R M A Azzam

List of Publications by Year
in descending order

107 papers	2,617 citations	279701 23 h-index	197736 49 g-index
107 all docs	107 docs citations	107 times ranked	1217 citing authors

#	Article	IF	Citations
1	Principal angles and principal azimuths of a high-index transparent thin film on a low-index transparent substrate: Si on glass in the near infrared. Optik, 2020, 207, 163780.	1.4	0
2	Polarization, thin-film optics, ellipsometry, and polarimetry: Retrospective. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, 060802.	0.6	4
3	Linear-to-circular polarization transformation upon reflection by a transparent thin film on a transparent substrate: analytical determination of principal angles and principal azimuths. Applied Optics, 2018, 57, 9529.	0.9	1
4	Single-layer antireflection coatings on transparent substrates: Polarization-dependent response at oblique incidence. Optik, 2017, 145, 266-272.	1.4	1
5	Ellipsometry of single-layer antireflection coatings on transparent substrates. Applied Surface Science, 2017, 421, 271-275.	3.1	2
6	Brewster-angle 50%â€“50% beam splitter for p-polarized infrared light using a high-index quarter-wave layer deposited on a low-index prism. Applied Optics, 2017, 56, 6583.	0.9	0
7	Stokes-vector and Mueller-matrix polarimetry [Invited]. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2016, 33, 1396.	0.8	153
8	Angularly symmetric splitting of a light beam upon reflection and refraction at an airâ€“dielectric plane boundary. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2015, 32, 2436.	0.8	3
9	Beam splitters for p-polarized light using a high-index quarter-wave layer embedded in a low-index cube prism. Applied Optics, 2015, 54, 10575.	2.1	1
10	High-index dielectric substrates with nearly constant reflectance for incident unpolarized or circularly polarized light over a wide range of incidence angles. Journal of Modern Optics, 2015, 62, 811-815.	0.6	2
11	Difference between the Brewster angle and angle of minimum reflectance for incident unpolarized or circularly polarized light at interfaces between transparent media. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2015, 32, 1180.	0.8	0
12	Angle of incidence of minimum reflectance of a dielectric-conductor interface for incident unpolarized or circularly polarized light. Applied Optics, 2014, 53, 7885.	2.1	3
13	Surface roughness and optical contact characterization of transparent prisms using frustrated total internal reflection tunneling ellipsometry. Thin Solid Films, 2014, 571, 666-668.	0.8	0
14	Complex reflection coefficients of p- and s-polarized light at the pseudo-Brewster angle of a dielectricâ€“conductor interface. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2013, 30, 1975.	0.8	9
15	Maximum longitudinal electric-field component of the evanescent wave excited by incidentp-polarized light in total internal reflection at a dielectricâ€“dielectric interface. Journal of Modern Optics, 2012, 59, 544-546.	0.6	0
16	Principal angles and principal azimuths of frustrated total internal reflection and optical tunneling by an embedded low-index thin film. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 1256.	0.8	1
17	Three-dimensional polarization states of monochromatic light fields. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 2279.	0.8	25
18	Simplified design of thin-film polarizing beam splitter using embedded symmetric trilayer stack. Applied Optics, 2011, 50, 3316.	2.1	4

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19	Circular and near-circular polarization states of evanescent monochromatic light fields in total internal reflection. Applied Optics, 2011, 50, 6272.	2.1	8
20	Polarizing beam splitters using aluminum oxynitride tunnel layers embedded in galium phosphide cube for visible and near-infrared wavelengths. , 2011, , .		0
21	Polarization and angle-of-incidence dependence of the Goosâ€“HÃnchen shift in total internal reflection at a planar dielectricâ€“dielectric interface. Journal of Modern Optics, 2011, 58, 1220-1223.	0.6	1
22	Return-path, multiple-principal-angle, internal-reflection ellipsometer for measuring IR optical properties of aqueous solutions. Applied Optics, 2010, 49, 4710.	2.1	1
23	Difference between the second-Brewster and pseudo-Brewster angles when polarized light is reflected at a dielectricâ€“conductor interface. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2010, 27, 1156.	0.8	3
24	Transmission of p- and s-polarized light through a prism and the condition of minimum deviation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2010, 27, 2085.	0.8	4
25	Free-space and fiber-optic polarimeters. , 2010, , .		1
26	Polarizing beam splitters for lightwave communication wavelengths using one-dimensional gaas grating layer embedded in GaP cube. , 2009, , .		1
27	Total internal reflection without change of polarization using a right-angle prism with half-wavelength-thick optical interference coating. Optics Letters, 2009, 34, 371.	1.7	5
28	Tilted parallel dielectric slab as a multilevel attenuator for incident p- or s-polarized light. Applied Optics, 2009, 48, 425.	2.1	4
29	Polarization optics of interfaces and thin films. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 709-714.	0.8	4
30	Polarization properties of retroreflecting right-angle prisms. Applied Optics, 2008, 47, 359.	2.1	3
31	Reflection coefficients of p- and s-polarized light by a quarter-wave layer: explicit expressions and application to beam splitters. Applied Optics, 2008, 47, 1103.	2.1	4
32	Quasi index matching for minimum reflectance at a dielectric-conductor interface for obliquely incident p- and s-polarized light. Applied Optics, 2008, 47, 3211.	2.1	4
33	In-line broadband 270Â° (3Î»/4) chevron four-reflection wave retarders. Applied Optics, 2008, 47, 4878.	2.1	3
34	Efficiency of linear-to-circular polarization conversion for light reflection at the principal angle by a dielectric-conductor interface. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 834.	0.8	4
35	Plurality of principal angles for a given pseudo-Brewster angle when polarized light is reflected at a dielectric-conductor interface. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 2858.	0.8	6
36	Quarter-wave layers with 50% reflectance for obliquely incident unpolarized light. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 850.	0.8	3

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37	Embedded centrosymmetric multilayer stacks as complete-transmission quarter-wave and half-wave retarders under conditions of frustrated total internal reflection. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 3255.	0.8	2
38	Parallel-slab polarizing beam splitter and photopolarimeter. Applied Optics, 2007, 46, 292.	2.1	4
39	Wide-angle, high-extinction-ratio, infrared polarizing beam splitters using frustrated total internal reflection by an embedded centrosymmetric multilayer. Applied Optics, 2007, 46, 4604.	2.1	10
40	Dividing a light beam into two beams of orthogonal polarizations by reflection and refraction at a dielectric surface. Optics Letters, 2006, 31, 1525.	1.7	4
41	Phase shifts in frustrated total internal reflection and optical tunneling by an embedded low-index thin film. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 960.	0.8	13
42	Infrared broadband 50%-50% beam splitters for s-polarized light. Applied Optics, 2006, 45, 4572.	2.1	7
43	Linear-to-circular polarization transformation upon optical tunneling through an embedded low-index film. Optics Letters, 2005, 30, 3183.	1.7	5
44	Spectroscopic ellipsometry using the grating division-of-amplitude photopolarimeter (G-DOAP). Thin Solid Films, 2004, 455-456, 24-32.	0.8	5
45	Phase shifts that accompany total internal reflection at a dielectricâ€“dielectric interface. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 1559.	0.8	50
46	Achromatic angle-insensitive infrared quarter-wave retarder based on total internal reflection at the Siâ€“SiO_2 interface. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 2019.	0.8	28
47	Coated silicon-wedge beam splitter for the division-of-amplitude photopolarimeter (DOAP) at 1.55 Âµm wavelength. , 2004, , .		0
48	Circular polarization beam splitter that uses frustrated total internal reflection by an embedded symmetric achiral multilayer coating. Optics Letters, 2003, 28, 355.	1.7	15
49	Optimal beam splitters for the division-of-amplitude photopolarimeter. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2003, 20, 955.	0.8	40
50	Angular range for reflection of p-polarized light at the surface of an absorbing medium with reflectance below that at normal incidence. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2002, 19, 112.	0.8	5
51	Fourth- and sixth-order polarization aberrations of antireflection-coated optical surfaces. Optics Letters, 2001, 26, 1607.	1.7	12
52	Tilted bilayer membranes as simple transmission quarter-wave retardation plates. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2001, 18, 421.	0.8	9
53	PoincarÃ© sphere representation of the fixed-polarizer rotating-retarder optical system. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 2105.	0.8	19
54	Differential reflection phase shift under conditions of attenuated internal reflection. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1999, 16, 1700.	0.8	8

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55	Sixteen-beam grating-based division-of-amplitude photopolarimeter. Optics Letters, 1996, 21, 89.	1.7	20
56	Parallel-slab division-of-amplitude photopolarimeter. Optics Letters, 1996, 21, 1709.	1.7	24
57	Ellipsometry for the Characterization of Optical Coatings.. The Review of Laser Engineering, 1996, 24, 209-219.	0.0	1
58	Realâ€time adsorption/desorption thinâ€film optical monitor using a windowless reflective silicon photodetector. Review of Scientific Instruments, 1995, 66, 4362-4366.	0.6	1
59	Calibration and testing of a sixteenâ€beam gratingâ€based divisionâ€ofâ€amplitude photopolarimeter. Review of Scientific Instruments, 1995, 66, 5552-5558.	0.6	12
60	Photopolarimeter based on planar grating diffraction. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1993, 10, 1190.	0.8	28
61	Polarization Michelson interferometer as a global polarization state generator and for measurement of the coherence and spectral properties of quasimonochromatic light. Review of Scientific Instruments, 1993, 64, 2834-2837.	0.6	9
62	Chiral thin solid films: Method of deposition and applications. Applied Physics Letters, 1992, 61, 3118-3120.	1.5	70
63	LimaÃ§on of Pascal locus of the complex refractive indices of interfaces with maximally flat reflectance-versus-angle curves for incident unpolarized light. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1992, 9, 957.	0.8	11
64	Division-of-amplitude photopolarimeter based on conical diffraction from a metallic grating. Applied Optics, 1992, 31, 3574.	2.1	25
65	Transmission ellipsometry on transparent unbacked or embedded thin films with application to soap films in air. Applied Optics, 1991, 30, 2801.	2.1	11
66	An arrangement of two reflective photodetectors for measuring all four Stokes parameters of light. Review of Scientific Instruments, 1991, 62, 2080-2082.	0.6	2
67	Precision analysis and lowâ€lightâ€level measurements using a prototype fourâ€detector photopolarimeter (FDP). Review of Scientific Instruments, 1990, 61, 2063-2068.	0.6	5
68	Performance of an automated rotatingâ€detector ellipsometer. Review of Scientific Instruments, 1989, 60, 3625-3632.	0.6	7
69	Contours of constant pseudo-Brewster angle in the complex âˆ plane and an analytical method for the determination of optical constants. Applied Optics, 1989, 28, 5222.	2.1	27
70	Analytical determination of the complex dielectric function of an absorbing medium from two angles of incidence of minimum parallel reflectance. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1989, 6, 1213.	0.8	11
71	Accurate calibration of the four-detector photopolarimeter with imperfect polarizing optical elements. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1989, 6, 1513.	0.8	90
72	Binary polarization modulator: a simple device for switching light polarization between orthogonal states. Optics Letters, 1988, 13, 701.	1.7	6

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73	General analysis and optimization of the four-detector photopolarimeter. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1988, 5, 681.	0.8	135
74	Construction, calibration, and testing of a fourâ€detector photopolarimeter. Review of Scientific Instruments, 1988, 59, 84-88.	0.6	82
75	Relationship between the p and s Fresnel reflection coefficients of an interface independent of angle of incidence. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1986, 3, 928.	0.8	31
76	Thin-film beam splitter that reflects light as a half-wave retarder and transmits it without change of polarization: application to a Michelson interferometer. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1986, 3, 1803.	0.8	8
77	Polarizing beam splitters for infrared and millimeter waves using single-layer-coated dielectric slab or unbacked films. Applied Optics, 1986, 25, 4225.	2.1	13
78	Twoâ€detector ellipsometer. Review of Scientific Instruments, 1985, 56, 1746-1748.	0.6	11
79	Extinction of the p and s polarizations of a wave on reflection at the same angle from a transparent film on an absorbing substrate: applications to parallel-mirror crossed polarizers and a novel integrated polarimeter. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1985, 2, 189.	0.8	13
80	Antireflecting and polarizing transparent bilayer coatings on absorbing substrates at oblique incidence. Applied Optics, 1985, 24, 519.	2.1	8
81	Constraint on the optical constants of a filmâ€“substrate system for operation as an external-reflection retarder at a given angle of incidence. Applied Optics, 1985, 24, 1171.	2.1	13
82	Total refraction at oblique incidence by a transparent bilayer coating on a high-index transparent or absorbing substrate. Applied Optics, 1985, 24, 4454.	2.1	4
83	Simultaneous reflection and refraction of light without change of polarization by a single-layer-coated dielectric surface. Optics Letters, 1985, 10, 107.	1.7	30
84	Variable-reflectance thin-film polarization-independent beam splitters for 06328- and 106-Î¼m laser light. Optics Letters, 1985, 10, 110.	1.7	12
85	Arrangement of four photodetectors for measuring the state of polarization of light. Optics Letters, 1985, 10, 309.	1.7	209
86	Division-of-wave-front polarizing beam splitter and half-shade device using dielectric thin film on dielectric substrate. Applied Optics, 1984, 23, 1296.	2.1	12
87	Complex reflection coefficients for the parallel and perpendicular polarizations of a filmâ€“substrate system. Applied Optics, 1983, 22, 253.	2.1	11
88	Pseudo-Brewster and second-Brewster angles of an absorbing substrate coated by a transparent thin film. Applied Optics, 1983, 22, 4155.	2.1	17
89	Maximum minimum reflectance of parallel-polarized light at interfaces between transparent and absorbing media. Journal of the Optical Society of America, 1983, 73, 959.	1.2	21
90	Grazingâ€incidence differentialâ€reflectance method for explicit determination of the complex dielectric function of an isotropic absorbing medium. Review of Scientific Instruments, 1983, 54, 853-855.	0.6	5

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91	Displacement of a monochromatic light beam parallel to itself without change of polarization. Optics Letters, 1982, 7, 80.	1.7	17
92	Contours of constant principal angle and constant principal azimuth in the complex âˆš plane. Journal of the Optical Society of America, 1981, 71, 1523.	1.2	27
93	Light-Reflection Liquid-Level Sensor. IEEE Transactions on Instrumentation and Measurement, 1980, 29, 113-115.	2.4	12
94	Mapping of Fresnelâ€™s interface reflection coefficients between normal and oblique incidence: results for the parallel and perpendicular polarizations at several angles of incidence. Applied Optics, 1980, 19, 3361.	2.1	5
95	Equalization of reflectance of parallel-polarized electromagnetic plane waves at normal and oblique incidence of interfaces between transparent media and its use for measurement of the dielectric constant. Applied Physics Berlin, 1979, 20, 193-195.	1.4	2
96	Reflection of an electromagnetic plane wave with 0 or Ï€ phase shift at the surface of an absorbing medium. Journal of the Optical Society of America, 1979, 69, 487.	1.2	7
97	Direct relation between Fresnelâ€™s interface reflection coefficients for the parallel and perpendicular polarizations. Journal of the Optical Society of America, 1979, 69, 1007.	1.2	41
98	Relations between amplitude reflectances and phase shifts of the p and s polarizations when electromagnetic radiation strikes interfaces between transparent media. Applied Optics, 1979, 18, 1884.	2.1	4
99	Consequences of light reflection at the interface between two transparent media such that the angle of refraction is 45Â°. Journal of the Optical Society of America, 1978, 68, 1613.	1.2	12
100	Propagation of partially polarized light through anisotropic media with or without depolarization: A differential 4 Ã— 4 matrix calculus. Journal of the Optical Society of America, 1978, 68, 1756.	1.2	240
101	Photopolarimetric measurement of the Mueller matrix by Fourier analysis of a single detected signal. Optics Letters, 1978, 2, 148.	1.7	478
102	Oblique and normal incidence photometric return-path ellipsometers for isotropic and anisotropic surfaces. Journal of Optics, 1978, 9, 131-134.	0.3	10
103	Principal angle, principal azimuth, and principal-angle ellipsometry of film-substrate systems. Journal of the Optical Society of America, 1977, 67, 1058.	1.2	13
104	Ellipsometric function of a filmâ€“substrate system: Applications to the design of reflection-type optical devices and to ellipsometry*. Journal of the Optical Society of America, 1975, 65, 252.	1.2	70
105	Ellipsometric Measurement of the Polarization Transfer Function of an Optical System*. Journal of the Optical Society of America, 1972, 62, 336.	1.2	38
106	Simplified Approach to the Propagation of Polarized Light in Anisotropic Mediaâ€”Application to Liquid Crystals*. Journal of the Optical Society of America, 1972, 62, 1252.	1.2	71
107	Generalized Ellipsometry for Surfaces with Directional Preference: Application to Diffraction Gratings*. Journal of the Optical Society of America, 1972, 62, 1521.	1.2	71