Juan-Carlos Cheang-Wong

List of Publications by Year
in descending order

88 papers	1,126 citations	393982 19 h-index	476904 29 g-index
88 all docs	88 docs citations	88 times ranked	944 citing authors

#	Article	IF	Citations
1	Controlled anisotropic deformation of Ag nanoparticles by Si ion irradiation. Physical Review B, 2006, 74, .	1.1	118
2	Large optical birefringence by anisotropic silver nanocomposites. Optics Express, 2008, 16, 710.	1.7	44
3	Anisotropic linear and nonlinear optical properties from anisotropy-controlled metallic nanocomposites. Optics Express, 2009, 17, 12849.	1.7	42
4	Modification of the optical properties of Ag-implanted silica by annealing in two different atmospheres. Journal of Applied Physics, 2004, 95, 1783-1791.	1.1	40
5	Formation of Auâ^'Ag Coreâ^'Shell Nanostructures in Silica Matrix by Sequential Ion Implantation. Journal of Physical Chemistry C, 2009, 113, 2296-2300.	1.5	38
6	Optical properties of Ir2+-implanted silica glass. Nuclear Instruments & Methods in Physics Research B, 2001, 175-177, 490-494.	0.6	36
7	RBS analysis of thin amorphous YBaCuO films: comparison with direct determination of oxygen contents by NRA. Nuclear Instruments & Methods in Physics Research B, 1992, 64, 169-173.	0.6	34
8	Optical third-order nonlinearity by nanosecond and picosecond pulses in Cu nanoparticles in ion-implanted silica. Journal of Applied Physics, 2008, 104, .	1.1	32
9	Anisotropy in the nonlinear absorption of elongated silver nanoparticles in silica, probed by femtosecond pulses. Optics Communications, 2009, 282, 1909-1912.	1.0	30
10	Determination of the size distribution of metallic nanoparticles by optical extinction spectroscopy. Applied Optics, 2009, 48, 566.	2.1	29
11	Metallic nanoparticle formation in ion-implanted silica after thermal annealing in reducing or oxidizing atmospheres. Nuclear Instruments & Methods in Physics Research B, 2002, 191, 333-336.	0.6	28
12	Elongated Gold Nanoparticles Obtained by Ion Implantation in Silica: Characterization and T-Matrix Simulations. Journal of Physical Chemistry C, 2010, 114, 746-751.	1.5	27
13	Ablation and optical third-order nonlinearities in Ag nanoparticles. International Journal of Nanomedicine, 2010, 5, 925.	3.3	24
14	Ultrafast optical phase modulation with metallic nanoparticles in ion-implanted bilayer silica. Nanotechnology, 2011, 22, 355710.	1.3	24
15	Effect of thermal annealing on the optical properties of high-energy Cu-implanted silica glass. Journal of Non-Crystalline Solids, 2000, 275, 65-71.	1.5	22
16	Optical absorption and emission studies of 2 MeV Cu-implanted silica glass. Nuclear Instruments & Methods in Physics Research B, 2001, 175-177, 495-499.	0.6	22
17	High stability of the crystalline configuration of Au nanoparticles embedded in silica under ion and electron irradiation. Journal of Nanoparticle Research, 2010, 12, 1787-1795.	0.8	22
18	On the physical contributions to the third-order nonlinear optical response in plasmonic nanocomposites. Journal of Optics (United Kingdom), 2012, 14, 125203.	1.0	22

#	Article	IF	Citations
19	Correlation between optical properties, composition, and deposition parameters in pulsed laser deposited LiNbO3 films. Applied Physics Letters, 1995, 66, 1452-1454.	1.5	21
20	Superlinear Photoluminescence by Ultrafast Laser Pulses in Dielectric Matrices with Metal Nanoclusters. Scientific Reports, 2019, 9, 5699.	1.6	19
21	MeV ion beam deformation of colloidal silica particles. Nuclear Instruments & Methods in Physics Research B, 2006, 242, 452-454.	0.6	18
22	Absorptive and refractive nonlinearities by four-wave mixing for Au nanoparticles in ion-implanted silica. Optics Express, 2007, 15, 9248.	1.7	17
23	Tuning the aspect ratio of silver nanospheroids embedded in silica. Optics Letters, 2010, 35, 703.	1.7	17
24	Coexistence of two-photon absorption and saturable absorption in ion-implanted platinum nanoparticles in silica plates. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 1295.	0.9	16
25	Large and anisotropic third-order nonlinear optical response from anisotropy-controlled metallic nanocomposites. Optics Communications, 2009, 282, 4157-4161.	1.0	15
26	Fluorinatedâ€“chlorinated SiO2 films prepared at low temperature by remote plasma-enhanced chemical-vapor deposition using mixtures of SiF4 and SiCl4. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 507-514.	0.9	14
27	Chemical spray pyrolysis deposited fluorine-doped zinc oxide thin films: Effect of acetic acid content in the starting solution on the physical properties. Materials Science in Semiconductor Processing, 2012, 15, 232-239.	1.9	14
28	Thermal spikes in Ag/Fe and Cu/Fe ion beam mixing. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 100, 297-303.	1.7	13
29	Relationship between the Ag depth profiles and nanoparticle formation in Ag-implanted silica. Journal of Physics Condensed Matter, 2001, 13, 10207-10219.	0.7	12
30	MeV Si ion irradiation effects on the optical absorption properties of metallic nanoparticles embedded in silica. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 3138-3142.	0.6	12
31	Silver films over silica microspheres (AgFOSM) as SERS substrates. Photonics and Nanostructures - Fundamentals and Applications, 2018, 28, 81-87.	1.0	12
32	Use of RBS and Raman spectroscopy to study oxygen mobility in YBaCuO thin films by 18O tracing experiments. Nuclear Instruments & Methods in Physics Research B, 1992, 64, 179-183.	0.6	11
33	Study of oxygen content and of disorder in YBaCuO thin films with enlarged c-axis lattice parameter. Journal of Alloys and Compounds, 1993, 195, 675-678.	2.8	11
34	Eâ€² and B2 center production in amorphous quartz by MeV Si and Au ion implantation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 78, 32-38.	1.7	11
35	Composition and morphological characteristics of chemically sprayed fluorine-doped zinc oxide thin films deposited on Si(100). Physica B: Condensed Matter, 2007, 390, 10-16.	1.3	11
36	Dependence of the optical properties on the ion implanted depth profiles in fused quartz after a sequential implantation with Si and Au ions. Nuclear Instruments & Methods in Physics Research B, 2000, 161-163, 1058-1063.	0.6	10

#	Article	IF	Citations
37	Silicon nanocrystals and defects produced by silicon and silicon-and-gold implantation in silica. Journal of Applied Physics, 2003, 93, 10110-10113.	1.1	10
38	Characterization of nanocluster formation in Cu-implanted silica: Influence of the annealing atmosphere and the ion fluence. Journal of Non-Crystalline Solids, 2006, 352, 349-354.	1.5	10
39	Enhancement and quenching of photoluminescence from silicon quantum dots by silver nanoparticles in a totally integrated configuration. AIP Advances, 2012, 2, .	0.6	10
40	Structured strengthening by two-wave optical ablation in silica with gold nanoparticles. Optics and Laser Technology, 2015, 75, 115-122.	2.2	10
41	Nanoscale influence on photoluminescence and third order nonlinear susceptibility exhibited by ion-implanted Pt nanoparticles in silica. Methods and Applications in Fluorescence, 2017, 5, 025001.	1.1	10
42	Influence of indium concentration and substrate temperature on the physical characteristics of chemically sprayed ZnO:In thin films deposited from zinc pentanedionate and indium sulfate. Journal of Physics Condensed Matter, 2006, 18, 5105-5120.	0.7	9
43	Study of CuOy layers on Si and MgO by a combination of ion beam analysis (RBS/NRA), X-ray photoemission spectroscopy (XPS) and X-ray absorption spectroscopy (XAS). Applied Surface Science, 1993, 64, 313-327.	3.1	8
44	Study of the optical properties of fused quartz after a sequential implantation with Si and Au ions. Applied Physics Letters, 1998, 73, 1574-1576.	1.5	8
45	Role of hydrogen on the deposition and properties of fluorinated silicon-nitride films prepared by inductively coupled plasma enhanced chemical vapor deposition using SiF4âˆ•N2âˆ•H2 mixtures. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 248-255.	0.9	8
46	Dependence of the MeV ion-induced deformation of colloidal silica particles on the irradiation angle. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 3162-3165.	0.6	8
47	Coupling effects and ultrafast third-order nonlinear optical behavior in ion-implanted silicon quantum dots and platinum nanoclusters. Optical Materials, 2019, 97, 109388.	1.7	8
48	Fabrication and Characterization of Surfaceenhanced Raman Scattering Substrates With Ordered Arrays of Gold Nanopyramids By Means of Nanosphere Lithography. Materials Express, 2019, 9, 141-149.	0.2	8
49	Study of the relation between composition and physical properties of YBaCuO thin films using RBS, NRA, XRD, XAS and Ï±(T). Applied Surface Science, 1993, 65-66, 179-186.	3.1	7
50	High energy ion irradiation induced surface roughening in Ag and Cu films. Applied Surface Science, 2003, 206, 178-186.	3.1	7
51	RBS characterization of MgB2superconducting films annealedex situandin situ. Superconductor Science and Technology, 2003, 16, 879-884.	1.8	7
52	Photothermally Activated Two-Photon Absorption in Ion-Implanted Silicon Quantum Dots in Silica Plates. Journal of Nanomaterials, 2018, 2018, 1-8.	1.5	7
53	Laser deposition of copper oxide thin films: contrast with sputtering. Applied Surface Science, 1992, 54, 201-204.	3.1	6
54	Ion beam analysis of HTc superconducting Tl-based films. Nuclear Instruments & Methods in Physics Research B, 1997, 122, 677-684.	0.6	6

#	Article	IF	Citations
55	Preparation and properties of precursor Baâ€“Caâ€“Cuâ€“(O, F) thin films deposited from fluorides for superconducting Tl- and Hg-based films. Thin Solid Films, 2000, 373, 129-133.	0.8	6
56	Deformation of colloidal silica particles using MeV Si ion irradiation. Journal of Non-Crystalline Solids, 2007, 353, 1925-1929.	1.5	6
57	Contribution of IBA techniques to the study of YBaCuO thin films with anomalous c-axis lattice parameter. Nuclear Instruments & Methods in Physics Research B, 1994, 85, 171-177.	0.6	5
58	Use of linear magnetrons for the fabrication of aluminum first-surface solar mirrors. Solar Energy Materials and Solar Cells, 1998, 52, 231-238.	3.0	5
59	Nonlinear optical spectroscopy of isotropic and anisotropic metallic nanocomposites. Journal of Physics: Conference Series, 2011, 274, 012074.	0.3	5
60	High temperature â€œin situâ€•growth bu cathodic sputtering of fully oxygenated YBaCuO thin films. Physica C: Superconductivity and Its Applications, 1994, 235-240, 649-650.	0.6	4
61	Combination of IBA techniques and Raman spectroscopy to study defects in 18O labelled YBaCuO thin films. Nuclear Instruments & Methods in Physics Research B, 1994, 85, 462-467.	0.6	4
62	Rutherford backscattering analysis of Bi-based superconducting films. Thin Solid Films, 2000, 373, 117-121.	0.8	4
63	Study of the fluorine content in precursor and Tl-based thin films by resonant nuclear reaction method. Physica C: Superconductivity and Its Applications, 2001, 354, 353-357.	0.6	4
64	Formation of nanometer-scale structures in SiO2thin films by means of MeV-ion irradiation. Radiation Effects and Defects in Solids, 2007, 162, 247-258.	0.4	4
65	Energy-Dependent Deformation of Colloidal Silica Nanoparticles under Room Temperature Irradiation with MeV Si Ions. Journal of Nano Research, 0, 5, 61-67.	0.8	4
66	Enhancement of the optical Kerr effect exhibited by an integrated configuration of silicon quantum dots and silver nanoparticles. Journal of Physics: Conference Series, 2011, 274, 012145.	0.3	4
67	Systematic preparation of highâ€quality colloidal silica particles by solâ€“gel synthesis using reagents at low temperature. International Journal of Applied Glass Science, 2022, 13, 54-62.	1.0	4
68	Selective 18O labelling in a-axis oriented YBaCuO thin films. Journal of Alloys and Compounds, 1993, 195, 137-140.	2.8	3
69	RBS-channeling studies on damage production by MeV ion implantation in Si(111) wafers. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 84, 205-210.	1.7	3
70	Ion beam studies of Tl-based superconducting films prepared from fluorides. Superconductor Science and Technology, 2001, 14, 90-95.	1.8	3
71	Metal and metal oxide nanoparticles produced by ion implantation in silica: A microstructural study using HRTEM. Nuclear Instruments & Methods in Physics Research B, 2007, 257, 99-103.	0.6	3
72	Dynamic annealing study of SiC epilayers implanted with Ni ions at different temperatures. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 1097-1100.	0.6	3

#	Article	IF	Citations
73	Tunable nanometer electrode gaps by MeV ion irradiation. Applied Physics Letters, 2012, 100, 153108.	1.5	3
74	Third-order nonlinear optical response of ion-implanted embedded arrays of plasmonic gold nanoparticles. Optical Materials, 2021, 111, 110616.	1.7	3
75	Quantification of indium in steel using PIXE. Nuclear Instruments & Methods in Physics Research B, 1989, 40-41, 627-629.	0.6	2
76	RBS-Channeling and EPR Studies of Damage in 2 MeV Al²⁺-Implanted 6H-SiC Substrates. Materials Science Forum, 2005, 483-485, 291-294.	0.3	2
77	Fluorine content of SiOF films as determined by IR spectroscopy and resonant nuclear reaction analysis. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 448-454.	0.9	2
78	Ion-Beam Modification of Colloidal Silica Particle Masks to Tailor the Size of Ordered Arrays of Ag Nanostructures Produced by Nanosphere Lithography. Materials Research Society Symposia Proceedings, 2014, 1712, 51.	0.1	2
79	Tl-Based Superconducting Films Prepared by Spray Pyrolysis and Vacuum Evaporation. Journal of Superconductivity and Novel Magnetism, 1998, 11, 63-64.	0.5	1
80	Correlation between the Tl concentration depth profiles and the thallination time in Tlî—¸Baî—¸Caî—¸Cuî—¸O superconducting films. Nuclear Instruments & Methods in Physics Research B, 1998, 136-138, 1300-1305.	0.6	1
81	GISAXS Size Distribution Characterization of Cu Nanoparticles Embedded in silica. , 2009, , .		1
82	Synthesis and characterization of colloidal titania nanoparticles. Materials Research Society Symposia Proceedings, 2008, 1074, 1.	0.1	0
83	Shape deformation of colloidal titania nanoparticles by means of ion irradiation. Materials Research Society Symposia Proceedings, 2008, 1087, 32601.	0.1	0
84	Femto-, pico- and nano-second refractive nonlinearities exhibited by Au nanoparticles. Proceedings of SPIE, 2011, , .	0.8	0
85	Ultrafast third-order nonlinear ultraviolet response exhibited by ion-implanted silicon nanoparticles in silica. , 2017, , .		0
86	Third-Order Nonlinear Ultraviolet Response of Ion-implanted Platinum Nanoparticles in Silica. , 2016, , .		0
87	Ultraviolet Self-Diffraction Effects Exhibited by Ion-Implanted Au Nanoparticles in Silica. , 2017, , .		0
88	Optical characterization of nanostructured Î²â€‰â˜†â€‰FeSi₂ layers obtained by Fe⁺ implantation. Journal Physics D: Applied Physics, 2021, 54, 025105.	1.3	0