

stephan Barcikowski

List of Publications by Citations

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289
papers

9,879
citations

53
h-index

84
g-index

336
ext. papers

11,452
ext. citations

5
avg. IF

6.78
L-index

#	Paper	IF	Citations
289	Laser Synthesis and Processing of Colloids: Fundamentals and Applications. <i>Chemical Reviews</i> , 2017 , 117, 3990-4103	68.1	684
288	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. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20130931	4.1	254
287	Continuous multigram nanoparticle synthesis by high-power, high-repetition-rate ultrafast laser ablation in liquids. <i>Optics Letters</i> , 2016 , 41, 1486-9	3	177
286	Gram Scale Synthesis of Pure Ceramic Nanoparticles by Laser Ablation in Liquid. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 2421-2427	3.8	171
285	Properties of nanoparticles generated during femtosecond laser machining in air and water. <i>Applied Physics A: Materials Science and Processing</i> , 2007 , 87, 47-55	2.6	169
284	Generation of nanoparticle colloids by picosecond and femtosecond laser ablations in liquid flow. <i>Applied Physics Letters</i> , 2007 , 91, 083113	3.4	160
283	Dynamics of silver nanoparticle formation and agglomeration inside the cavitation bubble after pulsed laser ablation in liquid. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 3068-74	3.6	156
282	Nanoparticle formation in a cavitation bubble after pulsed laser ablation in liquid studied with high time resolution small angle x-ray scattering. <i>Applied Physics Letters</i> , 2012 , 101, 103104	3.4	147
281	Size control of laser-fabricated surfactant-free gold nanoparticles with highly diluted electrolytes and their subsequent bioconjugation. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 3057-67	3.6	139
280	Cavitation dynamics of laser ablation of bulk and wire-shaped metals in water during nanoparticles production. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 3083-92	3.6	132
279	In Situ Bioconjugation: Single Step Approach to Tailored Nanoparticle-Bioconjugates by Ultrashort Pulsed Laser Ablation. <i>Advanced Functional Materials</i> , 2009 , 19, 1167-1172	15.6	132
278	Two mechanisms of nanoparticle generation in picosecond laser ablation in liquids: the origin of the bimodal size distribution. <i>Nanoscale</i> , 2018 , 10, 6900-6910	7.7	130
277	Reprotoxicity of gold, silver, and gold-silver alloy nanoparticles on mammalian gametes. <i>Analyst, The</i> , 2014 , 139, 931-42	5	121
276	In situ non-DLVO stabilization of surfactant-free, plasmonic gold nanoparticles: effect of Hofmeister's anions. <i>Langmuir</i> , 2014 , 30, 4213-22	4	116
275	A hierarchical view on material formation during pulsed-laser synthesis of nanoparticles in liquid. <i>Scientific Reports</i> , 2015 , 5, 16313	4.9	116
274	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, 1523-41	3	111
273	Pulsed Laser Ablation of Zinc in Tetrahydrofuran: Bypassing the Cavitation Bubble. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 7618-7625	3.8	103

272	How citrate ligands affect nanoparticle adsorption to microparticle supports. <i>Langmuir</i> , 2012 , 28, 6132-40	4.0	100
271	Room-Temperature Laser Synthesis in Liquid of Oxide, Metal-Oxide Core-Shells, and Doped Oxide Nanoparticles. <i>Chemistry - A European Journal</i> , 2020 , 26, 9206-9242	4.8	94
270	Solvent-surface interactions control the phase structure in laser-generated iron-gold core-shell nanoparticles. <i>Scientific Reports</i> , 2016 , 6, 23352	4.9	92
269	Impact and structure of literature on nanoparticle generation by laser ablation in liquids. <i>Journal of Nanoparticle Research</i> , 2009 , 11, 1883-1893	2.3	90
268	Pure colloidal metal and ceramic nanoparticles from high-power picosecond laser ablation in water and acetone. <i>Nanotechnology</i> , 2009 , 20, 445603	3.4	88
267	Conjugation Efficiency of Laser-Based Bioconjugation of Gold Nanoparticles with Nucleic Acids. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 19830-19835	3.8	83
266	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, 23671-8	3.6	82
265	Cytotoxicity and ion release of alloy nanoparticles. <i>Journal of Nanoparticle Research</i> , 2012 , 14, 1-10	2.3	81
264	Perspective of Surfactant-Free Colloidal Nanoparticles in Heterogeneous Catalysis. <i>ChemCatChem</i> , 2019 , 11, 4489-4518	5.2	80
263	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	5.3	80
262	Laser ablation-based one-step generation and bio-functionalization of gold nanoparticles conjugated with aptamers. <i>Journal of Nanobiotechnology</i> , 2010 , 8, 21	9.4	72
261	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	3.5	71
260	Adsorption of colloidal platinum nanoparticles to supports: charge transfer and effects of electrostatic and steric interactions. <i>Langmuir</i> , 2014 , 30, 11928-36	4	71
259	Kinetically-controlled laser-synthesis of colloidal high-entropy alloy nanoparticles.. <i>RSC Advances</i> , 2019 , 9, 18547-18558	3.7	70
258	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	9.3	70
257	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	6.7	70
256	Bioconjugated silicon quantum dots from one-step green synthesis. <i>Nanoscale</i> , 2012 , 4, 1271-4	7.7	70
255	Polymer-stable magnesium nanocomposites prepared by laser ablation for efficient hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 11530-11535	6.7	68

254	Magnetic alloy nanoparticles from laser ablation in cyclopentanone and their embedding into a photoresist. <i>Langmuir</i> , 2010 , 26, 6892-7	4	67
253	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	2.8	66
252	Quantitative visualization of colloidal and intracellular gold nanoparticles by confocal microscopy. <i>Journal of Biomedical Optics</i> , 2010 , 15, 036015	3.5	66
251	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	3.8	64
250	Influences on Nanoparticle Production during Pulsed Laser Ablation. <i>Journal of Laser Micro Nanoengineering</i> , 2008 , 3, 73-77	1	63
249	Stoichiometry of alloy nanoparticles from laser ablation of PtIr in acetone and their electrophoretic deposition on PtIr electrodes. <i>Nanotechnology</i> , 2011 , 22, 145601	3.4	62
248	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	3.6	61
247	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	3.8	60
246	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, 3093-8	3.6	58
245	Metal ion release kinetics from nanoparticle silicone composites. <i>Journal of Controlled Release</i> , 2011 , 154, 164-70	11.7	58
244	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	8.1	58
243	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	6.7	57
242	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	2.6	57
241	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	3.2	56
240	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	3.8	56
239	Tailored protein encapsulation into a DNA host using geometrically organized supramolecular interactions. <i>Nature Communications</i> , 2017 , 8, 14472	17.4	54
238	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	3	54
237	Chemical and physical side effects at application of ultrashort laser pulses for intrastromal refractive surgery. <i>Journal of Optics</i> , 2000 , 2, 59-64		52

236	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	3.2	49
235	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	7.3	49
234	Debris-free rear-side picosecond laser ablation of thin germanium wafers in water with ethanol. <i>Applied Surface Science</i> , 2016 , 367, 222-230	6.7	49
233	Penetratin-Conjugated Gold Nanoparticles [Design of Cell-Penetrating Nanomarkers by Femtosecond Laser Ablation. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 5152-5159	3.8	49
232	Sex selection of sperm in farm animals: status report and developmental prospects. <i>Reproduction</i> , 2013 , 145, R15-30	3.8	48
231	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	3.8	48
230	Gold nanoparticles interfere with sperm functionality by membrane adsorption without penetration. <i>Nanotoxicology</i> , 2014 , 8 Suppl 1, 118-27	5.3	47
229	Toxicity of gold nanoparticles on somatic and reproductive cells. <i>Advances in Experimental Medicine and Biology</i> , 2012 , 733, 125-33	3.6	47
228	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	3.8	47
227	Status and demand of research to bring laser generation of nanoparticles in liquids to maturity. <i>Applied Surface Science</i> , 2019 , 488, 445-454	6.7	46
226	Effects of silver nitrate and silver nanoparticles on a planktonic community: general trends after short-term exposure. <i>PLoS ONE</i> , 2014 , 9, e95340	3.7	46
225	Alloying colloidal silver nanoparticles with gold disproportionally controls antibacterial and toxic effects. <i>Gold Bulletin</i> , 2014 , 47, 83-93	1.6	45
224	Plasmon assisted 3D microstructuring of gold nanoparticle-doped polymers. <i>Nanotechnology</i> , 2016 , 27, 154001	3.4	44
223	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, 299-309	3.3	44
222	Serum albumin reduces the antibacterial and cytotoxic effects of hydrogel-embedded colloidal silver nanoparticles. <i>RSC Advances</i> , 2012 , 2, 7190	3.7	43
221	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 , 77, 439-46	4.6	43
220	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	6.7	42
219	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	4.9	42

218	Solid solution magnetic FeNi nanostrand polymer composites by connecting-coarsening assembly. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 10699-10704	7.1	42
217	Impact of in situ polymer coating on particle dispersion into solid laser-generated nanocomposites. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 5120-6	3.6	42
216	Compatibilization of laser generated antibacterial Ag- and Cu-nanoparticles for perfluorinated implant materials. <i>European Polymer Journal</i> , 2011 , 47, 662-667	5.2	42
215	Influence of ligands in metal nanoparticle electrophoresis for the fabrication of biofunctional coatings. <i>Applied Surface Science</i> , 2015 , 348, 92-99	6.7	40
214	Cardiorespiratory function before and after operation for pectus excavatum: medium-term results. <i>European Journal of Cardio-thoracic Surgery</i> , 1998 , 13, 275-9	3	40
213	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	9.3	39
212	Photoluminescent zinc oxide polymer nanocomposites fabricated using picosecond laser ablation in an organic solvent. <i>Applied Surface Science</i> , 2011 , 257, 7231-7237	6.7	39
211	In situ bioconjugation—Novel laser based approach to pure nanoparticle-conjugates. <i>Applied Surface Science</i> , 2009 , 255, 5435-5438	6.7	38
210	Characterizing the Effect of Multivalent Conjugates Composed of Aβ-Specific Ligands and Metal Nanoparticles on Neurotoxic Fibrillar Aggregation. <i>ACS Nano</i> , 2016 , 10, 7582-97	16.7	37
209	One-step synthesis of FeAu core-shell magnetic-plasmonic nanoparticles driven by interface energy minimization. <i>Nanoscale Horizons</i> , 2019 , 4, 1326-1332	10.8	37
208	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	2.6	37
207	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	2.5	36
206	Laser Fragmentation-Induced Defect-Rich Cobalt Oxide Nanoparticles for Electrochemical Oxygen Evolution Reaction. <i>ChemSusChem</i> , 2020 , 13, 520-528	8.3	36
205	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	4.5	36
204	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	7.7	35
203	Right ventricular morphology and function after pulmonary resection. <i>European Journal of Cardio-thoracic Surgery</i> , 1999 , 15, 444-8	3	35
202	Fluence Threshold Behaviour on Ablation and Bubble Formation in Pulsed Laser Ablation in Liquids. <i>ChemPhysChem</i> , 2017 , 18, 1084-1090	3.2	34
201	Materials synthesis in a bubble. <i>MRS Bulletin</i> , 2019 , 44, 382-391	3.2	34

200	Ripening kinetics of laser-generated plasmonic nanoparticles in different solvents. <i>Chemical Physics Letters</i> , 2015 , 626, 96-101	2.5	34
199	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	10	34
198	Charge Balancing of Model Gold-Nanoparticle-Peptide Conjugates Controlled by the Peptide Net Charge and the Ligand to Nanoparticle Ratio. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 10302-10313	3.8	34
197	Layered Seed-Growth of AgGe Football-like Microspheres via Precursor-Free Picosecond Laser Synthesis in Water. <i>Scientific Reports</i> , 2015 , 5, 13661	4.9	34
196	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	6.7	34
195	Germanium Sub-Microspheres Synthesized by Picosecond Pulsed Laser Melting in Liquids: Educt Size Effects. <i>Scientific Reports</i> , 2017 , 7, 40355	4.9	32
194	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	3.8	32
193	Early appearance of crystalline nanoparticles in pulsed laser ablation in liquids dynamics. <i>Nanoscale</i> , 2019 , 11, 6962-6969	7.7	32
192	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	1.4	32
191	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, 16585-93	3.6	32
190	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	2.6	32
189	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	3.8	32
188	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	2.1	32
187	Rational design of gold nanoparticle toxicology assays: a question of exposure scenario, dose and experimental setup. <i>Nanomedicine</i> , 2014 , 9, 1971-89	5.6	31
186	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, 8793-802	4	30
185	Crystallographic characterization of laser-generated, polymer-stabilized 4 nm silver-gold alloyed nanoparticles. <i>Materials Chemistry and Physics</i> , 2018 , 207, 442-450	4.4	29
184	Nano-energy research trends: bibliometrical analysis of nanotechnology research in the energy sector. <i>Journal of Nanoparticle Research</i> , 2011 , 13, 3911-3922	2.3	29
183	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	6.7	29

182	Determining the role of redox-active materials during laser-induced water decomposition. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 18636-18651	3.6	28
181	Electrochemistry-controlled metal ion release from silicone elastomer nanocomposites through combination of different metal nanoparticles. <i>Journal of Materials Chemistry</i> , 2011 , 21, 10287		28
180	Size-Selective Optical Printing of Silicon Nanoparticles through Their Dipolar Magnetic Resonance. <i>ACS Photonics</i> , 2019 , 6, 815-822	6.3	27
179	Inclusion of supported gold nanoparticles into their semiconductor support. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 29311-8	3.6	27
178	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	9.4	27
177	Time and Mechanism of Nanoparticle Functionalization by Macromolecular Ligands during Pulsed Laser Ablation in Liquids. <i>Langmuir</i> , 2019 , 35, 3038-3047	4	27
176	Dose-dependent surface endothelialization and biocompatibility of polyurethane noble metal nanocomposites. <i>Journal of Biomedical Materials Research - Part A</i> , 2014 , 102, 1909-20	5.4	26
175	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, 2151-62	4.5	26
174	Golden perspective: application of laser-generated gold nanoparticle conjugates in reproductive biology. <i>Reproduction in Domestic Animals</i> , 2011 , 46 Suppl 3, 42-52	1.6	26
173	First PEM fuel cell based on ligand-free, laser-generated platinum nanoparticles. <i>Applied Surface Science</i> , 2019 , 467-468, 486-492	6.7	26
172	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	8.4	25
171	Biocompatible microgel-modified electrospun fibers for zinc ion release. <i>Polymer</i> , 2015 , 61, 163-173	3.9	24
170	Impact of metal nanoparticles on germ cell viability and functionality. <i>Reproduction in Domestic Animals</i> , 2012 , 47 Suppl 4, 359-68	1.6	24
169	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	2.3	24
168	Femtosecond laser microstructuring of hot-isostatically pressed zirconia ceramic. <i>Journal of Laser Applications</i> , 2007 , 19, 107-115	2.1	24
167	Nanocomposite manufacturing using ultrashort-pulsed laser ablation in solvents and monomers. <i>Polimery</i> , 2008 , 53, 657-662	3.4	24
166	Efficient nucleic acid delivery to murine regulatory T cells by gold nanoparticle conjugates. <i>Scientific Reports</i> , 2016 , 6, 28709	4.9	24
165	A new approach to coat PA12 powders with laser-generated nanoparticles for selective laser sintering. <i>Procedia CIRP</i> , 2018 , 74, 244-248	1.8	24

164	Bioconjugated Gold Nanoparticles Penetrate Into Spermatozoa Depending on Plasma Membrane Status. <i>Journal of Biomedical Nanotechnology</i> , 2015 , 11, 1597-607	4	23
163	First on-line analysis of petroleum from single inclusion using ultrafast laser ablation. <i>Organic Geochemistry</i> , 2010 , 41, 74-77	3.1	23
162	In-situ bioconjugation in stationary media and in liquid flow by femtosecond laser ablation. <i>Applied Physics A: Materials Science and Processing</i> , 2010 , 101, 259-264	2.6	23
161	Laser induced modification of surface structures. <i>Applied Surface Science</i> , 2007 , 253, 4295-4299	6.7	23
160	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	6.7	23
159	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,	5.4	22
158	Impact of spacer and strand length on oligonucleotide conjugation to the surface of ligand-free laser-generated gold nanoparticles. <i>Bioconjugate Chemistry</i> , 2012 , 23, 908-15	6.3	22
157	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	2.6	21
156	Near-field-enhanced, off-resonant laser sintering of semiconductor particles for additive manufacturing of dispersed Au/ZnO-micro/nano hybrid structures. <i>Applied Physics A: Materials Science and Processing</i> , 2014 , 114, 1023-1030	2.6	21
155	Injection of ligand-free gold and silver nanoparticles into murine embryos does not impact pre-implantation development. <i>Beilstein Journal of Nanotechnology</i> , 2014 , 5, 677-88	3	21
154	Antimicrobial efficacy, cytotoxicity, and ion release of mixed metal (Ag, Cu, Zn, Mg) nanoparticle polymer composite implant material. <i>BioNanoMaterials</i> , 2013 , 14,		21
153	Ablation efficiency of Al ₂ O ₃ in liquid phase and ambient air by nanosecond laser irradiation. <i>Applied Physics A: Materials Science and Processing</i> , 2010 , 100, 203-206	2.6	21
152	Induction of osteogenic differentiation of adipose derived stem cells by microstructured nitinol actuator-mediated mechanical stress. <i>PLoS ONE</i> , 2012 , 7, e51264	3.7	21
151	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	6.7	21
150	Peptide Cross-linkers: Immobilization of Platinum Nanoparticles Highly Dispersed on Graphene Oxide Nanosheets with Enhanced Photocatalytic Activities. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 9996-10002	9.5	20
149	Temperature-Dependent Ultrastructure Transformation of Au/Fe Nanoparticles Investigated by in Situ Scanning Transmission Electron Microscopy. <i>Crystal Growth and Design</i> , 2018 , 18, 5434-5440	3.5	20
148	Physical fabrication of colloidal ZnO nanoparticles combining wet-grinding and laser fragmentation. <i>Applied Physics A: Materials Science and Processing</i> , 2012 , 108, 793-799	2.6	20
147	Therapeutic Window of Ligand-Free Silver Nanoparticles in Agar-Embedded and Colloidal State: In Vitro Bactericidal Effects and Cytotoxicity. <i>Advanced Engineering Materials</i> , 2012 , 14, B231-B239	3.5	20

146	Adhesion, vitality and osteogenic differentiation capacity of adipose derived stem cells seeded on nitinol nanoparticle coatings. <i>PLoS ONE</i> , 2013 , 8, e53309	3.7	20
145	Ultrafiltration membrane-based purification of bioconjugated gold nanoparticle dispersions. <i>Separation and Purification Technology</i> , 2016 , 157, 120-130	8.3	20
144	Discrimination of effects leading to gas formation during pulsed laser ablation in liquids. <i>Applied Surface Science</i> , 2019 , 465, 1096-1102	6.7	20
143	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	13.1	20
142	Laser additive manufacturing of oxide dispersion strengthened steels using laser-generated nanoparticle-metal composite powders. <i>Procedia CIRP</i> , 2018 , 74, 196-200	1.8	20
141	Strategies to harvest the unique properties of laser-generated nanomaterials in biomedical and energy applications. <i>Applied Surface Science</i> , 2015 , 348, 1-3	6.7	19
140	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, 044306	2.5	19
139	Therapeutic Window for Bioactive Nanocomposites Fabricated by Laser Ablation in Polymer-Doped Organic Liquids. <i>Advanced Engineering Materials</i> , 2010 , 12, B156-B162	3.5	19
138	X-ray spectroscopic and stroboscopic analysis of pulsed-laser ablation of Zn and its oxidation. <i>Applied Physics A: Materials Science and Processing</i> , 2018 , 124, 1	2.6	18
137	Optical and electron microscopy study of laser-based intracellular molecule delivery using peptide-conjugated photodispersible gold nanoparticle agglomerates. <i>Journal of Nanobiotechnology</i> , 2016 , 14, 2	9.4	18
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