Ivan OhlÃdal

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Comparison of effective medium approximation and Rayleighâ€“Rice theory concerning ellipsometric characterization of rough surfaces. Optics Communications, 2005, 248, 459-467.	2.1	82
2	Ellipsometric parameters and reflectances of thin films with slightly rough boundaries. Journal of Modern Optics, 1998, 45, 903-934.	1.3	68
3	Ellipsometry of Thin Film Systems. Progress in Optics, 2000, 41, 181-282.	0.6	48
4	Influence of overlayers on determination of the optical constants of ZnSe thin films. Journal of Applied Physics, 2002, 92, 1873-1880.	2.5	39
5	Analysis of Slightly Rough Thin Films by Optical Methods and AFM. Mikrochimica Acta, 2000, 132, 443-447.	5.0	37
6	Theoretical analysis of the atomic force microscopy characterization of columnar thin films. Ultramicroscopy, 2003, 94, 19-29.	1.9	36
7	Optical characterization of HfO2 thin films. Thin Solid Films, 2011, 519, 6085-6091.	1.8	32
8	Optical characterization of thin films by the combined method of spectroscopic ellipsometry and spectroscopic photometry. Vacuum, 2005, 80, 159-162.	3.5	30
9	The reflectance of non-uniform thin films. Journal of Optics, 2009, 11, 045202.	1.5	27
10	IV: Scattering of Light from Multilayer Systems With Rough Boundaries. Progress in Optics, 1995, 34, 249-331.	0.6	26
11	Spectroscopic ellipsometry of inhomogeneous thin films exhibiting thickness non-uniformity and transition layers. Optics Express, 2020, 28, 160.	3.4	22
12	Temperature-dependent dispersion model of float zone crystalline silicon. Applied Surface Science, 2017, 421, 405-419.	6.1	21
13	Optical characterization of randomly microrough surfaces covered with very thin overlayers using effective medium approximation and Rayleighâ€“Rice theory. Applied Surface Science, 2017, 419, 942-956.	6.1	21
14	Measurement of thickness distribution, optical constants, and roughness parameters of rough nonuniform ZnSe thin films. Applied Optics, 2014, 53, 5606.	1.8	20
15	Optical characterisation of SiO C H thin films non-uniform in thickness using spectroscopic ellipsometry, spectroscopic reflectometry and spectroscopic imaging reflectometry. Thin Solid Films, 2011, 519, 2874-2876.	1.8	19
16	Assessment of non-uniform thin films using spectroscopic ellipsometry and imaging spectroscopic reflectometry. Thin Solid Films, 2014, 571, 573-578.	1.8	19
17	Improved combination of scalar diffraction theory and Rayleighâ€“Rice theory and its application to spectroscopic ellipsometry of randomly rough surfaces. Thin Solid Films, 2014, 571, 695-700.	1.8	17
18	Use of the Richardson extrapolation in optics of inhomogeneous layers: Application to optical characterization. Surface and Interface Analysis, 2018, 50, 757-765.	1.8	15

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19	Applications of scanning thermal microscopy in the analysis of the geometry of patterned structures. Surface and Interface Analysis, 2006, 38, 383-387.	1.8	14
20	Utilization of the sum rule for construction of advanced dispersion model of crystalline silicon containing interstitial oxygen. Thin Solid Films, 2014, 571, 490-495.	1.8	14
21	Atomic Force Microscopy Characterization of ZnTe Epitaxial Thin Films. Japanese Journal of Applied Physics, 2003, 42, 4706-4709.	1.5	13
22	Ellipsometric and reflectometric characterization of thin films exhibiting thickness non-uniformity and boundary roughness. Applied Surface Science, 2017, 421, 687-696.	6.1	13
23	Optical Characterization of Non-Stoichiometric Silicon Nitride Films Exhibiting Combined Defects. Coatings, 2019, 9, 416.	2.6	13
24	Atomic Force Microscopy Analysis of Statistical Roughness of GaAs Surfaces Originated by Thermal Oxidation. Mikrochimica Acta, 2004, 147, 175.	5.0	12
25	Characterization of non-uniform diamond-like carbon films by spectroscopic ellipsometry. Diamond and Related Materials, 2009, 18, 364-367.	3.9	12
26	Approximations of reflection and transmission coefficients of inhomogeneous thin films based on multiple-beam interference model. Thin Solid Films, 2019, 692, 137189.	1.8	12
27	Efficient method to calculate the optical quantities of multi-layer systems with randomly rough boundaries using the Rayleighâ€"Rice theory. Physica Scripta, 2019, 94, 045502.	2.5	12
28	Influence of cross-correlation effects on the optical quantities of rough films. Optics Express, 2008, 16, 7789.	3.4	11
29	Influence of shadowing on ellipsometric quantities of randomly rough surfaces and thin films. Journal of Modern Optics, 2008, 55, 1077-1099.	1.3	11
30	Ellipsometric characterization of inhomogeneous nonâ€stoichiometric silicon nitride films. Surface and Interface Analysis, 2013, 45, 1188-1192.	1.8	11
31	Combination of spectroscopic ellipsometry and spectroscopic reflectometry with including light scattering in the optical characterization of randomly rough silicon surfaces covered by native oxide layers. Surface Topography: Metrology and Properties, 2019, 7, 045004.	1.6	11
32	Optical characterization of double layers containing epitaxial ZnSe and ZnTe films. Journal of Modern Optics, 2005, 52, 583-602.	1.3	9
33	Optical quantities of multi-layer systems with randomly rough boundaries calculated using the exact approach of the Rayleighâ€"Rice theory. Journal of Modern Optics, 2018, 65, 1720-1736.	1.3	9
34	Optics of Inhomogeneous Thin Films with Defects: Application to Optical Characterization. Coatings, 2021, 11, 22.	2.6	9
35	Optical characterization of inhomogeneous thin films containing transition layers using the combined method of spectroscopic ellipsometry and spectroscopic reflectometry based on multiple-beam interference model. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, .	1.2	8
36	Spectroscopic ellipsometry and reflectometry of statistically rough surfaces exhibiting wide intervals of spatial frequencies. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1399-1402.	0.8	7

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37	Different theoretical approaches at optical characterization of randomly rough silicon surfaces covered with native oxide layers. Surface and Interface Analysis, 2018, 50, 1230-1233.	1.8	7
38	Optical quantities of rough films calculated by Rayleigh-Rice theory. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1395-1398.	0.8	6
39	Optical characterization of phase changing Ge₂Sb₂Te₅ chalcogenide films. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1324-1327.	0.8	6
40	Determining shape of thickness non-uniformity using variable-angle spectroscopic ellipsometry. Applied Surface Science, 2020, 534, 147625.	6.1	6
41	Analysis of the boundaries of ZrO2and HfO2thin films by atomic force microscopy and the combined optical method. Surface and Interface Analysis, 2002, 33, 559-564.	1.8	5
42	Optical characterization of SiO₂thin films using universal dispersion model over wide spectral range. Proceedings of SPIE, 2016, , .	0.8	5
43	Ellipsometry of Layered Systems. Springer Series in Surface Sciences, 2018, , 233-267.	0.3	5
44	Optical characterization of inhomogeneous thin films with randomly rough boundaries. Optics Express, 2022, 30, 2033.	3.4	5
45	Determination of the basic parameters characterizing the roughness of metal surfaces by laser light scattering. Journal of Modern Optics, 1999, 46, 279-293.	1.3	4
46	Optical characterization of non-stoichiometric silicon nitride films. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1320-1323.	0.8	4
47	Optical Characterization of Thin Films Exhibiting Defects. Springer Series in Surface Sciences, 2018, , 271-313.	0.3	4
48	Characterization of randomly rough surfaces using angle-resolved scattering of light and atomic force microscopy. Journal of Optics (United Kingdom), 2021, 23, 105602.	2.2	4
49	Approximate methods for the optical characterization of inhomogeneous thin films: Applications to silicon nitride films. Journal of Electrical Engineering, 2019, 70, 16-26.	0.7	4
50	Ellipsometric characterization of inhomogeneous thin films with complicated thickness non-uniformity: application to inhomogeneous polymer-like thin films. Optics Express, 2020, 28, 36796.	3.4	4
51	Atomic force microscopy analysis of morphology of the upper boundaries of GaN thin films prepared by MOCVD. Vacuum, 2005, 80, 53-57.	3.5	3
52	Characterization of polymer thin films deposited on aluminum films by the combined optical method and atomic force microscopy. Surface and Interface Analysis, 2006, 38, 842-846.	1.8	3
53	Anisotropy-enhanced depolarization on transparent film/substrate system. Thin Solid Films, 2011, 519, 2637-2640.	1.8	3
54	Determination of thicknesses and temperatures of crystalline silicon wafers from optical measurements in the far infrared region. Journal of Applied Physics, 2018, 123, .	2.5	3

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55	Optical properties of the crystalline silicon wafers described using the universal dispersion model. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, 062907.	1.2	3
56	Complete Optical Characterization of Non-Uniform SiOx Thin Films Using Imaging Spectroscopic Reflectometry. E-Journal of Surface Science and Nanotechnology, 2009, 7, 409-412.	0.4	3
57	Possibilities and limitations of imaging spectroscopic reflectometry in optical characterization of thin films. Proceedings of SPIE, 2015, , .	0.8	2
58	Optical characterization of diamond-like carbon thin films non-uniform in thickness using spectroscopic reflectometry. Diamond and Related Materials, 2008, 17, 709-712.	3.9	1
59	Optical quantities of a multilayer system with randomly rough boundaries and uniaxial anisotropic media calculated using the Rayleighâ€"Rice theory and Yeh matrix formalism. Physica Scripta, 2020, 95, 095503.	2.5	1
60	Measurement of optical parameters of thin films non-uniform in thickness. , 2014, , .		0
61	Simultaneous determination of optical constants, local thickness, and local roughness of thin films by imaging spectroscopic reflectometry. , 2015, , .		0