inhomogeneous Interface Barriers. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700865.	0.8	14
39	Band alignment at interfaces of synthetic few-monolayer MoS <sub>2</sub> with SiO <sub>2</sub> from internal photoemission. APL Materials, 2018, 6, .	2.2	17
40	Control of TiN oxidation upon atomic layer deposition of oxides. Physical Chemistry Chemical Physics, 2018, 20, 27975-27982.	1.3	17
41	Advances in SiCN-SiCN Bonding with High Accuracy Wafer-to-Wafer (W2W) Stacking Technology. , 2018, , .		24
42	Hole-Doped 2D InSe for Spintronic Applications. ACS Applied Nano Materials, 2018, 1, 6656-6665.	2.4	41
43	Two-Dimensional Crystal Grain Size Tuning in WS <sub>2</sub> Atomic Layer Deposition: An Insight in the Nucleation Mechanism. Chemistry of Materials, 2018, 30, 7648-7663.	3.2	57
44	Ferromagnetism in two-dimensional hole-doped SnO. AIP Advances, 2018, 8, .	0.6	22
45	Correlation of Bandgap Reduction with Inversion Response in (Si)GeSn/High-k/Metal Stacks. ACS Applied Materials & Interfaces, 2017, 9, 9102-9109.	4.0	7
46	Paramagnetic Intrinsic Defects in Polycrystalline Large-Area 2D MoS <sub>2</sub> Films Grown on SiO <sub>2</sub> by Mo Sulfurization. Nanoscale Research Letters, 2017, 12, 283.	3.1	12
47	Oxidation-induced electron barrier enhancement at interfaces of Ge-based semiconductors (Ge, Tj ETQq1 1 0.784314 rgBT /Overlock	1.1	1
48	Interactions of hydrogen with amorphous hafnium oxide. Physical Review B, 2017, 95, .	1.1	30
49	Intrinsic point defects in buckled and puckered arsenene: a first-principles study. Physical Chemistry Chemical Physics, 2017, 19, 9862-9871.	1.3	38
50	ESR identification of the nitrogen acceptor in 2H-polytype synthetic MoS <sub>2</sub> : Dopant level and activation. AIP Advances, 2017, 7, 105006.	0.6	10
51	Leakage current induced by surfactant residues in self-assembly based ultralow-k dielectric materials. Applied Physics Letters, 2017, 111, .	1.5	8
52	Re-distribution of oxygen at the interface between <sup>13</sup> Al <sub>2</sub> O <sub>3</sub> and TiN. Scientific Reports, 2017, 7, 4541.	1.6	36
53	The lead acceptor in p-type natural 2H-polytype MoS <sub>2</sub> crystals evidenced by electron paramagnetic resonance. Journal of Physics Condensed Matter, 2017, 29, 08LT01.	0.7	10
54	(Invited) Probing Dopants in 2H MoS <sub>2</sub> Crystals and 2D Layers by Electron Paramagnetic Resonance: Identification and Quantification. ECS Transactions, 2017, 80, 177-189.	0.3	0

#	ARTICLE	IF	CITATIONS
55	Controlled Sulfurization Process for the Synthesis of Large Area MoS <sub>2</sub> Films and MoS <sub>2</sub> /WS <sub>2</sub> Heterostructures. <i>Advanced Materials Interfaces</i> , 2016, 3, 1500635.	1.9	61
56	Electron energy distribution in Si/TiN and Si/Ru hybrid floating gates with hafnium oxide based insulators for charge trapping memory devices. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 265-269.	0.8	1
57	Low leakage ZrO <sub>2</sub> based capacitors for sub 20nm dynamic random access memory technology nodes. <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	27
58	Characterization of a n <sup>+</sup> 3C/n <sup>+</sup> 4H SiC heterojunction diode. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	12
59	Intrinsic electron traps in atomic-layer deposited HfO <sub>2</sub> insulators. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	44
60	ESR study of p-type natural 2H-polytype MoS <sub>2</sub> crystals: The As acceptor activity. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	14
61	Band offsets and trap-related electron transitions at interfaces of (100)InAs with atomic-layer deposited Al <sub>2</sub> O <sub>3</sub> . <i>Journal of Applied Physics</i> , 2016, 120, 235701.	1.1	5
62	Saturation Photo-Voltage Methodology for Semiconductor/Insulator Interface Trap Spectroscopy. <i>ECS Journal of Solid State Science and Technology</i> , 2016, 5, P3031-P3036.	0.9	2
63	Metallization-Induced Oxygen Deficiency of $\hat{1}^3$ -Al <sub>2</sub> O <sub>3</sub> Layers. <i>Journal of Physical Chemistry C</i> , 2016, 120, 8979-8985.	1.5	14
64	Deep electron and hole polarons and bipolarons in amorphous oxide. <i>Physical Review B</i> , 2016, 94, .	1.1	44
65	Impact of Point Defects and Oxidation on the Electronic Properties of HfS <sub>2</sub> Monolayers. <i>ECS Journal of Solid State Science and Technology</i> , 2016, 5, Q3054-Q3059.	0.9	10
66	The effects of vacuum-ultraviolet radiation on defects in low-k organosilicate glass (SiCOH) as measured with electron-spin resonance. <i>Thin Solid Films</i> , 2016, 616, 23-26.	0.8	5
67	Oxygen and hydroxyl adsorption on MS <sub>2</sub> (M = Mo, W, Hf) monolayers: a first-principles molecular dynamics study. <i>Physica Status Solidi - Rapid Research Letters</i> , 2016, 10, 787-791.	1.2	7
68	Low leakage stoichiometric SrTiO <sub>3</sub> dielectric for advanced metal-insulator-metal capacitors. <i>Physica Status Solidi - Rapid Research Letters</i> , 2016, 10, 420-425.	1.2	7
69	Modulation of the Schottky Barrier Height for CMOS advanced contacts. <i>Microelectronic Engineering</i> , 2016, 156, 82-85.	1.1	2
70	Hydrogen induced dipole at the Pt/oxide interface in MOS devices. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 260-264.	0.8	5
71	Valence Band Profile in Two-Dimensional Silicon-Oxygen Superlattices Probed by Internal Photoemission. <i>ECS Journal of Solid State Science and Technology</i> , 2016, 5, Q3008-Q3011.	0.9	3
72	Impact of point defects on the electronic and transport properties of silicene nanoribbons. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 035302.	0.7	25

#	ARTICLE	IF	CITATIONS
73	Functional silicene and stanene nanoribbons compared to graphene: electronic structure and transport. 2D Materials, 2016, 3, 015001.	2.0	18
74	Conduction barrier offset engineering for DRAM capacitor scaling. Solid-State Electronics, 2016, 115, 133-139.	0.8	35
75	Modulation of the Schottky barrier height for advanced contact schemes. , 2015, , .		1
76	Theoretical models of hydrogen-induced defects in amorphous silicon dioxide. Physical Review B, 2015, 92, .	1.1	62
77	Defect-induced bandgap narrowing in low-k dielectrics. Applied Physics Letters, 2015, 107, 082903.	1.5	27
78	Interaction of silicene and germanene with non-metallic substrates. Journal of Physics: Conference Series, 2015, 574, 012015.	0.3	5
79	Hydrogen-Induced Rupture of Strained Si-H Bonds in Amorphous Silicon Dioxide. Physical Review Letters, 2015, 114, 115503.	2.9	82
80	Schottky barrier height engineering for next generation DRAM capacitors. , 2015, , .		1
81	Ultra-thin ZrO <sub>2</sub> /SrO/ZrO <sub>2</sub> insulating stacks for future dynamic random access memory capacitor applications. Journal of Applied Physics, 2015, 117, .	1.1	17
82	Hole trapping at hydrogenic defects in amorphous silicon dioxide. Microelectronic Engineering, 2015, 147, 141-144.	1.1	12
83	Band alignment at interfaces of few-monolayer MoS <sub>2</sub> with SiO <sub>2</sub> and HfO <sub>2</sub> . Microelectronic Engineering, 2015, 147, 294-297.	1.1	31
84	Band alignment and effective work function of atomic-layer deposited VO <sub>2</sub> and V <sub>2</sub> O <sub>5</sub> films on SiO <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> . Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 238-241.	0.8	5
85	Electron Band Alignment at Interfaces of Semiconductors with Insulating Oxides: An Internal Photoemission Study. Advances in Condensed Matter Physics, 2014, 2014, 1-30.	0.4	37
86	(Invited) Spectroscopy of Deep Gap States in High-k Insulators. ECS Transactions, 2014, 64, 17-22.	0.3	16
87	(Invited) High-k Dielectrics and High Work Function Metals for Hybrid Floating Gate NAND Flash Applications. ECS Transactions, 2014, 61, 281-291.	0.3	2
88	Hydrogen interaction kinetics of Ge dangling bonds at the Si <sub>0.25</sub> Ge <sub>0.75</sub> /SiO <sub>2</sub> interface. Journal of Applied Physics, 2014, 116, .	1.1	11
89	Band alignment at interfaces of amorphous Al <sub>2</sub> O <sub>3</sub> with Ge <sub>1-x</sub> Sn <sub>x</sub> - and strained Ge-based channels. Applied Physics Letters, 2014, 104, 202107.	1.5	4
90	Current-voltage characteristics of armchair Sn nanoribbons. Physica Status Solidi - Rapid Research Letters, 2014, 8, 931-934.	1.2	12

#	ARTICLE	IF	CITATIONS
91	On the bipolar resistive-switching characteristics of Al <sub>2</sub> O <sub>3</sub> - and HfO <sub>2</sub> -based memory cells operated in the soft-breakdown regime. Journal of Applied Physics, 2014, 116, 134502.	1.1	26
92	Nature of intrinsic and extrinsic electron trapping in SiO <sub>2</sub> . $\langle \text{mml:math} \text{xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \text{/}\rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ . Physical Review B, 2014, 89, .	1.1	96
93	Effect of Binder Content in CuInSe <sub>2</sub> Solar Cells. Journal of Physical Chemistry C, 2014, 118, 27201-27209.	1.5	9
94	Modulation of electron barriers between TiN and oxide insulators (SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> ) using Ti interlayer. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 382-388.	0.8	4
95	(Invited) Interaction of Silicene and Germanene with Non-Metallic Substrates. ECS Transactions, 2014, 64, 111-119.	0.3	1
96	Leakage Control in 0.4-nm EOT Ru/SrTiO <sub>x</sub> /Ru Metal-Insulator-Metal Capacitors: Process Implications. IEEE Electron Device Letters, 2014, 35, 753-755.	2.2	23
97	Generation of Si dangling bond defects at Si/insulator interfaces induced by oxygen scavenging. Physica Status Solidi (B): Basic Research, 2014, 251, 2193-2196.	0.7	4
98	Charge transition level of GeP <sub>b1</sub> centers at interfaces of SiO <sub>2</sub> /Ge <sub>x</sub> /Si <sub>1-x</sub> /SiO <sub>2</sub> heterostructures investigated by positron annihilation spectroscopy. Physica Status Solidi (B): Basic Research, 2014, 251, 2211-2215.	0.7	1
99	The origin of white luminescence from silicon oxycarbide thin films. Applied Physics Letters, 2014, 104, .	1.5	45
100	Near-interfacial thermal donor generation during processing of (100)Si/low- $\hat{\nu}$ Si-oxycarbide insulator structures revealed by electron spin resonance. Semiconductor Science and Technology, 2014, 29, 095008.	1.0	0
101	Influence of metal electrode stoichiometry on the electron barrier height at CuxTe <sub>1-x</sub> /Al <sub>2</sub> O <sub>3</sub> interfaces for CBRAM applications. Microelectronic Engineering, 2014, 120, 9-12.	1.1	3
102	Processing-induced near-interfacial thermal donor generation in (100)Si/Si-oxycarbide insulator structures revealed by electron spin resonance. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 1574-1577.	0.8	0
103	Nature of the filament formed in HfO <sub>2</sub> -based resistive random access memory. Thin Solid Films, 2013, 533, 15-18.	0.8	28
104	Identification of intrinsic electron trapping sites in bulk amorphous silica from ab initio calculations. Microelectronic Engineering, 2013, 109, 68-71.	1.1	44
105	Considerations for further scaling of metal-insulator-metal DRAM capacitors. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2013, 31, .	0.6	15
106	(Invited) Theoretical Study of Silicene and Germanene. ECS Transactions, 2013, 53, 51-62.	0.3	9
107	Control of metal/oxide electron barriers in CBRAM cells by low work-function liners. Microelectronic Engineering, 2013, 109, 156-159.	1.1	15
108	Multi-frequency electron spin resonance analysis of interfacial Ge dangling bond defects in condensation-grown (1-x)Si/SiO <sub>2</sub> /Si <sub>x</sub> Ge <sub>1-x</sub> /SiO <sub>2</sub> . Semiconductor Science and Technology, 2013, 28, 1.0 015003.	1.0	0

#	ARTICLE	IF	CITATIONS
109	High-resolution electron spin resonance analysis of ion bombardment induced defects in advanced low- $\epsilon$ insulators ( $\epsilon \approx 2.0-2.5$ ). Applied Physics Letters, 2013, 102, .	1.5	15
110	An electric field tunable energy band gap at silicene/(0001) ZnS interfaces. Physical Chemistry Chemical Physics, 2013, 15, 3702.	1.3	86
111	(Invited) Optimization of WAl <sub>2</sub> O <sub>3</sub> Cu(-Te) Material Stack for High-Performance Conductive-Bridging Memory Cells. ECS Transactions, 2013, 58, 175-180.	0.3	1
112	(Invited) Electron Band Alignment at Ge/Oxide and AlIII-BV/Oxide Interfaces from Internal Photoemission Experiments. ECS Transactions, 2013, 58, 311-316.	0.3	2
113	Tunneling of holes is observed by second-harmonic generation. Applied Physics Letters, 2013, 102, 082104.	1.5	5
114	Thermally induced degradation of condensation-grown (100)Ge <sub>0.75</sub> Si <sub>0.25</sub> /SiO <sub>2</sub> interfaces revealed by electron spin resonance. Applied Physics Letters, 2013, 102, .	1.5	3
115	Comment on "A model for internal photoemission at high-k oxide/silicon energy barriers" [J. Appl. Phys. 112, 064115 (2012)]. Journal of Applied Physics, 2013, 113, 166101.	1.1	10
116	AsGa <sup>+</sup> antisites identified by electron spin resonance as a main interface defect system in thermal GaAs/native oxide structures. Applied Physics Letters, 2013, 103, 162111.	1.5	16
117	Interaction of Germanene with (0001)ZnSe Surfaces: A Theoretical Study. ECS Transactions, 2013, 58, 209-215.	0.3	1
118	Second-harmonic generation as characterization tool for Ge/high-k dielectric interfaces. Proceedings of SPIE, 2012, , .	0.8	2
119	Electron band alignment at the interface of (100)InSb with atomic-layer deposited Al <sub>2</sub> O <sub>3</sub> . Applied Physics Letters, 2012, 101, 082114.	1.5	11
120	Charge instability of atomic-layer deposited TaSiOx insulators on Si, InP, and In <sub>0.53</sub> Ga <sub>0.47</sub> As. Applied Physics Letters, 2012, 100, 202104.	1.5	6
121	Direct physical evidence of mechanisms of leakage and equivalent oxide thickness reduction in metal-insulator-metal capacitors based on RuO <sub>x</sub> /TiO <sub>x</sub> /SrTiO <sub>z</sub> /TiN stacks. Applied Physics Letters, 2012, 101, 042901.	1.5	12
122	Internal Photoemission at Interfaces of ALD Ta <sub>2</sub> O <sub>5</sub> Insulating Layers Deposited on Si, InP and In <sub>0.53</sub> Ga <sub>0.47</sub> As. IOP Conference Series: Materials Science and Engineering, 2012, 41, 012019.	0.3	1
123	Electron spin resonance study of point defects in thermal GaAs/GaAs-oxide structures. IOP Conference Series: Materials Science and Engineering, 2012, 41, 012021.	0.3	0
124	The effect of composition on the bandgap width in insulating Nb <sub>x</sub> Ta <sub>y</sub> O <sub>z</sub> nanolayers. IOP Conference Series: Materials Science and Engineering, 2012, 41, 012004.	0.3	0
125	Electron Trap Energy Distribution in ALD Al <sub>2</sub> O <sub>3</sub> , LaAlO <sub>x</sub> , and Gd <sub>2</sub> O <sub>3</sub> Layers on Silicon. IOP Conference Series: Materials Science and Engineering, 2012, 41, 012008.	0.3	6
126	Gadolinium -niobates and -tantates: Amorphous High-k Materials by Aqueous CSD. Journal of the Electrochemical Society, 2012, 159, G75-G79.	1.3	5

#	ARTICLE	IF	CITATIONS
127	The VO <sub>2</sub> interface, the metal-insulator transition tunnel junction, and the metal-insulator transition switch On-Off resistance. Journal of Applied Physics, 2012, 112, .	1.1	47
128	Correlation between interface traps and paramagnetic defects in c-Si/a-Si:H heterojunctions. Applied Physics Letters, 2012, 100, .	1.5	15
129	Interface barriers at the interfaces of polar GaAs(111) faces with Al <sub>2</sub> O <sub>3</sub> . Applied Physics Letters, 2012, 100, .	1.5	9
130	Semiconducting-like filament formation in TiN/HfO <sub>2</sub> /TiN resistive switching random access memories. Applied Physics Letters, 2012, 100, .	1.5	43
131	Electron spin resonance features of the Ge Pb1 dangling bond defect in condensation-grown (100)Si/SiO <sub>2</sub> /Si <sub>1-x</sub> Ge <sub>x</sub> /SiO <sub>2</sub> heterostructures. Journal of Applied Physics, 2012, 112, .	1.1	8
132	Second-harmonic generation reveals the oxidation steps in semiconductor processing. Journal of Applied Physics, 2012, 111, 064504.	1.1	7
133	Transitivity of band offsets between semiconductor heterojunctions and oxide insulators. Applied Physics Letters, 2011, 99, .	1.5	20
134	Paramagnetic Pb-type interface defects in thermal (110)Si/SiO <sub>2</sub> . Applied Physics Letters, 2011, 98, .	1.5	4
135	Mechanisms of Schottky Barrier Control on n-Type Germanium Using Ge <sub>3</sub> N <sub>4</sub> Interlayers. Journal of the Electrochemical Society, 2011, 158, H358.	1.3	46
136	Inelastic electron tunneling spectroscopy of HfO <sub>2</sub> gate stacks: A study based on first-principles modeling. Applied Physics Letters, 2011, 99, 132101.	1.5	0
137	Electronic properties of hydrogenated silicene and germanene. Applied Physics Letters, 2011, 98, .	1.5	399
138	Universal stress-defect correlation at (100)semiconductor/oxide interfaces. Applied Physics Letters, 2011, 98, 141901.	1.5	10
139	TiN x / HfO 2 interface dipole induced by oxygen scavenging. Applied Physics Letters, 2011, 98, .	1.5	34
140	Electronic Properties of Silicene: Insights from First-Principles Modeling. Journal of the Electrochemical Society, 2011, 158, H107.	1.3	42
141	Multi-frequency ESR analysis of the $E\hat{\epsilon}^2$ defect hyperfine structure in SiO <sub>2</sub> glasses. Europhysics Letters, 2011, 93, 16002.	1.1	12
142	Band Alignment at Interfaces of Oxide Insulators with Semiconductors. Integrated Ferroelectrics, 2011, 125, 53-60.	0.3	5
143	Multi-frequency ESR analysis of the $E\hat{\epsilon}^2$ defect hyperfine structure in SiO <sub>2</sub> glasses. Europhysics Letters, 2011, 93, 16002.	0.7	5
144	Band offsets at the (100)GaSb/Al <sub>2</sub> O <sub>3</sub> interface from internal electron photoemission study. Microelectronic Engineering, 2011, 88, 1050-1053.	1.1	7

#	ARTICLE	IF	CITATIONS
145	Inherent Si dangling bond defects at the thermal (110)Si/SiO <sub>2</sub> interface. Physical Review B, 2011, 84, .	1.1	28
146	Interface state energy distribution and Pb defects at Si(110)/SiO <sub>2</sub> interfaces: Comparison to (111) and (100) silicon orientations. Journal of Applied Physics, 2011, 109, .	1.1	61
147	Impact of bottom electrode and Sr <sub>x</sub> Ti <sub>y</sub> O <sub>z</sub> film formation on physical and electrical properties of metal-insulator-metal capacitors. Applied Physics Letters, 2011, 98, .	1.5	23
148	GaSb molecular beam epitaxial growth on p-InP(001) and passivation within situ deposited Al <sub>2</sub> O <sub>3</sub> gate oxide. Journal of Applied Physics, 2011, 109, 073719.	1.1	40
149	First-principles study of Ge dangling bonds in GeO <sub>2</sub> and correlation with electron spin resonance at Ge/GeO <sub>2</sub> interfaces. Applied Physics Letters, 2011, 99, .	1.5	11
150	Influence of Al <sub>2</sub> O <sub>3</sub> crystallization on band offsets at interfaces with Si and TiN <sub>x</sub> . Applied Physics Letters, 2011, 99, 072103.	1.5	50
151	Electron band alignment at the interface of (100)GaSb with molecular-beam deposited Al <sub>2</sub> O <sub>3</sub> . Applied Physics Letters, 2011, 98, 072102.	1.5	7
152	Structural and vibrational properties of amorphous GeO <sub>2</sub> from first-principles. Applied Physics Letters, 2011, 98, .	1.5	6
153	Electronic structure of NiO layers grown on Al <sub>2</sub> O <sub>3</sub> and SiO <sub>2</sub> using metallo-organic chemical vapour deposition. Journal of Applied Physics, 2011, 110, .	1.1	4
154	Defects in Low-k Insulators ( $\epsilon_r=2.5 \hat{a} \epsilon 2.0$ ): ESR Analysis and Charge Injection. Materials Research Society Symposia Proceedings, 2011, 1335, 119.	0.1	3
155	Theoretical Study of Ge Dangling Bonds in GeO <sub>2</sub> and Correlation with ESR Results at Ge/GeO <sub>2</sub> Interfaces. ECS Transactions, 2011, 41, 39-45.	0.3	1
156	Lanthanide Aluminates as Dielectrics for Non-Volatile Memory Applications: Material Aspects. Journal of the Electrochemical Society, 2011, 158, H778-H784.	1.3	7
157	Electron States at Interfaces of Semiconductors and Metals with Insulating Films. ECS Transactions, 2011, 34, 467-472.	0.3	1
158	Injection and trapping of electrons in Y <sub>2</sub> O <sub>3</sub> layers on Si. IOP Conference Series: Materials Science and Engineering, 2010, 8, 012028.	0.3	1
159	Electron energy band alignment at the NiO/SiO <sub>2</sub> interface. Applied Physics Letters, 2010, 96, .	1.5	7
160	Comparative electron spin resonance study of epi-Lu <sub>2</sub> O <sub>3</sub> /(111)Si and a-Lu <sub>2</sub> O <sub>3</sub> /(100)Si interfaces: Misfit point defects. Journal of Applied Physics, 2010, 107, 094502.	1.1	4
161	Impact of crystallization behavior of Sr <sub>x</sub> Ti <sub>y</sub> O <sub>z</sub> films on electrical properties of metal-insulator-metal capacitors with TiN electrodes. Applied Physics Letters, 2010, 97, 162906.	1.5	26
162	Electron energy band alignment at the (100)Si/MgO interface. Applied Physics Letters, 2010, 96, .	1.5	11



#	ARTICLE	IF	CITATIONS
181	Barrier Characterization at Interfaces of High-Mobility Semiconductors with Oxide Insulators. ECS Transactions, 2009, 25, 95-103.	0.3	3
182	High electron mobility achieved in n-channel 4H- $\text{SiC}$ MOSFETs oxidized in the presence of nitrogen. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2363-2373.	0.8	4
183	Band offsets at interfaces of $(100)\text{In}_x\text{Ga}_{1-x}\text{As}$ ( $0 \leq x \leq 0.53$ ) with $\text{Al}_2\text{O}_3$ and $\text{HfO}_2$ . Microelectronic Engineering, 2009, 86, 1550-1553.	1.1	11
184	Electronic properties of Ge dangling bond centers at $\text{Si}_{1-x}\text{Ge}_x/\text{SiO}_2$ interfaces. Applied Physics Letters, 2009, 95, 222106.	1.5	17
185	First-principles study of the electronic properties of Ge dangling bonds at $(100)\text{Si}_{1-x}\text{Ge}_x/\text{SiO}_2$ interfaces. Applied Physics Letters, 2009, 95, .	1.5	10
186	Temperature and frequency dependent electrical characterization of $\text{HfO}_2/\text{In}_x\text{Ga}_{1-x}\text{As}$ interfaces using capacitance-voltage and conductance methods. Applied Physics Letters, 2009, 94, .	1.5	96
187	Energy barriers at interfaces between $(100)\text{In}_x\text{Ga}_{1-x}\text{As}$ ( $0 \leq x \leq 0.53$ ) and atomic-layer deposited $\text{Al}_2\text{O}_3$ and $\text{HfO}_2$ . Applied Physics Letters, 2009, 94, .	1.5	24
188	Structural and Electrical Properties of $\text{HfO}_2/\text{n-In}_x\text{Ga}_{1-x}\text{As}$ structures ( $x: 0, 0.1, 0.2, 0.3, 0.4, 0.5$ ). Journal of Applied Physics, 2009, 105, 043701.	0.3	20
189	Band alignment and electron traps in $\text{Y}_2\text{O}_3$ layers on $(100)\text{Si}$ . Applied Physics Letters, 2009, 95, .	1.5	40
190	Electron spin resonance observation of an interfacial $\text{Ge}_{1-x}\text{Si}_x$ -type defect in $\text{SiO}_2/(100)\text{Si}_{1-x}\text{Ge}_x/\text{SiO}_2$ heterostructures. Journal of Physics Condensed Matter, 2009, 21, 122201.	1.5	10
191	Alternative techniques to reduce interface traps in n-type 4H- $\text{SiC}$ MOS capacitors. Physica Status Solidi (B): Basic Research, 2008, 245, 1378-1389.	0.7	64
192	Ge dangling bonds at the $(100)\text{Ge}/\text{GeO}_2$ interface and the viscoelastic properties of $\text{GeO}_2$ . Applied Physics Letters, 2008, 93, .	1.5	103
193	Electronic structure of the interface of aluminum nitride with $\text{Si}(100)$ . Journal of Applied Physics, 2008, 104, 093713.	1.1	25
194	Electronic structure of $\text{GeO}_2$ -passivated interfaces of $(100)\text{Ge}$ with $\text{Al}_2\text{O}_3$ and $\text{HfO}_2$ . Applied Physics Letters, 2008, 92, 022109.	1.5	62
195	Paramagnetic point defects at interfacial layers in biaxial tensile strained $(100)\text{Si}/\text{SiO}_2$ . Journal of Applied Physics, 2008, 103, .	1.1	17
196	Photoconductivity of Hf-based binary metal oxide systems. Journal of Applied Physics, 2008, 104, 114103.	1.1	12
197	Misfit point defects at the epitaxial $\text{Lu}_2\text{O}_3/(111)\text{Si}$ interface revealed by electron spin resonance. Applied Physics Letters, 2008, 93, 103505.	1.5	4
198	Beneficial effect of La on band offsets in $\text{Ge}/\text{high-}\kappa\text{ insulator}$ structures with $\text{GeO}_2$ and $\text{La}_2\text{O}_3$ interlayers. Applied Physics Letters, 2008, 93, 102115.	1.5	16

#	ARTICLE	IF	CITATIONS
199	<p>Associated defects in the high-<math>\lambda^2</math> insulators <math>\text{HfO}_2</math> and <math>\text{HfO}_2</math> on <math>(100)\text{Si}</math> by electron spin resonance. Applied Physics Letters, 2007, 90, 043505.</p> <p>Increase in oxide hole trap density associated with nitrogen incorporation at the <math>\text{SiO}_2/\text{SiC}</math> interface. Journal of Applied Physics, 2008, 103, .</p>	1.1	23
200	<p>Band offsets between Si and epitaxial rare earth sesquioxides (<math>\text{RE}_2\text{O}_3</math>, <math>\text{RE}=\text{La}, \text{Nd}, \text{Gd}, \text{Lu}</math>): Effect of 4f-shell occupancy. Applied Physics Letters, 2008, 93, 192105.</p>	1.1	69
201	<p>Energy barriers at interfaces of <math>(100)\text{GaAs}</math> with atomic layer deposited <math>\text{Al}_2\text{O}_3</math> and <math>\text{HfO}_2</math>. Applied Physics Letters, 2008, 93, .</p>	1.5	18
202	<p>Associated defects in the high-<math>\lambda^2</math> insulators <math>\text{HfO}_2</math> and <math>\text{HfO}_2</math> on <math>(100)\text{Si}</math> by electron spin resonance. Applied Physics Letters, 2007, 90, 142116.</p>	1.5	30
203	<p>Internal photoemission of electrons from Ta-based conductors into <math>\text{SiO}_2</math> and <math>\text{HfO}_2</math> insulators. Journal of Applied Physics, 2008, 104, .</p>	1.1	7
204	<p>Internal photoemission at interfaces of high-<math>\lambda^2</math> insulators with semiconductors and metals. Journal of Applied Physics, 2007, 102, .</p>	1.1	7
205	<p>Comment on "Nitridation effects on Pb1 center structures at <math>\text{SiO}_2/\text{Si}(100)</math> interfaces". [J. Appl. Phys. 95, 4096 (2004)]. Journal of Applied Physics, 2007, 101, 026106.</p>	1.1	223
206	<p>Observation of a P-associated defect in <math>\text{HfO}_2</math> nanolayers on <math>(100)\text{Si}</math> by electron spin resonance. Applied Physics Letters, 2007, 90, 142116.</p>	1.1	2
207	<p>Suppression of interface state generation upon electron injection in nitrided oxides grown on 4H-SiC. Applied Physics Letters, 2007, 91, .</p>	1.5	0
208	<p>Flatband voltage shift of ruthenium gated stacks and its link with the formation of a thin ruthenium oxide layer at the ruthenium/dielectric interface. Journal of Applied Physics, 2007, 101, 034503.</p>	1.5	30
209	<p>Paramagnetic point defects in <math>(100)\text{Si}/\text{LaAlO}_3</math> structures: Nature and stability of the interface. Journal of Applied Physics, 2007, 102, 034516.</p>	1.1	19
210	<p>Control of the Flatband Voltage of 4H-SiC Metal-Oxide Semiconductor (MOS) Capacitors by Co-Implantation of Nitrogen and Aluminum. Materials Science Forum, 2007, 556-557, 555-560.</p>	1.1	5
211	<p>Insights on the physical mechanism behind negative bias temperature instabilities. Applied Physics Letters, 2007, 90, 043505.</p>	0.3	13
212	<p>Electronic structure of silicon interfaces with amorphous and epitaxial insulating oxides: <math>\text{Sc}_2\text{O}_3</math>, <math>\text{Lu}_2\text{O}_3</math>, <math>\text{LaLuO}_3</math>. Microelectronic Engineering, 2007, 84, 2278-2281.</p>	1.5	22
213	<p>Investigation of the electronic structure at interfaces of crystalline and amorphous <math>\text{Gd}_2\text{O}_3</math> thin layers with silicon substrates of different orientations. Applied Physics Letters, 2007, 90, 252101.</p>	1.1	38
214	<p>Analysis of the <math>(100)\text{Si}/\text{LaAlO}_3</math> structure by electron spin resonance: nature of the interface. Journal of Materials Science: Materials in Electronics, 2007, 18, 735-741.</p>	1.5	59
215	<p>Nature and stability of the <math>(100)\text{Si}/\text{LaAlO}_3</math> interface probed by paramagnetic defects. Applied Physics Letters, 2006, 89, 112121.</p>	1.1	0
216	<p>Nature and stability of the <math>(100)\text{Si}/\text{LaAlO}_3</math> interface probed by paramagnetic defects. Applied Physics Letters, 2006, 89, 112121.</p>	1.5	4

#	ARTICLE	IF	CITATIONS
217	Ruthenium gate electrodes on SiO <sub>2</sub> and HfO <sub>2</sub> : Sensitivity to hydrogen and oxygen ambients. Applied Physics Letters, 2006, 88, 243514.	1.5	44
218	Nitrogen Implantation - An Alternative Technique to Reduce Traps at SiC/SiO <sub>2</sub> -Interfaces. Materials Science Forum, 2006, 527-529, 991-994.	0.3	21
219	Probing Semiconductor/Insulator Heterostructures Through Electron Spin Resonance of Point Defects: Interfaces, Interlayers, and Stress. Materials Research Society Symposia Proceedings, 2006, 984, 1.	0.1	0
220	Electron energy band alignment at interfaces of (100)Ge with rare-earth oxide insulators. Applied Physics Letters, 2006, 88, 132111.	1.5	52
221	Effective work function modulation by controlled dielectric monolayer deposition. Applied Physics Letters, 2006, 89, 113505.	1.5	29
222	Inherent density of point defects in thermal tensile strained (100)Si <sup>+</sup> SiO <sub>2</sub> entities probed by electron spin resonance. Applied Physics Letters, 2006, 89, 152103.	1.5	16
223	Band alignment between (100) Si and amorphous LaAlO <sub>3</sub> , LaScO <sub>3</sub> , and Sc <sub>2</sub> O <sub>3</sub> : Atomically abrupt versus interlayer-containing interfaces. Applied Physics Letters, 2006, 88, 032104.	1.5	37
224	Internal photoemission of electrons at interfaces of metals with low- $\epsilon$ insulators. Applied Physics Letters, 2006, 89, 202909.	1.5	45
225	Electron energy barriers at interfaces of GaAs(100) with LaAlO <sub>3</sub> and Gd <sub>2</sub> O <sub>3</sub> . Applied Physics Letters, 2006, 89, 092103.	1.5	19
226	Amorphous lanthanum lutetium oxide thin films as an alternative high- $\epsilon$ gate dielectric. Applied Physics Letters, 2006, 89, 222902.	1.5	84
227	Low Density of Interface States in n-Type 4H-SiC MOS Capacitors Achieved by Nitrogen Implantation. Materials Science Forum, 2005, 483-485, 693-696.	0.3	54
228	SiC/SiO <sub>2</sub> Interface States: Properties and Models. Materials Science Forum, 2005, 483-485, 563-568.	0.3	34
229	Interlayer-related paramagnetic defects in stacks of ultrathin layers of SiO <sub>x</sub> , Al <sub>2</sub> O <sub>3</sub> , ZrO <sub>2</sub> , and HfO <sub>2</sub> on (100)Si. Journal of Applied Physics, 2005, 97, 033510.	1.1	45
230	Impact of nitrogen incorporation on interface states in (100)Si <sup>+</sup> HfO <sub>2</sub> . Journal of Applied Physics, 2005, 98, 123703.	1.1	18
231	Band alignment at the interface of (100)Si with Hf <sub>[sub x]Ta<sub>[sub 1-x]</sub>O<sub>[sub y]</sub> high-<math>\epsilon</math> dielectric layers. Applied Physics Letters, 2005, 86, 072108.</sub>	1.5	25
232	Electron photoemission from conducting nitrides (TiNx,TaNx) into SiO <sub>2</sub> and HfO <sub>2</sub> . Applied Physics Letters, 2005, 86, 232902.	1.5	30
233	Interface traps and dangling-bond defects in (100)Ge <sup>+</sup> HfO <sub>2</sub> . Applied Physics Letters, 2005, 87, 032107.	1.5	119
234	Electrostatic potential perturbation at the polycrystalline Si <sup>+</sup> HfO <sub>2</sub> interface. Applied Physics Letters, 2005, 86, 072107.	1.5	9

#	ARTICLE	IF	CITATIONS
235	Interface States and P[sub b] Defects at the Si(100)/HfO[sub 2] Interface. Electrochemical and Solid-State Letters, 2005, 8, G44.	2.2	27
236	Electron spin resonance probing of fundamental point defects in nanometer-sized silica particles. Physical Review B, 2005, 72, .	1.1	32
237	Ternary rare-earth metal oxide high-k layers on silicon oxide. Applied Physics Letters, 2005, 86, 132903.	1.5	130
238	Are intrinsic point defects inadequate as the origin of optical band gap narrowing in fumed silica nanoparticles?. Journal of Physics Condensed Matter, 2005, 17, L393-L398.	0.7	11
239	Energy band alignment at the (100)Ge/HfO2 interface. Applied Physics Letters, 2004, 84, 2319-2321.	1.5	107
240	Stable trapping of electrons and holes in deposited insulating oxides: Al2O3, ZrO2, and HfO2. Journal of Applied Physics, 2004, 95, 2518-2526.	1.1	74
241	Electrical conduction and band offsets in Si/HfTi1xO2/metal structures. Journal of Applied Physics, 2004, 95, 7936-7939.	1.1	42
242	Band offsets at the interfaces of GaAs(100) with GdxGa0.4-xO0.6 insulators. Applied Physics Letters, 2004, 85, 597-599.	1.5	38
243	Paramagnetic defects in annealed ultrathin layers of SiOx, Al2O3, and ZrO2 on (100)Si. Applied Physics Letters, 2004, 85, 3792-3794.	1.5	22
244	Paramagnetic NO2 centers in thin $\hat{1}^3$ -irradiated HfO2 layers on (100)Si revealed by electron spin resonance. Applied Physics Letters, 2004, 84, 4574-4576.	1.5	17
245	Electronic Properties of SiON/HfO<sub>2</sub>&lt;sub>2</sub>/sub>&lt;sub>2</sub>/sub> Insulating Stacks on 4H-SiC (0001). Materials Science Forum, 2004, 457-460, 1361-1364.	0.3	9
246	Energy distribution of the (100)Si/HfO2 interface states. Applied Physics Letters, 2004, 84, 4771-4773.	1.5	30
247	Band alignment between (100)Si and complex rare earth $\hat{1}$ -transition metal oxides. Applied Physics Letters, 2004, 85, 5917-5919.	1.5	142
248	Si dangling-bond-type defects at the interface of (100)Si with ultrathin HfO2. Applied Physics Letters, 2003, 82, 4074-4076.	1.5	91
249	Electron Spin Resonance Characterization of Defects at Interfaces in Stacks of Ultrathin High- $\hat{1}^e$ Dielectric Layers on Silicon. Materials Research Society Symposia Proceedings, 2003, 786, 141.	0.1	0
250	Determination of interface energy band diagram between (100)Si and mixed Al $\hat{1}$ -Hf oxides using internal electron photoemission. Applied Physics Letters, 2003, 82, 245-247.	1.5	63
251	Analysis of Pb centers at the Si(111)/SiO2 interface following rapid thermal annealing. Journal of Applied Physics, 2003, 93, 3971-3973.	1.1	26
252	Mechanisms responsible for improvement of 4H $\hat{1}$ -SiC/SiO2 interface properties by nitridation. Applied Physics Letters, 2003, 82, 568-570.	1.5	187

#	ARTICLE	IF	CITATIONS
253	HfO <sub>2</sub> -based insulating stacks on 4H-β-SiC(0001). Applied Physics Letters, 2003, 82, 922-924.	1.5	84
254	Invasive nature of corona charging on thermal Si/SiO <sub>2</sub> structures with nanometer-thick oxides revealed by electron spin resonance. Applied Physics Letters, 2003, 82, 2835-2837.	1.5	23
255	Annealing Induced Degradation of Thermal SiO <sub>2</sub> on (100)Si: Point Defect Generation. Radiation Effects and Defects in Solids, 2003, 158, 419-425.	0.4	1
256	Si dangling-bond-type defects at the interface of (100)Si with ultrathin layers of SiO <sub>x</sub> , Al <sub>2</sub> O <sub>3</sub> , and ZrO <sub>2</sub> . Applied Physics Letters, 2002, 80, 1957-1959.	1.5	92
257	Characterization of S centers generated by thermal degradation in SiO <sub>2</sub> on (100)Si. Applied Physics Letters, 2002, 80, 4753-4755.	1.5	4
258	Hole trapping in ultrathin Al <sub>2</sub> O <sub>3</sub> and ZrO <sub>2</sub> insulators on silicon. Applied Physics Letters, 2002, 80, 1261-1263.	1.5	35
259	Internal photoemission of electrons and holes from (100)Si into HfO <sub>2</sub> . Applied Physics Letters, 2002, 81, 1053-1055.	1.5	183
260	Defects at the interface of (100)Si with ultrathin layers of SiO <sub>x</sub> , Al <sub>2</sub> O <sub>3</sub> , and ZrO <sub>2</sub> probed by electron spin resonance. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 1720.	1.6	11
261	Defect Generation in Ultrathin SiO <sub>x</sub> /ZrO <sub>2</sub> Gate Dielectric Stacks. Journal of the Electrochemical Society, 2002, 149, F181.	1.3	11
262	Oxidation of Silicon Carbide: Problems and Solutions. Materials Science Forum, 2002, 389-393, 961-966.	0.3	29
263	Impact of annealing-induced compaction on electronic properties of atomic-layer-deposited Al <sub>2</sub> O <sub>3</sub> . Applied Physics Letters, 2002, 81, 1678-1680.	1.5	95
264	Initial stages of growth of diamond island films on crystalline silicon. Semiconductors, 2002, 36, 848-851.	0.2	2
265	Structural degradation of thermal SiO <sub>2</sub> on Si by high-temperature annealing: Defect generation. Physical Review B, 2002, 66, .	1.1	34
266	Band alignments in metal-oxide-silicon structures with atomic-layer deposited Al <sub>2</sub> O <sub>3</sub> and ZrO <sub>2</sub> . Journal of Applied Physics, 2002, 91, 3079-3084.	1.1	190
267	Thermally Induced Si(100)/SiO <sub>2</sub> Interface Degradation in poly-Si/SiO <sub>2</sub> /Si Structures Evidence for a Hydrogen-Stimulated Process. Journal of the Electrochemical Society, 2001, 148, G279.	1.3	3
268	Comment on "Do Pb1 centers have levels in the Si band gap? Spin-dependent recombination study of the Pb1 hyperfine spectrum" [Appl. Phys. Lett. 76, 3771 (2000)]. Applied Physics Letters, 2001, 78, 1451-1452.	1.5	7
269	Electron spin resonance observation of Si dangling-bond-type defects at the interface of (100) Si with ultrathin layers of SiO <sub>x</sub> , Al <sub>2</sub> O <sub>3</sub> and ZrO <sub>2</sub> . Journal of Physics Condensed Matter, 2001, 13, L673-L680.	0.7	21
270	Defect generation in Si/SiO <sub>2</sub> /ZrO <sub>2</sub> /TiN structures: the possible role of hydrogen. Semiconductor Science and Technology, 2001, 16, L93-L96.	1.0	17

#	ARTICLE	IF	CITATIONS
271	Proton nature of radiation-induced positive charge in SiO <sub>2</sub> layers on Si. Europhysics Letters, 2001, 53, 233-239.	0.7	49
272	Electron energy barriers between (100)Si and ultrathin stacks of SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , and ZrO <sub>2</sub> insulators. Applied Physics Letters, 2001, 78, 3073-3075.	1.5	127
273	Polarity dependence of defect generation in ultrathin SiO <sub>2</sub> /ZrO <sub>2</sub> gate dielectric stacks. Applied Physics Letters, 2001, 79, 3134-3136.	1.5	33
274	Comment on "Reduction of interface-state density in 4H-SiC n-type metal-oxide-semiconductor structures using high-temperature hydrogen annealing" [Appl. Phys. Lett. 76, 1585 (2000)]. Applied Physics Letters, 2001, 78, 4043-4044.	1.5	6
275	Ultradisperse diamond cluster aggregation studied by atomic force microscopy. Technical Physics Letters, 2000, 26, 819-821.	0.2	30
276	Pressure dependence of Si/SiO <sub>2</sub> degradation suppression by helium. Journal of Applied Physics, 2000, 87, 7338-7341.	1.1	8
277	Variation in the fixed charge density of SiO <sub>x</sub> /ZrO <sub>2</sub> gate dielectric stacks during postdeposition oxidation. Applied Physics Letters, 2000, 77, 1885.	1.5	182
278	Shallow electron traps at the 4H-SiC/SiO <sub>2</sub> interface. Applied Physics Letters, 2000, 76, 336-338.	1.5	130
279	Paramagnetic defects at the interface of ultrathin oxides grown under vacuum ultraviolet photon excitation on (111) and (100) Si. Applied Physics Letters, 2000, 77, 1469-1471.	1.5	35
280	Electrically Active Traps at the 4H-SiC/SiO <sub>2</sub> Interface Responsible for the Limitation of the Channel Mobility. Materials Science Forum, 2000, 338-342, 1065-1068.	0.3	9
281	Physics of SiC Processing. Materials Science Forum, 2000, 338-342, 831-836.	0.3	5
282	Valence band offset and hole injection at the 4H-, 6H-SiC/SiO <sub>2</sub> interfaces. Applied Physics Letters, 2000, 77, 2024-2026.	1.5	35
283	Charge state of paramagnetic E' centre in thermal SiO <sub>2</sub> layers on silicon. Journal of Physics Condensed Matter, 2000, 12, 2285-2290.	0.7	49
284	SiC/SiO <sub>2</sub> INTERFACE DEFECTS. , 2000, , 581-597.		2
285	Hydrogen-Related Leakage Currents Induced in Ultrathin SiO <sub>2</sub> /Si Structures by Vacuum Ultraviolet Radiation. Journal of the Electrochemical Society, 1999, 146, 3409-3414.	1.3	37
286	SiC/SiO <sub>2</sub> interface-state generation by electron injection. Journal of Applied Physics, 1999, 85, 8292-8298.	1.1	41
287	Relationship between oxide density and charge trapping in SiO <sub>2</sub> films. Journal of Applied Physics, 1999, 85, 6577-6588.	1.1	54
288	Suppression of thermal interface degradation in (111) Si/SiO <sub>2</sub> by noble gases. Applied Physics Letters, 1999, 74, 1466-1468.	1.5	15

#	ARTICLE	IF	CITATIONS
289	Trapping of H <sup>+</sup> and Li <sup>+</sup> ions at the Si/SiO <sub>2</sub> interface. Physical Review B, 1999, 60, 5506-5512.	1.1	18
290	Blockage of the annealing-induced Si/SiO <sub>2</sub> degradation by helium. Applied Physics Letters, 1999, 74, 1009-1011.	1.5	7
291	Photoionization of silicon particles in SiO <sub>2</sub> . Physical Review B, 1999, 59, 2025-2034.	1.1	36
292	Correlation Between Development of Leakage Current and Hydrogen Ionization in Ultrathin Silicon Dioxide Layers. Materials Research Society Symposia Proceedings, 1999, 592, 203.	0.1	1
293	Undetectability of the point defect as an interface state in thermal. Journal of Physics Condensed Matter, 1998, 10, L19-L25.	0.7	58
294	hyperfine structure of the interface defect in thermal. Journal of Physics Condensed Matter, 1998, 10, L465-L472.	0.7	6
295	Pb interface defect in thermal (100)Si/SiO <sub>2</sub> : <sup>29</sup> Si hyperfine interaction. Physical Review B, 1998, 58, 15801-15809.	1.1	120
296	Oxygen Vacancies in SiO <sub>2</sub> Layers on Si Produced at High Temperature. Journal of the Electrochemical Society, 1998, 145, 3157-3160.	1.3	11
297	Observation of Carbon Clusters at the 4H-SiC/SiO <sub>2</sub> Interface. Materials Science Forum, 1998, 264-268, 857-860.	0.3	59
298	Interface State Density at Implanted 6H SiC/SiO <sub>2</sub> MOS Structures. Materials Science Forum, 1998, 264-268, 861-864.	0.3	6
299	Blocking of thermally induced interface degradation in (111) by He. Journal of Physics Condensed Matter, 1998, 10, L367-L371.	0.7	4
300	Thermally induced interface degradation in (100) and (111) Si/SiO <sub>2</sub> analyzed by electron spin resonance. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 3108.	1.6	47
301	Positively charged bonded states of hydrogen at the interface. Journal of Physics Condensed Matter, 1998, 10, 89-93.	0.7	2
302	Electron spin resonance features of interface defects in thermal (100)Si/SiO <sub>2</sub> . Journal of Applied Physics, 1998, 83, 2449-2457.	1.1	164
303	Electrical activity of interfacial paramagnetic defects in thermal (100)Si/SiO <sub>2</sub> . Physical Review B, 1998, 57, 10030-10034.	1.1	111
304	Positive charging of thermal SiO <sub>2</sub> /(100)Si interface by hydrogen annealing. Applied Physics Letters, 1998, 72, 79-81.	1.5	40
305	Hydrogen-induced thermal interface degradation in (111) Si/SiO <sub>2</sub> revealed by electron-spin resonance. Applied Physics Letters, 1998, 72, 2271-2273.	1.5	44
306	Hydrogen-Induced Valence Alternation State at SiO <sub>2</sub> Interfaces. Physical Review Letters, 1998, 80, 5176-5179.	2.9	75

#	ARTICLE	IF	CITATIONS
307	Reply to the comment on 'Creation of interface defects in thermal through annealing'. Journal of Physics Condensed Matter, 1997, 9, 3299-3301.	0.7	4
308	Photon-stimulated tunnelling of electrons in : evidence for a defect-assisted process. Journal of Physics Condensed Matter, 1997, 9, L55-L60.	0.7	15
309	Electrical conduction of buried SiO <sub>2</sub> layers analyzed by photon stimulated electron tunneling. Applied Physics Letters, 1997, 70, 1260-1262.	1.5	10
310	Mechanism for Si island retention in buried SiO <sub>2</sub> layers formed by oxygen ion implantation. Applied Physics Letters, 1997, 71, 2106-2108.	1.5	3
311	Interfacial Defects in SiO <sub>2</sub> Revealed by Photon Stimulated Tunneling of Electrons. Physical Review Letters, 1997, 78, 2437-2440.	2.9	107
312	H-complexed oxygen vacancy in SiO <sub>2</sub> : Energy level of a negatively charged state. Applied Physics Letters, 1997, 71, 3844-3846.	1.5	42
313	Electron Spin Resonance Features of the P<sub>b1</sub> Interface Defect in Thermal (100)Si/SiO<sub>2</sub>. Materials Science Forum, 1997, 258-263, 1713-1718.	0.3	1
314	Trap Generation in Buried Oxides of Siliconâ€œInsulator Structures by Vacuum Ultraviolet Radiation. Journal of the Electrochemical Society, 1997, 144, 749-753.	1.3	5
315	Structural inhomogeneity and silicon enrichment of buried SiO <sub>2</sub> layers formed by oxygen ion implantation in silicon. Journal of Applied Physics, 1997, 82, 2184-2199.	1.1	29
316	â€œCarbon cluster modelâ€œ for electronic states at interfaces. Diamond and Related Materials, 1997, 6, 1472-1475.	1.8	68
317	Creation of interface defects in thermal Si/ through annealing. Journal of Physics Condensed Matter, 1996, 8, L505-L509.	0.7	4
318	Electron states and microstructure of thina-C:H layers. Physical Review B, 1996, 54, 10820-10826.	1.1	49
319	Band offsets and electronic structure of SiC/SiO <sub>2</sub> interfaces. Journal of Applied Physics, 1996, 79, 3108-3114.	1.1	243
320	Elimination of SiC/SiO <sub>2</sub> interface states by preoxidation ultravioletâ€œozone cleaning. Applied Physics Letters, 1996, 68, 2141-2143.	1.5	116
321	Conducting and Chargeâ€œTrapping Defects in Buried Oxide Layers of SIMOX Structures. Journal of the Electrochemical Society, 1996, 143, 347-352.	1.3	9
322	Confinement Phenomena in Buried Oxides of SIMOX Structures as Affected by Processing. Journal of the Electrochemical Society, 1996, 143, 695-700.	1.3	27
323	Annealing induced degradation of thermal SiO <sub>2</sub> : S center generation. Applied Physics Letters, 1996, 69, 2056-2058.	1.5	39
324	Epitaxial Growth of SiO <sub>2</sub> Produced in Silicon by Oxygen Ion Implantation. Physical Review Letters, 1996, 77, 4206-4209.	2.9	25

#	ARTICLE	IF	CITATIONS
325	Hole traps in oxide layers thermally grown on SiC. Applied Physics Letters, 1996, 69, 2252-2254.	1.5	47
326	Thermally induced interface degradation in (111) Si/SiO <sub>2</sub> traced by electron spin resonance. Physical Review B, 1996, 54, R11129-R11132.	1.1	72
327	SiO <sub>2</sub> hole traps with small cross section. Applied Physics Letters, 1995, 66, 1738-1740.	1.5	28
328	Combined electron spin resonance and capacitance-voltage analysis of hydrogen annealing induced positive charge in buried SiO <sub>2</sub> . Journal of Applied Physics, 1995, 77, 2419-2424.	1.1	11
329	Wafer bonding induced degradation of thermal silicon dioxide layers on silicon. Applied Physics Letters, 1995, 66, 1653-1655.	1.5	4
330	Charge Instability of Bonded Silicon Dioxide Layer Induced by Wet Processing. Journal of the Electrochemical Society, 1995, 142, 1983-1986.	1.3	2
331	Degradation of the thermal oxide of the Si/SiO <sub>2</sub> /Al system due to vacuum ultraviolet irradiation. Journal of Applied Physics, 1995, 78, 6481-6490.	1.1	65
332	Deep and Shallow Electron Trapping in the Buried Oxide Layer of SIMOX Structures. Journal of the Electrochemical Society, 1994, 141, 2801-2804.	1.3	20
333	Elimination of hydrogen-related instabilities in Si/SiO <sub>2</sub> structures by fluorine implantation. Journal of Applied Physics, 1994, 76, 7990-7997.	1.1	12
334	Hydrogen induced donor-type Si/SiO <sub>2</sub> interface states. Applied Physics Letters, 1994, 65, 2428-2430.	1.5	102
335	Necessity of hydrogen for activation of implanted fluorine in Si/SiO <sub>2</sub> structures. Applied Physics Letters, 1993, 63, 2949-2951.	1.5	7
336	The charge and trap generation in thin SiO <sub>2</sub> layers under low energy ion bombardment. Radiation Effects and Defects in Solids, 1990, 112, 189-193.	0.4	3
337	Ge deep sub-micron pFETs with etched TaN metal gate on a high-k dielectric, fabricated in a 200mm silicon prototyping line. , 0, , .		4
338	Impact of Nitridation on Negative and Positive Charge Buildup in SiC Gate Oxides. Materials Science Forum, 0, 600-603, 803-806.	0.3	3
339	Detection and Electrical Characterization of Defects at the SiO <sub>2</sub> /4H-SiC Interface. Materials Science Forum, 0, 645-648, 463-468.	0.3	10