John C Lambropoulos

List of Publications by Year in descending order

74 papers	1,580 citations	279701 23 h-index	330025 37 g-index
75 all docs	75 docs citations	75 times ranked	779 citing authors

#	Article	IF	Citations
1	Modulation of Interfacial Adhesion Using Semicrystalline Shape-Memory Polymers. Langmuir, 2022, 38, 3607-3616.	1.6	6
2	Twyman effect in thin curved optics: effects of variable thickness and curvature. Applied Optics, 2021, 60, 1780.	0.9	3
3	Verification of cascade optical coherence tomography for freeform optics form metrology. Optics Express, 2021, 29, 8542.	1.7	1
4	Freeform optics for imaging. Optica, 2021, 8, 161.	4.8	178
5	Thin curved optics and the Twyman effect. , 2021, , .		0
6	Mechanisms of picosecond laser-induced damage in common multilayer dielectric coatings. Scientific Reports, 2019, 9, 607.	1.6	34
7	Femtosecond laser polishing of germanium [Invited]. Optical Materials Express, 2019, 9, 4165.	1.6	24
8	Subsurface damage measurement of single crystal germanium and borosilicate glass BK-7. , 2019, , .		1
9	Twyman effects in thin curved optics. , 2017, , .		3
10	Subsurface Damage (SSD) Assessment in Ground Silicon Carbide (SiC). , 2017, , .		3
11	Nanomechanics in optical manufacturing. , 2016, , .		0
12	Magnetorheological finishing of chemical-vapor deposited zinc sulfide via chemically and mechanically modified fluids. Applied Optics, 2016, 55, 1481.	2.1	7
13	Surfaceâ€“texture evolution of different chemical-vapor-deposited zinc sulfide flats polished with various magnetorheological fluids. Precision Engineering, 2016, 43, 257-261.	1.8	9
14	Large-aperture plasma-assisted deposition of inertial confinement fusion laser coatings. Applied Optics, 2011, 50, C19.	2.1	24
15	Synthesis and corrosion study of zirconia-coated carbonyl iron particles. Journal of Colloid and Interface Science, 2010, 342, 49-56.	5.0	33
16	Process parameter effects on material removal in magnetorheological finishing of borosilicate glass. Applied Optics, 2010, 49, 1951.	2.1	70
17	Magnetic field effects on shear and normal stresses in magnetorheological finishing. Optics Express, 2010, 18, 19713.	1.7	38
18	Contributions of nanodiamond abrasives and deionized water in magnetorheological finishing of aluminum oxynitriden. , 2009, , .		3

#	Article	IF	Citations
19	Zirconia coated carbonyl iron particle-based magnetorheological fluid for polishing. Proceedings of SPIE, 2009, , .	0.8	6
20	Normal force and drag force in magnetorheological finishing. Proceedings of SPIE, 2009, , .	0.8	4
21	Thermal shock and post-quench strength of lapped borosilicate optical glass. Journal of Non-Crystalline Solids, 2009, 355, 2370-2374.	1.5	5
22	Shear stress in magnetorheological finishing for glasses. Applied Optics, 2009, 48, 2585.	2.1	81
23	Zirconia-coated carbonyl-iron-particle-based magnetorheological fluid for polishing optical glasses and ceramics. Applied Optics, 2009, 48, 6797.	2.1	53
24	Toward Magnetorheological Finishing of Magnetic Materials. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2007, 129, 961-964.	1.3	24
25	Thermal shock testing of lapped optical glass. , 2007, , .		2
26	MRF spotting technique for studying subsurface damage in deterministic microground polycrystalline alumina. , 2007, , .		1
27	Subsurface damage and microstructure development in precision microground hard ceramics using magnetorheological finishing spots. Applied Optics, 2007, 46, 5500.	2.1	22
28	Removal rate model for magnetorheological finishing of glass. Applied Optics, 2007, 46, 7927.	2.1	98
29	A magnetorheological polishing-based approach for studying precision microground surfaces of tungsten carbides. Precision Engineering, 2007, 31, 83-93.	1.8	28
30	Surface effects on Youngâ€™s modulus and hardness of fused silica by nanoindentation study. Journal of Materials Science, 2007, 42, 191-198.	1.7	26
31	Micromechanical contributions to material removal and surface finish. , 2007, , .		0
32	Densification contributions in material removal mechanism. , 2007, , .		0
33	Deterministic Microgrinding, Lapping, and Polishing of Glass-Ceramics. Journal of the American Ceramic Society, 2005, 88, 1127-1132.	1.9	10
34	Subsurface damage in some single crystalline optical materials. Applied Optics, 2005, 44, 2241.	2.1	111
35	Molecular dynamics study of UV-laser-induced densification of fused silica. II. Effects of laser pulse duration, pressure, and temperature, and comparison with pressure-induced densification. Journal of Non-Crystalline Solids, 2005, 351, 3271-3278.	1.5	7
36	Comparative micro-indentation and dislocation activity in silicon and CaF2: a model. , 2005, , .		0

#	Article	IF	Citations
37	Effects of glass mechanical properties on polishing. , 2005, , .		0
38	Optical materials micromechanical property database: fracture toughness and ductility. , 2005, , .		1
39	UV-laser-induced densification of fused silica: a molecular dynamics study. Journal of Non-Crystalline Solids, 2004, 347, 144-152.	1.5	25
40	Spherical cavity expansion in densifying material. Journal of Applied Physics, 2003, 94, 6437-6441.	1.1	2
41	Polishing rate of fused silica, compared to glasses BK7 and SF6. , 2003, , .		0
42	Electric field induced rotation of polymer cholesteric liquid crystal flakes: mechanisms and applications. , 2002, , .		1
43	Electric-field-induced motion of polymer cholesteric liquid-crystal flakes in a moderately conductive fluid. Applied Optics, 2002, 41, 5362.	2.1	16
44	Microhardness and Indentation Fracture of Potassium Dihydrogen Phosphate (KDP). Journal of the American Ceramic Society, 2002, 85, 174-178.	1.9	77
45	<title>Manufacturing-induced residual stresses in optical glasses and crystals: Example of residual stress relief by magnetorheological finishing (MRF) in commercial silicon wafers</title>. , 2001, , .		4
46	<title>Use of magnetorheological finishing (MRF) to relieve residual stress and subsurface damage on lapped semiconductor silicon wafers</title>. , 2001, , .		31
47	<title>Surface features and residual strains in AlON grinding</title>. , 2001, 4451, 165.		1
48	<title>Exploring anisotropy in removal rate for single crystal sapphire using MRF</title>. , 2001, , .		13
49	<title>Densification of fused silica: effects on nanoindentation</title>. , 2000, , .		24
50	Lifetime prediction of laser-precracked fused silica subjected to subsequent cyclic laser pulses. Journal of Materials Research, 2000, 15, 1182-1189.	1.2	1
51	<title>Noncontact estimate of grinding-induced subsurface damage</title>. , 1999, , .		23
52	Crack arrest and stress dependence of laser-induced surface damage in fused-silica and borosilicate glass. Applied Optics, 1999, 38, 6892.	2.1	15
53	Dependence of birefringence and residual stress near laser-induced cracks in fused silica on laser fluence and on laser-pulse number. Applied Optics, 1998, 37, 7772.	2.1	24
54	<title>Deformation of fused silica: nanoindentation and densification</title>. , 1998, 3424, 72.		14

#	Article	IF	Citations
55	<title>Controlling stress in sapphire optics</title>. , 1997, , .		15
56	<title>Glass-ceramics: deterministic microgrinding, lapping, and polishing</title>. , 1997, , .		8
57	Loose abrasive lapping hardness of optical glasses and its interpretation. Applied Optics, 1997, 36, 1501.	2.1	44
58	Surface microroughness of optical glasses under deterministic microgrinding. Applied Optics, 1996, 35, 4448.	2.1	65
59	Twyman effect mechanics in grinding and microgrinding. Applied Optics, 1996, 35, 5704.	2.1	51
60	Constitutive Law for the Densification of Fused Silica, with Applications in Polishing and Microgrinding. Journal of the American Ceramic Society, 1996, 79, 1441-1452.	1.9	38
61	Mechanics of shaped crystal growth from the melt. Journal of Materials Research, 1996, 11, 2163-2176.	1.2	15
62	Thermoelastic analysis of dislocation generation during edge-defined film-fed growth of polygonal shells. Journal of Crystal Growth, 1995, 155, 38-46.	0.7	4
63	Toughening and crack tip shielding in brittle materials by residually stressed thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 2503-2509.	0.9	4
64	Thermomechanics of thin films and interfaces. Journal of Electronic Materials, 1990, 19, 895.	1.0	2
65	High temperature inelastic deformation during shaped crystal growth from the melt. Journal of Crystal Growth, 1990, 104, 1-7.	0.7	9
66	Analysis of thermal stress, fracture strength, and the effect of ion exchange on high average power phosphate glass slab lasers. Journal of Applied Physics, 1990, 67, 1784-1792.	1.1	3
67	Thermal Stresses During Quenching of Short Glass Cylinders. Journal of the American Ceramic Society, 1988, 71, C-24-C-25.	1.9	0
68	The effect of interface shape on thermal stress during Czochralski crystal growth. Journal of Crystal Growth, 1988, 92, 390-396.	0.7	32
69	Elastic and plastic anisotropy during growth from the melt of single semiconductor crystals. Journal of Materials Research, 1988, 3, 531-537.	1.2	15
70	Stresses in Anisotropic Thin Films Bonded to Stiff Substrates. Materials Research Society Symposia Proceedings, 1987, 108, 399.	0.1	0
71	Stresses near the solid-liquid interface during the growth of a Czochralski crystal. Journal of Crystal Growth, 1987, 80, 245-256.	0.7	29
72	The isotropic assumption during the Czochralski growth of single semiconductors crystals. Journal of Crystal Growth, 1987, 84, 349-358.	0.7	53

#	Article	IF	Citations
73	Constitutive Laws for Ceramics Exhibiting Stress-Induced Martensitic Transformation. Materials Research Society Symposia Proceedings, 1986, 78, 35.	0.1	2
74	An experimental examination of fracture criteria using brittle polystyrene. Journal of Applied Polymer Science, 1986, 32, 5585-5595.	1.3	1