Kenneth JÃ¤rrendahl

List of Publications by Year
in descending order

85 papers	1,583 citations	361413 20 h-index	330143 37 g-index
85 all docs	85 docs citations	85 times ranked	1635 citing authors

#	Article	IF	Citations
1	A spectroscopic ellipsometry study of cerium dioxide thin films grown on sapphire by rf magnetron sputtering. Journal of Applied Physics, 1995, 77, 5369-5376.	2.5	186
2	Electronic structure of ScN determined using optical spectroscopy, photoemission, andab initiocalculations. Physical Review B, 2001, 63, .	3.2	139
3	Chirality-induced polarization effects in the cuticle of scarab beetles: 100 years after Michelson. Philosophical Magazine, 2012, 92, 1583-1599.	1.6	80
4	Growth of epitaxial AlN(0001) on Si(111) by reactive magnetron sputter deposition. Journal of Applied Physics, 1995, 78, 5721-5726.	2.5	64
5	Electrical and optical properties of CNx(0â©½xâ©½0.25) films deposited by reactive magnetron sputtering. Journal of Applied Physics, 2001, 89, 1184-1190.	2.5	58
6	Multiple sample analysis of spectroscopic ellipsometry data of semi-transparent films. Thin Solid Films, 1998, 313-314, 114-118.	1.8	56
7	Optical constants and Drude analysis of sputtered zirconium nitride films. Applied Optics, 1994, 33, 1993.	2.1	54
8	Ion implanted dopants in GaN and AlN: Lattice sites, annealing behavior, and defect recovery. Journal of Applied Physics, 2000, 87, 2149-2157.	2.5	52
9	Optical Characterization Of Industrially Sputtered Nickelâ€“Nickel Oxide Solar Selective Surface. Solar Energy, 2000, 68, 325-328.	6.1	50
10	Cuticle structure of the scarab beetle Cetonia aurata analyzed by regression analysis of Mueller-matrix ellipsometric data. Optics Express, 2013, 21, 22645.	3.4	47
11	Polarizing properties and structural characteristics of the cuticle of the scarab Beetle Chrysina gloriosa. Thin Solid Films, 2014, 571, 410-415.	1.8	40
12	Chapter 1 Materials Properties and Characterization of SiC. Semiconductors and Semimetals, 1998, , 1-20.	0.7	32
13	Mueller matrix spectroscopic ellipsometry study of chiral nanocrystalline cellulose films. Journal of Optics (United Kingdom), 2018, 20, 024001.	2.2	31
14	Optical response of supported gold nanodisks. Optics Express, 2011, 19, 12093.	3.4	30
15	Enhanced quality of epitaxial AlN thin films on 6Hâ€“SiC by ultra-high-vacuum ion-assisted reactive dc magnetron sputter deposition. Applied Physics Letters, 2000, 76, 170-172.	3.3	27
16	Ordinary and extraordinary dielectric functions of 4Hâ€“ and 6Hâ€“SiC from 3.5 to 9.0 eV. Applied Physics Letters, 2001, 78, 2715-2717.	3.3	25
17	Electrical and optical properties of sputter deposited tin doped indium oxide thin films with silver additive. Thin Solid Films, 2001, 392, 305-310.	1.8	24
18	Linear Birefringent Films of Cellulose Nanocrystals Produced by Dip-Coating. Nanomaterials, 2019, 9, 45.	4.1	24

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19	Improvement of porous silicon based gas sensors by polymer modification. Physica Status Solidi A, 2003, 197, 378-381.	1.7	23
20	Structural circular birefringence and dichroism quantified by differential decomposition of spectroscopic transmission Mueller matrices from Cetonia aurata. Optics Letters, 2016, 41, 3293.	3.3	23
21	Optical properties of 4Hâ€“SiC. Journal of Applied Physics, 2002, 91, 2099-2103.	2.5	20
22	Curved-Lattice Epitaxial Growth of In_xAl_{1â€“x}N Nanospirals with Tailored Chirality. Nano Letters, 2015, 15, 294-300.	9.1	19
23	Polarizing properties and structure of the cuticle of scarab beetles from theChrysinagenus. Physical Review E, 2016, 94, 012409.	2.1	19
24	Glancing Angle Deposition and Growth Mechanism of Inclined AlN Nanostructures Using Reactive Magnetron Sputtering. Coatings, 2020, 10, 768.	2.6	19
25	Sum decomposition of Mueller-matrix images and spectra of beetle cuticles. Optics Express, 2015, 23, 1951.	3.4	18
26	Homoepitaxial SiC Growth by Molecular Beam Epitaxy. Physica Status Solidi (B): Basic Research, 1997, 202, 379-404.	1.5	17
27	Optical properties and switching of a Rose Bengal derivative: A spectroscopic ellipsometry study. Thin Solid Films, 2011, 519, 3582-3586.	1.8	17
28	Evidence for a dispersion relation of optical modes in the cuticle of the scarab beetle Cotinis mutabilis. Optical Materials Express, 2014, 4, 2484.	3.0	17
29	Graded pitch profile for the helicoidal broadband reflector and left-handed circularly polarizing cuticle of the scarab beetle Chrysina chrysargyrea. Scientific Reports, 2018, 8, 6456.	3.3	17
30	X-ray diffraction from amorphous Ge/Si Cantor superlattices. Physical Review B, 1995, 51, 7621-7631.	3.2	16
31	Symmetries and relationships between elements of the Mueller matrix spectra of the cuticle of the beetle Cotinis mutabilis. Thin Solid Films, 2014, 571, 660-665.	1.8	16
32	Comparison and analysis of Mueller-matrix spectra from exoskeletons of blue, green and red Cetonia aurata. Thin Solid Films, 2014, 571, 739-743.	1.8	16
33	Study of ion mixing during Auger depth profiling of Geâ€“Si multilayer system. II. Low ion energy (0.2â€“2) Tj ETQq1 1 0.784314 rgBT /(1999-2004.	2.1	15
34	Scattering and polarization properties of the scarab beetle Cyphochilus insulanus cuticle. Applied Optics, 2015, 54, 6037.	2.1	15
35	Microstructure evolution in amorphous Ge/Si multilayers grown by magnetron sputter deposition. Journal of Materials Research, 1997, 12, 1806-1815.	2.6	14
36	Optical Chirality Determined from Mueller Matrices. Applied Sciences (Switzerland), 2021, 11, 6742.	2.5	14

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37	Spectroscopic ellipsometry study on the dielectric function of bulk Ti2AlN, Ti2AlC, Nb2AlC, (Ti0.5,Nb0.5)2AlC, and Ti3GeC2 MAX-phases. Journal of Applied Physics, 2011, 109, .	2.5	13
38	Shear-Coated Linear Birefringent and Chiral Cellulose Nanocrystal Films Prepared from Non-Sonicated Suspensions with Different Storage Time. Nanomaterials, 2021, 11, 2239.	4.1	13
39	Annealing induced interdiffusion and crystallization in sputtered amorphous Si/Ge multilayers. Journal of Materials Research, 1997, 12, 2255-2261.	2.6	12
40	Quantification of Optical Chirality in Cellulose Nanocrystal Films Prepared by Shear-Coating. Applied Sciences (Switzerland), 2021, 11, 6191.	2.5	12
41	Real-time assessment of selected surface preparation regimens for 4Hâ€“SiC surfaces using spectroscopic ellipsometry. Surface Science, 2000, 464, L703-L707.	1.9	11
42	Electrical peculiarities in Al/Si/Ge/â€¦/Ge/Si and Al/SiGe/Si structures. Applied Surface Science, 2002, 190, 403-407.	6.1	10
43	Birefringence of nanocrystalline chitin films studied by Mueller-matrix spectroscopic ellipsometry. Optical Materials Express, 2016, 6, 671.	3.0	10
44	Characterization of 3C-SiC by Spectroscopic Ellipsometry. Physica Status Solidi (B): Basic Research, 2000, 218, r1-r2.	1.5	8
45	Optical properties of intrinsic and doped a-Si:H films grown by d.c. magnetron sputter deposition. Thin Solid Films, 2001, 394, 255-262.	1.8	8
46	Sum regression decomposition of spectral and angle-resolved Mueller matrices from biological reflectors. Applied Optics, 2016, 55, 4060.	2.1	8
47	Pitch profile across the cuticle of the scarab beetle Cotinis mutabilis determined by analysis of Mueller matrix measurements. Royal Society Open Science, 2018, 5, 181096.	2.4	8
48	Effective absorption coefficient and effective thickness in attenuated total reflection spectroscopy. Optics Letters, 2021, 46, 872.	3.3	8
49	Optical properties and crystallization of amorphous Si:Sb alloy thin films. Journal of Applied Physics, 1994, 75, 507-513.	2.5	7
50	Low energy ion mixing in Si-Ge multilayer system. Nuclear Instruments & Methods in Physics Research B, 1994, 85, 383-387.	1.4	7
51	Optical Mueller matrix modeling of chiral AlxIn1â^'xN nanospirals. Thin Solid Films, 2014, 571, 447-452.	1.8	7
52	Mueller-matrix modeling of the architecture in the cuticle of the beetle Chrysina resplendens. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, .	1.2	7
53	Experimental degradation of helicoidal photonic nanostructures in scarab beetles (Coleoptera:) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Journal of the Royal Society Interface, 2018, 15, 20180560.	3.4	6
54	Growth and ellipsometric studies of periodic and cantor aperiodic amorphous Ge/Si superlattices. Thin Solid Films, 1994, 240, 7-13.	1.8	5

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55	A quasi three-dimensional optical memory with n-bit memory cells based on the ellipsometric principle: concept and prototype devices. Optics Communications, 1994, 104, 277-279.	2.1	5
56	Compositional information from amorphous Si-Ge multilayers using high-resolution electron microscopy imaging and direct digital recording. Ultramicroscopy, 1996, 66, 221-235.	1.9	5
57	Exploring Optics of Beetle Cuticles with Mueller-matrix Ellipsometry. Materials Today: Proceedings, 2014, 1, 155-160.	1.8	5
58	Graded circular Bragg reflectors: a semi-analytical retrieval of approximate pitch profiles from Mueller-matrix data. Journal of Optics (United Kingdom), 2019, 21, 125401.	2.2	5
59	Transmission Mueller-matrix characterization of transparent ramie films. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, .	1.2	5
60	Chiral nanostructures producing near circular polarization. Optical Materials Express, 2014, 4, 1389.	3.0	5
61	An X-ray study of generalized Cantor superlattices. Thin Solid Films, 1994, 246, 120-125.	1.8	4
62	Growth of highly (0001)-oriented aluminum nitride thin films with smooth surfaces on silicon carbide by gas-source molecular beam epitaxy. Vacuum, 1998, 49, 189-191.	3.5	4
63	Infrared to vacuum ultraviolet optical properties of 3C, 4H and 6H silicon carbide measured by spectroscopic ellipsometry. Thin Solid Films, 2004, 455-456, 235-238.	1.8	4
64	Spectroscopic ellipsometry analysis of silicon nanotips obtained by electron cyclotron resonance plasma etching. Applied Optics, 2009, 48, 4996.	2.1	4
65	Fano interference in supported gold nanosandwiches with weakly coupled nanodisks. Optics Express, 2012, 20, 29646.	3.4	4
66	Growth and doping via gas-source molecular beam epitaxy of SiC and heterostructures and their microstructural and electrical characterization. Diamond and Related Materials, 1997, 6, 1282-1288.	3.9	3
67	Spectroscopic ellipsometry and vector network analysis for determination of the electromagnetic response in two wavelength regions. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1089-1092.	0.8	3
68	A FEM-based application for numerical calculations of ellipsometric data. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 945-948.	1.8	3
69	Polarization of Light Reflected from Chrysina Gloriosa Under Various Illuminations. Materials Today: Proceedings, 2014, 1, 172-176.	1.8	3
70	Simulation of light scattering from exoskeletons of scarab beetles. Optics Express, 2016, 24, 5794.	3.4	3
71	Neutral shielding and cloaking of magnetic fields using isotropic media. Journal of Physics Condensed Matter, 2017, 29, 035801.	1.8	3
72	Exposing different in-depth pitches in the cuticle of the scarab beetle Cotinis mutabilis. Materials Today: Proceedings, 2017, 4, 4969-4978.	1.8	3

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73	Influence of InAlN Nanospiral Structures on the Behavior of Reflected Light Polarization. Nanomaterials, 2018, 8, 157.	4.1	3
74	Effective structural chirality of beetle cuticle determined from transmission Mueller matrices using the Tellegen constitutive relations. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, .	1.2	3
75	Modeling of light interaction with exoskeletons of scarab beetles. Applied Optics, 2017, 56, 2510.	2.1	3
76	Er/O doped Si1â˜'xGex alloy layers grown by MBE. Optical Materials, 2001, 17, 131-134.	3.6	2
77	On the polarization of light reflected from beetle cuticle. Materials Today: Proceedings, 2017, 4, 4933-4941.	1.8	2
78	Polarizing Natural Nanostructures. Springer Series in Surface Sciences, 2018, , 247-268.	0.3	2
79	Mueller-matrix ellipsometry studies of optically active structures in scarab beetles. EPJ Web of Conferences, 2010, 5, 03005.	0.3	1
80	Bragg reflection from periodic helicoidal media with laterally graded refractive index. Optical Materials, 2017, 72, 334-340.	3.6	1
81	Polarizing Natural Nanostructures. Springer Series in Surface Sciences, 2014, , 155-169.	0.3	1
82	In_xAl_{1-x}N chiral nanorods mimicking the polarization features of scarab beetles. Proceedings of SPIE, 2015, , .	0.8	0
83	Exploring polarization features in light reflection from beetles with structural colors. , 2015, , .		0
84	Neutral inclusions for diffusive acoustic fields. Journal of Sound and Vibration, 2017, 395, 80-89.	3.9	0
85	Spectroscopy studies of 4H-SiC. Materials Research, 2003, 6, 43-45.	1.3	0