

stephan Barcikowski

List of Publications by Year in descending order

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328
papers

12,990
citations

20759

60
h-index

37111

96
g-index

336
all docs

336
docs citations

336
times ranked

9531
citing authors

#	ARTICLE	IF	CITATIONS
1	Laser Synthesis and Processing of Colloids: Fundamentals and Applications. Chemical Reviews, 2017, 117, 3990-4103.	23.0	965
2	Interaction of colloidal nanoparticles with their local environment: the (ionic) nanoenvironment around nanoparticles is different from bulk and determines the physico-chemical properties of the nanoparticles. Journal of the Royal Society Interface, 2014, 11, 20130931.	1.5	308
3	Advanced nanoparticle generation and excitation by lasers in liquids. Physical Chemistry Chemical Physics, 2013, 15, 3022-3026.	1.3	238
4	Continuous multigram nanoparticle synthesis by high-power, high-repetition-rate ultrafast laser ablation in liquids. Optics Letters, 2016, 41, 1486.	1.7	219
5	Gram Scale Synthesis of Pure Ceramic Nanoparticles by Laser Ablation in Liquid. Journal of Physical Chemistry C, 2010, 114, 2421-2427.	1.5	201
6	Generation of nanoparticle colloids by picosecond and femtosecond laser ablations in liquid flow. Applied Physics Letters, 2007, 91, .	1.5	189
7	Properties of nanoparticles generated during femtosecond laser machining in air and water. Applied Physics A: Materials Science and Processing, 2007, 87, 47-55.	1.1	189
8	Room-temperature Laser Synthesis in Liquid of Oxide, Metal-Oxide Core-Shells, and Doped Oxide Nanoparticles. Chemistry - A European Journal, 2020, 26, 9206-9242.	1.7	189
9	Dynamics of silver nanoparticle formation and agglomeration inside the cavitation bubble after pulsed laser ablation in liquid. Physical Chemistry Chemical Physics, 2013, 15, 3068-3074.	1.3	174
10	Two mechanisms of nanoparticle generation in picosecond laser ablation in liquids: the origin of the bimodal size distribution. Nanoscale, 2018, 10, 6900-6910.	2.8	173
11	Nanoparticle formation in a cavitation bubble after pulsed laser ablation in liquid studied with high time resolution small angle x-ray scattering. Applied Physics Letters, 2012, 101, 103104.	1.5	168
12	Size control of laser-fabricated surfactant-free gold nanoparticles with highly diluted electrolytes and their subsequent bioconjugation. Physical Chemistry Chemical Physics, 2013, 15, 3057-3067.	1.3	156
13	Cavitation dynamics of laser ablation of bulk and wire-shaped metals in water during nanoparticles production. Physical Chemistry Chemical Physics, 2013, 15, 3083-3092.	1.3	155
14	Reprotoxicity of gold, silver, and gold-silver alloy nanoparticles on mammalian gametes. Analyst, The, 2014, 139, 931-942.	1.7	149
15	In Situ Bioconjugation: Single Step Approach to Tailored Nanoparticle-Bioconjugates by Ultrashort Pulsed Laser Ablation. Advanced Functional Materials, 2009, 19, 1167-1172.	7.8	145
16	Kinetically-controlled laser-synthesis of colloidal high-entropy alloy nanoparticles. RSC Advances, 2019, 9, 18547-18558.	1.7	142
17	<i>In Situ</i> Non-DLVO Stabilization of Surfactant-Free, Plasmonic Gold Nanoparticles: Effect of Hofmeister's Anions. Langmuir, 2014, 30, 4213-4222.	1.6	135
18	A hierarchical view on material formation during pulsed-laser synthesis of nanoparticles in liquid. Scientific Reports, 2015, 5, 16313.	1.6	132

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19	Current state of laser synthesis of metal and alloy nanoparticles as ligand-free reference materials for nano-toxicological assays. <i>Beilstein Journal of Nanotechnology</i> , 2014, 5, 1523-1541.	1.5	130
20	Review on experimental and theoretical investigations of the early stage, femtoseconds to microseconds processes during laser ablation in liquid-phase for the synthesis of colloidal nanoparticles. <i>Plasma Sources Science and Technology</i> , 2019, 28, 103001.	1.3	128
21	Pulsed Laser Ablation of Zinc in Tetrahydrofuran: Bypassing the Cavitation Bubble. <i>Journal of Physical Chemistry C</i> , 2010, 114, 7618-7625.	1.5	115
22	Solvent-surface interactions control the phase structure in laser-generated iron-gold core-shell nanoparticles. <i>Scientific Reports</i> , 2016, 6, 23352.	1.6	113
23	How Citrate Ligands Affect Nanoparticle Adsorption to Microparticle Supports. <i>Langmuir</i> , 2012, 28, 6132-6140.	1.6	112
24	Perspective of Surfactant-Free Colloidal Nanoparticles in Heterogeneous Catalysis. <i>ChemCatChem</i> , 2019, 11, 4489-4518.	1.8	112
25	Cytotoxicity and ion release of alloy nanoparticles. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1-10.	0.8	105
26	Impact and structure of literature on nanoparticle generation by laser ablation in liquids. <i>Journal of Nanoparticle Research</i> , 2009, 11, 1883-1893.	0.8	104
27	Monophasic ligand-free alloy nanoparticle synthesis determinants during pulsed laser ablation of bulk alloy and consolidated microparticles in water. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 23671-23678.	1.3	102
28	Pure colloidal metal and ceramic nanoparticles from high-power picosecond laser ablation in water and acetone. <i>Nanotechnology</i> , 2009, 20, 445603.	1.3	101
29	Pulsed Nd:YAG laser cutting of NiTi shape memory alloys—Influence of process parameters. <i>Journal of Materials Processing Technology</i> , 2010, 210, 1918-1925.	3.1	92
30	Conjugation Efficiency of Laser-Based Bioconjugation of Gold Nanoparticles with Nucleic Acids. <i>Journal of Physical Chemistry C</i> , 2009, 113, 19830-19835.	1.5	90
31	How persistent microbubbles shield nanoparticle productivity in laser synthesis of colloids—quantification of their volume, dwell dynamics, and gas composition. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 7112-7123.	1.3	85
32	How Size Determines the Value of Gold: Economic Aspects of Wet Chemical and Laser-Based Metal Colloid Synthesis. <i>ChemPhysChem</i> , 2017, 18, 1012-1019.	1.0	84
33	Pulsed laser ablation in liquids: Impact of the bubble dynamics on particle formation. <i>Journal of Colloid and Interface Science</i> , 2017, 489, 106-113.	5.0	84
34	Oxide dispersion-strengthened alloys generated by laser metal deposition of laser-generated nanoparticle-metal powder composites. <i>Materials and Design</i> , 2018, 154, 360-369.	3.3	82
35	Laser ablation-based one-step generation and bio-functionalization of gold nanoparticles conjugated with aptamers. <i>Journal of Nanobiotechnology</i> , 2010, 8, 21.	4.2	81
36	Adsorption of Colloidal Platinum Nanoparticles to Supports: Charge Transfer and Effects of Electrostatic and Steric Interactions. <i>Langmuir</i> , 2014, 30, 11928-11936.	1.6	81

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37	Size control and supporting of palladium nanoparticles made by laser ablation in saline solution as a facile route to heterogeneous catalysts. <i>Applied Surface Science</i> , 2015, 348, 75-84.	3.1	81
38	Bioconjugated silicon quantum dots from one-step green synthesis. <i>Nanoscale</i> , 2012, 4, 1271.	2.8	79
39	Polymer-stable magnesium nanocomposites prepared by laser ablation for efficient hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 11530-11535.	3.8	79
40	Size Quenching during Laser Synthesis of Colloids Happens Already in the Vapor Phase of the Cavitation Bubble. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5356-5365.	1.5	79
41	Transfer-Matrix Method for Efficient Ablation by Pulsed Laser Ablation and Nanoparticle Generation in Liquids. <i>Journal of Physical Chemistry C</i> , 2011, 115, 5108-5114.	1.5	77
42	Laser Fragmentation of Colloidal Gold Nanoparticles with High-Intensity Nanosecond Pulses is Driven by a Single-Step Fragmentation Mechanism with a Defined Educt Particle-Size Threshold. <i>Journal of Physical Chemistry C</i> , 2018, 122, 22125-22136.	1.5	77
43	Influences on Nanoparticle Production during Pulsed Laser Ablation. <i>Journal of Laser Micro Nanoengineering</i> , 2008, 3, 73-77.	0.4	76
44	Quantitative visualization of colloidal and intracellular gold nanoparticles by confocal microscopy. <i>Journal of Biomedical Optics</i> , 2010, 15, 036015.	1.4	75
45	Ligand-free Gold Nanoparticles as a Reference Material for Kinetic Modelling of Catalytic Reduction of 4-Nitrophenol. <i>Catalysis Letters</i> , 2015, 145, 1105-1112.	1.4	75
46	Tailored protein encapsulation into a DNA host using geometrically organized supramolecular interactions. <i>Nature Communications</i> , 2017, 8, 14472.	5.8	73
47	Magnetic Alloy Nanoparticles from Laser Ablation in Cyclopentanone and Their Embedding into a Photoresist. <i>Langmuir</i> , 2010, 26, 6892-6897.	1.6	72
48	Chemical and physical side effects at application of ultrashort laser pulses for intrastromal refractive surgery. <i>Journal of Optics</i> , 2000, 2, 59-64.	1.5	71
49	Stoichiometry of alloy nanoparticles from laser ablation of PtIr in acetone and their electrophoretic deposition on PtIr electrodes. <i>Nanotechnology</i> , 2011, 22, 145601.	1.3	69
50	Debris-free rear-side picosecond laser ablation of thin germanium wafers in water with ethanol. <i>Applied Surface Science</i> , 2016, 367, 222-230.	3.1	69
51	Influence of processing time on nanoparticle generation during picosecond-pulsed fundamental and second harmonic laser ablation of metals in tetrahydrofuran. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 104, 77-82.	1.1	67
52	Influence of gold, silver and gold-silver alloy nanoparticles on germ cell function and embryo development. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 651-664.	1.5	67
53	Microstructure formation and mechanical properties of ODS steels built by laser additive manufacturing of nanoparticle coated iron-chromium powders. <i>Acta Materialia</i> , 2021, 206, 116566.	3.8	67
54	Role of Dissolved and Molecular Oxygen on Cu and PtCu Alloy Particle Structure during Laser Ablation Synthesis in Liquids. <i>ChemPhysChem</i> , 2017, 18, 1175-1184.	1.0	66

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55	Metal ion release kinetics from nanoparticle silicone composites. <i>Journal of Controlled Release</i> , 2011, 154, 164-170.	4.8	65
56	Quantification of mass-specific laser energy input converted into particle properties during picosecond pulsed laser fragmentation of zinc oxide and boron carbide in liquids. <i>Applied Surface Science</i> , 2015, 348, 22-29.	3.1	65
57	Effects of Silver Nitrate and Silver Nanoparticles on a Planktonic Community: General Trends after Short-Term Exposure. <i>PLoS ONE</i> , 2014, 9, e95340.	1.1	65
58	Pulsed laser ablation of a continuously-fed wire in liquid flow for high-yield production of silver nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 3093-3098.	1.3	64
59	Tissue Concentrations of Zinc, Iron, Copper, and Magnesium During the Phases of Full Thickness Wound Healing in a Rodent Model. <i>Biological Trace Element Research</i> , 2019, 191, 167-176.	1.9	64
60	Alloying colloidal silver nanoparticles with gold disproportionally controls antibacterial and toxic effects. <i>Gold Bulletin</i> , 2014, 47, 83-93.	1.1	62
61	One-step synthesis of Fe@Au core-shell magnetic-plasmonic nanoparticles driven by interface energy minimization. <i>Nanoscale Horizons</i> , 2019, 4, 1326-1332.	4.1	62
62	Influence of Water Temperature on the Hydrodynamic Diameter of Gold Nanoparticles from Laser Ablation. <i>Journal of Physical Chemistry C</i> , 2010, 114, 2499-2504.	1.5	61
63	Status and demand of research to bring laser generation of nanoparticles in liquids to maturity. <i>Applied Surface Science</i> , 2019, 488, 445-454.	3.1	61
64	Materials synthesis in a bubble. <i>MRS Bulletin</i> , 2019, 44, 382-391.	1.7	60
65	Impact of Ligands on Structural and Optical Properties of Ag ₂₉ Nanoclusters. <i>Journal of the American Chemical Society</i> , 2021, 143, 9405-9414.	6.6	60
66	Nonendosomal cellular uptake of ligand-free, positively charged gold nanoparticles. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2010, 77A, 439-446.	1.1	58
67	Sex selection of sperm in farm animals: status report and developmental prospects. <i>Reproduction</i> , 2013, 145, R15-R30.	1.1	58
68	Gold nanoparticles interfere with sperm functionality by membrane adsorption without penetration. <i>Nanotoxicology</i> , 2014, 8, 118-127.	1.6	56
69	The effect of the Au loading on the liquid-phase aerobic oxidation of ethanol over Au/TiO ₂ catalysts prepared by pulsed laser ablation. <i>Journal of Catalysis</i> , 2015, 330, 497-506.	3.1	56
70	Laser Fragmentation-Induced Defect-Rich Cobalt Oxide Nanoparticles for Electrochemical Oxygen Evolution Reaction. <i>ChemSusChem</i> , 2020, 13, 520-528.	3.6	55
71	Toxicity of Gold Nanoparticles on Somatic and Reproductive Cells. <i>Advances in Experimental Medicine and Biology</i> , 2012, 733, 125-133.	0.8	54
72	Adjusting the catalytic properties of cobalt ferrite nanoparticles by pulsed laser fragmentation in water with defined energy dose. <i>Scientific Reports</i> , 2017, 7, 13161.	1.6	54

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73	Penetratin-Conjugated Gold Nanoparticles ~ Design of Cell-Penetrating Nanomarkers by Femtosecond Laser Ablation. <i>Journal of Physical Chemistry C</i> , 2011, 115, 5152-5159.	1.5	53
74	Plasmon assisted 3D microstructuring of gold nanoparticle-doped polymers. <i>Nanotechnology</i> , 2016, 27, 154001.	1.3	52
75	Barrierless growth of precursor-free, ultrafast laser-fragmented noble metal nanoparticles by colloidal atom clusters ~ A kinetic in situ study. <i>Journal of Colloid and Interface Science</i> , 2016, 463, 299-307.	5.0	52
76	Design and perspective of amorphous metal nanoparticles from laser synthesis and processing. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 11121-11154.	1.3	52
77	Trends and Current Topics in the Field of Laser Ablation and Nanoparticle Generation in Liquids. <i>Journal of Physical Chemistry C</i> , 2011, 115, 4985-4985.	1.5	51
78	Laser synthesis, structure and chemical properties of colloidal nickel-molybdenum nanoparticles for the substitution of noble metals in heterogeneous catalysis. <i>Journal of Colloid and Interface Science</i> , 2017, 489, 57-67.	5.0	51
79	Cardiorespiratory function before and after operation for pectus excavatum Medium-term results. <i>European Journal of Cardio-thoracic Surgery</i> , 1998, 13, 275-279.	0.6	50
80	Depositing laser-generated nanoparticles on powders for additive manufacturing of oxide dispersed strengthened alloy parts via laser metal deposition. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 040310.	0.8	50
81	Right ventricular morphology and function after pulmonary resection. <i>European Journal of Cardio-thoracic Surgery</i> , 1999, 15, 444-448.	0.6	49
82	Compatibilization of laser generated antibacterial Ag- and Cu-nanoparticles for perfluorinated implant materials. <i>European Polymer Journal</i> , 2011, 47, 662-667.	2.6	48
83	High productive and continuous nanoparticle fabrication by laser ablation of a wire-target in a liquid jet. <i>Applied Surface Science</i> , 2017, 403, 487-499.	3.1	48
84	Impact of Preparation Method and Hydrothermal Aging on Particle Size Distribution of Pt/Al ₂ O ₃ and Its Performance in CO and NO Oxidation. <i>Journal of Physical Chemistry C</i> , 2019, 123, 5433-5446.	1.5	48
85	Impact of in situ polymer coating on particle dispersion into solid laser-generated nanocomposites. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 5120.	1.3	47
86	Serum albumin reduces the antibacterial and cytotoxic effects of hydrogel-embedded colloidal silver nanoparticles. <i>RSC Advances</i> , 2012, 2, 7190.	1.7	47
87	Characterizing the Effect of Multivalent Conjugates Composed of Al ²⁺ -Specific Ligands and Metal Nanoparticles on Neurotoxic Fibrillar Aggregation. <i>ACS Nano</i> , 2016, 10, 7582-7597.	7.3	46
88	How the crystal structure and phase segregation of Au~Fe alloy nanoparticles are ruled by the molar fraction and size. <i>Nanoscale</i> , 2018, 10, 16434-16437.	2.8	46
89	Early appearance of crystalline nanoparticles in pulsed laser ablation in liquids dynamics. <i>Nanoscale</i> , 2019, 11, 6962-6969.	2.8	46
90	Laser fragmentation of organic microparticles into colloidal nanoparticles in a free liquid jet. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 101, 435-439.	1.1	45

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91	Photoluminescent zinc oxide polymer nanocomposites fabricated using picosecond laser ablation in an organic solvent. <i>Applied Surface Science</i> , 2011, 257, 7231-7237.	3.1	45
92	Influence of ligands in metal nanoparticle electrophoresis for the fabrication of biofunctional coatings. <i>Applied Surface Science</i> , 2015, 348, 92-99.	3.1	45
93	Characterisation and modification of the heat affected zone during laser material processing of wood and wood composites. <i>European Journal of Wood and Wood Products</i> , 2006, 64, 94-103.	1.3	44
94	Solid solution magnetic FeNi nanostrand-polymer composites by connecting-coarsening assembly. <i>Journal of Materials Chemistry C</i> , 2015, 3, 10699-10704.	2.7	44
95	Time and Mechanism of Nanoparticle Functionalization by Macromolecular Ligands during Pulsed Laser Ablation in Liquids. <i>Langmuir</i> , 2019, 35, 3038-3047.	1.6	44
96	Hydrodynamic size distribution of gold nanoparticles controlled by repetition rate during pulsed laser ablation in water. <i>Applied Surface Science</i> , 2011, 257, 4285-4290.	3.1	42
97	In situ bioconjugation- Novel laser based approach to pure nanoparticle-conjugates. <i>Applied Surface Science</i> , 2009, 255, 5435-5438.	3.1	41
98	Layered Seed-Growth of AgGe Football-like Microspheres via Precursor-Free Picosecond Laser Synthesis in Water. <i>Scientific Reports</i> , 2015, 5, 13661.	1.6	41
99	Fluence Threshold Behaviour on Ablation and Bubble Formation in Pulsed Laser Ablation in Liquids. <i>ChemPhysChem</i> , 2017, 18, 1084-1090.	1.0	41
100	Determining the role of redox-active materials during laser-induced water decomposition. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 18636-18651.	1.3	41
101	Ligand-free gold atom clusters adsorbed on graphene nano sheets generated by oxidative laser fragmentation in water. <i>Chemical Physics Letters</i> , 2014, 610-611, 256-260.	1.2	40
102	Target geometry and rigidity determines laser-induced cavitation bubble transport and nanoparticle productivity - a high-speed videography study. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 16585-16593.	1.3	40
103	Size-Selective Optical Printing of Silicon Nanoparticles through Their Dipolar Magnetic Resonance. <i>ACS Photonics</i> , 2019, 6, 815-822.	3.2	40
104	Rational design of gold nanoparticle toxicology assays: a question of exposure scenario, dose and experimental setup. <i>Nanomedicine</i> , 2014, 9, 1971-1989.	1.7	39
105	Germanium Sub-Microspheres Synthesized by Picosecond Pulsed Laser Melting in Liquids: Educt Size Effects. <i>Scientific Reports</i> , 2017, 7, 40355.	1.6	39
106	Comparing the Activity of Complex Solid Solution Electrocatalysts Using Inflection Points of Voltammetric Activity Curves as Activity Descriptors. <i>ACS Catalysis</i> , 2021, 11, 1014-1023.	5.5	39
107	Ligand-free gold-silver nanoparticle alloy polymer composites generated by picosecond laser ablation in liquid monomer. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 110, 343-350.	1.1	38
108	Nano-energy research trends: bibliometrical analysis of nanotechnology research in the energy sector. <i>Journal of Nanoparticle Research</i> , 2011, 13, 3911-3922.	0.8	37

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109	Charge Balancing of Model Gold-Nanoparticle-Peptide Conjugates Controlled by the Peptide's Net Charge and the Ligand to Nanoparticle Ratio. <i>Journal of Physical Chemistry C</i> , 2014, 118, 10302-10313.	1.5	37
110	Laser-based in situ embedding of metal nanoparticles into bioextruded alginate hydrogel tubes enhances human endothelial cell adhesion. <i>Nano Research</i> , 2016, 9, 3407-3427.	5.8	37
111	Crystallographic characterization of laser-generated, polymer-stabilized 40-nm silver-gold alloyed nanoparticles. <i>Materials Chemistry and Physics</i> , 2018, 207, 442-450.	2.0	37
112	Plasma and nanoparticle shielding during pulsed laser ablation in liquids cause ablation efficiency decrease. <i>Opto-Electronic Advances</i> , 2021, 4, 200072-200072.	6.4	37
113	Delay Time and Concentration Effects During Bioconjugation of Nanosecond Laser-Generated Nanoparticles in a Liquid Flow. <i>Journal of Physical Chemistry C</i> , 2011, 115, 5094-5101.	1.5	36
114	Ripening kinetics of laser-generated plasmonic nanoparticles in different solvents. <i>Chemical Physics Letters</i> , 2015, 626, 96-101.	1.2	36
115	Comparison of the productivity and ablation efficiency of different laser classes for laser ablation of gold in water and air. <i>Applied Physics A: Materials Science and Processing</i> , 2019, 125, 1.	1.1	36
116	Laser-generated high entropy metallic glass nanoparticles as bifunctional electrocatalysts. <i>Nano Research</i> , 2022, 15, 4807-4819.	5.8	36
117	Inclusion of supported gold nanoparticles into their semiconductor support. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 29311-29318.	1.3	35
118	Primary particle diameter differentiation and bimodality identification by five analytical methods using gold nanoparticle size distributions synthesized by pulsed laser ablation in liquids. <i>Applied Surface Science</i> , 2018, 435, 743-751.	3.1	35
119	Electrophoretic deposition of ligand-free platinum nanoparticles on neural electrodes affects their impedance in vitro and in vivo with no negative effect on reactive gliosis. <i>Journal of Nanobiotechnology</i> , 2016, 14, 3.	4.2	34
120	Femtosecond laser microstructuring of hot-isostatically pressed zirconia ceramic. <i>Journal of Laser Applications</i> , 2007, 19, 107-115.	0.8	33
121	Electrochemistry-controlled metal ion release from silicone elastomer nanocomposites through combination of different metal nanoparticles. <i>Journal of Materials Chemistry</i> , 2011, 21, 10287.	6.7	33
122	Development of a specially tailored local drug delivery system for the prevention of fibrosis after insertion of cochlear implants into the inner ear. <i>Journal of Materials Science: Materials in Medicine</i> , 2012, 23, 2151-2162.	1.7	33
123	Laser additive manufacturing of oxide dispersion strengthened steels using laser-generated nanoparticle-metal composite powders. <i>Procedia CIRP</i> , 2018, 74, 196-200.	1.0	33
124	Dose-dependent surface endothelialization and biocompatibility of polyurethane noble metal nanocomposites. <i>Journal of Biomedical Materials Research - Part A</i> , 2014, 102, 1909-1920.	2.1	32
125	In Situ Investigations of Laser-Generated Ligand-Free Platinum Nanoparticles by X-ray Absorption Spectroscopy: How Does the Immediate Environment Influence the Particle Surface?. <i>Langmuir</i> , 2016, 32, 8793-8802.	1.6	32
126	Opportunities and Challenges for Laser Synthesis of Colloids. <i>ChemPhysChem</i> , 2017, 18, 983-985.	1.0	32

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127	How the re-irradiation of a single ablation spot affects cavitation bubble dynamics and nanoparticles properties in laser ablation in liquids. <i>Applied Surface Science</i> , 2019, 473, 828-837.	3.1	32
128	First on-line analysis of petroleum from single inclusion using ultrafast laser ablation. <i>Organic Geochemistry</i> , 2010, 41, 74-77.	0.9	31
129	Golden Perspective: Application of Laser-Generated Gold Nanoparticle Conjugates in Reproductive Biology. <i>Reproduction in Domestic Animals</i> , 2011, 46, 42-52.	0.6	31
130	Bioconjugated Gold Nanoparticles Penetrate Into Spermatozoa Depending on Plasma Membrane Status. <i>Journal of Biomedical Nanotechnology</i> , 2015, 11, 1597-1607.	0.5	31
131	A new approach to coat PA12 powders with laser-generated nanoparticles for selective laser sintering. <i>Procedia CIRP</i> , 2018, 74, 244-248.	1.0	31
132	Design and application of a weed damage model for laser-based weed control. <i>Biosystems Engineering</i> , 2012, 113, 148-157.	1.9	30
133	Efficient nucleic acid delivery to murine regulatory T cells by gold nanoparticle conjugates. <i>Scientific Reports</i> , 2016, 6, 28709.	1.6	30
134	Discrimination of effects leading to gas formation during pulsed laser ablation in liquids. <i>Applied Surface Science</i> , 2019, 465, 1096-1102.	3.1	30
135	Dynamics of laser-induced cavitation bubbles at a solid-liquid interface in high viscosity and high capillary number regimes. <i>Journal of Applied Physics</i> , 2020, 127, .	1.1	30
136	Impact of Metal Nanoparticles on Germ Cell Viability and Functionality. <i>Reproduction in Domestic Animals</i> , 2012, 47, 359-368.	0.6	29
137	First PEM fuel cell based on ligand-free, laser-generated platinum nanoparticles. <i>Applied Surface Science</i> , 2019, 467-468, 486-492.	3.1	29
138	Durability study of platinum nanoparticles supported on gas-phase synthesized graphene in oxygen reduction reaction conditions. <i>Applied Surface Science</i> , 2019, 467-468, 1181-1186.	3.1	29
139	Research trends in laser powder bed fusion of Al alloys within the last decade. <i>Additive Manufacturing</i> , 2020, 36, 101489.	1.7	29
140	Synthesis of gold, platinum, and gold-platinum alloy nanoparticle colloids with high-power megahertz-repetition-rate lasers: the importance of the beam guidance method. <i>Applied Nanoscience (Switzerland)</i> , 2021, 11, 1303-1312.	1.6	29
141	Laser Powder Bed Fusion of Polymers: Quantitative Research Direction Indices. <i>Materials</i> , 2021, 14, 1169.	1.3	29
142	Spontaneous Shape Alteration and Size Separation of Surfactant-Free Silver Particles Synthesized by Laser Ablation in Acetone during Long-Period Storage. <i>Nanomaterials</i> , 2018, 8, 529.	1.9	28
143	Plasmonic Seasoning: Giving Color to Desktop Laser 3D Printed Polymers by Highly Dispersed Nanoparticles. <i>Advanced Optical Materials</i> , 2020, 8, 2000473.	3.6	28
144	Comparison of ultrashort pulse ablation of gold in air and water by time-resolved experiments. <i>Light: Science and Applications</i> , 2022, 11, 68.	7.7	28

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145	Laser induced modification of surface structures. <i>Applied Surface Science</i> , 2007, 253, 4295-4299.	3.1	27
146	Effective size separation of laser-generated, surfactant-free nanoparticles by continuous centrifugation. <i>Nanotechnology</i> , 2020, 31, 095603.	1.3	27
147	Selective Aerobic Oxidation of 5-(Hydroxymethyl)furfural over Heterogeneous Silver-Gold Nanoparticle Catalysts. <i>Advanced Synthesis and Catalysis</i> , 2020, 362, 5681-5696.	2.1	27
148	3D printing of magnetic parts by laser powder bed fusion of iron oxide nanoparticle functionalized polyamide powders. <i>Journal of Materials Chemistry C</i> , 2020, 8, 12204-12217.	2.7	27
149	Nanocomposite manufacturing using ultrashort-pulsed laser ablation in solvents and monomers. <i>Polimery</i> , 2008, 53, 657-662.	0.4	27
150	Ablation efficiency of Al_2O_3 in liquid phase and ambient air by nanosecond laser irradiation. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 100, 203-206.	1.1	26
151	Biocompatibility of nanoactuators: stem cell growth on laser-generated nickel-titanium shape memory alloy nanoparticles. <i>Journal of Nanoparticle Research</i> , 2010, 12, 1733-1742.	0.8	26
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