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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

99 papers	4,272 citations	33 h-index	65 g-index
103 ext. papers	4,479 ext. citations	2.9 avg, IF	4.83 L-index

#	Paper	IF	Citations
99	Point defects, diffusion processes, and swirl defect formation in silicon. <i>Applied Physics A: Solids and Surfaces</i> , <b>1985</b> , 37, 1-17		398
98	Intrinsic gettering by oxide precipitate induced dislocations in Czochralski Si. <i>Applied Physics Letters</i> , <b>1977</b> , 30, 175-176	3.4	340
97	Silicon nanowhiskers grown on <111>Si substrates by molecular-beam epitaxy. <i>Applied Physics Letters</i> , <b>2004</b> , 84, 4968-4970	3.4	278
96	Oxygen diffusion and thermal donor formation in silicon. <i>Applied Physics A: Solids and Surfaces</i> , <b>1982</b> , 28, 79-92		255
95	Oxygen precipitation and the generation of dislocations in silicon. <i>Philosophical Magazine and Journal</i> , <b>1976</b> , 34, 615-631		157
94	Mechanisms of doping-enhanced superlattice disordering and of gallium self-diffusion in GaAs. <i>Applied Physics Letters</i> , <b>1988</b> , 52, 1240-1242	3.4	154
93	Diffusion mechanism of zinc and beryllium in gallium arsenide. <i>Journal of Applied Physics</i> , <b>1991</b> , 69, 3547-3565	3.5	143
92	Point defects, diffusion mechanisms, and superlattice disordering in gallium arsenide-based materials. <i>Critical Reviews in Solid State and Materials Sciences</i> , <b>1991</b> , 17, 47-106	10.1	135
91	Formation of epitaxial CoSi <sub>2</sub> films on (001) silicon using Ti-Co alloy and bimetal source materials. <i>Journal of Applied Physics</i> , <b>1991</b> , 70, 7579-7587	2.5	108
90	Oxidation-enhanced or retarded diffusion and the growth or shrinkage of oxidation-induced stacking faults in silicon. <i>Applied Physics Letters</i> , <b>1982</b> , 40, 616-619	3.4	104
89	Destruction mechanism of III-V compound quantum well structures due to impurity diffusion. <i>Journal of Applied Physics</i> , <b>1987</b> , 61, 1841-1845	2.5	96
88	WAVE INTERACTIONS IN SATURABLE ABSORBERS. <i>Applied Physics Letters</i> , <b>1967</b> , 10, 4-7	3.4	96
87	Atomic modelling of homogeneous nucleation of dislocations from condensation of point defects in silicon. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , <b>1981</b> , 44, 101-125		94
86	Chemical and structural aspects of reaction at the Ti/Si interface. <i>Physical Review B</i> , <b>1984</b> , 30, 5421-5429	3.3	93
85	On the diamond-cubic to hexagonal phase transformation in silicon. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , <b>1981</b> , 44, 127-140		92
84	Nucleation of CuSi precipitate colonies in oxygen-rich silicon. <i>Applied Physics Letters</i> , <b>1976</b> , 28, 564-565	3.4	92
83	Resistance and structural stabilities of epitaxial CoSi <sub>2</sub> films on (001) Si substrates. <i>Journal of Applied Physics</i> , <b>1992</b> , 72, 1864-1873	2.5	91

82	A smarter-cut approach to low temperature silicon layer transfer. <i>Applied Physics Letters</i> , <b>1998</b> , 72, 49-51	3.4	90
81	Carbon-induced undersaturation of silicon self-interstitials. <i>Applied Physics Letters</i> , <b>1998</b> , 72, 200-202	3.4	83
80	Thermal equilibrium concentrations and effects of negatively charged Ga vacancies in n-type GaAs. <i>Applied Physics A: Materials Science and Processing</i> , <b>1993</b> , 56, 249-258	2.6	77
79	Modeling of gettering of precipitated impurities from Si for carrier lifetime improvement in solar cell applications. <i>Journal of Applied Physics</i> , <b>1999</b> , 86, 2453-2458	2.5	76
78	Growth kinetics of oxidation-induced stacking faults in silicon: A new concept. <i>Applied Physics Letters</i> , <b>1981</b> , 39, 86-88	3.4	70
77	The contribution of vacancies to carbon out-diffusion in silicon. <i>Applied Physics Letters</i> , <b>1999</b> , 74, 392-394	3.4	69
76	Oxygen precipitation retardation and recovery phenomena in Czochralski silicon: Experimental observations, nuclei dissolution model, and relevancy with nucleation issues. <i>Journal of Applied Physics</i> , <b>1986</b> , 59, 917-931	2.5	69
75	Schottky effect model of electrical activity of metallic precipitates in silicon. <i>Applied Physics Letters</i> , <b>2000</b> , 76, 3777-3779	3.4	53
74	Carbon precipitation in silicon: Why is it so difficult?. <i>Applied Physics Letters</i> , <b>1993</b> , 62, 3336-3338	3.4	53
73	On the nature of point defects and the effect of oxidation on substitutional dopant diffusion in silicon. <i>Applied Physics A: Solids and Surfaces</i> , <b>1983</b> , 31, 97-108		49
72	Disordering in <sup>69</sup> GaAs/ <sup>71</sup> GaAs isotope superlattice structures. <i>Journal of Applied Physics</i> , <b>1992</b> , 72, 5206-5212	3.5	42
71	Do oxygen molecules contribute to oxygen diffusion and thermal donor formation in silicon?. <i>Applied Physics A: Solids and Surfaces</i> , <b>1989</b> , 48, 219-228		42
70	Chemical reaction and Schottky-barrier formation at V/Si interfaces. <i>Physical Review B</i> , <b>1984</b> , 29, 1540-1550	3.5	40
69	Formation of void/Ga-precipitate pairs during Zn diffusion into GaAs: The competition of two thermodynamic driving forces. <i>Journal of Applied Physics</i> , <b>1993</b> , 74, 4409-4422	2.5	39
68	Diffusion mechanism of chromium in GaAs. <i>Journal of Applied Physics</i> , <b>1991</b> , 70, 4827-4836	2.5	35
67	Determination of vacancy and self-interstitial contributions to gallium self-diffusion in GaAs. <i>Journal of Applied Physics</i> , <b>1991</b> , 70, 4823-4826	2.5	33
66	Growth, shrinkage, and stability of interfacial oxide layers between directly bonded silicon wafers. <i>Applied Physics A: Solids and Surfaces</i> , <b>1990</b> , 50, 85-94		32
65	Stability of interfacial oxide layers during silicon wafer bonding. <i>Journal of Applied Physics</i> , <b>1989</b> , 65, 5612-5613	3.5	30

64	Observation of oxidation-enhanced and oxidation-retarded diffusion of antimony in silicon. <i>Applied Physics Letters</i> , <b>1983</b> , 42, 448-450	3.4	29
63	Kinetics of silicon stacking fault growth/shrinkage in an oxidizing ambient containing a chlorine compound. <i>Journal of Applied Physics</i> , <b>1982</b> , 53, 4767-4778	2.5	29
62	Experimental and computer simulation studies of diffusion mechanisms on the arsenic sublattice of gallium arsenide. <i>Journal of Applied Physics</i> , <b>1998</b> , 83, 5295-5301	2.5	28
61	The diffusivity of silicon self-interstitials. <i>Radiation Effects and Defects in Solids</i> , <b>1989</b> , 111-112, 131-150	0.9	28
60	Interdiffusion studies in GaAsP/GaAs and GaAsSb/GaAs superlattices under various arsenic vapor pressures. <i>Journal of Applied Physics</i> , <b>1997</b> , 81, 6056-6061	2.5	27
59	AlGa interdiffusion, carbon acceptor diffusion, and hole reduction in carbon-doped Al <sub>0.4</sub> Ga <sub>0.6</sub> As/GaAs superlattices: The As <sub>4</sub> pressure effect. <i>Journal of Applied Physics</i> , <b>1993</b> , 74, 2450-2460	2.5	25
58	Transition metal silicide precipitation in silicon induced by rapid thermal processing and free-surface gettering. <i>Applied Physics Letters</i> , <b>1989</b> , 55, 2108-2110	3.4	21
57	Oxygen precipitation in silicon: The role of strain and self-interstitials. <i>Applied Physics Letters</i> , <b>1991</b> , 59, 2007-2009	3.4	21
56	SiO <sub>2</sub> precipitate strain relief in Czochralski Si: Self-interstitial emission versus prismatic dislocation loop punching. <i>Journal of Applied Physics</i> , <b>1992</b> , 72, 2192-2196	2.5	19
55	Nucleation of stacking faults at oxide precipitate-dislocation complexes in silicon. <i>Applied Physics Letters</i> , <b>1976</b> , 29, 765-767	3.4	19
54	Nucleation barrier of voids and dislocation loops in silicon. <i>Applied Physics Letters</i> , <b>1997</b> , 70, 1715-1717	3.4	18
53	Metallic precipitate contribution to generation and recombination currents in p-n junction devices due to the Schottky effect. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 5064	2.5	18
52	Mass transport equations unifying descriptions of isothermal diffusion, thermomigration, segregation, and position-dependent diffusivity. <i>Applied Physics Letters</i> , <b>1998</b> , 73, 2678-2680	3.4	18
51	Effect of Al-induced gettering and back surface field on the efficiency of Si solar cells. <i>Journal of Applied Physics</i> , <b>2001</b> , 90, 5388-5394	2.5	17
50	Model of partitioning of point defect species during precipitation of a misfitting compound in Czochralski silicon. <i>Journal of Applied Physics</i> , <b>1995</b> , 77, 5563-5571	2.5	17
49	Influence of dislocations on diffusion-induced nonequilibrium point defects in III-V compounds. <i>Applied Physics Letters</i> , <b>1989</b> , 54, 849-851	3.4	17
48	Void formation and inhibition of layer intermixing in ion-implanted GaAs/AlGaAs superlattices. <i>Applied Physics Letters</i> , <b>1989</b> , 55, 1194-1196	3.4	17
47	Coprecipitation of oxygen and carbon in Czochralski silicon: A growth kinetic approach. <i>Journal of Applied Physics</i> , <b>1995</b> , 78, 5926-5935	2.5	15

46	Diffusion of Fe in InP via the kick-out mechanism. <i>Applied Physics Letters</i> , <b>1993</b> , 62, 75-77	3.4	15
45	Modeling of zinc-indiffusion-induced disordering of GaAs/AlAs superlattices. <i>Journal of Applied Physics</i> , <b>1993</b> , 73, 150-157	2.5	15
44	The Influence of Point Defects on Diffusion and Gettering in Silicon. <i>Materials Research Society Symposia Proceedings</i> , <b>1984</b> , 36, 105		15
43	The Nature of Point Defects and their Influence on Diffusion Processes in Silicon at High Temperatures. <i>Materials Research Society Symposia Proceedings</i> , <b>1982</b> , 14, 45		15
42	Modeling of nucleation and growth of voids in silicon. <i>Journal of Applied Physics</i> , <b>1998</b> , 84, 718-726	2.5	12
41	Oxide precipitation at silicon grain boundaries. <i>Applied Physics Letters</i> , <b>1997</b> , 70, 327-329	3.4	11
40	Distribution mechanism of voids in Si-implanted GaAs. <i>Journal of Applied Physics</i> , <b>1991</b> , 70, 656-660	2.5	11
39	Precipitation of Oxygen and Intrinsic Gettering in Silicon. <i>Materials Research Society Symposia Proceedings</i> , <b>1980</b> , 2, 367		11
38	Void formation, electrical activation, and layer intermixing in Si-implanted GaAs/AlGaAs superlattices. <i>Applied Physics Letters</i> , <b>1990</b> , 57, 389-391	3.4	10
37	Exigent-Accommodation-Volume of Precipitation and Formation of Oxygen Precipitates in Silicon. <i>Materials Research Society Symposia Proceedings</i> , <b>1985</b> , 59, 269		9
36	Void Formation and Its Effect on Dopant Diffusion and Carrier Activation in Si-Implanted GaAs. <i>Japanese Journal of Applied Physics</i> , <b>1990</b> , 29, L1950-L1953	1.4	8
35	On the validity of the amphoteric-defect model in gallium arsenide and a criterion for Fermi-level pinning by defects. <i>Applied Physics A: Materials Science and Processing</i> , <b>1995</b> , 61, 397-405	2.6	7
34	Atomistic mechanisms of dopant-induced multiple quantum well mixing and related phenomena. <i>Optical and Quantum Electronics</i> , <b>1991</b> , 23, S863-S881	2.4	6
33	Point Defects, Diffusion and Gettering in Silicon. <i>Materials Research Society Symposia Proceedings</i> , <b>1997</b> , 469, 13		3
32	CoSi and CoSi <sub>2</sub> Phase Formation on Bulk and Soi Si Substrates. <i>Materials Research Society Symposia Proceedings</i> , <b>1993</b> , 320, 373		3
31	Phosphorus and Aluminum Gettering of Gold in Silicon: Simulation and Optimization Considerations. <i>Materials Research Society Symposia Proceedings</i> , <b>1995</b> , 378, 297		3
30	Mechanisms of Self-Diffusion and of Doping-Enhancement of Superlattice Disorder in GaAs and AlAs Compounds. <i>Materials Research Society Symposia Proceedings</i> , <b>1988</b> , 144, 221		3
29	On the Interaction of Intrinsic and Extrinsic Gettering Schemes in Silicon. <i>Materials Research Society Symposia Proceedings</i> , <b>1984</b> , 36, 223		3

28	In depth generation lifetime profiling of heat-treated czochralski silicon. <i>Physica Status Solidi A</i> , <b>1985</b> , 92, 327-335		3
27	Grain Enhancement of Thin Silicon Layers Using Optical Processing. <i>Materials Research Society Symposia Proceedings</i> , <b>1997</b> , 470, 419		2
26	Intrinsic Point Defects and Diffusion Processes in Silicon. <i>Materials Research Society Symposia Proceedings</i> , <b>1983</b> , 31, 127		2
25	Observation of Oxidation-Enhanced and -Retarded Diffusion of Antimony in Silicon: The Behavior of (111) Wafers. <i>Materials Research Society Symposia Proceedings</i> , <b>1982</b> , 14, 141		2
24	Low-Temperature Diffusion and Agglomeration of Oxygen in Silicon <b>1996</b> , 243-261		2
23	Nucleation and Growth of Voids in Silicon. <i>Materials Research Society Symposia Proceedings</i> , <b>1997</b> , 490, 77		1
22	Grain Enhancement of Polycrystalline Silicon Films Aided by Optical Excitation. <i>Materials Research Society Symposia Proceedings</i> , <b>1997</b> , 485, 95		1
21	Metallic precipitate contribution to carrier generation in metal/oxide/semiconductor capacitors due to the Schottky effect. <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 191-198	2.5	1
20	Point Defects, Diffusion, and Precipitation 231-290		1
19	Fermi-Level Effect, Electric Field Effect, and Diffusion Mechanisms in GaAs Based III-V Compound Semiconductors. <i>Materials Research Society Symposia Proceedings</i> , <b>1998</b> , 527, 321		1
18	Diffusion in Gallium Arsenide and GaAs-Based Layered Structures. <i>Materials Research Society Symposia Proceedings</i> , <b>1989</b> , 163, 715		1
17	Correlation of Void Formation with the Reduction of Carrier Activation and Anomalous Dopant Diffusion in Si-Implanted GaAs. <i>Materials Research Society Symposia Proceedings</i> , <b>1989</b> , 163, 983		1
16	Mechanisms of Doping-Enhanced Superlattice Disorder and of Gallium Self-Diffusion in GaAs. <i>Materials Research Society Symposia Proceedings</i> , <b>1987</b> , 104, 605		1
15	Observation of a doping-dependent orientation effect of the depletion of silicon self-interstitials during oxidation. <i>Journal of Applied Physics</i> , <b>1985</b> , 57, 1812-1815	2.5	0
14	Fermi-Level Effect on Group III Atom Interdiffusion in III-V Compounds: Bandgap Heterogeneity and Low Silicon-Doping. <i>Materials Research Society Symposia Proceedings</i> , <b>1997</b> , 490, 105		
13	Simulation of Under- and Supersaturation of Gallium Vacancies in Gallium Arsenide During Silicon in- and Outdiffusion. <i>Materials Research Society Symposia Proceedings</i> , <b>1997</b> , 490, 99		
12	Recent Progresses in Understanding Gettering in Silicon. <i>Materials Research Society Symposia Proceedings</i> , <b>2002</b> , 719, 411		
11	Modeling Growth Directional Features of Silicon Nanowires Obtained Using SiO <sub>2</sub> . <i>Materials Research Society Symposia Proceedings</i> , <b>2002</b> , 719, 8381		

## 10 Point Defects, Diffusion, and Precipitation 231-290

9 Diffusion-Segregation Equation for Simulation in Heterostructures. *Materials Research Society Symposia Proceedings*, **1993**, 318, 31

8 Arsenic Diffusion and Segregation Behavior at the Interface of Epitaxial CoSi<sub>2</sub> Film and Si Substrate. *Materials Research Society Symposia Proceedings*, **1993**, 320, 409

7 Layer Disordering and Carrier Concentration in Heavily Carbon-Doped AlGaAs/GaAs Superlattices. *Materials Research Society Symposia Proceedings*, **1993**, 300, 409

6 Determination of Ga Self-Diffusion Coefficient in GaAs. *Materials Research Society Symposia Proceedings*, **1991**, 240, 739

5 Mechanism of Cr Diffusion in GaAs. *Materials Research Society Symposia Proceedings*, **1991**, 240, 747

4 A Consistent Model for Disordering of GaAs/AlAs-Superlattices During Zinc Diffusion. *Materials Research Society Symposia Proceedings*, **1992**, 262, 861

3 Disordering and Characterization Studies of <sup>69</sup>GaAs/<sup>71</sup>GaAs Isotope Superlattice Structures: The Effect of Outdiffusion of the Substrate Dopant Si. *Materials Research Society Symposia Proceedings*, **1992**, 262, 873

2 On the Distribution Mechanism of Voids in Si-Implanted GaAs. *Materials Research Society Symposia Proceedings*, **1990**, 209, 421

1 Epitaxial CoSi<sub>2</sub> Formation on (001) Si Using Sequentially Deposited Ti-Co Bilayers **1993**, 523-526