Stuart Edwardson

List of Publications by Year
in descending order

50	1,173	394390 19	477281 29
papers	citations	h-index	g-index

51	51	51	1105
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Advanced Beam Shaping for Ultrafast Laser Micro-processing. , 2022, , 105-114.		1
2	Backward Flux Re-Deposition Patterns during Multi-Spot Laser Ablation of Stainless Steel with Picosecond and Femtosecond Pulses in Air. Materials, 2021, 14, 2243.	2.9	4
3	Metal ablation study with a 10 picosecond laser under low and median fluence. Optics and Laser Technology, 2020, 121, 105792.	4.6	5
4	Multi imaging-based beam shaping for ultrafast laser-material processing using spatial light modulators. Optics and Lasers in Engineering, 2019, 112, 59-67.	3.8	28
5	Investigation of the thermal and optical performance of a spatial light modulator with high average power picosecond laser exposure for materials processing applications. Journal Physics D: Applied Physics, 2018, 51, 095603.	2.8	28
6	Direct Write Processing of Multi-micron Thickness Copper Nano-particle Paste on Flexible Substrates with 532 nm Laser Wavelength. Physics Procedia, 2016, 83, 194-203.	1.2	2
7	Impact of variables on efficiency of flue gas desulphurisation plant in Longannet Power Station (ScottishPower). International Journal of Oil, Gas and Coal Technology, 2016, 12, 162.	0.2	0
8	Imaging-based amplitude laser beam shaping for material processing by 2D reflectivity tuning of a spatial light modulator. Applied Optics, 2016, 55, 1095.	2.1	20
9	Ultrafast laser beam shaping for material processing at imaging plane by geometric masks using a spatial light modulator. Optics and Lasers in Engineering, 2015, 70, 1-5.	3.8	31
10	Tailored optical vector fields for ultrashort-pulse laser induced complex surface plasmon structuring. Optics Express, 2015, 23, 12562.	3.4	44
11	Electrochemical performance of laser micro-structured nickel oxyhydroxide cathodes. Journal of Power Sources, 2014, 271, 42-47.	7.8	35
12	Laser assisted direct write process with novel beam profiles. Optics and Lasers in Engineering, 2013, 51, 527-532.	3.8	10
13	NUV femtosecond laser inscription of volume Bragg gratings in poly(methyl)methacrylate with linear and circular polarizations. Laser Physics, 2013, 23, 126004.	1.2	9
14	Complete wavefront and polarization control for ultrashort-pulse laser microprocessing. Optics Express, 2013, 21, 21198.	3.4	58
15	Dynamic modulation of spatially structured polarization fields for real-time control of ultrafast laser-material interactions. Optics Express, 2013, 21, 25333.	3.4	67
16	Generation and analysis of radial polarization fields in a picosecond-pulse laser beam. , 2013, , .		0
17	Laser microprocessing of steel with radially and azimuthally polarized femtosecond vortex pulses. Journal of Optics (United Kingdom), 2012, 14, 085601.	2.2	102
18	A thermal investigation on conductive silver ink tracks cured on flexible substrates by repeating irradiations of Nd:YAG laser at the wavelength of 532 nm. , 2012, , .		2

#	Article	IF	Citations
19	Picosecond laser beam shaping using a spatial light modulator. , 2012, , .		2
20	Multiple NUV beam internal structuring of materials using a spatial light modulator. , 2012, , .		0
21	Real-time control of polarisation in ultra-short-pulse laser micro-machining. Applied Physics A: Materials Science and Processing, 2012, 107, 445-454.	2.3	16
22	Multi-beam second-harmonic generation in beta barium borate with a spatial light modulator and application to internal structuring in poly(methyl methacrylate). Applied Physics B: Lasers and Optics, 2012, 107, 795-801.	2.2	7
23	Ultra-short pulse laser micro-machining of metals with radial and azimuthal polarization. , 2011, , .		1
24	A predictive thermal dynamic model for parameter generation in the laser assisted direct write process. Journal Physics D: Applied Physics, 2011, 44, 435301.	2.8	3
25	High-speed uniform parallel 3D refractive index micro-structuring of poly(methyl methacrylate) for volume phase gratings. Applied Physics B: Lasers and Optics, 2010, 101, 817-823.	2.2	45
26	Silicon nanoparticles generated by femtosecond laser ablation in a liquid environment. Journal of Nanoparticle Research, 2010, 12, 573-580.	1.9	71
27	Femtosecond laser internal structuring of materials using a spatial light modulator. , 2010, , .		0
28	Real-time control of polarization in ultra-short pulse laser micro-processing. , 2010, , 553-556.		3
29	Laser forming: Overview of the controlling factors in the temperature gradient mechanism. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2010, 224, 1031-1040.	2.1	20
30	Finite Element Modelling of the Laser Forming of AISI 1010 Steel. , 2010, , 503-507.		1
31	Towards Controlled 3D Laser Forming. , 2010, , 513-516.		0
32	Fast parallel diffractive multi-beam laser surface micro-structuring. , 2010, , 469-472.		1
33	Single-pulse drilling study on Au, Al and Ti alloy byÂusingÂaÂpicosecond laser. Applied Physics A: Materials Science and Processing, 2009, 95, 739-746.	2.3	80
34	Fast parallel diffractive multi-beam femtosecond laser surface micro-structuring. Applied Surface Science, 2009, 255, 6582-6588.	6.1	92
35	Diffractive multi-beam surface micro-processing using 10ps laser pulses. Applied Surface Science, 2009, 255, 9040-9044.	6.1	42
36	The influences of particle number on hot spots in strongly coupled metal nanoparticles chain. Journal of Chemical Physics, 2008, 128, 094705.	3.0	109

#	Article	IF	Citations
37	Control method for 3D laser forming based on geometrical data. , 2007, , .		1
38	Key factors influencing the bend per pass in laser forming. , 2007, , .		6
39	Nano-particle generation by femto second laser ablation. , 2007, , .		1
40	Geometrical influences on multi-pass laser forming. Journal Physics D: Applied Physics, 2006, 39, 382-389.	2.8	51
41	2-D laser forming comparative study on Nd:YAG of titanium alloy Ti-6Al-4V. , 2004, , .		2
42	Iterative 3D laser forming of continuous surfaces. , 2004, , .		9
43	Strain gauge analysis of laser forming. Journal of Laser Applications, 2003, 15, 225-232.	1.7	14
44	Some recent developments in two-and three-dimensional laser forming for ÂmacroÂ and ÂmicroÂ applications. Journal of Optics, 2003, 5, S8-S15.	1.5	54
45	Dynamic distortion measurements during laser forming of Tiâ€™6Alâ€™4V and their comparison with a finite element model. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2003, 217, 1685-1696.	2.4	22
46	Laser forming of metal laminate composite materials. , 2003, , .		3
47	An experimental study of laser micro-forming using a pulsed Nd:YAG laser and scanning optics. , 2003, , .		3
48	Strain gauge analysis of laser forming. , 2002, , .		4
49	Generation of 3D shapes using a laser forming technique. , 2001, , .		11
50	Laser Forming of Aerospace Alloys. , 0, , .		34