

David E Aspnes

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213
papers

15,683
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219
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16,569
ext. citations

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avg, IF

6.26
L-index

#	Paper	IF	Citations
213	Dielectric functions and optical parameters of Si, Ge, GaP, GaAs, GaSb, InP, InAs, and InSb from 1.5 to 6.0 eV. <i>Physical Review B</i> , 1983 , 27, 985-1009	3.3	3051
212	Investigation of effective-medium models of microscopic surface roughness by spectroscopic ellipsometry. <i>Physical Review B</i> , 1979 , 20, 3292-3302	3.3	858
211	Optical properties of Al _x Ga _{1-x} As. <i>Journal of Applied Physics</i> , 1986 , 60, 754-767	2.5	723
210	Schottky-Barrier Electroreflectance: Application to GaAs. <i>Physical Review B</i> , 1973 , 7, 4605-4625	3.3	542
209	Local-field effects and effective-medium theory: A microscopic perspective. <i>American Journal of Physics</i> , 1982 , 50, 704-709	0.7	541
208	Application of reflectance difference spectroscopy to molecular-beam epitaxy growth of GaAs and AlAs. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1988 , 6, 1327-1332	2.9	473
207	High precision scanning ellipsometer. <i>Applied Optics</i> , 1975 , 14, 220-8	1.7	411
206	Anisotropies in the above-bandgap optical spectra of cubic semiconductors. <i>Physical Review Letters</i> , 1985 , 54, 1956-1959	7.4	366
205	Reflectance-difference spectroscopy of (001) GaAs surfaces in ultrahigh vacuum. <i>Physical Review B</i> , 1992 , 46, 15894-15904	3.3	305
204	Dielectric properties of heavily doped crystalline and amorphous silicon from 1.5 to 6.0 eV. <i>Physical Review B</i> , 1984 , 29, 768-779	3.3	294
203	Electric-Field Effects on Optical Absorption near Thresholds in Solids. <i>Physical Review</i> , 1966 , 147, 554-566		283
202	Optical properties of Au: Sample effects. <i>Physical Review B</i> , 1980 , 21, 3290-3299	3.3	267
201	Electric Field Effects on the Dielectric Constant of Solids. <i>Physical Review</i> , 1967 , 153, 972-982		263
200	Spectroscopic Analysis of the Interface Between Si and Its Thermally Grown Oxide. <i>Journal of the Electrochemical Society</i> , 1980 , 127, 1359-1365	3.9	219
199	Approximate solution of ellipsometric equations for optically biaxial crystals. <i>Journal of the Optical Society of America</i> , 1980 , 70, 1275-7		217
198	Chemical etching and cleaning procedures for Si, Ge, and some III-V compound semiconductors. <i>Applied Physics Letters</i> , 1981 , 39, 316-318	3.4	215
197	Precision bounds to ellipsometer systems. <i>Applied Optics</i> , 1975 , 14, 1131-6	1.7	202

196	Surface science at atmospheric pressure: Reconstructions on (001) GaAs in organometallic chemical vapor deposition. <i>Physical Review Letters</i> , 1992 , 68, 627-630	7.4	201
195	Optical reflectance and electron diffraction studies of molecular-beam-epitaxy growth transients on GaAs(001). <i>Physical Review Letters</i> , 1987 , 59, 1687-1690	7.4	193
194	Optical properties and damage analysis of GaAs single crystals partly amorphized by ion implantation. <i>Journal of Applied Physics</i> , 1984 , 56, 2664-2671	2.5	186
193	Resonant Nonlinear Optical Susceptibility: Electroreflectance in the Low-Field Limit. <i>Physical Review B</i> , 1972 , 5, 4022-4030	3.3	153
192	Band nonparabolicities, broadening, and internal field distributions: The spectroscopy of Franz-Keldysh oscillations. <i>Physical Review B</i> , 1974 , 10, 4228-4238	3.3	137
191	Kinetic limits of monolayer growth on (001) GaAs by organometallic chemical-vapor deposition. <i>Physical Review Letters</i> , 1988 , 61, 2782-2785	7.4	129
190	Optimizing precision of rotating-analyzer ellipsometers. <i>Journal of the Optical Society of America</i> , 1974 , 64, 639		129
189	Effects of component optical activity in data reduction and calibration of rotating-analyzer ellipsometers. <i>Journal of the Optical Society of America</i> , 1974 , 64, 812		128
188	Dependence of plasmon polaritons on the thickness of indium tin oxide thin films. <i>Journal of Applied Physics</i> , 2008 , 103, 093108	2.5	122
187	Methods for drift stabilization and photomultiplier linearization for photometric ellipsometers and polarimeters. <i>Review of Scientific Instruments</i> , 1978 , 49, 291	1.7	117
186	Exciton-dominated Dielectric Function of Atomically Thin MoS ₂ Films. <i>Scientific Reports</i> , 2015 , 5, 16996	4.9	114
185	Electro-Absorption Effects at the Band Edges of Silicon and Germanium. <i>Physical Review</i> , 1966 , 145, 575-583		114
184	Minimal-data approaches for determining outer-layer dielectric responses of films from kinetic reflectometric and ellipsometric measurements. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1993 , 10, 974	1.8	111
183	Surface-Induced Optical Anisotropies of Single-Domain (2 x 1) Reconstructed (001) Si and Ge Surfaces. <i>Physical Review Letters</i> , 1995 , 74, 3431-3434	7.4	108
182	Optical Properties of GaAs and Its Electrochemically Grown Anodic Oxide from 1.5 to 6.0 eV. <i>Journal of the Electrochemical Society</i> , 1981 , 128, 590-597	3.9	108
181	Optical Properties of the Interface between Si and Its Thermally Grown Oxide. <i>Physical Review Letters</i> , 1979 , 43, 1046-1050	7.4	102
180	Electroreflectance and ellipsometry of silicon from 3 to 6 eV. <i>Physical Review B</i> , 1978 , 18, 1824-1839	3.3	101
179	Direct optical measurement of surface dielectric responses: Interrupted growth on (001) GaAs. <i>Physical Review Letters</i> , 1990 , 64, 192-195	7.4	100

178	Application of ellipsometry to crystal growth by organometallic molecular beam epitaxy. <i>Applied Physics Letters</i> , 1990 , 56, 2569-2571	3-4	99
177	Growth of Al _x Ga _{1-x} As parabolic quantum wells by real-time feedback control of composition. <i>Applied Physics Letters</i> , 1992 , 60, 1244-1246	3-4	97
176	Optical properties of copper-oxygen planes in superconducting oxides and related materials. <i>Physical Review B</i> , 1989 , 40, 6797-6805	3-3	96
175	Oxygen-deficiency-induced localized optical excitations in YBa ₂ Cu. <i>Physical Review B</i> , 1988 , 38, 870-873	3-3	96
174	Optical properties of In _{1-x} Ga _x As _y P _{1-y} from 1.5 to 6.0 eV determined by spectroscopic ellipsometry. <i>Physical Review B</i> , 1982 , 26, 6669-6681	3-3	96
173	Nondestructive analysis of Hg _{1-x} Cd _x Te (x=0.00, 0.20, 0.29, and 1.00) by spectroscopic ellipsometry. II. Substrate, oxide, and interface properties. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1984 , 2, 1316-1323	2-9	95
172	Growth, Doping and Characterization of Al _x Ga _{1-x} N Thin Film Alloys on 6H-SiC(0001) Substrates. <i>MRS Internet Journal of Nitride Semiconductor Research</i> , 1996 , 1, 1		94
171	Shallow acceptor complexes in p-type ZnO. <i>Applied Physics Letters</i> , 2013 , 102, 152114	3-4	93
170	Interband Dielectric Properties of Solids in an Electric Field. <i>Physical Review</i> , 1968 , 166, 921-933		93
169	Plasmonic phenomena in indium tin oxide and ITO-Au hybrid films. <i>Optics Letters</i> , 2009 , 34, 2867-9	3	89
168	Direct Verification of the Third-Derivative Nature of Electroreflectance Spectra. <i>Physical Review Letters</i> , 1972 , 28, 168-171	7-4	87
167	Nondestructive analysis of Hg _{1-x} Cd _x Te (x=0.00, 0.20, 0.29, and 1.00) by spectroscopic ellipsometry. I. Chemical oxidation and etching. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1984 , 2, 1309-1315	2-9	83
166	Schottky-barrier electroreflectance of Ge: Nondegenerate and orbitally degenerate critical points. <i>Physical Review B</i> , 1975 , 12, 2297-2310	3-3	83
165	In situ determination of free-carrier concentrations by reflectance difference spectroscopy. <i>Applied Physics Letters</i> , 1991 , 59, 3443-3445	3-4	79
164	Optical properties of anodically grown native oxides on some Ga-V compounds from 1.5 to 6.0 eV. <i>Journal of Applied Physics</i> , 1977 , 48, 3510-3513	2-5	79
163	Direct Determination of Sizes of Excitations from Optical Measurements on Ion-Implanted GaAs. <i>Physical Review Letters</i> , 1982 , 48, 1863-1866	7-4	78
162	Dielectric function and surface microroughness measurements of InSb by spectroscopic ellipsometry. <i>Journal of Vacuum Science and Technology</i> , 1980 , 17, 1057-1060		77
161	Optical anisotropy of singular and vicinal Si ₃ BiO ₂ interfaces and H-terminated Si surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1994 , 12, 1152-1157	2-9	72

160	Optical-standard surfaces of single-crystal silicon for calibrating ellipsometers and reflectometers. <i>Applied Optics</i> , 1994 , 33, 7435-8	1.7	71
159	Low-retardance fused-quartz window for real-time optical applications in ultrahigh vacuum. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1989 , 7, 3291-3294	2.9	71
158	Correlation of dopant-induced optical transitions with superconductivity in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_{4-\delta}$. <i>Physical Review B</i> , 1988 , 37, 3396-3399	3.3	71
157	Electro-Optic Measurements of PbS, PbSe, and PbTe. <i>Physical Review</i> , 1968 , 173, 714-728		71
156	Optical anisotropy of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$. <i>Physical Review B</i> , 1988 , 38, 5077-5080	3.3	69
155	Optical control of growth of $\text{Al}_x\text{Ga}_{1-x}\text{As}$ by organometallic molecular beam epitaxy. <i>Applied Physics Letters</i> , 1990 , 57, 2707-2709	3.4	63
154	Interband Masses of Higher Interband Critical Points in Ge. <i>Physical Review Letters</i> , 1973 , 31, 230-233	7.4	63
153	Simplified bond-hyperpolarizability model of second harmonic generation. <i>Physical Review B</i> , 2002 , 65,	3.3	59
152	Real-time assessment of overlayer removal on GaN, AlN, and AlGaIn surfaces using spectroscopic ellipsometry. <i>Applied Physics Letters</i> , 1996 , 69, 2065-2067	3.4	55
151	Study of strain and disorder of $\text{In}_x\text{Ga}_{1-x}\text{P}/(\text{GaAs}, \text{graded GaP}) (0.25 \leq x \leq 0.8)$ using spectroscopic ellipsometry and Raman spectroscopy. <i>Journal of Applied Physics</i> , 1994 , 75, 5040-5051	2.5	51
150	Semiconductor topography in aqueous environments: Tunneling microscopy of chemomechanically polished (001) GaAs. <i>Applied Physics Letters</i> , 1987 , 50, 1742-1744	3.4	51
149	Optical spectra and electronic structure of crystalline and glassy $\text{Ge}(\text{S},\text{Se})_2$. <i>Physical Review B</i> , 1981 , 23, 816-822	3.3	49
148	Transverse electroreflectance in semi-insulating silicon and gallium arsenide. <i>Journal of Physics and Chemistry of Solids</i> , 1970 , 31, 227-246	3.9	49
147	Variation of GaN valence bands with biaxial stress and quantification of residual stress. <i>Applied Physics Letters</i> , 1997 , 70, 2001-2003	3.4	45
146	Electroreflectance of GaSb from 0.6 to 26 eV. <i>Physical Review B</i> , 1976 , 14, 4450-4458	3.3	44
145	Measurement and Correction of First-Order Errors in Ellipsometry. <i>Journal of the Optical Society of America</i> , 1971 , 61, 1077		42
144	Trends in residual stress for GaN/AlN/6H β BiC heterostructures. <i>Applied Physics Letters</i> , 1998 , 73, 2808-2810	3.4	40
143	Dielectric functions of $\text{In}_x\text{Ga}_{1-x}\text{As}$ alloys. <i>Physical Review B</i> , 2003 , 68,	3.3	39

142	Real-time observation of atomic ordering in (001) In _{0.53} Ga _{0.47} As epitaxial layers. <i>Physical Review Letters</i> , 1995 , 74, 3640-3643	7.4	37
141	Properties of Hg _{0.71} Cd _{0.29} Te and some native oxides by spectroscopic ellipsometry. <i>Journal of Applied Physics</i> , 1983 , 54, 7132-7138	2.5	37
140	Optical approaches to determine near-surface compositions during epitaxy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1996 , 14, 960-966	2.9	36
139	Photometric ellipsometer for measuring partially polarized light. <i>Journal of the Optical Society of America</i> , 1975 , 65, 1274		35
138	Spectroscopic ellipsometric characterization of undoped ZnTe films grown on GaAs. <i>Applied Physics Letters</i> , 1997 , 70, 610-612	3.4	33
137	Liquid gallium and the eutectic gallium indium (EGaIn) alloy: Dielectric functions from 1.24 to 3.1 eV by electrochemical reduction of surface oxides. <i>Applied Physics Letters</i> , 2016 , 109, 091905	3.4	33
136	Investigation of the relationship between reflectance difference spectroscopy and surface structure using grazing incidence X-ray scattering. <i>Physica Status Solidi A</i> , 1995 , 152, 9-21		32
135	Microstructurally engineered, optically transmissive, electrically conductive metal films. <i>Journal of Applied Physics</i> , 1986 , 60, 3028-3034	2.5	32
134	Optimizing precision of rotating-analyzer and rotating-compensator ellipsometers. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2004 , 21, 403-10	1.8	30
133	Isotopic effects on the dielectric response of Si around the E1 gap. <i>Physical Review B</i> , 2000 , 61, 12946-12951	3.5	29
132	Optical properties of Al _x Ga _{1-x} P (0 ≤ x ≤ 0.52) alloys. <i>Journal of Applied Physics</i> , 2000 , 87, 1287-1290	2.5	25
131	Polarimetry of Specular and Non-Multiple-Scattered Electromagnetic Radiation from Selectively Roughened Si Surfaces. <i>Physical Review Letters</i> , 1978 , 41, 1667-1670	7.4	25
130	Optical study of (Al _x Ga _{1-x}) _{0.5} In _{0.5} P/GaAs semiconductor alloys by spectroscopic ellipsometry. <i>Journal of Applied Physics</i> , 1993 , 73, 400-406	2.5	24
129	Interband transitions of InAs _x Sb _{1-x} alloy films. <i>Applied Physics Letters</i> , 2009 , 95, 111902	3.4	23
128	Evidence of near-surface localization of excited electronic states in crystalline Si. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1997 , 15, 1196		23
127	Surface and interface effects on ellipsometric spectra of crystalline Si. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1997 , 15, 1205		23
126	Comment on <i>Ab Initio Calculation of Excitonic Effects in the Optical Spectra of Semiconductors</i> <i>Physical Review Letters</i> , 1999 , 83, 3970-3970	7.4	23
125	Minimal-data approaches for determining outer-layer dielectric responses of films from kinetic reflectometric and ellipsometric measurements. <i>Applied Physics Letters</i> , 1993 , 62, 343-345	3.4	23

124	Experiment and theory of transparent metal films. <i>Nature</i> , 1985 , 313, 664-666	50.4	23
123	Ellipsometric studies of Cd _{1-x} Mg _x Te (0 ≤ x ≤ 0.5) alloys. <i>Applied Physics Letters</i> , 1997 , 71, 249-251	3.4	22
122	Application of the anisotropic bond model to second-harmonic generation from amorphous media. <i>Physical Review B</i> , 2008 , 77,	3.3	22
121	Optical properties of InSb and its electrochemically grown anodic oxide. <i>Physical Review B</i> , 1981 , 23, 1896-1901	3.3	22
120	Spectroscopic ellipsometry perspective. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2013 , 31, 058502	2.9	21
119	Differences Between Charge Trapping States in Irradiated Nano-Crystalline HfO ₂ and Non-Crystalline Hf Silicates. <i>IEEE Transactions on Nuclear Science</i> , 2006 , 53, 3644-3648	1.7	21
118	Elimination of endpoint-discontinuity artifacts in the analysis of spectra in reciprocal space. <i>Journal of Applied Physics</i> , 2001 , 89, 8183-8192	2.5	21
117	Ordinary and extraordinary dielectric functions of 4H and 6H SiC from 3.5 to 9.0 eV. <i>Applied Physics Letters</i> , 2001 , 78, 2715-2717	3.4	21
116	Optical and structural characterization of epitaxial graphene on vicinal 6H-SiC(0001) by spectroscopic ellipsometry, Auger spectroscopy, and STM. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2012 , 30, 04E106	1.3	19
115	Visible-near ultraviolet ellipsometric study of Zn _{1-x} Mg _x Se and Zn _{1-x} BexSe alloys. <i>Journal of Applied Physics</i> , 2000 , 88, 878-882	2.5	19
114	Analytic representations of the dielectric functions of crystalline and amorphous Si and crystalline Ge for very large scale integrated device and structural modeling. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1998 , 16, 1654-1657	2.9	19
113	Optical Detection And Minimization Of Surface Overlayers On Semiconductors Using Spectroscopic Ellipsometry 1981 , 0276, 227		19
112	Grain-size effects in the parallel-band absorption spectrum of aluminum. <i>Physical Review B</i> , 1986 , 33, 5363-5367	3.3	18
111	Simplified bond-hyperpolarizability model of second harmonic generation: Application to Si-dielectric interfaces. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2002 , 20, 1699		17
110	Nondestructive Measurement of a Glass Transition Temperature at Spin-Cast Semicrystalline Polymer Surfaces. <i>Macromolecules</i> , 2001 , 34, 2395-2397	5.5	17
109	Extended spectroscopy with high-resolution scanning ellipsometry. <i>Physical Review B</i> , 1975 , 12, 4008-4013	3.3	17
108	Effect of surface and nonuniform fields in electroreflectance: Application to Ge. <i>Physical Review B</i> , 1978 , 17, 3310-3317	3.3	17
107	Analysis of optical spectra by Fourier methods: filtering and least-squares regression in reciprocal space. <i>Journal of the Optical Society of America</i> , 1983 , 73, 1759		16

106	Summary Abstract: Preparation of high-quality surfaces on semiconductors by selective chemical etching. <i>Journal of Vacuum Science and Technology</i> , 1982 , 20, 488-489		16
105	Measurement and control of in-plane surface chemistry during the oxidation of H-terminated (111) Si. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 17503-8	11.5	15
104	Effect of overlayers on critical-point parameters in the analysis of ellipsometric spectra. <i>Applied Physics Letters</i> , 2007 , 91, 121903	3.4	15
103	Dielectric functions and electronic structure of InAs _x P _{1-x} films on InP. <i>Applied Physics Letters</i> , 2007 , 91, 041917	3.4	15
102	Effect of Ar ⁺ ion beam in the process of plasma surface modification of PET films. <i>Journal of Applied Polymer Science</i> , 2000 , 77, 1679-1683	2.9	15
101	Real-time optical characterization of heteroepitaxy by organometallic chemical vapor deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2000 , 18, 1184-1189	2.9	15
100	Reflectance difference spectroscopy spectra of clean (3̄0̄), (2̄0̄), and c(2̄0̄) 3C-SiC(001) surfaces: New evidence for surface state contributions to optical anisotropy spectra. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1998 , 16, 2355		15
99	Multiple determination of the optical constants of thin-film coating materials: a Rh sequel. <i>Applied Optics</i> , 1986 , 25, 1299	1.7	15
98	Analytic determination of n, k and d of an absorbing film from polarimetric data in the thin-film limit. <i>Journal of Applied Physics</i> , 2007 , 101, 033109	2.5	14
97	Relative bulk and interface contributions to optical second-harmonic generation in silicon. <i>Physical Review B</i> , 2005 , 72,	3.3	14
96	Real-time optical diagnostics for epitaxial growth. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1991 , 9, 870-875	2.9	14
95	Ellipsometric study of single-crystal InSe from 1.5 to 9.2 eV. <i>Applied Physics Letters</i> , 2010 , 96, 181902	3.4	13
94	Optical properties of In _x Al _{1-x} As alloy films. <i>Applied Physics Letters</i> , 2008 , 92, 151907	3.4	13
93	Model dielectric functions for Al _x Ga _{1-x} As alloys of arbitrary compositions. <i>Journal of Applied Physics</i> , 2008 , 104, 013515	2.5	13
92	Calculation of bulk third-harmonic generation from crystalline Si with the simplified bond hyperpolarizability model. <i>Physical Review B</i> , 2004 , 70,	3.3	13
91	Photon-induced localization and final-state correlation effects in optically absorbing materials. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1998 , 16, 2367		13
90	As capture and the growth of ultrathin InAs layers on InP. <i>Applied Physics Letters</i> , 1994 , 64, 3279-3281	3.4	13
89	Optical dielectric response of PdO. <i>Physical Review B</i> , 1992 , 46, 15085-15091	3.3	13

88	Electroreflectance: A Status Report. <i>Physica Status Solidi (B): Basic Research</i> , 1973 , 55, 9-32	1.3	13
87	Combined beam profile reflectometry, beam profile ellipsometry and ultraviolet-visible spectrophotometry for the characterization of ultrathin oxide-nitride-oxide films on silicon. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1999 , 17, 380-384	2.9	12
86	Combined interpolation, scale change, and noise reduction in spectral analysis. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2019 , 37, 052903	1.3	11
85	Optical properties of Cd _{1-x} Mg _x Te (x=0.00, 0.23, 0.31, and 0.43) alloy films. <i>Applied Physics Letters</i> , 2004 , 84, 693-695	3.4	11
84	Surface-induced optical anisotropy of Si and Ge. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2000 , 18, 2229		11
83	Dielectric function of epitaxial ZnSe films. <i>Applied Physics Letters</i> , 2000 , 77, 3364-3366	3.4	11
82	Spectroscopic ellipsometric and He backscattering analyses of crystalline Si-SiO ₂ mixtures grown by molecular beam epitaxy. <i>Applied Physics Letters</i> , 1984 , 44, 517-519	3.4	11
81	Above-band-gap dielectric functions of ZnGeAs ₂ : Ellipsometric measurements and quasiparticle self-consistent GW calculations. <i>Physical Review B</i> , 2011 , 83,	3.3	9
80	Pseudodielectric functions of InGaAs alloy films grown on InP. <i>Applied Physics Letters</i> , 2002 , 81, 2367-2369	3.4	9
79	As capture and the growth of ultrathin InAs layers on InP. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1994 , 12, 1180-1185	2.9	9
78	Photomultiplier Linearization And System Stabilization For Photometric Ellipsometers And Polarimeters 1977 , 0112, 62		9
77	Simple Method of Ratio Recording. <i>Review of Scientific Instruments</i> , 1967 , 38, 1663-1665	1.7	9
76	Bond-specific reaction kinetics during the oxidation of (111) Si: Effect of n-type doping. <i>Applied Physics Letters</i> , 2011 , 98, 021904	3.4	8
75	Effect of strain on bond-specific reaction kinetics during the oxidation of H-terminated (111) Si. <i>Applied Physics Letters</i> , 2011 , 98, 121912	3.4	8
74	Optical investigations of surface processes in GaP heteroepitaxy on silicon under pulsed chemical beam epitaxy conditions. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1996 , 14, 3040		8
73	Application of the simplified bond-hyperpolarizability model to fourth-harmonic generation. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2003 , 21, 1798		8
72	Band Structure and Optical Properties of In _{1-x} Ga _x As _y P _{1-y} . <i>Japanese Journal of Applied Physics</i> , 1980 , 19, 327	1.4	8
71	Optical characterization of a native oxide anodically grown on gallium antimonide. <i>Applied Physics Letters</i> , 1976 , 28, 631-632	3.4	8

70	Linear and nonlinear filtering of spectra. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2019 , 37, 051205	1-3	7
69	Systematic approach for analyzing reflectance-difference spectra: Application to silicon-dielectric interfaces. <i>Applied Physics Letters</i> , 2006 , 88, 202112	3-4	7
68	Investigation of effective-medium approximation, alloy, average-composition, and graded-composition models for interface analysis by spectroscopic ellipsometry. <i>Journal of Applied Physics</i> , 2007 , 102, 063512	2-5	7
67	High-Resolution Spectroscopy with Reciprocal-Space Analysis. <i>Physica Status Solidi (B): Basic Research</i> , 1999 , 215, 715-723	1-3	7
66	Performance capabilities of reflectometers and ellipsometers for compositional analysis during Al _x Ga _{1-x} As epitaxy. <i>Applied Physics Letters</i> , 1995 , 66, 1617-1619	3-4	7
65	Analysis of Strain in GaN on Al ₂ O ₃ and 6H-SiC: Near-Bandedge Phenomena. <i>Materials Research Society Symposia Proceedings</i> , 1995 , 395, 405		7
64	Dielectric functions and interband transitions of In _{1-x} Al _x Sb alloys. <i>Applied Physics Letters</i> , 2010 , 97, 111962	3-4	6
63	New approach to preparing smooth Si(100) surfaces: Characterization by spectroellipsometry and validation of Si/SiO ₂ interfaces properties in metal-oxide-semiconductor devices. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1996 , 14, 2812		6
62	Initial stages of GaP heteroepitaxy on nanoscopically roughened (001)Si. <i>Journal of Vacuum Science & Technology B</i> , 2007 , 25, 1448		6
61	Optical Reflectance and Rheed Transients During Mbe Growth on (001) GaAs. <i>Materials Research Society Symposia Proceedings</i> , 1987 , 91, 57		6
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