

William E Vargas

List of Publications by Year in descending order

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50
papers

1,173
citations

430442

18
h-index

395343

33
g-index

51
all docs

51
docs citations

51
times ranked

1161
citing authors

#	ARTICLE	IF	CITATIONS
1	Applicability conditions of the Kubelka-Munk theory. <i>Applied Optics</i> , 1997, 36, 5580.	2.1	206
2	Optical properties of chitin and chitosan biopolymers with application to structural color analysis. <i>Optical Materials</i> , 2012, 35, 175-183.	1.7	82
3	Optical and electrical properties of hydrided palladium thin films studied by an inversion approach from transmittance measurements. <i>Thin Solid Films</i> , 2006, 496, 189-196.	0.8	70
4	Condensation of water by radiative cooling. <i>Renewable Energy</i> , 1994, 5, 310-317.	4.3	68
5	Optical properties of nano-structured dye-sensitized solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2001, 69, 147-163.	3.0	61
6	Generalized four-flux radiative transfer model. <i>Applied Optics</i> , 1998, 37, 2615.	2.1	54
7	Optimization of the diffuse reflectance of pigmented coatings taking into account multiple scattering. <i>Journal of Applied Physics</i> , 2000, 88, 4079.	1.1	49
8	Inversion methods from Kubelka-Munk analysis. <i>Journal of Optics</i> , 2002, 4, 452-456.	1.5	38
9	Diffuse reflectance of TiO ₂ pigmented paints: Spectral dependence of the average pathlength parameter and the forward scattering ratio. <i>Optics Communications</i> , 2006, 261, 71-78.	1.0	37
10	Forward average path-length parameter in four-flux radiative transfer models. <i>Applied Optics</i> , 1997, 36, 3735.	2.1	36
11	Light Scattering in Pigmented Coatings. <i>Solar Energy</i> , 2000, 68, 553-561.	2.9	36
12	Retrieved optical properties of thin films on absorbing substrates from transmittance measurements by application of a spectral projected gradient method. <i>Thin Solid Films</i> , 2003, 425, 1-8.	0.8	34
13	Visible light reflection spectra from cuticle layered materials. <i>Optical Materials Express</i> , 2011, 1, 85.	1.6	32
14	Generalized method for evaluating scattering parameters used in radiative transfer models. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1997, 14, 2243.	0.8	30
15	Visible spectral dependence of the scattering and absorption coefficients of pigmented coatings from inversion of diffuse reflectance spectra. <i>Applied Optics</i> , 2002, 41, 5969.	2.1	27
16	Intensity of diffuse radiation in particulate media. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1997, 14, 2253.	0.8	25
17	Two-flux radiative transfer model under nonisotropic propagating diffuse radiation. <i>Applied Optics</i> , 1999, 38, 1077.	2.1	25
18	Forward-scattering ratios and average pathlength parameter in radiative transfer models. <i>Journal of Physics Condensed Matter</i> , 1997, 9, 9083-9096.	0.7	24

#	ARTICLE	IF	CITATIONS
19	Pigment mass density and refractive index determination from optical measurements. <i>Journal of Physics Condensed Matter</i> , 1997, 9, 1661-1670.	0.7	18
20	Qualitative correlation between structural chirality through the cuticle of <i>Chrysina aurigans</i> scarabs and left-handed circular polarization of the reflected light. <i>Optical Materials Express</i> , 2014, 4, 2632.	1.6	18
21	A quantitative assessment approach of feasible optical mechanisms contributing to structural color of golden-like <i>Chrysina aurigans</i> scarab beetles. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2015, 160, 63-74.	1.1	17
22	Optical properties of pigmented coatings taking into account particle interactions. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2003, 78, 187-195.	1.1	15
23	Diffuse radiation intensity propagating through a particulate slab. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1999, 16, 1362.	0.8	13
24	Scattering of Light by Colloidal Aluminosilicate Particles Produces the Unusual Sky-Blue Color of <i>Rhagocelestes</i> (Tenorio Volcano Complex, Costa Rica). <i>PLoS ONE</i> , 2013, 8, e75165.	1.1	12
25	Optical properties of a pair of spheres: comparison of different theories. <i>Optics Communications</i> , 1995, 115, 8-12.	1.0	11
26	Optical and electrical properties of terbium films as a function of hydrogen concentration. <i>Physica Status Solidi (B): Basic Research</i> , 2005, 242, 2005-2009.	0.7	11
27	Photonic Crystal Characterization of the Cuticles of <i>Chrysina chrysargyrea</i> and <i>Chrysina optima</i> Jewel Scarab Beetles. <i>Biomimetics</i> , 2018, 3, 30.	1.5	11
28	Parametric formulation of the dielectric function of palladium and palladium hydride thin films. <i>Applied Optics</i> , 2014, 53, 5294.	0.9	10
29	Broadening of effective photonic band gaps in biological chiral structures: From intrinsic narrow band gaps to broad band reflection spectra. <i>Europhysics Letters</i> , 2015, 111, 64001.	0.7	10
30	Dielectric functions of Pd and Zr transition metals: an application of Drude-Lorentz models with simulated annealing optimization. <i>Applied Optics</i> , 2017, 56, 1266.	2.1	10
31	Optical properties of silicon pigmented alumina films. <i>Journal of Applied Physics</i> , 1997, 82, 3508-3513.	1.1	9
32	Reflectance of pigmented polymer coatings: comparisons between measurements and radiative transfer calculations. <i>Applied Optics</i> , 2001, 40, 85.	2.1	8
33	<title>Pigmented foils for radiative cooling and condensation irrigation</title>. , 1994, 2255, 193.		7
34	Closed equation for the normal incidence reflectance of thin films on absorbing substrates. <i>Applied Optics</i> , 2007, 46, 502.	2.1	7
35	Scattering and absorption cross sections of light diffusing materials retrieved from reflectance and transmittance spectra of collimated radiation. <i>Journal of Modern Optics</i> , 2020, 67, 974-991.	0.6	7
36	Hydrogen induced changes in the optical properties of Pd capped V thin films. <i>Journal of Alloys and Compounds</i> , 2013, 580, S114-S118.	2.8	6

#	ARTICLE	IF	CITATIONS
37	Effective backscattering and absorption coefficients of light diffusing materials retrieved from reflectance and transmittance spectra of diffuse radiation. <i>Journal of Modern Optics</i> , 2021, 68, 605-623.	0.6	5
38	Dielectric function of Pd hydride thin films in terms of hydrogen concentration and film's thickness: A parametric formulation. <i>Journal of Alloys and Compounds</i> , 2015, 645, S320-S324.	2.8	4
39	Light scattering materials for energy-related applications: Determination of absorption and scattering coefficients. <i>Materials Today: Proceedings</i> , 2020, 33, 2474-2480.	0.9	4
40	Synthesis and characterization of Cu(II) containing PMMA co-polymer for optical applications. <i>Journal of Materials Science</i> , 2007, 42, 3161-3166.	1.7	3
41	Ultra thin films of gadolinium deposited by evaporation in ultra high vacuum conditions: Composition, growth and morphology. <i>Applied Surface Science</i> , 2011, 257, 3510-3518.	3.1	3
42	Dielectric function of palladium capped zirconium thin films as a function of absorbed hydrogen. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 22373-22378.	3.8	3
43	Optical, charge transport and magnetic properties of palladium retrieved from photometric measurements: approaching the quantum mechanics background. <i>Physica Scripta</i> , 2019, 94, 055101.	1.2	3
44	Semiconductor behavior of hydrided Dy thin films as a function of increasing hydrogen pressure. <i>Thin Solid Films</i> , 2007, 515, 8087-8093.	0.8	2
45	Aggregation and composition effects on absorption and scattering properties of dye-sensitized anatase TiO ₂ particle clusters. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2008, 109, 1693-1704.	1.1	2
46	Polycrystalline indium films in the percolation threshold regime: time correlation between electric conduction and optical properties with film morphology. <i>Materials Research Express</i> , 2014, 1, 016302.	0.8	2
47	Optical, magnetic, and charge-carriers transport properties of a transition metal: bulk palladium. <i>Applied Optics</i> , 2017, 56, 6496.	0.9	2
48	Physical properties of rhodium retrieved from modeling its dielectric function by a simulated annealing approach. <i>OSA Continuum</i> , 2021, 4, 3233.	1.8	1
49	A numerical scheme to solve the Korteweg-de Vries equation. <i>Computer Physics Communications</i> , 1993, 74, 58-62.	3.0	0
50	Theoretical framework to describe the reflection of circularly polarized light by a natural photonic crystal: elytron of a <i>Chrysina resplendens</i> scarab. , 0, , .		0