

# Jose A. Sanchez-Gil

## List of Publications by Year in descending order

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119  
papers

4,694  
citations

94269

37  
h-index

110170

64  
g-index

121  
all docs

121  
docs citations

121  
times ranked

4435  
citing authors

#	ARTICLE	IF	CITATIONS
1	Strong Enhancement of the Radiative Decay Rate of Emitters by Single Plasmonic Nanoantennas. Nano Letters, 2007, 7, 2871-2875.	4.5	481
2	Light scattering from random rough dielectric surfaces. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1991, 8, 1270.	0.8	169
3	Optical scattering resonances of single and coupled dimer plasmonic nanoantennas. Optics Express, 2007, 15, 17736.	1.7	146
4	Propagation of Surface Plasmon Polaritons on Semiconductor Gratings. Physical Review Letters, 2004, 93, 256804.	2.9	141
5	Gold nanostars as thermoplasmonic nanoparticles for optical heating. Optics Express, 2012, 20, 621.	1.7	141
6	Spectral and temporal evidence of robust photonic bound states in the continuum on terahertz metasurfaces. Optica, 2019, 6, 996.	4.8	133
7	Nanowire Antenna Emission. Nano Letters, 2012, 12, 5481-5486.	4.5	122
8	Scattering efficiency and near field enhancement of active semiconductor plasmonic antennas at terahertz frequencies. Optics Express, 2010, 18, 2797.	1.7	116
9	Room-Temperature Lasing in Colloidal Nanoplatelets via Mie-Resonant Bound States in the Continuum. Nano Letters, 2020, 20, 6005-6011.	4.5	115
10	Low-frequency active surface plasmon optics on semiconductors. Applied Physics Letters, 2006, 88, 082106.	1.5	112
11	Metallo-dielectric core-shell nanospheres as building blocks for optical three-dimensional isotropic negative-index metamaterials. New Journal of Physics, 2011, 13, 123017.	1.2	98
12	Coexistence of Ballistic Transport, Diffusion, and Localization in Surface Disordered Waveguides. Physical Review Letters, 1998, 80, 948-951.	2.9	95
13	Unraveling the Janus Role of Mie Resonances and Leaky/Guided Modes in Semiconductor Nanowire Absorption for Enhanced Light Harvesting. ACS Photonics, 2015, 2, 921-929.	3.2	90
14	Near-field and far-field scattering of surface plasmon polaritons by one-dimensional surface defects. Physical Review B, 1999, 60, 8359-8367.	1.1	88
15	Enhanced and directional emission of semiconductor nanowires tailored through leaky/guided modes. Nanoscale, 2013, 5, 10582.	2.8	76
16	Surface defect scattering of surface plasmon polaritons: Mirrors and light emitters. Applied Physics Letters, 1998, 73, 3509-3511.	1.5	74
17	Directional and Polarized Emission from Nanowire Arrays. Nano Letters, 2015, 15, 4557-4563.	4.5	74
18	High-Q Transparency Band in All-Dielectric Metasurfaces Induced by a Quasi Bound State in the Continuum. Laser and Photonics Reviews, 2021, 15, 2000263.	4.4	72

#	ARTICLE	IF	CITATIONS
19	Thermal switching of the scattering coefficients of terahertz surface plasmon polaritons impinging on a finite array of subwavelength grooves on semiconductor surfaces. <i>Physical Review B</i> , 2006, 73, .	1.1	70
20	Calculations of the direct electromagnetic enhancement in surface enhanced Raman scattering on random self-affine fractal metal surfaces. <i>Journal of Chemical Physics</i> , 1998, 108, 317-325.	1.2	65
21	Calculations of light scattering from isolated and interacting metallic nanowires of arbitrary cross section by means of Green's theorem surface integral equations in parametric form. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2007, 24, 2822.	0.8	65
22	Mode Parity-Controlled Fano- and Lorentz-like Line Shapes Arising in Plasmonic Nanorods. <i>Nano Letters</i> , 2014, 14, 2322-2329.	4.5	65
23	Surface Plasmon Polaritons on Rough Metal Surfaces: Role in the Formation of Laser-Induced Periodic Surface Structures. <i>ACS Omega</i> , 2019, 4, 6939-6946.	1.6	65
24	Light scattering from a random rough interface with total internal reflection. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1992, 9, 424.	0.8	61
25	Excitation and emission enhancement of single molecule fluorescence through multiple surface-plasmon resonances on metal trimer nanoantennas. <i>Optics Letters</i> , 2008, 33, 899.	1.7	59
26	Fano-like interference of plasmon resonances at a single rod-shaped nanoantenna. <i>New Journal of Physics</i> , 2012, 14, 023035.	1.2	55
27	High-Performance Nanosensors Based on Plasmonic Fano-like Interference: Probing Refractive Index with Individual Nanorice and Nanobelts. <i>ACS Nano</i> , 2012, 6, 8989-8996.	7.3	55
28	Surface Plasmon Resonances of Metallic Nanostars/Nanoflowers for Surface-Enhanced Raman Scattering. <i>Plasmonics</i> , 2010, 5, 99-104.	1.8	53
29	Reflection and transmission of waves in surface-disordered waveguides. <i>Physical Review B</i> , 1999, 59, 5915-5925.	1.1	51
30	Ultra low-loss, isotropic optical negative-index metamaterial based on hybrid metal-semiconductor nanowires. <i>Scientific Reports</i> , 2013, 3, 1507.	1.6	51
31	Intensity angular correlations of light multiply scattered from random rough surfaces. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1993, 10, 150.	0.8	47
32	Scattering of electromagnetic waves from a bounded medium with a random surface. <i>Physical Review B</i> , 1994, 50, 15353-15368.	1.1	47
33	Surface-plasmon polariton scattering from a finite array of nanogrooves-ridges: Efficient mirrors. <i>Applied Physics Letters</i> , 2005, 86, 251106.	1.5	46
34	Optically switchable mirrors for surface plasmon polaritons propagating on semiconductor surfaces. <i>Physical Review B</i> , 2006, 74, .	1.1	46
35	Electrodynamic calculations of spontaneous emission coupled to metal nanostructures of arbitrary shape: nanoantenna-enhanced fluorescence. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2009, 26, 1569.	0.9	42
36	Nanowire Antenna Absorption Probed with Time-Reversed Fourier Microscopy. <i>Nano Letters</i> , 2014, 14, 3227-3234.	4.5	42

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37	Bound States in the Continuum in the Visible Emerging from out-of-Plane Magnetic Dipoles. ACS Photonics, 2020, 7, 2204-2210.	3.2	40
38	Light transmission from a randomly rough dielectric diffuser: theoretical and experimental results. Optics Letters, 1990, 15, 1261.	1.7	39
39	Scattering of light from an amplifying medium bounded by a randomly rough surface. Physical Review B, 1999, 60, 12692-12704.	1.1	37
40	Kerker Conditions upon Lossless, Absorption, and Optical Gain Regimes. Physical Review Letters, 2020, 125, 073205.	2.9	37
41	Limits of validity of three perturbation theories of the specular scattering of light from one-dimensional, randomly rough, dielectric surfaces. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1995, 12, 1547.	0.8	36
42	High-Contrast Fano Resonances in Single Semiconductor Nanorods. ACS Photonics, 2017, 4, 1814-1821.	3.2	36
43	Resonance effects in multiple light scattering from statistically rough metallic surfaces. Physical Review B, 1992, 45, 8623-8633.	1.1	35
44	Coupling, resonance transmission, and tunneling of surface-plasmon polaritons through metallic gratings of finite length. Physical Review B, 1996, 53, 10317-10327.	1.1	35
45	Near-field electromagnetic wave scattering from random self-affine fractal metal surfaces: Spectral dependence of local field enhancements and their statistics in connection with surface-enhanced Raman scattering. Physical Review B, 2000, 62, 10515-10525.	1.1	35
46	Local and average electromagnetic enhancement in surface-enhanced Raman scattering from self-affine fractal metal substrates with nanoscale irregularities. Chemical Physics Letters, 2003, 367, 361-366.	1.2	35
47	Generalized Brewster effect in high-refractive-index nanorod-based metasurfaces. Optics Express, 2018, 26, 31523.	1.7	35
48	Spin Angular Momentum of Guided Light Induced by Transverse Confinement and Intrinsic Helicity. ACS Photonics, 2020, 7, 534-545.	3.2	32
49	Tuning the period of femtosecond laser induced surface structures in steel: From angled incidence to quill writing. Applied Surface Science, 2019, 493, 948-955.	3.1	31
50	Coupled electric and magnetic dipole formulation for planar arrays of particles: Resonances and bound states in the continuum for all-dielectric metasurfaces. Physical Review B, 2020, 102, .	1.1	31
51	Dynamic near-field calculations of surface-plasmon polariton pulses resonantly scattered at sub-micron metal defects. Optics Express, 2004, 12, 883.	1.7	29
52	Gold nanorods for optimized photothermal therapy: the influence of irradiating in the first and second biological windows. RSC Advances, 2014, 4, 54122-54129.	1.7	29
53	Localized surface-plasmon resonances on single and coupled nanoparticles through surface integral equations for flexible surfaces. Optics Express, 2011, 19, 12208.	1.7	28
54	Transmission of electromagnetic waves through thin metal films with randomly rough surfaces. Physical Review B, 1995, 51, 17100-17115.	1.1	27

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55	Satellite peaks in the scattering of p-polarized light from a randomly rough film on a perfectly conducting substrate. <i>Journal of Modern Optics</i> , 1996, 43, 435-452.	0.6	27
56	Unveiling the Symmetry Protection of Bound States in the Continuum with Terahertz Near-Field Imaging. <i>ACS Photonics</i> , 2021, 8, 3010-3016.	3.2	26
57	Analysis of the propagation of terahertz surface plasmon polaritons on semiconductor groove gratings. <i>Journal of Applied Physics</i> , 2007, 101, 023707.	1.1	25
58	Heuristic optimization for the design of plasmonic nanowires with specific resonant and scattering properties. <i>Optics Express</i> , 2012, 20, 13146.	1.7	25
59	Advances and Prospects in Topological Nanoparticle Photonics. <i>ACS Photonics</i> , 2022, 9, 1483-1499.	3.2	25
60	Electromagnetic mechanism in surface-enhanced Raman scattering from Gaussian-correlated randomly rough metal substrates. <i>Optics Express</i> , 2002, 10, 879.	1.7	24
61	Low-cost and large-size nanoplasmonic sensor based on Fano resonances with fast response and high sensitivity. <i>Optics Express</i> , 2017, 25, 15967.	1.7	24
62	Tailoring Accidental Double Bound States in the Continuum in All-Dielectric Metasurfaces. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	24
63	Optimal backward light scattering by dipolar particles. <i>Physical Review Research</i> , 2020, 2, .	1.3	23
64	Localized surface-plasmon polaritons in disordered nanostructured metal surfaces: Shape versus Anderson-localized resonances. <i>Physical Review B</i> , 2003, 68, .	1.1	22
65	Brewster quasi bound states in the continuum in all-dielectric metasurfaces from single magnetic-dipole resonance meta-atoms. <i>Scientific Reports</i> , 2019, 9, 16048.	1.6	22
66	Enhanced long-range correlations of coherent waves reflected from disordered media. <i>Physical Review B</i> , 1992, 46, 3112-3115.	1.1	21
67	1,3-Aliphatic Diamines as Molecular Linkers for Engineering Ag Nanoparticle Clusters: Tuning of the Interparticle Distance and Sensing Application. <i>Plasmonics</i> , 2010, 5, 273-286.	1.8	21
68	Active angular tuning and switching of Brewster quasi bound states in the continuum in magneto-optic metasurfaces. <i>Nanophotonics</i> , 2021, 10, 4223-4232.	2.9	20
69	Strong surface field enhancements in the scattering of p-polarized light from fractal metal surfaces. <i>Optics Communications</i> , 1997, 134, 11-15.	1.0	19
70	Scattering of light from a rough dielectric film on a reflecting substrate: diffuse fringes. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1998, 15, 185.	0.8	18
71	Local and average fields inside surface-disordered waveguides: Resonances in the one-dimensional Anderson localization regime. <i>Physical Review B</i> , 2003, 68, .	1.1	18
72	Directional Emission from Leaky and Guided Modes in GaAs Nanowires Measured by Cathodoluminescence. <i>ACS Photonics</i> , 2016, 3, 677-684.	3.2	18

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73	Resonant scattering of surface-plasmon polariton pulses by nanoscale metal defects. Optics Letters, 2003, 28, 2255.	1.7	17
74	Invited Article: Experimental evaluation of gold nanoparticles as infrared scatterers for advanced cardiovascular optical imaging. APL Photonics, 2018, 3, .	3.0	17
75	Narrow Fano resonances in Si nanocylinder metasurfaces: Refractive index sensing. Journal of Applied Physics, 2019, 125, .	1.1	17
76	Near-Field Excitation of Bound States in the Continuum in All-Dielectric Metasurfaces through a Coupled Electric/Magnetic Dipole Model. Nanomaterials, 2021, 11, 998.	1.9	17
77	Metal nanostars: Stochastic optimization of resonant scattering properties. Superlattices and Microstructures, 2011, 49, 288-293.	1.4	16
78	Influence of nanoscale cutoff in random self-affine fractal silver surfaces on the excitation of localized optical modes. Optics Letters, 2001, 26, 1286.	1.7	15
79	Dielectric nanoresonators and metamaterials. Journal of Applied Physics, 2019, 126, 150401.	1.1	15
80	Self-imaging and caustics in two-dimensional surface plasmon optics. Optics Communications, 2008, 281, 2316-2320.	1.0	14
81	Competition between Anderson localization and leakage of surface-plasmon polaritons on randomly rough periodic metal surfaces. Physical Review B, 1997, 56, 1103-1106.	1.1	13
82	Unveiling dipolar spectral regimes of large dielectric Mie spheres from helicity conservation. Physical Review Research, 2020, 2, .	1.3	13
83	Second-order statistics of non-Gaussian fluctuations of coherent waves reflected from disordered media. Physical Review B, 1993, 48, 4132-4135.	1.1	12
84	Plasmonics and single-molecule detection in evaporated silver-island films. Annalen Der Physik, 2012, 524, 697-704.	0.9	12
85	On the transmission of diffuse light through thick slits. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2009, 26, 909.	0.8	10
86	Role of the absorption on the spin-orbit interactions of light with Si nano-particles. Journal of Applied Physics, 2019, 126, 033104.	1.1	10
87	Deep UV laser induced periodic surface structures on silicon formed by self-organization of nanoparticles. Applied Surface Science, 2020, 520, 146307.	3.1	10
88	Title is missing!. Waves in Random and Complex Media, 1997, 7, 285-293.	1.5	10
89	Local and anisotropic excitation of surface plasmon polaritons by semiconductor nanowires. Optics Express, 2008, 16, 5013.	1.7	9
90	Multiple light scattering from metal and dielectric rough surfaces. Waves in Random and Complex Media, 1991, 1, S157-S163.	1.5	8

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91	Photonic band structure and effective medium properties of doubly-resonant core-shell metallo-dielectric nanowire arrays: low-loss, isotropic optical negative-index behavior. Journal of Optics (United Kingdom), 2015, 17, 125104.	1.0	8
92	Strong diameter-dependence of nanowire emission coupled to waveguide modes. Applied Physics Letters, 2016, 108, .	1.5	8
93	Strong coupling between weakly guided semiconductor nanowire modes and an organic dye. Physical Review B, 2019, 99, .	1.1	8
94	Polarized laser light scattering applied to surface morphology characterization of epitaxial III-V semiconductor layers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 1980.	1.6	7
95	Light scattering from self-affine fractal silver surfaces with nanoscale cutoff: far-field and near-field calculations. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2002, 19, 902.	0.8	7
96	Collective electromagnetic emission from molecular layers on metal nanostructures mediated by surface plasmons. Physical Review B, 2007, 75, .	1.1	7
97	Broadband telecom transparency of semiconductor-coated metal nanowires: more transparent than glass. Optics Express, 2013, 21, 22076.	1.7	7
98	Localized magnetic plasmons in all-dielectric $\text{Si}_3\text{N}_4$ nanowires. Physical Review B, 2015, 91, .	1.1	7
99	Linear ultrafast dynamics of plasmon and magnetic resonances in nanoparticles. Physical Review B, 2017, 96, .	1.1	7
100	Electromagnetic model and calculations of the surface-enhanced Raman-shifted emission from Langmuir-Blodgett films on metal nanostructures. Journal of Chemical Physics, 2007, 127, 044702.	1.2	6
101	Degenerate optical memory effect in dielectric films with randomly rough surfaces. Physical Review B, 1997, 55, 15928-15936.	1.1	5
102	Distributed feedback gratings for surface-plasmon polaritons based on metal nano-groove/ridge arrays. Optics Letters, 2007, 32, 2330.	1.7	5
103	Speckle statistics of electromagnetic waves scattered from perfectly conducting random rough surfaces. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1993, 10, 2628.	0.8	4
104	Surface characterization of III-V heteroepitaxial systems by laser light scattering. Journal of Crystal Growth, 1999, 201-202, 137-140.	0.7	4
105	In situ laser light scattering studies on the influence of kinetics on surface morphology during growth of $\text{In}_{0.2}\text{Ga}_{0.8}\text{As}/\text{GaAs}$ . Journal of Applied Physics, 2001, 89, 2665-2670.	1.1	4
106	A numerical method for the determination of the dispersion relation of surface plasmon polaritons on large-slope randomly rough metal surfaces. Waves in Random and Complex Media, 1994, 4, 499-510.	1.5	4
107	Tailoring Polarization Conversion in Achiral All-Dielectric Metasurfaces by Using Quasi-Bound States in the Continuum. Nanomaterials, 2022, 12, 2252.	1.9	4
108	Spatial filtering dark hollow beams. Optics Communications, 2008, 281, 3237-3240.	1.0	3

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109	Enhanced backscattering of electromagnetic waves from randomly rough gratings on negative magnetic metamaterials. <i>Metamaterials</i> , 2010, 4, 201-206.	2.2	3
110	Plasmon spectroscopy: Theoretical and numerical calculations, and optimization techniques. <i>Nanospectroscopy</i> , 2016, 1, .	0.7	3
111	Tuning Spontaneous Emission through Waveguide Cavity Effects in Semiconductor Nanowires. <i>Nano Letters</i> , 2019, 19, 7287-7292.	4.5	3
112	Modulated flipping torque, spin-induced radiation pressure, and chiral sorting exerted by guided light. <i>Optics Express</i> , 2021, 29, 16969.	1.7	3
113	Anderson localization of surface electromagnetic waves on rough, perfectly conducting surfaces that are periodic on average. <i>Optics Communications</i> , 1995, 118, 14-20.	1.0	1
114	Semiconductor nanowire photoluminescence: spatial/polarization averaged coupling into leaky modes. , 2013, , .		1
115	Scattering of light from randomly rough metal and dielectric surfaces. , 1990, , .		0
116	<title>Near field scattered from fractal metal surfaces: classical electromagnetic mechanism in SERS</title>. , 1999, , .		0
117	Scattering of Electromagnetic Waves from Nanostructured, Self-Affine Fractal Surfaces: Near-Field Enhancements. <i>Nanostructure Science and Technology</i> , 2007, , 285-304.	0.1	0
118	Impedance-Matched, Double-Zero Optical Metamaterials Based on Weakly Resonant Metal Oxide Nanowires. <i>Photonics</i> , 2018, 5, 7.	0.9	0
119	THz Resonances with Infinite Lifetime in Array of Gold Resonators. , 2019, , .		0