

Michel Meunier

List of Publications by Year in descending order

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133
papers

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61945

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docs citations

133
times ranked

7806
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface Chemistry of Gold Nanoparticles Produced by Laser Ablation in Aqueous Media. Journal of Physical Chemistry B, 2004, 108, 16864-16869.	1.2	564
2	Synthesis of colloidal nanoparticles during femtosecond laser ablation of gold in water. Journal of Applied Physics, 2003, 94, 7941.	1.1	464
3	Stabilization and Size Control of Gold Nanoparticles during Laser Ablation in Aqueous Cyclodextrins. Journal of the American Chemical Society, 2004, 126, 7176-7177.	6.6	335
4	Thermodynamic pathways to melting, ablation, and solidification in absorbing solids under pulsed laser irradiation. Physical Review B, 2006, 73, .	1.1	287
5	Optical Properties and Applications of Plasmonicâ€Metal Nanoparticles. Advanced Functional Materials, 2020, 30, 2005400.	7.8	265
6	Short-Pulse Laser Ablation of Solids: From Phase Explosion to Fragmentation. Physical Review Letters, 2003, 91, 225502.	2.9	260
7	Fabrication and Characterization of Gold Nanoparticles by Femtosecond Laser Ablation in an Aqueous Solution of Cyclodextrins. Journal of Physical Chemistry B, 2003, 107, 4527-4531.	1.2	232
8	An Analytic Model for the Dielectric Function of Au, Ag, and their Alloys. Advanced Optical Materials, 2014, 2, 176-182.	3.6	218
9	Surface plasmon resonance detection of E. coli and methicillin-resistant S. aureus using bacteriophages. Biosensors and Bioelectronics, 2012, 37, 24-29.	5.3	186
10	Femtosecond laser ablation of gold in water: influence of the laser-produced plasma on the nanoparticle size distribution. Applied Physics A: Materials Science and Processing, 2005, 80, 753-758.	1.1	179
11	Plasma Mediated off-Resonance Plasmonic Enhanced Ultrafast Laser-Induced Nanocavitation. Nano Letters, 2012, 12, 4763-4769.	4.5	156
12	Plasmonics for pulsed-laser cell nanosurgery: Fundamentals and applications. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2013, 17, 26-49.	5.6	135
13	Off-resonance plasmonic enhanced femtosecond laser optoporation and transfection of cancer cells. Biomaterials, 2012, 33, 2345-2350.	5.7	123
14	Fragmentation of colloidal nanoparticles by femtosecond laser-induced supercontinuum generation. Applied Physics Letters, 2006, 89, 233122.	1.5	107
15	Ultrafast laser based "green" synthesis of non-toxic nanoparticles in aqueous solutions. Applied Physics A: Materials Science and Processing, 2008, 93, 955-959.	1.1	106
16	Synthesis of Size-Tunable Polymer-Protected Gold Nanoparticles by Femtosecond Laser-Based Ablation and Seed Growth. Journal of Physical Chemistry C, 2009, 113, 9526-9531.	1.5	99
17	Two-step femtosecond laser ablation-based method for the synthesis of stable and ultra-pure gold nanoparticles in water. Applied Physics A: Materials Science and Processing, 2007, 88, 269-272.	1.1	88
18	Femtosecond Laser Synthesis of AuAg Nanoalloys: Photoinduced Oxidation and Ions Release. Journal of Physical Chemistry C, 2010, 114, 10403-10409.	1.5	85

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19	Operating Conditions of a Single-Chamber SOFC. Journal of the Electrochemical Society, 2004, 151, A2088.	1.3	80
20	From Thermo- to Plasma-Mediated Ultrafast Laser-Induced Plasmonic Nanobubbles. ACS Photonics, 2014, 1, 331-336.	3.2	78
21	Seeded Growth Synthesis of Composition and Size-Controlled Gold-Silver Alloy Nanoparticles. Journal of Physical Chemistry C, 2015, 119, 13160-13168.	1.5	77
22	Correlation between photoluminescence properties and morphology of laser-ablated Si/SiO _x nanostructured films. Journal of Applied Physics, 2002, 91, 3248-3254.	1.1	72
23	Intensity based surface plasmon resonance sensor using a nanohole rectangular array. Optics Express, 2011, 19, 15041.	1.7	70
24	Hydrogenated amorphous silicon produced by laser induced chemical vapor deposition of silane. Applied Physics Letters, 1983, 43, 273-275.	1.5	68
25	Performance and ageing of an anode-supported SOFC operated in single-chamber conditions. Journal of Power Sources, 2006, 153, 108-113.	4.0	68
26	An improved refractive index sensor based on genetic optimization of plasmon waveguide resonance. Optics Express, 2013, 21, 20863.	1.7	67
27	Influence of ambient medium on femtosecond laser processing of silicon. Applied Surface Science, 2005, 247, 163-168.	3.1	64
28	Nanonization of megestrol acetate by laser fragmentation in aqueous milieu. Journal of Controlled Release, 2011, 149, 273-280.	4.8	64
29	Stability of sputter-deposited gold nanoparticles in imidazolium ionic liquids. Physical Chemistry Chemical Physics, 2012, 14, 5662.	1.3	62
30	Plasma-Mediated Nanocavitation and Photothermal Effects in Ultrafast Laser Irradiation of Gold Nanorods in Water. Journal of Physical Chemistry C, 2013, 117, 9386-9396.	1.5	59
31	Bacteriophages: biosensing tools for multi-drug resistant pathogens. Analyst, The, 2014, 139, 1224.	1.7	59
32	Near-infrared surface plasmon resonance sensing on a silicon platform. Sensors and Actuators B: Chemical, 2004, 97, 409-414.	4.0	58
33	The effects of hydrogen bonds on the adhesion of inorganic oxide particles on hydrophilic silicon surfaces. Journal of Applied Physics, 1999, 86, 1744-1748.	1.1	56
34	Gold nanoparticle-assisted all optical localized stimulation and monitoring of Ca ²⁺ signaling in neurons. Scientific Reports, 2016, 6, 20619.	1.6	55
35	Visible photoluminescence from nanostructured Si-based layers produced by air optical breakdown on silicon. Applied Physics Letters, 2003, 82, 1619-1621.	1.5	53
36	Photothermal response of hollow gold nanoshell to laser irradiation: Continuous wave, short and ultrashort pulse. International Journal of Heat and Mass Transfer, 2015, 89, 866-871.	2.5	53

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37	Analysis of Photoacoustic Response from Gold-Silver Alloy Nanoparticles Irradiated by Short Pulsed Laser in Water. <i>Journal of Physical Chemistry C</i> , 2015, 119, 24075-24080.	1.5	53
38	Laser-induced treatment of silicon in air and formation of Si/SiO _x photoluminescent nanostructured layers. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003, 101, 60-64.	1.7	52
39	Catalytic activity and performance of LSM cathode materials in single chamber SOFC. <i>Applied Catalysis A: General</i> , 2007, 323, 181-187.	2.2	52
40	A mediatorless biosensor for putrescine using multiwalled carbon nanotubes. <i>Analytical Biochemistry</i> , 2005, 336, 305-311.	1.1	49
41	Evaluation of the Actual Working Temperature of A Single-Chamber SOFC. <i>Electrochemical and Solid-State Letters</i> , 2004, 7, A60.	2.2	46
42	Fabrication of Paclitaxel Nanocrystals by Femtosecond Laser Ablation and Fragmentation. <i>Journal of Pharmaceutical Sciences</i> , 2011, 100, 1022-1030.	1.6	46
43	X-ray Photoelectron Spectroscopic and Transmission Electron Microscopic Characterizations of Bacteriophage-Nanoparticle Complexes for Pathogen Detection. <i>Journal of Physical Chemistry C</i> , 2013, 117, 20656-20665.	1.5	45
44	The modeling of excimer laser particle removal from hydrophilic silicon surfaces. <i>Journal of Applied Physics</i> , 2000, 87, 3618-3627.	1.1	44
45	In Vivo Laser-Mediated Retinal Ganglion Cell Optoporation Using K ⁺ Conjugated Gold Nanoparticles. <i>Nano Letters</i> , 2018, 18, 6981-6988.	4.5	44
46	Modeling Solvent Influence on Growth Mechanism of Nanoparticles (Au, Co) Synthesized by Surfactant Free Laser Processes. <i>Journal of Physical Chemistry C</i> , 2012, 116, 8014-8019.	1.5	43
47	Nanoclustered Co-Au Particles Fabricated by Femtosecond Laser Fragmentation in Liquids. <i>Journal of Physical Chemistry C</i> , 2010, 114, 13497-13500.	1.5	42
48	Hyperspectral reflected light microscopy of plasmonic Au/Ag alloy nanoparticles incubated as multiplex chromatic biomarkers with cancer cells. <i>Analyst</i> , The, 2014, 139, 5247-5253.	1.7	42
49	Sensing with periodic nanohole arrays. <i>Advances in Optics and Photonics</i> , 2017, 9, 891.	12.1	42
50	Simulation of the amorphous silicon static induction transistor. <i>Solid-State Electronics</i> , 1989, 32, 149-157.	0.8	41
51	Blueshift of the optical band gap: Implications for the quantum confinement effect in a-Si:H/a-SiN _x :H multilayers. <i>Physical Review B</i> , 1993, 47, 2197-2202.	1.1	41
52	Rational Design of Plasmonic Nanoparticles for Enhanced Cavitation and Cell Perforation. <i>Nano Letters</i> , 2016, 16, 3187-3194.	4.5	41
53	Neuropilin-1 expression in adipose tissue macrophages protects against obesity and metabolic syndrome. <i>Science Immunology</i> , 2018, 3, .	5.6	41
54	Laser ablation-based synthesis of functionalized colloidal nanomaterials in biocompatible solutions. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2006, 182, 330-334.	2.0	40

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55	Hyperspectral darkfield microscopy of PEGylated gold nanoparticles targeting CD44-expressing cancer cells. <i>Journal of Biophotonics</i> , 2015, 8, 162-167.	1.1	40
56	CO ₂ laser-assisted removal of submicron particles from solid surfaces. <i>Journal of Applied Physics</i> , 1996, 79, 2857-2862.	1.1	39
57	The estimation of the average dimensions of deposited clusters from XPS emission intensity ratios. <i>Applied Surface Science</i> , 2001, 173, 134-139.	3.1	39
58	Effect of the Composition on the Nonlinear Optical Response of Au _x Ag _{1-x} Nano-Alloys. <i>Journal of Physical Chemistry C</i> , 2015, 119, 6861-6872.	1.5	39
59	Cell-specific optoporation with near-infrared ultrafast laser and functionalized gold nanoparticles. <i>Nanoscale</i> , 2015, 7, 17836-17847.	2.8	39
60	Numerical study of the thermal ablation of wet solids by ultrashort laser pulses. <i>Physical Review B</i> , 2008, 77, .	1.1	37
61	High field transport in disordered materials. <i>Chemical Physics</i> , 1990, 146, 389-408.	0.9	35
62	Smoothing dry-etched microstructure sidewalls using focused ion beam milling for optical applications. <i>Journal of Micromechanics and Microengineering</i> , 2007, 17, 1593-1597.	1.5	35
63	Self-noise-filtering phase-sensitive surface plasmon resonance biosensing. <i>Optics Express</i> , 2010, 18, 14353.	1.7	35
64	Laser-Generated Au-Ag Nanoparticles For Plasmonic Nucleic Acid Sensing. <i>Journal of Physical Chemistry C</i> , 2012, 116, 11370-11377.	1.5	35
65	The differential detection of methicillin-resistant, methicillin-susceptible and borderline oxacillin-resistant <i>Staphylococcus aureus</i> by surface plasmon resonance. <i>Biosensors and Bioelectronics</i> , 2013, 49, 334-340.	5.3	35
66	Wide-field hyperspectral 3D imaging of functionalized gold nanoparticles targeting cancer cells by reflected light microscopy. <i>Journal of Biophotonics</i> , 2015, 8, 401-407.	1.1	35
67	Multiscale modeling of plasmonic enhanced energy transfer and cavitation around laser-excited nanoparticles. <i>Nanoscale</i> , 2017, 9, 3023-3032.	2.8	35
68	Laser-induced chemical vapor deposition of hydrogenated amorphous silicon. I. Gas-phase process model. <i>Journal of Applied Physics</i> , 1987, 62, 2812-2821.	1.1	34
69	Resonant-tunneling lifetime comparison between double-barrier and δ -doped barrier structures. <i>Physical Review B</i> , 1989, 39, 8739-8742.	1.1	34
70	General Equation for Size Nanocharacterization of the Core-Shell Nanoparticles by X-ray Photoelectron Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2005, 109, 8733-8737.	1.2	33
71	Integrated silicon-based nanoplasmonic sensor. <i>Optics Express</i> , 2011, 19, 9962.	1.7	33
72	Visible and near infrared resonance plasmonic enhanced nanosecond laser optoporation of cancer cells. <i>Biomedical Optics Express</i> , 2013, 4, 490.	1.5	33

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73	Mechanical modulation method for ultrasensitive phase measurements in photonics biosensing. <i>Optics Express</i> , 2008, 16, 21305.	1.7	31
74	Temperature and performance variations along single chamber solid oxide fuel cells. <i>Journal of Power Sources</i> , 2009, 186, 89-95.	4.0	31
75	Strategies for the Immobilization of Bacteriophages on Gold Surfaces Monitored by Surface Plasmon Resonance and Surface Morphology. <i>Journal of Physical Chemistry C</i> , 2013, 117, 6686-6691.	1.5	31
76	Phase-sensitive spatially-modulated surface plasmon resonance polarimetry for detection of biomolecular interactions. <i>Sensors and Actuators B: Chemical</i> , 2008, 133, 628-631.	4.0	30
77	Plasma-mediated photothermal effects in ultrafast laser irradiation of gold nanoparticle dimers in water. <i>Optics Express</i> , 2015, 23, 1967.	1.7	29
78	Coplanar Electrodes Design for a Single-Chamber SOFC. <i>Journal of the Electrochemical Society</i> , 2007, 154, B305.	1.3	28
79	An Experimental Evaluation of the Temperature Gradient in Solid Oxide Fuel Cells. <i>Electrochemical and Solid-State Letters</i> , 2007, 10, B31.	2.2	27
80	Ablation of molecular solids under nanosecond laser pulses: The role of inertial confinement. <i>Applied Physics Letters</i> , 2006, 89, 141907.	1.5	26
81	Self-referenced spectroscopy using plasmon waveguide resonance biosensor. <i>Biomedical Optics Express</i> , 2014, 5, 2481.	1.5	26
82	Electrochemical plasmonic sensing system for highly selective multiplexed detection of biomolecules based on redox nanoswitches. <i>Biosensors and Bioelectronics</i> , 2015, 71, 75-81.	5.3	26
83	Cell perforation mediated by plasmonic bubbles generated by a single near infrared femtosecond laser pulse. <i>Journal of Biophotonics</i> , 2016, 9, 26-31.	1.1	25
84	Surface plasmon resonance detection of oligonucleotide sequences of the rpoB genes of <i>Mycobacterium tuberculosis</i> . <i>Talanta</i> , 2011, 85, 2094-2099.	2.9	24
85	Excimer laser-induced deposition of copper from Cu(hfac) (TMVS). <i>Applied Surface Science</i> , 1995, 86, 509-513.	3.1	23
86	Computational Design of Durable Spherical Nanoparticles with Optimal Material, Shape, and Size for Ultrafast Plasmon-Enhanced Nanocavitation. <i>ACS Photonics</i> , 2016, 3, 2158-2169.	3.2	21
87	Antibody-Functionalized Gold Nanostar-Mediated On-Resonance Picosecond Laser Optoporation for Targeted Delivery of RNA Therapeutics. <i>Small</i> , 2021, 17, e2007577.	5.2	21
88	Dynamic imaging of a single gold nanoparticle in liquid irradiated by off-resonance femtosecond laser. <i>Nanoscale</i> , 2015, 7, 11758-11765.	2.8	20
89	Leukemic marker detection using a spectro-polarimetric surface plasmon resonance platform. <i>Biosensors and Bioelectronics</i> , 2015, 63, 80-85.	5.3	19
90	Electrochemical surface plasmon resonance sensing with absorptive redox mediator film. <i>Sensors and Actuators B: Chemical</i> , 2016, 222, 71-77.	4.0	19

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91	Single point single-cell nanoparticle mediated pulsed laser optoporation. <i>Analyst, The</i> , 2020, 145, 523-529.	1.7	17
92	Porous Au@Ag Nanoparticles from Galvanic Replacement Applied as Single Particle SERS Probe for Quantitative Monitoring. <i>Small</i> , 2022, 18, e2105209.	5.2	17
93	Laser Synthesis of Nanomaterials. <i>Springer Series in Materials Science</i> , 2010, , 163-187.	0.4	16
94	Effect of pulse duration on plasmonic enhanced ultrafast laser-induced bubble generation in water. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 112, 119-122.	1.1	15
95	Mechanisms of plasmon-enhanced femtosecond laser nanoablation of silicon. <i>Optics Express</i> , 2013, 21, 9703.	1.7	15
96	Quantum detection and ranging using exciton-plasmon coupling in coherent nanoantennas. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	14
97	Formation Pathways of Porous Alloy Nanoparticles through Selective Chemical and Electrochemical Etching. <i>Small</i> , 2021, 17, e2006953.	5.2	14
98	Catalytic activity of Ni-YSZ anodes in a single-chamber solid oxide fuel cell reactor. <i>Journal of Power Sources</i> , 2011, 196, 3713-3721.	4.0	13
99	A Laser-Trimmed Rail-to-Rail Precision CMOS Operational Amplifier. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2011, 58, 75-79.	2.2	12
100	Laser-Induced Resistance Fine Tuning of Integrated Polysilicon Thin-Film Resistors. <i>IEEE Transactions on Electron Devices</i> , 2011, 58, 572-575.	1.6	12
101	Ultrafast laser processing of drug particles in water for pharmaceutical discovery. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 114, 267-276.	1.1	12
102	Fluorescence and Scattering Dual-Mode Multiplexed Imaging with Gold@Silver Alloy Core Silica Shell Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2017, 121, 8944-8951.	1.5	12
103	Multiperiodic nanohole array for high precision sensing. <i>Nanophotonics</i> , 2019, 8, 325-329.	2.9	11
104	Cost-effective side-illumination darkfield nanoplasmonic marker microscopy. <i>Analyst, The</i> , 2019, 144, 1303-1308.	1.7	9
105	Laser induced formation of periodic nanostructures in silicon covered by SiO ₂ . <i>Applied Physics A: Materials Science and Processing</i> , 2006, 82, 679-682.	1.1	8
106	3D multiplexed immunoplasmonics microscopy. <i>Nanoscale</i> , 2016, 8, 13263-13272.	2.8	8
107	Designable nanoplasmonic biomarkers for direct microscopy cytopathology diagnostics. <i>Journal of Biophotonics</i> , 2019, 12, e201900166.	1.1	8
108	Sensitive and Rapid Cancer Diagnosis with Immunoplasmonic Assay Based on Plasmonic Nanoparticles: Toward Fine-Needle Aspiration Cytology. <i>ACS Applied Nano Materials</i> , 2020, 3, 4171-4177.	2.4	8

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109	Extreme IR absorption in group IV-SiGeSn core-shell nanowires. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	7
110	Laser-induced plasmon-mediated treatment of retinoblastoma in viscous vitreous phantom. <i>Journal of Biophotonics</i> , 2019, 12, e201900193.	1.1	7
111	Multi-layer Si-Based Surface Plasmon Resonance Structure for Absorption Sensing. <i>Analytical Letters</i> , 2003, 36, 3261-3270.	1.0	6
112	Optical transmission theory for metal-insulator-metal periodic nanostructures. <i>Nanophotonics</i> , 2017, 6, 349-355.	2.9	6
113	Reflected light microspectroscopy for single-nanoparticle biosensing. <i>Journal of Biomedical Optics</i> , 2015, 20, 097001.	1.4	5
114	Computational characterization of plasma effects in ultrafast laser irradiation of spherical gold nanostructures for photothermal therapy. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 105401.	1.3	5
115	Modeling the influence of the porosity of laser-ablated silicon films on their photoluminescence properties. <i>Applied Surface Science</i> , 2008, 254, 2771-2775.	3.1	4
116	Electrochemical structure-switching sensing using nanoplasmonic devices. <i>Annalen Der Physik</i> , 2015, 527, 806-813.	0.9	4
117	Photon-induced generation and spatial control of extreme pressure at the nanoscale with a gold bowtie nano-antenna platform. <i>Nanoscale</i> , 2016, 8, 17196-17203.	2.8	4
118	Optical power limiter in the femtosecond filamentation regime. <i>Scientific Reports</i> , 2021, 11, 14270.	1.6	4
119	Multiplexed Plasmonic Nano-Labeling for Bioimaging of Cytological Stained Samples. <i>Cancers</i> , 2021, 13, 3509.	1.7	4
120	Simulation of nanosecond laser-induced thermal dynamics of hollow gold nanoshells for hyperthermia therapy. <i>AIP Conference Proceedings</i> , 2014, , .	0.3	3
121	A needle-like optofluidic probe enables targeted intracellular delivery by confining light-nanoparticle interaction on single cell. <i>Nanoscale</i> , 2018, 10, 21871-21878.	2.8	3
122	Femtosecond nearly resonant self-focusing in gold nanorod colloids. <i>Optics Express</i> , 2021, 29, 39536.	1.7	3
123	Nonlinear thermal lensing of high repetition rate ultrafast laser light in plasmonic nano-colloids. <i>Nanophotonics</i> , 2022, 11, 1051-1062.	2.9	3
124	Thermodynamics of absorbing solids during short-pulse laser ablation. , 2004, , .		2
125	Laser ablation-based nanofabrication in aqueous solutions. <i>Materials Research Society Symposia Proceedings</i> , 2004, 850, 186.	0.1	2
126	Resonant frequency sensitive MEMS bandpass filter using capacitive sensing scheme. <i>Microsystem Technologies</i> , 2009, 15, 973-979.	1.2	2

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127	Dynamic imaging of transient bubbles generated by femtosecond irradiation of plasmonic nanoparticles in suspensions and cell environment. , 2014, , .		2
128	Direct-Write Microfabrication of Single-Chamber Solid Oxide Fuel Cells with Interdigitated Electrodes. Materials Research Society Symposia Proceedings, 2006, 972, 1.	0.1	1
129	Precision Resistor Laser Trimming for Analog Microelectronics. , 2007, , .		1
130	Precision resistor laser trimming for analog microelectronics. , 2007, , .		1
131	Improved Method for Two-dimensional Determination of the Magnitude and Orientation of Weak Birefringence. , 2007, , .		0
132	Modeling ultrafast laser-induced nanocavitation around plasmonic nanoparticles (Conference) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 542		0
133	Threshold conditions for resonant Kerr self-focusing in plasmonic nano-colloids. , 2020, , .		0