

# Alejandro Crespo-Sosa

## List of Publications by Year in descending order

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46  
papers

877  
citations

471061  
17  
h-index

476904  
29  
g-index

46  
all docs

46  
docs citations

46  
times ranked

774  
citing authors

#	ARTICLE	IF	CITATIONS
1	Controlled anisotropic deformation of Ag nanoparticles by Si ion irradiation. <i>Physical Review B</i> , 2006, 74, .	1.1	118
2	Irradiation effects in Ag-Fe bilayers: Ion-beam mixing, recrystallization, and surface roughening. <i>Physical Review B</i> , 1996, 53, 14795-14805.	1.1	69
3	Linear optical response of metallic nanoshells in different dielectric media. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2008, 25, 1371.	0.9	64
4	Large optical birefringence by anisotropic silver nanocomposites. <i>Optics Express</i> , 2008, 16, 710.	1.7	44
5	Anisotropic linear and nonlinear optical properties from anisotropy-controlled metallic nanocomposites. <i>Optics Express</i> , 2009, 17, 12849.	1.7	42
6	Optical properties of Ir <sup>2+</sup> -implanted silica glass. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2001, 175-177, 490-494.	0.6	36
7	Optical third-order nonlinearity by nanosecond and picosecond pulses in Cu nanoparticles in ion-implanted silica. <i>Journal of Applied Physics</i> , 2008, 104, .	1.1	32
8	Anisotropy in the nonlinear absorption of elongated silver nanoparticles in silica, probed by femtosecond pulses. <i>Optics Communications</i> , 2009, 282, 1909-1912.	1.0	30
9	Determination of the size distribution of metallic nanoparticles by optical extinction spectroscopy. <i>Applied Optics</i> , 2009, 48, 566.	2.1	29
10	Metallic nanoparticle formation in ion-implanted silica after thermal annealing in reducing or oxidizing atmospheres. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2002, 191, 333-336.	0.6	28
11	Nonlinear optical response of platinum nanoparticles and platinum ions embedded in sapphire. <i>Optics Express</i> , 2016, 24, 9955.	1.7	28
12	Elongated Gold Nanoparticles Obtained by Ion Implantation in Silica: Characterization and T-Matrix Simulations. <i>Journal of Physical Chemistry C</i> , 2010, 114, 746-751.	1.5	27
13	Thermo-optic effect and optical third order nonlinearity in nc-Si embedded in a silicon-nitride film. <i>Optics Express</i> , 2008, 16, 18390.	1.7	24
14	Ablation and optical third-order nonlinearities in Ag nanoparticles. <i>International Journal of Nanomedicine</i> , 2010, 5, 925.	3.3	24
15	Optical absorption and emission studies of 2 MeV Cu-implanted silica glass. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2001, 175-177, 495-499.	0.6	22
16	High stability of the crystalline configuration of Au nanoparticles embedded in silica under ion and electron irradiation. <i>Journal of Nanoparticle Research</i> , 2010, 12, 1787-1795.	0.8	22
17	On the physical contributions to the third-order nonlinear optical response in plasmonic nanocomposites. <i>Journal of Optics (United Kingdom)</i> , 2012, 14, 125203.	1.0	22
18	Absorptive and refractive nonlinearities by four-wave mixing for Au nanoparticles in ion-implanted silica. <i>Optics Express</i> , 2007, 15, 9248.	1.7	17

#	ARTICLE	IF	CITATIONS
19	Tuning the aspect ratio of silver nanospheroids embedded in silica. <i>Optics Letters</i> , 2010, 35, 703.	1.7	17
20	Size characterisation of noble-metal nano-crystals formed in sapphire by ion irradiation and subsequent thermal annealing. <i>Applied Surface Science</i> , 2012, 259, 574-581.	3.1	17
21	Large and anisotropic third-order nonlinear optical response from anisotropy-controlled metallic nanocomposites. <i>Optics Communications</i> , 2009, 282, 4157-4161.	1.0	15
22	Thermal spikes in Ag/Fe and Cu/Fe ion beam mixing. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003, 100, 297-303.	1.7	13
23	Excimer laser absorption by metallic nano-particles embedded in silica. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 1890-1895.	1.3	13
24	Relationship between the Ag depth profiles and nanoparticle formation in Ag-implanted silica. <i>Journal of Physics Condensed Matter</i> , 2001, 13, 10207-10219.	0.7	12
25	MeV Si ion irradiation effects on the optical absorption properties of metallic nanoparticles embedded in silica. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2008, 266, 3138-3142.	0.6	12
26	E $\alpha$ and B $^2$ center production in amorphous quartz by MeV Si and Au ion implantation. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2000, 78, 32-38.	1.7	11
27	Dependence of the optical properties on the ion implanted depth profiles in fused quartz after a sequential implantation with Si and Au ions. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2000, 161-163, 1058-1063.	0.6	10
28	Silicon nanocrystals and defects produced by silicon and silicon-and-gold implantation in silica. <i>Journal of Applied Physics</i> , 2003, 93, 10110-10113.	1.1	10
29	Characterization of nanocluster formation in Cu-implanted silica: Influence of the annealing atmosphere and the ion fluence. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 349-354.	1.5	10
30	Enhancement and quenching of photoluminescence from silicon quantum dots by silver nanoparticles in a totally integrated configuration. <i>AIP Advances</i> , 2012, 2, .	0.6	10
31	Structured strengthening by two-wave optical ablation in silica with gold nanoparticles. <i>Optics and Laser Technology</i> , 2015, 75, 115-122.	2.2	10
32	Study of the optical properties of fused quartz after a sequential implantation with Si and Au ions. <i>Applied Physics Letters</i> , 1998, 73, 1574-1576.	1.5	8
33	High energy ion irradiation induced surface roughening in Ag and Cu films. <i>Applied Surface Science</i> , 2003, 206, 178-186.	3.1	7
34	Nonlinear optical spectroscopy of isotropic and anisotropic metallic nanocomposites. <i>Journal of Physics: Conference Series</i> , 2011, 274, 012074.	0.3	5
35	Enhancement of the optical Kerr effect exhibited by an integrated configuration of silicon quantum dots and silver nanoparticles. <i>Journal of Physics: Conference Series</i> , 2011, 274, 012145.	0.3	4
36	RBS-channeling studies on damage production by MeV ion implantation in Si(111) wafers. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2001, 84, 205-210.	1.7	3

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37	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
38	Spectral Nonlinear Optical Response of Ion-Implanted $\text{Au}$ and $\text{Ag}$ Nanoparticles in Sapphire: A Three-Level Model Description. Physical Review Applied, 2020, 14, .	1.5	2
39	Structural and optical properties correlated with the morphology of gold nanoparticles embedded in synthetic sapphire: A microscopy study. Journal of Microscopy and Ultrastructure, 2018, 6, 72.	0.1	2
40	X-ray diffraction evidence of the single solid solution character of the mixed $[\text{Tm}^{3+}]_x\text{Al}_{50}(\text{PO}_4)_2$ crystalline phosphor. Optical Materials, 2001, 18, 225-230.	1.7	1
41	Correlations between microstructure of plasma-modified gold nanoclusters and their optical properties. Superlattices and Microstructures, 2008, 43, 454-459.	1.4	1
42	GISAXS Size Distribution Characterization of Cu Nanoparticles Embedded in silica. , 2009, , .		1
43	Linear and nonlinear optical properties of metallic nanocrystals in sapphire. Proceedings of SPIE, 2011, , .	0.8	1
44	Plasma-Induced Size Reduction in Gold Nanoclusters Embedded in a Dielectric Matrix. Science of Advanced Materials, 2009, 1, 249-253.	0.1	1
45	Femto-, pico- and nano-second refractive nonlinearities exhibited by Au nanoparticles. Proceedings of SPIE, 2011, , .	0.8	0
46	Microscopy study, structural and optical properties correlated with the morphology of metallic nanoparticles embedded in synthetic sapphire. Journal of Microscopy and Ultrastructure, 2017, , .	0.1	0