Peter Mascher

List of Publications by Year
in descending order

198 papers	3,379 citations	257450 24 h-index	182427 51 g-index
199 all docs	199 docs citations	199 times ranked	3270 citing authors

#	Article	IF	Citations
1	Point defects and luminescence centres in zinc oxide and zinc oxide doped with manganese. Journal of Luminescence, 1992, 54, 35-42.	3.1	667
2	Monovacancy Formation Enthalpy in Silicon. Physical Review Letters, 1986, 56, 2195-2198.	7.8	236
3	Positron trapping rates and their temperature dependencies in electron-irradiated silicon. Physical Review B, 1989, 40, 11764-11771.	3.2	132
4	The Influence of Processing Conditions on Point Defects and Luminescence Centers in ZnO. Journal of the Electrochemical Society, 1993, 140, 3644-3649.	2.9	122
5	Study of the early stages of clustering in Alâ€“Mgâ€“Si alloys using the electrical resistivity measurements. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 525, 186-191.	5.6	87
6	Experimental Demonstration of Tunable Directional Scattering of Visible Light from All-Dielectric Asymmetric Dimers. ACS Photonics, 2017, 4, 489-494.	6.6	78
7	X-ray-diffraction study of crystalline Si nanocluster formation in annealed silicon-rich silicon oxides. Journal of Applied Physics, 2006, 99, 023518.	2.5	74
8	Vertically aligned wurtzite CdTe nanowires derived from a catalytically driven growth mode. Nanotechnology, 2007, 18, 275301.	2.6	67
9	Unveiling the Far Infrared-to-Ultraviolet Optical Properties of Bismuth for Applications in Plasmonics and Nanophotonics. Journal of Physical Chemistry C, 2017, 121, 3511-3521.	3.1	61
10	Electron cyclotron resonance chemical vapor deposition of silicon oxynitrides using tris(dimethylamino)silane. Applied Physics Letters, 1993, 63, 3014-3016.	3.3	58
11	Plasmon Field Effects on the Nonradiative Relaxation of Hot Electrons in an Electronically Quantized System: CdTeâ˜Au Coreâ˜Shell Nanowires. Nano Letters, 2008, 8, 2410-2418.	9.1	50
12	Defect structure of carbon rich a-SiC:H films and the influence of gas and heat treatments. Journal of Applied Physics, 1998, 84, 786-795.	2.5	47
13	On the character of defects in GaAs. Journal of Physics Condensed Matter, 1989, 1, 3213-3238.	1.8	41
14	Defect characterization in diamonds by means of positron annihilation. Diamond and Related Materials, 1992, 1, 407-410.	3.9	38
15	Optical attenuation in defect-engineered silicon rib waveguides. Journal of Applied Physics, 2006, 99, 073101.	2.5	36
16	The formation of light emitting cerium silicates in cerium-doped silicon oxides. Applied Physics Letters, 2009, 94, .	3.3	29
17	The influence of carbon on the structure and photoluminescence of amorphous silicon carbonitride thin films. Thin Solid Films, 2017, 622, 1-10.	1.8	29
18	Low temperature radio frequency sputter deposition of TiN thin films using optical emission spectroscopy as process monitor. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 83-89.	2.1	28

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19	Effect of annealing on the defect structure inaâ€SiC:H films. Journal of Applied Physics, 1996, 80, 2216-2223.	2.5	28
20	The role of lattice mismatch in the deposition of CdTe thin films. Journal of Electronic Materials, 2006, 35, 1224-1230.	2.2	28
21	Metal ion and oxygen vacancies in bulk and thin filmLa1â^'xSrxCoO3. Physical Review B, 1999, 59, 13365-13369.	3.2	27
22	Laser photoluminescence spectrometer based on charge-coupled device detection for silicon-based photonics. Review of Scientific Instruments, 2006, 77, 023907.	1.3	26
23	The role of substrate surface alteration in the fabrication of vertically aligned CdTe nanowires. Nanotechnology, 2008, 19, 185601.	2.6	26
24	Formation and oxidation of Si nanoclusters in Er-doped Si-rich SiOx. Journal of Applied Physics, 2005, 97, 096108.	2.5	25
25	Influence of the annealing temperature and silicon concentration on the absorption and emission properties of Si nanocrystals. Journal of Applied Physics, 2007, 102, .	2.5	25
26	Optically pumped Si nanocrystal emitter integrated with low loss silicon nitride waveguides. Optics Express, 2007, 15, 14679.	3.4	25
27	Effect of thermal treatment on the growth, structure and luminescence of nitride-passivated silicon nanoclusters. Nanoscale Research Letters, 2011, 6, 168.	5.7	25
28	Light Emission from Rare-Earth Doped Silicon Nanostructures. Advances in Optical Technologies, 2008, 2008, 1-10.	0.8	24
29	Green light emission from terbium doped silicon rich silicon oxide films obtained by plasma enhanced chemical vapor deposition. Nanotechnology, 2012, 23, 475707.	2.6	24
30	Electrical conduction of silicon oxide containing silicon quantum dots. Journal of Physics Condensed Matter, 2006, 18, 9943-9950.	1.8	22
31	Stress transition from compressive to tensile for silicon nanocrystals embedded in amorphous silica matrix. Thin Solid Films, 2014, 571, 18-22.	1.8	22
32	H-sensitive radiative recombination path in Si nanoclusters embedded in SiO2. Applied Physics Letters, 2005, 87, 213110.	3.3	21
33	Light Emission From Hydrogenated and Unhydrogenated Si-Nanocrystal/Si Dioxide Composites Based on PECVD-Grown Si-Rich Si Oxide Films. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1561-1569.	2.9	21
34	Light emission from Si nanoclusters formed at low temperatures. Applied Physics Letters, 2006, 88, 103111.	3.3	20
35	Epitaxially Driven Formation of Intricate Supported Gold Nanostructures on a Lattice-Matched Oxide Substrate. Nano Letters, 2009, 9, 4258-4263.	9.1	20
36	Detrapping of positrons and thermal stability of phosphorus-vacancy pairs in silicon. Physical Review B, 1987, 35, 3043-3046.	3.2	18

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37	Room temperature electron cyclotron resonance chemical vapor deposition of high quality TiN. Applied Physics Letters, 1995, 66, 302-304.	3.3	18
38	On the origin of emission and thermal quenching of SRSO:Er3+ films grown by ECR-PECVD. Nanoscale Research Letters, 2013, 8, 98.	5.7	18
39	An investigation of point defects in silicon carbide. Applied Physics A: Materials Science and Processing, 1995, 61, 55-58.	2.3	17
40	On the contribution of vacancy complexes to the saturation of the carrier concentration in zinc doped InP. Journal of Applied Physics, 1996, 80, 2712-2719.	2.5	17
41	Point defect characterization of Zn- and Cd-based semiconductors using positron lifetime spectroscopy. Journal of Crystal Growth, 1999, 197, 581-585.	1.5	17
42	The Dependence of the Plasmon Field Induced Nonradiative Electronic Relaxation Mechanisms on the Gold Shell Thickness in Vertically Aligned CdTeâˆ’Au Coreâˆ’Shell Nanorods. Nano Letters, 2009, 9, 3772-3779.	9.1	17
43	Deformationâ€induced defects in GaAs. Journal of Applied Physics, 1991, 69, 4080-4091.	2.5	16
44	Annealing studies of vacancies in proton irradiated silicon. Journal of Applied Physics, 1993, 73, 3740-3743.	2.5	16
45	Studies of Defects in Electron and Proton Irradiated ZnO by Positron Annihilation. Materials Science Forum, 1995, 196-201, 333-338.	0.3	16
46	Microstructural evolution of ZnS during sintering monitored by optical and positron annihilation techniques. Applied Physics A: Materials Science and Processing, 1995, 61, 217-220.	2.3	16
47	Atypical grain growth for (211) CdTe films deposited on surface reconstructed (100) SrTiO3 substrates. Applied Surface Science, 2009, 255, 5674-5681.	6.1	16
48	Vacancy-Induced Ferromagnetic Behavior in Antiferromagnetic NiO Nanoparticles: A Positron Annihilation Study. ECS Journal of Solid State Science and Technology, 2017, 6, P798-P804.	1.8	16
49	Study of the optical properties of SiOxNy thin films by effective medium theories. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 1115-1119.	2.1	15
50	The role of substrate surface termination in the deposition ofÂ(111)ÂCdTe onÂ(0001) sapphire. Applied Physics A: Materials Science and Processing, 2009, 96, 429-433.	2.3	15
51	Exciton Lifetime Tuning by Changing the Plasmon Field Orientation with Respect to the Exciton Transition Moment Direction: CdTe-Au Coreâˆ’Shell Nanorods. Nano Letters, 2009, 9, 1242-1248.	9.1	15
52	The role of quantum confinement and crystalline structure on excitonic lifetimes in silicon nanoclusters. Journal of Applied Physics, 2010, 108, 013105.	2.5	15
53	Luminescence of Rubrene and DCJTB molecules in organic light-emitting devices. Journal of Luminescence, 2014, 146, 314-320.	3.1	15
54	Luminescence properties of Ce3+ and Tb3+ co-doped SiOxNy thin films: Prospects for color tunability in silicon-based hosts. Journal of Applied Physics, 2016, 119, .	2.5	15

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55	High performance MSM photodetector operating at 1.3-1.5 Î¼m. Solid-State Electronics, 1996, 39, 1283-1287.	1.4	14
56	Evolution of wurtzite CdTe through the formation of cluster assembled films. Applied Physics Letters, 2006, 89, 133101.	3.3	14
57	Photoreflectance investigations of quantum well intermixing processes in compressively strained InGaAsPâ•InGaAsP quantum well laser structures emitting at 1.55Î¼m. Journal of Applied Physics, 2006, 100, 013111.	2.5	14
58	Plasmonic Enhancement of Nonradiative Charge Carrier Relaxation and Proposed Effects from Enhanced Radiative Electronic Processes in Semiconductorâ”Gold Coreâ”Shell Nanorod Arrays. Journal of Physical Chemistry C, 2011, 115, 5578-5583.	3.1	14
59	Influence of Deposition Conditions on the Characteristics of Luminescent Silicon Carbonitride Thin Films. ECS Journal of Solid State Science and Technology, 2018, 7, N7-N14.	1.8	14
60	Positron-annihilation study of vacancy defects in InAs. Physical Review B, 1997, 55, 9637-9641.	3.2	13
61	Sulfur Passivation of InP/InGaAs Metalâ€Semiconductorâ€Metal Photodetectors. Journal of the Electrochemical Society, 1999, 146, 1946-1951.	2.9	13
62	Induced defects in ZnS by electron and proton irradiation and defect-annealing behavior. Physica B: Condensed Matter, 1999, 273-274, 898-901.	2.7	13
63	Optical and compositional characterization of SiO[sub x]N[sub y] and SiO[sub x] thin films deposited by electron cyclotron resonance plasma enhanced chemical vapor deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 883.	2.1	13
64	Characterization of silicon oxynitride films using ion beam analysis techniques. Nuclear Instruments & Methods in Physics Research B, 2000, 170, 461-466.	1.4	12
65	Effects of annealing ambient on the formation of compensation defects in InP. Journal of Applied Physics, 2003, 93, 930-932.	2.5	12
66	Spectral investigation of multimode fiber Bragg grating based external-cavity semiconductor lasers. IEEE Journal of Quantum Electronics, 2005, 41, 1492-1501.	1.9	12
67	Structure and luminescence of rare earth-doped silicon oxides studied through their X-ray absorption near edge structure and X-ray excited optical luminescence. Physica Status Solidi (B): Basic Research, 2010, 247, 248-253.	1.5	12
68	Structural properties of near-stoichiometric composition of Ba(Bâ€²_{1/3}Bâ€³_{2/3})O₃ (Bâ€² = Mg, Co, or Zn and Bâ€³ = Nb or Ta) perovskites. Journal of Materials Research, 2011, 26, 1116-1125.	2.6	12
69	Excitation mechanism and thermal emission quenching of Tb ions in silicon rich silicon oxide thin films grown by plasma-enhanced chemical vapour depositionâ€”Do we need silicon nanoclusters?. Journal of Applied Physics, 2014, 115, .	2.5	12
70	Luminescence characteristics of hybrid dual emitting layers in blue organic light-emitting diodes by controlling the fluorescent doping concentration. Journal of Luminescence, 2014, 148, 72-78.	3.1	12
71	Comment on ?Amorphous hydrogenated silicon studied by positron lifetime spectroscopy?. Applied Physics A: Solids and Surfaces, 1987, 43, 91-92.	1.4	11
72	Lowâ€temperature electron cyclotron resonance chemical vapor deposition of very low resistivity TiN for InP metallization using metalorganic precursors. Applied Physics Letters, 1995, 66, 2664-2666.	3.3	11

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73	Deformation-Induced Defects in GaSb. Materials Science Forum, 1995, 196-201, 1449-1454.	0.3	11
74	Optical and microstructural characterization of the effects of rapid thermal annealing of CdTe thin films grown on Si (100) substrates. Journal of Electronic Materials, 2005, 34, 786-790.	2.2	11
75	Defect Characterization of CdTe Bulk Crystals Doped with Heavy Elements and Rare Earths. Materials Research Society Symposia Proceedings, 2005, 864, 4181.	0.1	11
76	Process-dependent mechanical and optical properties of nanostructured silicon carbonitride thin films. Nanotechnology, 2019, 30, 314003.	2.6	11
77	Low-loss GeO2thin films deposited by ion-assisted alternating current reactive sputtering for waveguide applications. Thin Solid Films, 2020, 709, 138165.	1.8	11
78	Investigation of the defect structure in Cd1â^'xZnxTe by positron lifetime spectroscopy. Physica B: Condensed Matter, 2001, 308-310, 924-927.	2.7	10
79	Crystallization phenomena in Î²-Ga2O3 investigated by positron annihilation spectroscopy and X-ray diffraction analysis. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 91-92, 541-544.	3.5	10
80	Ultrashort Optical Pulse Generation With a Mode-Locked Long-Wavelength (1075â€“1085 nm) InGaAsâ€“GaAs Semiconductor Laser. IEEE Photonics Technology Letters, 2004, 16, 1798-1800.	2.5	10
81	Growth of CdTeâ^•Si(100) thin films by pulsed laser deposition for photonic applications. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 606-611.	2.1	10
82	Low-Loss Perovskite Niobates Ba(M_{1/3}^{2 +}Nb_{2/3})O₃: Composition, Structure, and Microwave Dielectric Properties. Ferroelectrics, 2009, 387, 36-45.	0.6	10
83	Amorphous sub-nanometre Tb-doped SiO_xN_y/SiO₂superlattices for optoelectronics. Nanotechnology, 2015, 26, 085203.	2.6	10
84	On the origin of white light emission from nanostructured silicon carbonitride thin films. Journal of Luminescence, 2018, 196, 504-510.	3.1	10
85	Subwavelength grating metamaterial waveguides functionalized with tellurium oxide cladding. Optics Express, 2020, 28, 18538.	3.4	10
86	Precise Positron Lifetime Measurements in Indium. Physica Status Solidi (B): Basic Research, 1983, 118, 799-803.	1.5	9
87	Probing the indium clustering in InGaAsâ^•GaAs quantum wells by room temperature contactless electroreflectance and photoluminescence spectroscopy. Journal of Applied Physics, 2007, 101, 116107.	2.5	9
88	Semiconductor nanotechnology: novel materials and devices for electronics, photonics and renewable energy applications. Nanotechnology, 2010, 21, 130201.	2.6	9
89	Spectroscopic study of white organic light-emitting devices with various thicknesses of emissive layer. Journal of Applied Physics, 2012, 111, 014507.	2.5	9
90	Integrated ECR-PECVD and magnetron sputtering system for rare-earth-doped Si-based materials. Surface and Coatings Technology, 2018, 336, 99-105.	4.8	9

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91	Heatâ€treatmentâ€induced defects in lowâ€resistivity silicon. Journal of Applied Physics, 1989, 66, 3526-3534.	2.5	8
92	In-situ monitoring of electron cyclotron resonance plasma chemical vapour deposition of hydrogenated silicon nitride films. Surface and Coatings Technology, 1993, 59, 77-81.	4.8	8
93	The Effect of the Native Oxide on Mask Undercutting of Vâ€Grooves Etched into (100) InP Surfaces Using an SiN x Mask. Journal of the Electrochemical Society, 1995, 142, 593-596.	2.9	8
94	Application of in situ ellipsometry in the fabrication of thin-film optical coatings on semiconductors. Applied Optics, 2000, 39, 1053.	2.1	8
95	Probing point defects in Ba()O3 by ESR, PAS and dielectric spectroscopy. Journal of the European Ceramic Society, 2006, 26, 1921-1924.	5.7	8
96	Rapid thermal annealing of InAsâ•GaAs quantum dots with a low-temperature-grown InGaP cap layer. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 700-703.	2.1	8
97	H-induced effects in luminescent silicon nanostructures obtained from plasma enhanced chemical vapor deposition grown SiyO1â”y:H(y>1â•3) thin films annealed in (Ar+5%H2). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 817-820.	2.1	8
98	On the effects of double-step anneal treatments on light emission from Er-doped Si-rich silicon oxide. Journal of Applied Physics, 2008, 103, 024309.	2.5	8
99	High contrast blue organic light-emitting diodes using inorganic multilayers of Al and ZnSe. Optics Letters, 2012, 37, 5235.	3.3	8
100	Low-Temperature and Low-Pressure Silicon Nitride Deposition by ECR-PECVD for Optical Waveguides. Applied Sciences (Switzerland), 2021, 11, 2110.	2.5	8
101	X-ray Absorption Spectroscopy of Silicon Carbide Thin Films Improved by Nitrogen for All-Silicon Solar Cells. ECS Journal of Solid State Science and Technology, 2020, 9, 083002.	1.8	8
102	Evidence for trapping of positrons in thallium. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 112, 90-92.	2.1	7
103	Positron lifetime studies of defects in MBE-grown silicon. Journal of Physics Condensed Matter, 1992, 4, 8511-8518.	1.8	7
104	Optical and electrical properties of electron cyclotron resonance chemical vapour-deposited SiN_x:H films. Canadian Journal of Physics, 1992, 70, 1104-1108.	1.1	7
105	Positron Lifetime Spectroscopy and Cathodoluminescence of Polycrystalline Terbiumâ€Doped Yttria. Journal of the Electrochemical Society, 1995, 142, 958-960.	2.9	7
106	Proton Irradiation Induced Defects in 611- and 4H-SiC. Materials Research Society Symposia Proceedings, 1998, 540, 177.	0.1	7
107	External-Cavity Semiconductor Laser With Bragg Grating in Multimode Fiber. IEEE Photonics Technology Letters, 2004, 16, 2341-2343.	2.5	7
108	1.54Î¼m room temperature emission from Er-doped Si nanocrystals deposited by ECR-PECVD. Journal of Luminescence, 2006, 121, 230-232.	3.1	7

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109	The Effect of Impurity Phases on the Structure and Properties of Microwave Dielectrics Based on Complex Perovskites Ba(Co1/32 +Nb2/3)O3. Ferroelectrics, 2009, 387, 189-196.	0.6	7
110	Application of positron annihilation and Raman spectroscopies to the study of perovskite type materials. Journal of Applied Physics, 2010, 108, 114109.	2.5	7
111	Defect Characteristics in Different Crystallographic Directions in Czï£¿Si as a Function of Doping and Annealing. Physica Status Solidi A, 1987, 102, 527-531.	1.7	6
112	Control of dielectric cap induced band-gap shift in 1.55 Î¼m laser structures. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 1076-1078.	2.1	6
113	Silicon nanocrystal formation in silicon-rich silicon oxide thin films. , 2004, , .		6
114	Observation of nonâ€•radiative deâ€•excitation processes in silicon nanocrystals. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 969-972.	1.8	6
115	Modeling of spiking analog neural circuits using organic semiconductor thin film transistors with silicon oxide nitride semiconductor gates. Organic Electronics, 2012, 13, 3254-3258.	2.6	6
116	Effect of hydrogen passivation on the photoluminescence of Tb ions in silicon rich silicon oxide films. Journal of Applied Physics, 2015, 118, .	2.5	6
117	Strain engineering in III-V photonic components through structuration of SiNx films. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2022, 40, .	1.2	6
118	Vacancy Formation Enthalpy in Cadmium by Positron Lifetime Measurements. Physica Status Solidi (B): Basic Research, 1981, 104, 601-605.	1.5	5
119	An investigation of the phase transitions in tin by positron lifetime measurements. Journal of Physics F: Metal Physics, 1984, 14, L231-L235.	1.6	5
120	Vacancy complexes in Cr-doped GaAs. Journal of Crystal Growth, 1987, 85, 295-299.	1.5	5
121	Studies of Defects in ZnO by Positron Annihilation. Materials Research Society Symposia Proceedings, 1995, 378, 977.	0.1	5
122	Optical emission spectroscopy as a real time diagnostic tool for plasma-assisted deposition of TiN. Plasma Chemistry and Plasma Processing, 1997, 17, 181-192.	2.4	5
123	Defect Depth Profile in CdTe:Cl by Positron Annihilation. Electrochemical and Solid-State Letters, 1999, 3, 150.	2.2	5
124	Investigation of dielectric cap induced intermixing of InxGa1âˆ'xAsyP1âˆ'y/InP quantum well laser structures by photoreflectance and photoluminescence. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 101, 137-141.	3.5	5
125	Formation of and Light Emission from Si Nanocrystals Embedded in Amorphous Silicon Oxides. ECS Transactions, 2006, 3, 3-8.	0.5	5
126	Implantation profile of Na22 continuous energy spectrum positrons in silicon. Journal of Applied Physics, 2007, 101, 043702.	2.5	5

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127	Photoluminescence from Er-doped Si-rich Si oxides deposited by magnetron sputtering in Ar or Ar+H2 plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2009, 27, 101-108.	2.1	5
128	Photoluminescence and positron annihilation spectroscopy investigation of (Ge, Er) codoped Si oxides deposited by magnetron sputtering. Journal of Applied Physics, 2009, 105, 014312.	2.5	5
129	From amorphous to crystalline silicon nanoclusters: structural effects on exciton properties. Journal of Physics Condensed Matter, 2011, 23, 505302.	1.8	5
130	XANES and XES Studies of Luminescent Silicon Carbonitride Thin Films. ECS Transactions, 2013, 50, 49-56.	0.5	5
131	Raman scattering from confined acoustic phonons of silicon nanocrystals in silicon oxide matrix. Physical Review B, 2015, 91, .	3.2	5
132	Mechanism of enhanced photoluminescence of Tb ions in hydrogenated silicon-rich silicon oxide films. Thin Solid Films, 2016, 611, 62-67.	1.8	5
133	Excitation mechanism of Tb3+ in a-Si3N4:H under sub-gap excitation. Journal of Luminescence, 2018, 202, 327-331.	3.1	5
134	Microstructural Evolution of Radiation-Induced Defects in Semi-Insulating SiC During Isochronal Annealing. Materials Science Forum, 2000, 338-342, 965-968.	0.3	4
135	Vacancy-Type Defects in Proton-Irradiated 6H- and 4H-SiC: A Systematic Study with Positron Annihilation Techniques. Materials Science Forum, 2000, 338-342, 969-972.	0.3	4
136	Fabrication of SiGe optical waveguides using VLSI processing techniques. Journal of Lightwave Technology, 2001, 19, 363-370.	4.6	4
137	Wavelength tunable ultrashort pulse generation from a passively mode-locked asymmetric-quantum-well semiconductor laser. Applied Physics Letters, 2002, 81, 2502-2504.	3.3	4
138	The Effect of Chemical Composition on the Structure and Dielectric Properties of the Columbites A[sup 2+]Nb[sub 2]O[sub 6]. Journal of the Electrochemical Society, 2009, 156, G206.	2.9	4
139	XANES and XEOL Investigation of Cerium and Terbium Co-Doped Silicon Oxide Films. ECS Transactions, 2012, 45, 43-48.	0.5	4
140	Quantum efficiency measurements of down-shifting using silicon nanocrystals for photovoltaic applications. , 2012, , .		4
141	Photoluminescence of silicon carbonitride thin films: The interdependence of post-deposition annealing and growth temperature. Journal of Luminescence, 2019, 214, 116563.	3.1	4
142	Low temperature investigations of eâ˜'-irradiated GaAs. Crystal Research and Technology, 1988, 23, 247-251.	1.3	3
143	Electron Cyclotron Resonance Plasma Chemical Vapour Deposition of Silicon Carbide Thin Films Using Ditertiary Butyl Selane. Materials Research Society Symposia Proceedings, 1994, 339, 381.	0.1	3
144	A comparative study of vacancies produced by proton implantation of silicon using positron annihilation and deep level transient spectroscopy. Nuclear Instruments & Methods in Physics Research B, 2001, 175-177, 300-304.	1.4	3

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145	Induced Defects in ZnSe and ZnTe by Electron and Proton Irradiation and Defect-Annealing Behaviour. Physica Status Solidi (B): Basic Research, 2002, 229, 329-332.	1.5	3
146	Photoreflectance study of the interdiffusion effects in the InGaAsP-based quantum well laser structures. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 602-603.	2.7	3
147	Photoluminescence Study of an Er-Doped Si-Rich SiO[sub x] Film. Electrochemical and Solid-State Letters, 2007, 10, K20.	2.2	3
148	Defect characterization of CdTe thin films using a slow positron beam. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 3659-3663.	0.8	3
149	Cadmium telluride: a silicon-compatible optical material as an alternative technology for building all-optical photonic devices. , 2008, , .		3
150	Highly efficient blue organic light-emitting diodes using dual emissive layers with host-dopant system. Journal of Photonics for Energy, 2013, 3, 033598.	1.3	3
151	Structural and Optical Properties of Luminescent Silicon Carbonitride Thin Films. ECS Transactions, 2014, 61, 97-103.	0.5	3
152	Influence of Nitrogen on the Luminescence Properties of Ce-Doped SiO_xN_y. ECS Journal of Solid State Science and Technology, 2021, 10, 076005.	1.8	3
153	Thermal Stability of Reactively Sputtered TiN on InP as a Diffusion Barrier. Materials Research Society Symposia Proceedings, 1992, 260, 561.	0.1	2
154	Photoreflectance study of changes in the QW profile of 1.55-micrometer laser structure induced by SiO2 cap layers. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 101, 232-235.	3.5	2
155	Applications of defect engineering to the fabrication of silicon-based photonic devices. , 2004, 5577, 683.		2
156	Photoluminescence from Magnetron Sputtered SiO2 Films Co-doped with (Er, Ge) under Excitation of a 325 nm He-Cd Laser Line. ECS Transactions, 2007, 6, 549-559.	0.5	2
157	Combined Super-STEM imaging, EEL and PL spectroscopy of un-doped and Er doped SRSO on Si. , 2008, , .		2
158	Effect of Annealing Time on the Growth, Structure, and Luminescence of Nitride-Passivated Silicon Nanoclusters. ECS Transactions, 2010, 28, 51-59.	0.5	2
159	Defect evolution and its impact on the ferromagnetism of Cu-doped ZnO nanocrystals upon thermal treatment: A positron annihilation study. Journal of Applied Physics, 2017, 121, 025703.	2.5	2
160	Hybrid Blue Organic Light Emitting Diodes with Fluorescent and Phosphorescent Emitters Along with an Interlayer. Science of Advanced Materials, 2016, 8, 301-306.	0.7	2
161	<title>Optical emission spectroscopy as a process monitor for triod ion plating with TiN</title>. , 1992, 1594, 401.		1
162	Void formation at silicon nitride/silicon interfaces studied by variable-energy positrons. Surface and Interface Analysis, 1994, 21, 839-845.	1.8	1

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163	Optical characterization of passivation for high-power Al x Ga 1-x As-based lasers. , 1995, , .		1
164	Refractive indices of InGaAsP lattice-matched to GaAs at wavelengths relevant to device design. Applied Physics Letters, 2000, 76, 2791-2793.	3.3	1
165	Influence of the annealing temperature on the optical transitions of InGaAsP-based quantum well structures investigated by photoreflectance spectroscopy. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 1263-1269.	1.8	1
166	A Novel Method for Bonding of Ionic Wafers. , 0, , .		1
167	Luminescence from Si Nanoclusters Formed in Silicon Oxide and Silicon Nitride Based Materials. ECS Transactions, 2007, 6, 523-529.	0.5	1
168	Characterization of columbite ceramics A_{1â€“x}Nb₂O₆ by positron annihilation spectroscopy. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 3835-3838.	0.8	1
169	The Effects of Deposition and Processing Parameters on the Electronic Structure and Photoluminescence from Nitride-Passivated Silicon Nanoclusters. ECS Transactions, 2009, 16, 33-41.	0.5	1
170	Photoluminescence and positron annihilation spectroscopy of MeV Si+ ion-irradiated SiyO1âˆ’y:Er (yâ‰ˆ1/3) thin films. Journal of Applied Physics, 2009, 105, 053517.	2.5	1
171	The Influence of Structural Ordering on Luminescence from Nitride- and Oxynitride-Passivated Silicon Nanoclusters. ECS Transactions, 2009, 19, 19-28.	0.5	1
172	Gain flattening coatings for improved spectral performance of asymmetric multiple quantum well lasers. Applied Optics, 2011, 50, 975.	2.1	1
173	SOI back reflector for Tb-doped oxide electroluminescent devices. , 2011, , .		1
174	Photoluminescence properties of Ba3Bâ€²Bâ€³2O9 (Bâ€²=Mg, Co or Zn and Bâ€³=Nb or Ta) ceramics with perovskite structure. Journal of Luminescence, 2011, 131, 1782-1788.	3.1	1
175	The Influence of Carbon on the Structure and Photoluminescence of Amorphous Silicon Carbonitride Thin Films. ECS Transactions, 2012, 45, 153-160.	0.5	1
176	Modeling of Spiking Analog Neural Circuits with Hebbian Learning, Using Amorphous Semiconductor Thin Film Transistors with Silicon Oxide Nitride Semiconductor Split Gates. Lecture Notes in Computer Science, 2012, , 89-96.	1.3	1
177	On the photoluminescence of as-deposited Tb-doped silicon oxides and oxynitrides fabricated by ECR-PECVD. Proceedings of SPIE, 2014, , .	0.8	1
178	Study on hybrid blue organic light emitting diodes with step controlled doping profiles in phosphorescent emitting layer. Optical Materials, 2018, 86, 498-504.	3.6	1
179	PECVD Silicon Nitride-Based Multilayers with Optimized Mechanical Properties. ECS Meeting Abstracts, 2022, MA2022-01, 1052-1052.	0.0	1
180	The Stability of Reactively Sputtered WNx Thin Films on III-V Semiconductors. Materials Research Society Symposia Proceedings, 1994, 337, 343.	0.1	0

#	Article	IF	Citations
181	The Effects of Sintering on the Microstructure and the Luminescent Characteristics of Polycrystalline ZnS. Materials Research Society Symposia Proceedings, 1995, 378, 533.	0.1	0
182	Removal of Titanium Oxide Grown on Titanium Nitride and Reduction of VIA Contact Resistance using a Modern Plasma Asher. Materials Research Society Symposia Proceedings, 1997, 495, 345.	0.1	0
183	Vacancy-Type Defects in as-Grown and Proton-Irradiated 6H-SiC. Materials Research Society Symposia Proceedings, 1998, 512, 261.	0.1	0
184	CdTe:Ge/Si (100) thin films grown by pulsed laser deposition (PLD) for photonic devices. , 2005, 5970, 259.		0
185	Erbium doped silicon rich silicon oxide luminescent thin films deposited by ECR-PECVD. , 2005, , .		0
186	The Impact of Deposition Parameters on the Optical and Compositional Properties of Er Doped SRSO Thin Films Deposited by ECR-PECVD. Materials Research Society Symposia Proceedings, 2005, 866, 155.	0.1	0
187	Coupled luminescence centres in erbium-doped silicon rich silicon oxide thin films. , 2006, , .		0
188	X-ray spectroscopy studies of luminescent Si-based materials. , 2008, , .		0
189	Structure and Luminescence of Rare Earth-doped Silicon Oxides Studied Through XANES and XEOL. ECS Transactions, 2009, 25, 213-222.	0.5	0
190	The rapid prototyping of textured amorphous surfaces forÂtheÂgraphoepitaxial deposition of CdTe films usingÂfocusedÂionÂbeamÂlithography. Applied Physics A: Materials Science and Processing, 2011, 102, 259-264.	2.3	0
191	(Invited) Growing Si Nanocrystals within a-Si Nanoclusters Embedded in a-SiO2: Evolution of Photoluminescence. ECS Transactions, 2012, 45, 11-19.	0.5	0
192	Digital implementation of a neural network for imaging. , 2012, , .		0
193	Highly efficient blue organic light-emitting diodes using dual emissive layers with host-dopant system. , 2012, , .		0
194	Characterization of Hybrid Dual Emitting Layers in Blue Organic Light-Emitting Diodes by Controlling the Fluorescent Doping Concentration. Materials Research Society Symposia Proceedings, 2013, 1567, 1.	0.1	0
195	Tunable emission from Eu:SiO_xN_y thin films prepared by integrated magnetron sputtering and plasma enhanced chemical vapor deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 043402.	2.1	0
196	(Invited) Nano Ontario - A Model for Regional Cooperation in Nanotechnology. ECS Meeting Abstracts, 2022, MA2022-01, 619-619.	0.0	0
197	Optical and Mechanical Properties of Europium-Doped Silicon Oxynitride Thin Films. ECS Meeting Abstracts, 2022, MA2022-01, 1093-1093.	0.0	0
198	Design and Fabrication of Multiple-Color-Generating Thin-Film Optical Filters for Photovoltaic Applications. ECS Meeting Abstracts, 2022, MA2022-01, 1064-1064.	0.0	0