William E Vargas

List of Publications by Year
in descending order

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	Effective backscattering and absorption coefficients of light diffusing materials retrieved from reflectance and transmittance spectra of diffuse radiation. Journal of Modern Optics, 2021, 68, 605-623.	0.6	5
2	Physical properties of rhodium retrieved from modeling its dielectric function by a simulated annealing approach. OSA Continuum, 2021, 4, 3233.	1.8	1
3	Scattering and absorption cross sections of light diffusing materials retrieved from reflectance and transmittance spectra of collimated radiation. Journal of Modern Optics, 2020, 67, 974-991.	0.6	7
4	Light scattering materials for energy-related applications: Determination of absorption and scattering coefficients. Materials Today: Proceedings, 2020, 33, 2474-2480.	0.9	4
5	Optical, charge transport and magnetic properties of palladium retrieved from photometric measurements: approaching the quantum mechanics background. Physica Scripta, 2019, 94, 055101.	1.2	3
6	Photonic Crystal Characterization of the Cuticles of Chrysina chrysargyrea and Chrysina optima Jewel Scarab Beetles. Biomimetics, 2018, 3, 30.	1.5	11
7	Dielectric function of palladium capped zirconium thin films as a function of absorbed hydrogen. International Journal of Hydrogen Energy, 2017, 42, 22373-22378.	3.8	3
8	Dielectric functions of Pd and Zr transition metals: an application of Drudeâ€“Lorentz models with simulated annealing optimization. Applied Optics, 2017, 56, 1266.	2.1	10
9	Optical, magnetic, and charge-carriers transport properties of a transition metal: bulk palladium. Applied Optics, 2017, 56, 6496.	0.9	2
10	Broadening of effective photonic band gaps in biological chiral structures: From intrinsic narrow band gaps to broad band reflection spectra. Europhysics Letters, 2015, 111, 64001.	0.7	10
11	Dielectric function of Pd hydride thin films in terms of hydrogen concentration and filmâ€™s thickness: A parametric formulation. Journal of Alloys and Compounds, 2015, 645, S320-S324.	2.8	4
12	A quantitative assessment approach of feasible optical mechanisms contributing to structural color of golden-like Chrysina aurigans scarab beetles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 160, 63-74.	1.1	17
13	Qualitative correlation between structural chirality through the cuticle of Chrysina aurigans scarabs and left-handed circular polarization of the reflected light. Optical Materials Express, 2014, 4, 2632.	1.6	18
14	Parametric formulation of the dielectric function of palladium and palladium hydride thin films. Applied Optics, 2014, 53, 5294.	0.9	10
15	Polycrystalline indium films in the percolation threshold regime: time correlation between electric conduction and optical properties with film morphology. Materials Research Express, 2014, 1, 016302.	0.8	2
16	Hydrogen induced changes in the optical properties of Pd capped V thin films. Journal of Alloys and Compounds, 2013, 580, S114-S118.	2.8	6
17	Scattering of Light by Colloidal Aluminosilicate Particles Produces the Unusual Sky-Blue Color of RÃo Celeste (Tenorio Volcano Complex, Costa Rica). PLoS ONE, 2013, 8, e75165.	1.1	12
18	Optical properties of chitin and chitosan biopolymers with application to structural color analysis. Optical Materials, 2012, 35, 175-183.	1.7	82

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19	Visible light reflection spectra from cuticle layered materials. Optical Materials Express, 2011, 1, 85.	1.6	32
20	Ultra thin films of gadolinium deposited by evaporation in ultra high vacuum conditions: Composition, growth and morphology. Applied Surface Science, 2011, 257, 3510-3518.	3.1	3
21	Aggregation and composition effects on absorption and scattering properties of dye-sensitized anatase TiO2 particle clusters. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 1693-1704.	1.1	2
22	Closed equation for the normal incidence reflectance of thin films on absorbing substrates. Applied Optics, 2007, 46, 502.	2.1	7
23	Semiconductor behavior of hydrided Dy thin films as a function of increasing hydrogen pressure. Thin Solid Films, 2007, 515, 8087-8093.	0.8	2
24	Synthesis and characterization of Cu(II) containing PMMA co-polymer for optical applications. Journal of Materials Science, 2007, 42, 3161-3166.	1.7	3
25	Diffuse reflectance of TiO2 pigmented paints: Spectral dependence of the average pathlength parameter and the forward scattering ratio. Optics Communications, 2006, 261, 71-78.	1.0	37
26	Optical and electrical properties of hydrided palladium thin films studied by an inversion approach from transmittance measurements. Thin Solid Films, 2006, 496, 189-196.	0.8	70
27	Optical and electrical properties of terbium films as a function of hydrogen concentration. Physica Status Solidi (B): Basic Research, 2005, 242, 2005-2009.	0.7	11
28	Optical properties of pigmented coatings taking into account particle interactions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2003, 78, 187-195.	1.1	15
29	Retrieved optical properties of thin films on absorbing substrates from transmittance measurements by application of a spectral projected gradient method. Thin Solid Films, 2003, 425, 1-8.	0.8	34
30	Visible spectral dependence of the scattering and absorption coefficients of pigmented coatings from inversion of diffuse reflectance spectra. Applied Optics, 2002, 41, 5969.	2.1	27
31	Inversion methods from Kubelka$ndash$Munk analysis. Journal of Optics, 2002, 4, 452-456.	1.5	38
32	Reflectance of pigmented polymer coatings: comparisons between measurements and radiative transfer calculations. Applied Optics, 2001, 40, 85.	2.1	8
33	Optical properties of nano-structured dye-sensitized solar cells. Solar Energy Materials and Solar Cells, 2001, 69, 147-163.	3.0	61
34	Light Scattering in Pigmented Coatings:. Solar Energy, 2000, 68, 553-561.	2.9	36
35	Optimization of the diffuse reflectance of pigmented coatings taking into account multiple scattering. Journal of Applied Physics, 2000, 88, 4079.	1.1	49
36	Diffuse radiation intensity propagating through a particulate slab. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1999, 16, 1362.	0.8	13

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37	Two-flux radiative transfer model under nonisotropic propagating diffuse radiation. Applied Optics, 1999, 38, 1077.	2.1	25
38	Generalized four-flux radiative transfer model. Applied Optics, 1998, 37, 2615.	2.1	54
39	Forward-scattering ratios and average pathlength parameter in radiative transfer models. Journal of Physics Condensed Matter, 1997, 9, 9083-9096.	0.7	24
40	Optical properties of silicon pigmented alumina films. Journal of Applied Physics, 1997, 82, 3508-3513.	1.1	9
41	Pigment mass density and refractive index determination from optical measurements. Journal of Physics Condensed Matter, 1997, 9, 1661-1670.	0.7	18
42	Forward average path-length parameter in four-flux radiative transfer models. Applied Optics, 1997, 36, 3735.	2.1	36
43	Applicability conditions of the Kubelkaâ€“Munk theory. Applied Optics, 1997, 36, 5580.	2.1	206
44	Generalized method for evaluating scattering parameters used in radiative transfer models. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1997, 14, 2243.	0.8	30
45	Intensity of diffuse radiation in particulate media. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1997, 14, 2253.	0.8	25
46	Optical properties of a pair of spheres: comparison of different theories. Optics Communications, 1995, 115, 8-12.	1.0	11
47	Condensation of water by radiative cooling. Renewable Energy, 1994, 5, 310-317.	4.3	68
48	‹title›Pigmented foils for radiative cooling and condensation irrigation‹/title›. , 1994, 2255, 193.		7
49	A numerical scheme to solve the Korteweg-de Vries equation. Computer Physics Communications, 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 Chrysina resplendens scarab. , 0, , .		0