

Costas P Grigoropoulos

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340
papers

16,327
citations

63
h-index

119
g-index

374
ext. papers

18,212
ext. citations

6.7
avg, IF

6.51
L-index

#	Paper	IF	Citations
340	Fast mass transport through sub-2-nanometer carbon nanotubes. <i>Science</i> , 2006 , 312, 1034-7	33.3	2257
339	Nanofluidics in carbon nanotubes. <i>Nano Today</i> , 2007 , 2, 22-29	17.9	963
338	Nanoforest of hydrothermally grown hierarchical ZnO nanowires for a high efficiency dye-sensitized solar cell. <i>Nano Letters</i> , 2011 , 11, 666-71	11.5	886
337	All-inkjet-printed flexible electronics fabrication on a polymer substrate by low-temperature high-resolution selective laser sintering of metal nanoparticles. <i>Nanotechnology</i> , 2007 , 18, 345202	3.4	560
336	Ion exclusion by sub-2-nm carbon nanotube pores. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 17250-5	11.5	523
335	Stochastic transport through carbon nanotubes in lipid bilayers and live cell membranes. <i>Nature</i> , 2014 , 514, 612-5	50.4	291
334	Direct nanoimprinting of metal nanoparticles for nanoscale electronics fabrication. <i>Nano Letters</i> , 2007 , 7, 1869-77	11.5	262
333	Conductor microstructures by laser curing of printed gold nanoparticle ink. <i>Applied Physics Letters</i> , 2004 , 84, 801-803	3.4	215
332	On the coalescence of gold nanoparticles. <i>International Journal of Multiphase Flow</i> , 2004 , 30, 979-994	3.6	193
331	Facile fabrication of flexible all solid-state micro-supercapacitor by direct laser writing of porous carbon in polyimide. <i>Carbon</i> , 2015 , 83, 144-151	10.4	179
330	Highly flexible, all solid-state micro-supercapacitors from vertically aligned carbon nanotubes. <i>Nanotechnology</i> , 2014 , 25, 055401	3.4	166
329	Excimer laser-induced temperature field in melting and resolidification of silicon thin films. <i>Journal of Applied Physics</i> , 2000 , 87, 36-43	2.5	161
328	Nanoscale Patterning and Electronics on Flexible Substrate by Direct Nanoimprinting of Metallic Nanoparticles. <i>Advanced Materials</i> , 2008 , 20, 489-496	24	156
327	Advances in pantographic structures: design, manufacturing, models, experiments and image analyses. <i>Continuum Mechanics and Thermodynamics</i> , 2019 , 31, 1231-1282	3.5	153
326	Air stable high resolution organic transistors by selective laser sintering of ink-jet printed metal nanoparticles. <i>Applied Physics Letters</i> , 2007 , 90, 141103	3.4	153
325	Liquid-assisted femtosecond laser drilling of straight and three-dimensional microchannels in glass. <i>Applied Physics A: Materials Science and Processing</i> , 2004 , 79, 605-612	2.6	152
324	Computational study of heat transfer and gas dynamics in the pulsed laser evaporation of metals. <i>Journal of Applied Physics</i> , 1995 , 78, 4696-4709	2.5	149

323	Nanoscale electronics: digital fabrication by direct femtosecond laser processing of metal nanoparticles. <i>Advanced Materials</i> , 2011 , 23, 3176-81	24	147
322	Femtosecond laser aperturless near-field nanomachining of metals assisted by scanning probe microscopy. <i>Applied Physics Letters</i> , 2003 , 82, 1146-1148	3.4	147
321	Microstructuring by printing and laser curing of nanoparticle solutions. <i>Applied Physics Letters</i> , 2003 , 82, 3529-3531	3.4	139
320	Bioelectronic silicon nanowire devices using functional membrane proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 13780-4	11.5	138
319	Fabrication of multilayer passive and active electric components on polymer using inkjet printing and low temperature laser processing. <i>Sensors and Actuators A: Physical</i> , 2007 , 134, 161-168	3.9	136
318	Plasma and ablation dynamics in ultrafast laser processing of crystalline silicon. <i>Journal of Applied Physics</i> , 2002 , 92, 4918-4925	2.5	135
317	Directing cell migration and organization via nanocrater-patterned cell-repellent interfaces. <i>Nature Materials</i> , 2015 , 14, 918-23	27	130
316	Thermal conductivity and diffusivity of free-standing silicon nitride thin films. <i>Review of Scientific Instruments</i> , 1995 , 66, 1115-1120	1.7	123
315	Metal nanoparticle direct inkjet printing for low-temperature 3D micro metal structure fabrication. <i>Journal of Micromechanics and Microengineering</i> , 2010 , 20, 125010	2	119
314	Experimental study on spreading and evaporation of inkjet printed pico-liter droplet on a heated substrate. <i>International Journal of Heat and Mass Transfer</i> , 2009 , 52, 431-441	4.9	115
313	Self-organizing human cardiac microchambers mediated by geometric confinement. <i>Nature Communications</i> , 2015 , 6, 7413	17.4	113
312	Near-threshold laser sputtering of gold. <i>Journal of Applied Physics</i> , 1995 , 77, 849-864	2.5	110
311	Low-cost facile fabrication of flexible transparent copper electrodes by nanosecond laser ablation. <i>Advanced Materials</i> , 2015 , 27, 2762-7	24	108
310	Surface nanostructuring by nano-/femtosecond laser-assisted scanning force microscopy. <i>Journal of Applied Physics</i> , 2005 , 97, 104319	2.5	108
309	Femtosecond laser ablation enhances cell infiltration into three-dimensional electrospun scaffolds. <i>Acta Biomaterialia</i> , 2012 , 8, 2648-58	10.8	101
308	Vacuum-free, maskless patterning of Ni electrodes by laser reductive sintering of NiO nanoparticle ink and its application to transparent conductors. <i>ACS Nano</i> , 2014 , 8, 9807-14	16.7	98
307	Single cell detection using a glass-based optofluidic device fabricated by femtosecond laser pulses. <i>Lab on A Chip</i> , 2009 , 9, 311-8	7.2	97
306	Gas dynamics and radiation heat transfer in the vapor plume produced by pulsed laser irradiation of aluminum. <i>Journal of Applied Physics</i> , 1996 , 79, 7205-7215	2.5	97

305	Pressure generation and measurement in the rapid vaporization of water on a pulsed-laser-heated surface. <i>Journal of Applied Physics</i> , 1996 , 80, 4072-4081	2.5	94
304	Time-of-flight and emission spectroscopy study of femtosecond laser ablation of titanium. <i>Journal of Applied Physics</i> , 2001 , 89, 5183-5190	2.5	93
303	Mechanism and kinetics of growth termination in controlled chemical vapor deposition growth of multiwall carbon nanotube arrays. <i>Nano Letters</i> , 2009 , 9, 738-44	11.5	92
302	Next generation non-vacuum, maskless, low temperature nanoparticle ink laser digital direct metal patterning for a large area flexible electronics. <i>PLoS ONE</i> , 2012 , 7, e42315	3.7	92
301	The effect of micronscale anisotropic cross patterns on fibroblast migration. <i>Biomaterials</i> , 2010 , 31, 4286-95	3.5	92
300	Three-dimensional filamentous human diseased cardiac tissue model. <i>Biomaterials</i> , 2014 , 35, 1367-77	15.6	90
299	pH-tunable ion selectivity in carbon nanotube pores. <i>Langmuir</i> , 2010 , 26, 14848-53	4	90
298	ZnO nanowire network transistor fabrication on a polymer substrate by low-temperature, all-inorganic nanoparticle solution process. <i>Applied Physics Letters</i> , 2008 , 92, 154102	3.4	88
297	Laser cleaning of surface contaminants. <i>Applied Surface Science</i> , 1998 , 127-129, 721-725	6.7	87
296	Fabrication of flexible, aligned carbon nanotube/polymer composite membranes by in-situ polymerization. <i>Journal of Membrane Science</i> , 2014 , 460, 91-98	9.6	84
295	Pulsed laser-induced ablation of absorbing liquids and acoustic-transient generation. <i>Applied Physics A: Materials Science and Processing</i> , 1998 , 67, 169-181	2.6	84
294	Rapid, One-Step, Digital Selective Growth of ZnO Nanowires on 3D Structures Using Laser Induced Hydrothermal Growth. <i>Advanced Functional Materials</i> , 2013 , 23, 3316-3323	15.6	80
293	The Solid-State Neck Growth Mechanisms in Low Energy Laser Sintering of Gold Nanoparticles: A Molecular Dynamics Simulation Study. <i>Journal of Heat Transfer</i> , 2008 , 130,	1.8	77
292	Manufacturing of nanoscale thickness gold lines by laser curing of a discretely deposited nanoparticle suspension. <i>Superlattices and Microstructures</i> , 2004 , 35, 437-444	2.8	77
291	Site Selective Doping of Ultrathin Metal Dichalcogenides by Laser-Assisted Reaction. <i>Advanced Materials</i> , 2016 , 28, 341-6	24	75
290	A Review of Heat Transfer Physics. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2008 , 12, 1-60	3.7	74
289	Laser annealed composite titanium dioxide electrodes for dye-sensitized solar cells on glass and plastics. <i>Applied Physics Letters</i> , 2009 , 94, 071117	3.4	71
288	Nanosecond laser ablation of gold nanoparticle films. <i>Applied Physics Letters</i> , 2006 , 89, 141126	3.4	71

287	Optical reflectance and scattering studies of nucleation and growth of bubbles at a liquid-solid interface induced by pulsed laser heating. <i>Physical Review Letters</i> , 1993 , 70, 1830-1833	7.4	70
286	Synthesis of hierarchical TiO ₂ nanowires with densely-packed and omnidirectional branches. <i>Nanoscale</i> , 2013 , 5, 11147-52	7.7	69
285	Melt-mediated coalescence of solution-deposited ZnO nanoparticles by excimer laser annealing for thin-film transistor fabrication. <i>Applied Physics A: Materials Science and Processing</i> , 2009 , 94, 111-115	2.6	69
284	Fountain-pen-based laser microstructuring with gold nanoparticle inks. <i>Applied Physics Letters</i> , 2004 , 85, 13-15	3.4	68
283	Lithography-free high-resolution organic transistor arrays on polymer substrate by low energy selective laser ablation of inkjet-printed nanoparticle film. <i>Applied Physics A: Materials Science and Processing</i> , 2008 , 92, 579-587	2.6	67
282	Efficiency of silicon micromachining by femtosecond laser pulses in ambient air. <i>Journal of Applied Physics</i> , 2006 , 99, 083101	2.5	65
281	In-tandem deposition and sintering of printed gold nanoparticle inks induced by continuous Gaussian laser irradiation. <i>Applied Physics A: Materials Science and Processing</i> , 2004 , 79, 1259-1261	2.6	65
280	Laser-Induced Hydrothermal Growth of Heterogeneous Metal-Oxide Nanowire on Flexible Substrate by Laser Absorption Layer Design. <i>ACS Nano</i> , 2015 , 9, 6059-68	16.7	64
279	Hierarchical weeping willow nano-tree growth and effect of branching on dye-sensitized solar cell efficiency. <i>Nanotechnology</i> , 2012 , 23, 194005	3.4	64
278	High-Performance Flexible Multilayer MoS ₂ Transistors on Solution-Based Polyimide Substrates. <i>Advanced Functional Materials</i> , 2016 , 26, 2426-2434	15.6	63
277	Transport phenomena in a steam-methanol reforming microreactor with internal heating. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 314-322	6.7	63
276	Ultrafast laser-induced crystallization of amorphous silicon films. <i>Optical Engineering</i> , 2003 , 42, 3383	1.1	63
275	Carbon nanotube transistor controlled by a biological ion pump gate. <i>Nano Letters</i> , 2010 , 10, 1812-6	11.5	62
274	Growth kinetics of vertically aligned carbon nanotube arrays in clean oxygen-free conditions. <i>ACS Nano</i> , 2011 , 5, 9602-10	16.7	60
273	A Lithography-Free and Field-Programmable Photonic Metacanvas. <i>Advanced Materials</i> , 2018 , 30, 1703878	11.4	60
272	Contractile deficits in engineered cardiac microtissues as a result of MYBPC3 deficiency and mechanical overload. <i>Nature Biomedical Engineering</i> , 2018 , 2, 955-967	19	60
271	A study of steam methanol reforming in a microreactor. <i>Journal of Power Sources</i> , 2007 , 173, 458-466	8.9	59
270	Femtosecond laser induced ablation of crystalline silicon upon double beam irradiation. <i>Applied Surface Science</i> , 2002 , 197-198, 720-725	6.7	59

269	3D micro-structures by piezoelectric inkjet printing of gold nanofluids. <i>Journal of Micromechanics and Microengineering</i> , 2012 , 22, 055022	2	58
268	Damage-Free Low Temperature Pulsed Laser Printing of Gold Nanoinks On Polymers. <i>Journal of Heat Transfer</i> , 2005 , 127, 724-732	1.8	56
267	Relationship between fluence gradient and lateral grain growth in spatially controlled excimer laser crystallization of amorphous silicon films. <i>Journal of Applied Physics</i> , 2000 , 88, 4994-4999	2.5	56
266	Selective and localized laser annealing effect for high-performance flexible multilayer MoS ₂ thin-film transistors. <i>Nano Research</i> , 2014 , 7, 1137-1145	10	55
265	Heat transfer across the interface between nanoscale solids and gas. <i>ACS Nano</i> , 2011 , 5, 10102-7	16.7	55
264	Liquid-assisted pulsed laser cleaning using near-infrared and ultraviolet radiation. <i>Journal of Applied Physics</i> , 1999 , 86, 6519-6524	2.5	54
263	Optical probing of the temperature transients during pulsed-laser induced boiling of liquids. <i>Applied Physics Letters</i> , 1996 , 68, 596-598	3.4	54
262	Thermal conductivity of amorphous silicon thin films. <i>International Journal of Heat and Mass Transfer</i> , 2002 , 45, 2439-2447	4.9	53
261	High-throughput near-field optical nanoprocessing of solution-deposited nanoparticles. <i>Small</i> , 2010 , 6, 1812-21	11	52
260	Femtosecond laser ablation induced plasma characteristics from submicron craters in thin metal film. <i>Applied Physics Letters</i> , 2007 , 91, 251118	3.4	51
259	Ablation of thin metal films by short-pulsed lasers coupled through near-field scanning optical microscopy probes. <i>Journal of Applied Physics</i> , 2006 , 99, 044905	2.5	50
258	Analysis of flicker noise in two-dimensional multilayer MoS ₂ transistors. <i>Applied Physics Letters</i> , 2014 , 104, 083110	3.4	49
257	Laser-assisted simultaneous transfer and patterning of vertically aligned carbon nanotube arrays on polymer substrates for flexible devices. <i>ACS Nano</i> , 2012 , 6, 7858-66	16.7	48
256	Digital selective growth of ZnO nanowire arrays from inkjet-printed nanoparticle seeds on a flexible substrate. <i>Langmuir</i> , 2012 , 28, 4787-92	4	47
255	Laser-Induced Reductive Sintering of Nickel Oxide Nanoparticles under Ambient Conditions. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 6363-6372	3.8	45
254	Highly efficient biocompatible single silicon nanowire electrodes with functional biological pore channels. <i>Nano Letters</i> , 2009 , 9, 1121-6	11.5	45
253	Nanoscale rapid melting and crystallization of semiconductor thin films. <i>Nano Letters</i> , 2005 , 5, 1924-30	11.5	45
252	Mechanism of bump formation on glass substrates during laser texturing. <i>Journal of Applied Physics</i> , 1999 , 86, 1311-1316	2.5	45

251	Graphene folds by femtosecond laser ablation. <i>Applied Physics Letters</i> , 2012 , 100, 233124	3.4	44
250	Spectral optical functions of silicon in the range of 1.13-4.96 eV at elevated temperatures. <i>International Journal of Heat and Mass Transfer</i> , 1997 , 40, 1591-1600	4.9	44
249	Laser-induced direct graphene patterning and simultaneous transferring method for graphene sensor platform. <i>Small</i> , 2013 , 9, 4269-75	11	43
248	Frictionless sliding of single-stranded DNA in a carbon nanotube pore observed by single molecule force spectroscopy. <i>Nano Letters</i> , 2011 , 11, 1171-6	11.5	43
247	Temperature-adaptive radiative coating for all-season household thermal regulation.. <i>Science</i> , 2021 , 374, 1504-1509	33.3	43
246	Force-displacement relationship in micro-metric pantographs: Experiments and numerical simulations. <i>Comptes Rendus - Mecanique</i> , 2019 , 347, 397-405	2.1	42
245	Laser wavelength effect on laser-induced photo-thermal sintering of silver nanoparticles. <i>Applied Physics A: Materials Science and Processing</i> , 2015 , 120, 1229-1240	2.6	41
244	Chemical patterning of ultrathin polymer films by direct-write multiphoton lithography. <i>Journal of the American Chemical Society</i> , 2011 , 133, 6138-41	16.4	41
243	High resolution selective multilayer laser processing by nanosecond laser ablation of metal nanoparticle films. <i>Journal of Applied Physics</i> , 2007 , 102, 093102	2.5	41
242	Modeling of pulsed laser irradiation of thin silicon layers. <i>International Journal of Heat and Mass Transfer</i> , 1993 , 36, 919-924	4.9	41
241	Shape-Controllable Gold Nanoparticle-MoS Hybrids Prepared by Tuning Edge-Active Sites and Surface Structures of MoS via Temporally Shaped Femtosecond Pulses. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 7447-7455	9.5	40
240	Transport in packed-bed and wall-coated steam-methanol reformers. <i>Journal of Power Sources</i> , 2007 , 166, 194-201	8.9	40
239	Architected metamaterials with tailored 3D buckling mechanisms at the microscale. <i>Extreme Mechanics Letters</i> , 2019 , 33, 100580	3.9	39
238	In situ TEM near-field optical probing of nanoscale silicon crystallization. <i>Nano Letters</i> , 2012 , 12, 2524-9	11.5	38
237	Nanomaterial enabled laser transfer for organic light emitting material direct writing. <i>Applied Physics Letters</i> , 2008 , 93, 151110	3.4	38
236	Hydrogen storage property of sandwiched magnesium hydride nanoparticle thin film. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 7232-7235	6.7	37
235	Thermal sintering of solution-deposited nanoparticle silver ink films characterized by spectroscopic ellipsometry. <i>Applied Physics Letters</i> , 2008 , 93, 234104	3.4	35
234	A heat transfer algorithm for the laser-induced melting and recrystallization of thin silicon layers. <i>Journal of Applied Physics</i> , 1986 , 60, 2304-2309	2.5	35

233	Electrical characteristics of multilayer MoS ₂ transistors at real operating temperatures with different ambient conditions. <i>Applied Physics Letters</i> , 2014 , 105, 152105	3.4	34
232	Non-vacuum, single-step conductive transparent ZnO patterning by ultra-short pulsed laser annealing of solution-deposited nanoparticles. <i>Applied Physics A: Materials Science and Processing</i> , 2012 , 107, 161-171	2.6	33
231	Enhanced acoustic cavitation following laser-induced bubble formation: Long-term memory effect. <i>Physical Review Letters</i> , 1994 , 72, 2021-2024	7.4	33
230	The role of reflectivity change in optically induced recrystallization of thin silicon films. <i>Journal of Applied Physics</i> , 1986 , 59, 454-458	2.5	33
229	Rapid selective metal patterning on polydimethylsiloxane (PDMS) fabricated by capillarity-assisted laser direct write. <i>Journal of Micromechanics and Microengineering</i> , 2011 , 21, 095018	2	32
228	Phase-change phenomena and acoustic transient generation in the pulsed laser induced ablation of absorbing liquids. <i>Applied Surface Science</i> , 1998 , 127-129, 53-58	6.7	32
227	Transport in Laser Microfabrication: Fundamentals and Applications 2009 ,		32
226	Optical measurements of thermal diffusivity of a material. <i>International Journal of Thermophysics</i> , 1995 , 16, 973-995	2.1	31
225	Nanoscale Heaters: Single Nanowire Resistive Nano-heater for Highly Localized Thermo-Chemical Reactions: Localized Hierarchical Heterojunction Nanowire Growth (Small 24/2014). <i>Small</i> , 2014 , 10, 5014-5014 ³⁰	11	30
224	In situ monitoring of laser-assisted hydrothermal growth of ZnO nanowires: thermally deactivating growth kinetics. <i>Small</i> , 2014 , 10, 741-9	11	30
223	Self-standing aligned fiber scaffold fabrication by two photon photopolymerization. <i>Biomedical Microdevices</i> , 2009 , 11, 643-52	3.7	30
222	Exergetic analysis of fuel cell micropowerplants fed by methanol. <i>International Journal of Heat and Mass Transfer</i> , 2006 , 49, 2397-2411	4.9	30
221	Nanowire-on-Nanowire: All-Nanowire Electronics by On-Demand Selective Integration of Hierarchical Heterogeneous Nanowires. <i>ACS Nano</i> , 2017 , 11, 12311-12317	16.7	29
220	Nanoparticle Selective Laser Processing for a Flexible Display Fabrication. <i>Japanese Journal of Applied Physics</i> , 2010 , 49, 05EC03	1.4	29
219	Noncontact nanosecond-time-resolution temperature measurement in excimer laser heating of NiB disk substrates. <i>Applied Physics Letters</i> , 1997 , 71, 3191-3193	3.4	29
218	Osmotically-driven transport in carbon nanotube porins. <i>Nano Letters</i> , 2014 , 14, 7051-6	11.5	28
217	Fiber laser annealing of indium-tin-oxide nanoparticles for large area transparent conductive layers and optical film characterization. <i>Applied Physics A: Materials Science and Processing</i> , 2011 , 104, 29-38	2.6	28
216	Nanoscale laser processing and diagnostics. <i>Applied Physics A: Materials Science and Processing</i> , 2009 , 96, 289-306	2.6	28

215	An experimental investigation of microresistor laser printing with gold nanoparticle-laden inks. <i>Applied Physics A: Materials Science and Processing</i> , 2005 , 80, 1485-1495	2.6	28
214	Actively variable-spectrum optoelectronics with black phosphorus. <i>Nature</i> , 2021 , 596, 232-237	50.4	28
213	Hydrogen production with a solar steam-methanol reformer and colloid nanocatalyst. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 118-126	6.7	27
212	Nanometer-Scale Laser Direct-Write Using Near-Field Optics. <i>MRS Bulletin</i> , 2007 , 32, 16-22	3.2	27
211	Methanol steam reformer on a silicon wafer. <i>Journal of Microelectromechanical Systems</i> , 2006 , 15, 976-985	2.5	27
210	The effects of external fields in ceramic sintering. <i>Journal of the American Ceramic Society</i> , 2019 , 102, 5-31	3.8	27
209	Vacancies for controlling the behavior of microstructured three-dimensional mechanical metamaterials. <i>Mathematics and Mechanics of Solids</i> , 2019 , 24, 511-524	2.3	27
208	Solution-processed nickel oxide nanoparticles with NiOOH for hole injection layers of high-efficiency organic light-emitting diodes. <i>Nanoscale</i> , 2016 , 8, 17608-17615	7.7	26
207	Measurement of solid-liquid interface temperature during pulsed excimer laser melting of polycrystalline silicon films. <i>Applied Physics Letters</i> , 1994 , 65, 1745-1747	3.4	26
206	Intertwined microlattices greatly enhance the performance of mechanical metamaterials. <i>Mathematics and Mechanics of Solids</i> , 2019 , 24, 2636-2648	2.3	25
205	Programming Nanoparticles in Multiscale: Optically Modulated Assembly and Phase Switching of Silicon Nanoparticle Array. <i>ACS Nano</i> , 2018 , 12, 2231-2241	16.7	25
204	Optical near-field ablation-induced plasma characteristics. <i>Applied Physics Letters</i> , 2006 , 89, 254101	3.4	25
203	Interferometric probing of rapid vaporization at a solid-liquid interface induced by pulsed-laser irradiation. <i>International Journal of Heat and Mass Transfer</i> , 2001 , 44, 3843-3853	4.9	25
202	Thermal transport in melting and recrystallization of amorphous and polycrystalline Si thin films. <i>Applied Physics A: Materials Science and Processing</i> , 1999 , 69, S295-S298	2.6	25
201	Directed dewetting of amorphous silicon film by a donut-shaped laser pulse. <i>Nanotechnology</i> , 2015 , 26, 165303	3.4	23
200	Nanocatalyst fabrication and the production of hydrogen by using photon energy. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 1835-1843	6.7	23
199	In situ and ex situ diagnostics on melting and resolidification dynamics of amorphous and polycrystalline silicon thin films during excimer laser annealing. <i>Journal of Non-Crystalline Solids</i> , 2000 , 266-269, 654-658	3.9	23
198	Temporal profile of optical transmission probe for pulsed-laser heating of amorphous silicon films. <i>Applied Physics Letters</i> , 1992 , 61, 749-751	3.4	23

197	Large area crystallization of amorphous Si with overlapping high repetition rate laser pulses. <i>Thin Solid Films</i> , 2012 , 520, 6724-6729	2.2	22
196	Heat Transfer and Phase Transformations in Laser Annealing of Thin Si Films. <i>Journal of Heat Transfer</i> , 2002 , 124, 253-264	1.8	22
195	Time-resolved analysis of thickness-dependent dewetting and ablation of silver films upon nanosecond laser irradiation. <i>Applied Physics Letters</i> , 2016 , 108, 211602	3.4	22
194	Bioelectronic light-gated transistors with biologically tunable performance. <i>Advanced Materials</i> , 2015 , 27, 831-6	24	21
193	Femtosecond laser drilling of crystalline and multicrystalline silicon for advanced solar cell fabrication. <i>Applied Physics A: Materials Science and Processing</i> , 2012 , 108, 113-120	2.6	21
192	Hidden role of trace gas impurities in chemical vapor deposition growth of vertically-aligned carbon nanotube arrays. <i>Applied Physics Letters</i> , 2011 , 98, 153102	3.4	21
191	Friction in micro-channel flows of a liquid and vapor in trapezoidal and sinusoidal grooves. <i>International Journal of Heat and Mass Transfer</i> , 2001 , 44, 3103-3109	4.9	21
190	Photothermal displacement measurement of transient melting and surface deformation during pulsed laser heating. <i>Applied Physics Letters</i> , 1998 , 73, 2093-2095	3.4	21
189	Enhancing the expansion of a plasma shockwave by crater-induced laser refocusing in femtosecond laser ablation of fused silica. <i>Photonics Research</i> , 2017 , 5, 488	6	20
188	Directly Metering Light Absorption and Heat Transfer in Single Nanowires Using Metal/Insulator Transition in VO ₂ . <i>Advanced Optical Materials</i> , 2015 , 3, 336-341	8.1	20
187	Recrystallization of picosecond laser-melted ZnO nanoparticles in a liquid: a molecular dynamics study. <i>Journal of Chemical Physics</i> , 2010 , 132, 164504	3.9	20
186	Exergetic analysis and optimization of a solar-powered reformed methanol fuel cell micro-powerplant. <i>Journal of Power Sources</i> , 2010 , 195, 1676-1687	8.9	20
185	Ultra-large lateral grain growth by double laser recrystallization of a-Si films. <i>Applied Physics A: Materials Science and Processing</i> , 2001 , 73, 317-322	2.6	20
184	Direct Micro/Nano Patterning of Multiple Colored Quantum Dots by Large Area and Multilayer Imprinting. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 11728-11733	3.8	19
183	Large heat junction thermal resistance reduction in electronics by interface nanoengineering. <i>International Journal of Heat and Mass Transfer</i> , 2011 , 54, 5183-5183	4.9	19
182	Measurement of contractile forces generated by individual fibroblasts on self-standing fiber scaffolds. <i>Biomedical Microdevices</i> , 2011 , 13, 107-15	3.7	19
181	Laser ablation-induced spectral plasma characteristics in optical far- and near fields. <i>Journal of Applied Physics</i> , 2008 , 104, 013110	2.5	19
180	Excimer laser annealing of silicon nanowires. <i>Applied Physics Letters</i> , 2007 , 90, 111111	3.4	19

179	Evaluation of pulsed laser annealing for flexible multilayer MoS ₂ transistors. <i>Applied Physics Letters</i> , 2015 , 106, 113111	3.4	18
178	Self-guided glass drilling by femtosecond laser pulses. <i>Applied Physics A: Materials Science and Processing</i> , 2009 , 94, 555-558	2.6	18
177	Laser induced short plane acoustic wave focusing in water. <i>Applied Physics Letters</i> , 2007 , 91, 051128	3.4	18
176	Laser Direct Writing Process for Making Electrodes and High-k Sol-Gel ZrO ₂ for Boosting Performances of MoS ₂ Transistors. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 9314-8	9.5	18
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26	Nano-structuring using pulsed laser radiation376-398		
25	Pulsed-laser interaction with liquids282-312		
24	Laser cleaning of particulate contaminants313-329		
23	Thermal processes in laser-materials interactions60-86		
22	Desorption at low laser energy densities87-108		
21	Laser-induced surface modification240-264		
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