Hans Arwin

List of Publications by Year
in descending order

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99 papers	3,079 citations	257101 24 h-index	161609 54 g-index
100 all docs	100 docs citations	100 times ranked	3596 citing authors

#	Article	IF	Citations
1	Optical Chirality Determined from Mueller Matrices. Applied Sciences (Switzerland), 2021, 11, 6742.	1.3	14
2	Quantification of Optical Chirality in Cellulose Nanocrystal Films Prepared by Shear-Coating. Applied Sciences (Switzerland), 2021, 11, 6191.	1.3	12
3	Shear-Coated Linear Birefringent and Chiral Cellulose Nanocrystal Films Prepared from Non-Sonicated Suspensions with Different Storage Time. Nanomaterials, 2021, 11, 2239.	1.9	13
4	Optics and photonics in nature: general discussion. Faraday Discussions, 2020, 223, 107-124.	1.6	1
5	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, .	0.6	3
6	Transmission Mueller-matrix characterization of transparent ramie films. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, .	0.6	5
7	Graded circular Bragg reflectors: a semi-analytical retrieval of approximate pitch profiles from Mueller-matrix data. Journal of Optics (United Kingdom), 2019, 21, 125401.	1.0	5
8	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, .	0.6	7
9	Linear Birefringent Films of Cellulose Nanocrystals Produced by Dip-Coating. Nanomaterials, 2019, 9, 45.	1.9	24
10	Mueller matrix spectroscopic ellipsometry study of chiral nanocrystalline cellulose films. Journal of Optics (United Kingdom), 2018, 20, 024001.	1.0	31
11	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.	1.1	8
12	Experimental degradation of helicoidal photonic nanostructures in scarab beetles (Coleoptera:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 30 Journal of the Royal Society Interface, 2018, 15, 20180560.	1.5	6
13	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.	1.6	17
14	Polarizing Natural Nanostructures. Springer Series in Surface Sciences, 2018, , 247-268.	0.3	2
15	Uniaxial Anisotropy in PEDOT:PSS Electrodes Enhances the Photocurrent at Oblique Incidence in Organic Solar Cells. ACS Photonics, 2018, 5, 3023-3030.	3.2	10
16	Exposing different in-depth pitches in the cuticle of the scarab beetle Cotinis mutabilis. Materials Today: Proceedings, 2017, 4, 4969-4978.	0.9	3
17	On the polarization of light reflected from beetle cuticle. Materials Today: Proceedings, 2017, 4, 4933-4941.	0.9	2
18	Birefringence of nanocrystalline chitin films studied by Mueller-matrix spectroscopic ellipsometry. Optical Materials Express, 2016, 6, 671.	1.6	10

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19	Sum regression decomposition of spectral and angle-resolved Mueller matrices from biological reflectors. Applied Optics, 2016, 55, 4060.	2.1	8
20	Interband optical transitions of Zn. Physica Status Solidi (B): Basic Research, 2016, 253, 419-428.	0.7	1
21	Polarizing properties and structure of the cuticle of scarab beetles from theChrysinagenus. Physical Review E, 2016, 94, 012409.	0.8	19
22	Structural circular birefringence and dichroism quantified by differential decomposition of spectroscopic transmission Mueller matrices from Cetonia aurata. Optics Letters, 2016, 41, 3293.	1.7	23
23	Simulation of light scattering from exoskeletons of scarab beetles. Optics Express, 2016, 24, 5794.	1.7	3
24	Exploring polarization features in light reflection from beetles with structural colors. , 2015, , .		0
25	Sum decomposition of Mueller-matrix images and spectra of beetle cuticles. Optics Express, 2015, 23, 1951.	1.7	18
26	Polarization of Light Reflected from Chrysina Gloriosa Under Various Illuminations. Materials Today: Proceedings, 2014, 1, 172-176.	0.9	3
27	Exploring Optics of Beetle Cuticles with Mueller-matrix Ellipsometry. Materials Today: Proceedings, 2014, 1, 155-160.	0.9	5
28	Evidence for a dispersion relation of optical modes in the cuticle of the scarab beetle Cotinis mutabilis. Optical Materials Express, 2014, 4, 2484.	1.6	17
29	Optical properties of hydrated tungsten trioxide 3WO3Â·H2O. Thin Solid Films, 2014, 571, 644-647.	0.8	7
30	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.	0.8	16
31	Comparison and analysis of Mueller-matrix spectra from exoskeletons of blue, green and red Cetonia aurata. Thin Solid Films, 2014, 571, 739-743.	0.8	16
32	Polarizing properties and structural characteristics of the cuticle of the scarab Beetle Chrysina gloriosa. Thin Solid Films, 2014, 571, 410-415.	0.8	40
33	Dielectric properties of lignin and glucomannan as determined by spectroscopic ellipsometry and Lifshitz estimates of non-retarded Hamaker constants. Cellulose, 2013, 20, 1639-1648.	2.4	28
34	Cuticle structure of the scarab beetle Cetonia aurata analyzed by regression analysis of Mueller-matrix ellipsometric data. Optics Express, 2013, 21, 22645.	1.7	47
35	Optical spectroscopy and electronic structure of the face-centered icosahedral quasicrystals Zn-Mg-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>R</mml:mi></mml:math>(<mml:math) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 102 Td (xmlns:mml="ht	1.1	2
36	Ellipsometrically determined optical properties of nickel-containing tungsten oxide thin films: Nanostructure inferred from effective medium theory. Journal of Applied Physics, 2012, 112, .	1.1	5

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37	Chirality-induced polarization effects in the cuticle of scarab beetles: 100 years after Michelson. Philosophical Magazine, 2012, 92, 1583-1599.	0.7	80
38	Dielectric function and refractive index of GaBi_x As_{1â€x} (x) Tj ETQq0 0 0 rgBT /Overlock	0.8	12
39	Phase behaviour of liquid-crystalline polymer/fullerene organic photovoltaic blends: thermal stability and miscibility. Journal of Materials Chemistry, 2011, 21, 10676.	6.7	80
40	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, .	1.1	13
41	Optical properties of thin films of mixed Niâ€“W oxide made by reactive DC magnetron sputtering. Thin Solid Films, 2011, 519, 2914-2918.	0.8	18
42	Carbon nanofiber-based photonic crystals â€“ fabrication, diffraction and ellipsometry investigations. Materials Research Society Symposia Proceedings, 2011, 1283, 1.	0.1	0
43	Infrared Reflectance Kramers-Kronig Analysis by Anchor-Window Technique. Acta Physica Polonica A, 2011, 119, 140-142.	0.2	5
44	Liquid crystal light deflecting devices based on nonuniform anchoring. Applied Physics Letters, 2010, 97, 231120.	1.5	11
45	Increased electromechanical coupling in wâ^'ScxAl1â^'xN. Applied Physics Letters, 2010, 97, .	1.5	149
46	IRâ€VISâ€UV ellipsometry, XRD and AES investigation of In/Cu and In/Pd thin films. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1141-1144.	0.8	0
47	On the determination of anisotropy in polymer thin films: A comparative study of optical techniques. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1270-1273.	0.8	21
48	Immunodetection using computer screen photoâ€assisted ellipsometry. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1431-1433.	0.8	3
49	UV-induced in-plane anisotropy in layers of mixture of the azo-dyes SD-1/SDA-2 characterized by spectroscopic ellipsometry. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1274-1277.	0.8	7
50	Effects of ion concentration on refractive indices of fluids measured by the minimum deviation technique. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1249-1252.	0.8	24
51	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
52	Optical characterization of rocksalt Pb1-xSnxTe alloys. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 837-840.	0.8	0
53	Lattice absorption of Beâ€containing semiconductor alloys determined by spectroscopic ellipsometry. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 849-853.	0.8	5
54	Spectroscopic ellipsometry and photoluminescence investigation of Zn1-x-yBexMgySe and Cd1-x-yBexZnySe crystals. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 854-858.	0.8	6

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55	Changes in optical properties of MnAs thin films on GaAs(001) induced by Î±â€•to Î²â€•phase transition. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 859-862.	0.8	8
56	Monitoring the Î±- to Î²-phase transition in MnAs/GaAs(001) thin films as function of temperature. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 863-866.	0.8	6
57	A FEM-based application for numerical calculations of ellipsometric data. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 945-948.	0.8	3
58	Enhancement in ellipsometric thin film sensitivity near surface plasmon resonance conditions. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 817-820.	0.8	25
59	Characterisation of Cd1â€“xâ€“yZnxBeySe crystals by spectroscopic ellipsometry and luminescence. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1193-1196.	0.8	2
60	Assessment of phonon mode characteristics via infrared spectroscopic ellipsometry ona-plane GaN. Physica Status Solidi (B): Basic Research, 2006, 243, 1594-1598.	0.7	4
61	Optical constants of vacuum evaporated SiO film and an application. Journal of Electroceramics, 2006, 16, 511-515.	0.8	19
62	Adsorption of human serum albumin in porous silicon gradients monitored by spatially-resolved spectroscopic ellipsometry. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3293-3297.	0.8	5
63	Carbonic anhydrase adsorption in porous silicon studied with infrared ellipsometry. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 1688-1692.	0.8	3
64	Optical optimization of polyfluorene-fullerene blend photodiodes. Journal of Applied Physics, 2005, 97, 034503.	1.1	107
65	Infrared dielectric function and vibrational modes of pentacene thin films. Applied Physics Letters, 2004, 84, 200-202.	1.5	18
66	Carrier redistribution in organic/inorganic (poly(3,4-ethylenedioxy) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 Td (thiophene/poly(styrene Applied Physics Letters, 2004, 84, 1311-1313.	1.5	20
67	Total internal reflection ellipsometry: principles and applications. Applied Optics, 2004, 43, 3028.	2.1	179
68	Adsorption of human serum albumin in porous silicon gradients. Physica Status Solidi A, 2003, 197, 326-330.	1.7	12
69	Improvement of porous silicon based gas sensors by polymer modification. Physica Status Solidi A, 2003, 197, 378-381.	1.7	23
70	Gas sensing based on ellipsometric measurement on porous silicon. Physica Status Solidi A, 2003, 197, 518-522.	1.7	9
71	Infrared dielectric functions and phonon modes of high-quality ZnO films. Journal of Applied Physics, 2003, 93, 126-133.	1.1	590
72	An optical gas sensor based on ellipsometric readout. IEEE Sensors Journal, 2003, 3, 739-743.	2.4	22

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73	Optical properties ofMgH2measuredin situby ellipsometry and spectrophotometry. Physical Review B, 2003, 68, .	1.1	140
74	Spectroscopic Ellipsometry for Characterization and Monitoring of Organic Layers. Physica Status Solidi A, 2001, 188, 1331-1338.	1.7	6
75	Characterization of 3C-SiC by Spectroscopic Ellipsometry. Physica Status Solidi (B): Basic Research, 2000, 218, r1-r2.	0.7	8
76	Porous Anodic 4H-SiC: Thickness Dependent Anisotropy in Pore Propagation and Ellipsometric Characterization. Physica Status Solidi A, 2000, 182, 213-219.	1.7	7
77	Protein Adsorption in Thin Porous Silicon Layers. Physica Status Solidi A, 2000, 182, 515-520.	1.7	41
78	Self-organization in porous 6Hâ€“SiC. Journal of Materials Research, 2000, 15, 1860-1863.	1.2	25
79	Imaging surface plasmon resonance sensor based on multiple wavelengths: Sensitivity considerations. Review of Scientific Instruments, 2000, 71, 3530-3538.	0.6	167
80	Microstructural and infrared optical properties of electrochemically etched highly doped 4Hâ€“SiC. Journal of Applied Physics, 2000, 87, 8497-8503.	1.1	31
81	Characterization of 3C-SiC by Spectroscopic Ellipsometry. , 2000, 218, r1.		1
82	Investigation of optical anisotropy of refractive-index-profiled porous silicon employing generalized ellipsometry. Journal of Materials Research, 1999, 14, 4167-4175.	1.2	18
83	Ellipsometric characterization of anisotropic porous silicon Fabryâ€“PÃ©rot filters and investigation of temperature effects on capillary condensation efficiency. Journal of Applied Physics, 1999, 86, 850-858.	1.1	62
84	Electrochemical Tailoring and Optical Investigation of Advanced Refractive Index Profiles in Porous Silicon Layers. Materials Research Society Symposia Proceedings, 1999, 557, 195.	0.1	5
85	Intrinsic, n- and p-Doped a-Si:H Thin Films Grown by DC Magnetron Sputtering with Doped Targets. Materials Research Society Symposia Proceedings, 1999, 557, 31.	0.1	1
86	Vapor Adsorption in Thin Silicalite-1 Films Studied by Spectroscopic Ellipsometry. Journal of Physical Chemistry B, 1998, 102, 2245-2250.	1.2	46
87	Reversible and irreversible control of optical properties of porous silicon superlattices by thermal oxidation, vapor adsorption, and liquid penetration. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 2901-2912.	0.9	35
88	Electronic structure and optical properties of electroluminescent spiro-type molecules. Journal of Chemical Physics, 1997, 107, 2542-2549.	1.2	73
89	Adsorption of Surfactants in Porous Silicon Films. Langmuir, 1997, 13, 1440-1445.	1.6	32
90	Color changes in thin porous silicon films caused by vapor exposure. Applied Physics Letters, 1996, 69, 3001-3003.	1.5	42

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91	Imaging ellipsometry revisited: Developments for visualization of thin transparent layers on silicon substrates. Review of Scientific Instruments, 1996, 67, 2930-2936.	0.6	198
92	Microstructural Analysis and Modelling of Thin Porous Silicon Layers with Variable Angle Spectroscopic Ellipsometry. Materials Research Society Symposia Proceedings, 1996, 431, 259.	0.1	1
93	Temperature sensitivity and thermal expansion coefficient of benzocyclobutene thin films studied with ellipsometry. Applied Physics Letters, 1996, 68, 1910-1912.	1.5	16
94	A spectroscopic ellipsometry study of cerium dioxide thin films grown on sapphire by rf magnetron sputtering. Journal of Applied Physics, 1995, 77, 5369-5376.	1.1	186
95	Characterization of Sputtered Cerium Dioxide Thin Films. Materials Research Society Symposia Proceedings, 1994, 355, 209.	0.1	0
96	Growth of Ge/Si Amorphous Superlattices by Dual-Target DC Magnetron Sputtering. Materials Research Society Symposia Proceedings, 1992, 258, 571.	0.1	10
97	Imaging Ellipsometry For Biosensor Applications. , 0, , .		3
98	An optical gas sensor based on ellipsometric readout. , 0, , .		1
99	Advanced substrates in sol-gel technology for maldi mass spectrometry. , 0, , .		0