S Ashok

List of Publications by Year
in descending order

63	957	567281 15	434195 31
papers	citations	h-index	g-index

65	65	65	549
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A study of Pd/Si MIS Schottky barrier diode hydrogen detector. IEEE Transactions on Electron Devices, 1981, 28, 1003-1009.	3.0	162
2	Effect of ionâ€beam sputter damage on Schottky barrier formation in silicon. Applied Physics Letters, 1981, 39, 423-425.	3.3	127
3	Spray-deposited ITOâ€"Silicon SIS heterojunction solar cells. IEEE Transactions on Electron Devices, 1980, 27, 725-730.	3.0	105
4	Evidence of space-charge-limited current in amorphous silicon Schottky diodes. IEEE Electron Device Letters, 1980, 1, 200-202.	3.9	61
5	Low temperature charge carrier hopping transport mechanism in vanadium oxide thin films grown using pulsed dc sputtering. Applied Physics Letters, 2009, 94, .	3.3	49
6	Electrical, structural, and bonding changes induced in silicon by H, Ar, and Kr ionâ€beam etching. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1983, 1, 334-336.	2.1	44
7	Evidence of tunnelâ€assisted transport in nondegenerate MOS and semiconductorâ€oxideâ€semiconductor diodes at room temperature. Journal of Applied Physics, 1980, 51, 3417-3421.	2.5	35
8	Passivation of dry-etching damage using low-energy hydrogen implants. IEEE Electron Device Letters, 1983, 4, 432-435.	3.9	35
9	On resolving the anomaly of indium-tin oxide silicon junctions. IEEE Electron Device Letters, 1981, 2, 184-186.	3.9	33
10	Carrier transport in amorphous SiC/crystalline silicon heterojunctions. Journal of Applied Physics, 2001, 89, 4422-4428.	2.5	26
11	Correlation of temperature response and structure of annealed VOx thin films for IR detector applications. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2009, 27, 956-961.	2.1	25
12	Silicon Schottky-barrier modification by ion-implantation damage. IEEE Electron Device Letters, 1984, 5, 48-49.	3.9	23
13	Unipolar accumulation-type transistor configuration implemented using Si nanowires. Applied Physics Letters, 2007, 91, .	3.3	19
14	Argonâ€ion implantation damage studies in silicon Schottky barriers using anodic oxidation/etching. Journal of Applied Physics, 1986, 60, 2886-2892.	2.5	18
15	An additional source of photovoltage in photoconductive materials. Applied Physics Letters, 1979, 35, 535-537.	3.3	17
16	Lowâ€energy hydrogen ion implantation in Schottky barrier control. Applied Physics Letters, 1985, 47, 426-428.	3.3	16
17	Radio frequency plasma annealing of positive charge generated by Fowlerâ€"Nordheim electron injection in buried oxides in silicon. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 1254.	1.6	15
18	Evidence for the formation of polycrystalline silicon by argon implantation and its passivation by atomic hydrogen. Applied Physics Letters, 1986, 49, 728-730.	3.3	13

#	Article	IF	Citations
19	A study of target heating in lowâ€energy ionâ€beam processing. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1986, 4, 2385-2388.	2.1	13
20	Investigation of roomâ€temperature ion beam hydrogenation for the removal of traps in silicon ion beam damaged metalâ€oxideâ€silicon structures. Journal of Applied Physics, 1993, 73, 2187-2195.	2.5	13
21	Trapping of atomic hydrogen in silicon by disordered regions. Journal of Applied Physics, 1991, 70, 4779-4783.	2.5	12
22	Near-surface defects in hydrogen-plasma-treated boron-doped silicon studied by positron beam spectroscopy. Applied Physics A: Materials Science and Processing, 1999, 68, 643-645.	2.3	11
23	Reverse current transport mechanism in shallow junctions containing silicide spikes. Journal of Applied Physics, 2002, 92, 7532-7535.	2.5	10
24	Deep level transient spectroscopy of interfacial traps at ionâ€implanted ultrahighpâ€Si Schottky barriers. Applied Physics Letters, 1986, 49, 1784-1786.	3.3	9
25	On the design of GaN vertical MESFETs on commercial LED sapphire wafers. Solid-State Electronics, 2016, 126, 23-31.	1.4	7
26	Effects of Processâ€Induced Damage on Metal Oxide Semiconductor Structures with 115 Ã... Thin Gate Oxides. Journal of the Electrochemical Society, 1992, 139, 2026-2032.	2.9	6
27	Interface investigation using transparent conductorâ€oxideâ€silicon structures. Journal of Applied Physics, 1982, 53, 7039-7043.	2.5	5
28	Schottky barrier study of ion implantation damage in GaAs. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 2280.	1.6	5
29	Modeling the spectral responsivity of ultraviolet GaN Schottky barrier photodetectors under reverse bias. Journal of Applied Physics, 2015, 117, 134503.	2.5	5
30	Anomalous Evolution of Bubbles in Krypton-Implanted SiO2. Materials Research Society Symposia Proceedings, 2007, 994, 1.	0.1	4
31	Atomic hydrogen interactions with disordered regions in silicon. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1992, 10, 1118-1123.	2.1	3
32	Process-induced damage-a study of hydrogen and deuterium passivation. , 0, , .		3
33	Minority carrier injection limited current in Re/4Hâ€SiC Schottky diodes. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1509-1513.	1.8	3
34	Summary Abstract: Synergistic effects in ion bombardment modification of silicon Schottky contacts. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1986, 4, 845-846.	2.1	2
35	Silicon Surface Barrier Modification by Lowâ€Energy Nitrogen Ion Implantation. Journal of the Electrochemical Society, 1987, 134, 1494-1499.	2.9	2
36	Hydrogen in silicon: defect interactions and applications. , 0, , .		2

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37	A model for the I-V characteristics of electrochemical photovoltaic devices. , 1979, , .		1
38	High Performance Thin Film Transistors for Scanner Applications. Materials Research Society Symposia Proceedings, 1990, 182, 369.	0.1	1
39	Impact of Hydrogen Plasma Treatment on Gettering by He Implantation-Induced Cavities in Silicon. Materials Research Society Symposia Proceedings, 2004, 813, 421.	0.1	1
40	Influence of Atomic Hydrogen on Nickel Silicide Formation. Materials Research Society Symposia Proceedings, 2004, 810, 231.	0.1	1
41	Plasma and ion beam process-induced damage in semiconductors: review and retrospective. , 0, , .		1
42	Thermal Growth of He-cavities in Si Studied by Cascade Implantation. Materials Research Society Symposia Proceedings, 2005, 864, 971.	0.1	1
43	Blistering and Splitting in Hydrogen-implanted Silicon. Materials Research Society Symposia Proceedings, 2005, 864, 981.	0.1	1
44	Low-k Dielectric Obtained by Noble Gas Implantation in Silicon Oxide. Materials Research Society Symposia Proceedings, 2006, 914, 1.	0.1	1
45	Xe implantation in SiO/sub 2/: low-k applications. , 2006, , .		1
46	Influence of oxidation temperature on photoluminescence and electrical properties of amorphous thin film SiC:H:O+Tb. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2749-2751.	0.8	1
47	Chemical and Ion Beam Etch Studies of Polycrystalline Silicon. Materials Research Society Symposia Proceedings, 1981, 5, 199.	0.1	0
48	Evidence for Polycrystalline Si Surface Layer Formation by Argon Implantation and its Passivation by Atomic Hydrogen. Materials Research Society Symposia Proceedings, 1986, 76, 203.	0.1	0
49	Plasma Hydrogenation Studies on Low-Temperature Mbe-Grown GaAs. Materials Research Society Symposia Proceedings, 1992, 262, 437.	0.1	0
50	Oxygen-Doped-Silicon/Silicon Heterointerfaces by Ion Implantation. Materials Research Society Symposia Proceedings, 1992, 268, 369.	0.1	0
51	Electrical transport across oxygenâ€dopedâ€silicon buried layers by substoichiometric oxygen ion implantation in silicon. Applied Physics Letters, 1993, 63, 3188-3190.	3.3	0
52	On the Influence of Illumination During Ion Damage Defect Anneal of Silicon. Materials Research Society Symposia Proceedings, 1995, 396, 709.	0.1	0
53	Electrically active defects in surface preamorphized and subsequently RTP-annealed Si and the effect of titanium silicidation. , 0, , .		0
54	Ion Implantation-Induced Defects and the Influence of Titanium Silicidation. Materials Research Society Symposia Proceedings, 1998, 510, 275.	0.1	0

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55	Formation and characterization of multi-layered nanocavities in silicon with cascade helium implantation/anneal. , 0, , .		0
56	Effect of silicon substrate hydrogenation treatment on nickel silicide formation. , 0, , .		0
57	Enhancement of Boron Activation in Shallow Junctions by Hydrogen. Materials Research Society Symposia Proceedings, 2004, 810, 351.	0.1	0
58	Helium implant depth dependence on thermal growth of nanocavities in silicon. , 0, , .		0
59	Hydrogenation-enhanced low temperature activation of boron in silicon. , 0, , .		0
60	Mechanism of Dopant Activation Enhancement in Shallow Junctions by Hydrogen. Materials Research Society Symposia Proceedings, 2005, 864, 9281.	0.1	0
61	Nano- and micro-scale morghological defects in oxidized a-SiC:H thin films. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 619-623.	0.8	0
62	Study of Er-related Defects in a-Si:H(Er) Films Used in Light Emitting Heterostructures. Materials Research Society Symposia Proceedings, 2002, 719, .	0.1	0
63	Atomic Hydrogen Passivation of High Energy Hydrogen Implants. Materials Research Society Symposia Proceedings, 1991, 223, 241.	0.1	0