

# Frederic Coste

## List of Publications by Year in descending order

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46  
papers

1,178  
citations

623734

14  
h-index

642732

23  
g-index

47  
all docs

47  
docs citations

47  
times ranked

970  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental analysis of spatter generation and melt-pool behavior during the powder bed laser beam melting process. Journal of Materials Processing Technology, 2018, 251, 376-386.	6.3	225
2	Experimental study of the dynamical coupling between the induced vapour plume and the melt pool for Nd:Yag CW laser welding. Journal Physics D: Applied Physics, 2006, 39, 394-400.	2.8	164
3	Analysis of laser-melt pool-powder bed interaction during the selective laser melting of a stainless steel. Journal of Laser Applications, 2017, 29, .	1.7	117
4	Study of keyhole behaviour for full penetration Nd:Yag CW laser welding. Journal Physics D: Applied Physics, 2005, 38, 1881-1887.	2.8	100
5	Analysis of hybrid Nd:Yag laser-MAG arc welding processes. Optics and Laser Technology, 2011, 43, 1155-1166.	4.6	70
6	Study of CW Nd-Yag laser welding of Zn-coated steel sheets. Journal Physics D: Applied Physics, 2006, 39, 401-409.	2.8	62
7	Metallic vapor ejection effect on melt pool dynamics in deep penetration laser welding. Journal of Laser Applications, 2004, 16, 16-19.	1.7	57
8	3D heat transfer model of hybrid laser Nd:Yag-MAG welding of S355 steel and experimental validation. International Journal of Heat and Mass Transfer, 2011, 54, 1313-1322.	4.8	48
9	Analysis and possible estimation of keyhole depths evolution, using laser operating parameters and material properties. Journal of Laser Applications, 2018, 30, .	1.7	44
10	Influence of beam diameter on Laser Powder Bed Fusion (L-PBF) process. Additive Manufacturing, 2020, 36, 101532.	3.0	39
11	Towards advanced welding methods for the ITER vacuum vessel sectors. Fusion Engineering and Design, 2003, 69, 215-220.	1.9	36
12	Influence of gas atmosphere (Ar or He) on the laser powder bed fusion of a Ni-based alloy. Journal of Materials Processing Technology, 2021, 288, 116851.	6.3	33
13	Analysis of the various melt pool hydrodynamic regimes observed during cw Nd-YAG deep penetration laser welding. , 2007, , .		24
14	Impact of the Curve Diameter and Laser Settings on Laser Fiber Fracture. Journal of Endourology, 2017, 31, 918-921.	2.1	22
15	Laser heat treatment of martensitic steel and dual-phase steel with high martensite content. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 752, 128-135.	5.6	19
16	Laser-delayed double shock-wave generation in water-confinement regime. Journal of Laser Applications, 2015, 27, .	1.7	14
17	Impact of laser fiber tip cleavage on power output for ureteroscopy and stone treatment. World Journal of Urology, 2017, 35, 1765-1770.	2.2	13
18	Analysis of basic processes inside the keyhole during deep penetration Nd-YAG cw laser welding. , 2006, , .		12

#	ARTICLE	IF	CITATIONS
19	RLCYC 75â€‰%â€‰â€‰a 2 kW electrically calibrated laser calorimeter designed for Laser MegaJoule diagnostics calibration. Metrologia, 2013, 50, 37-48.	1.2	12
20	Absorptivity measurements during laser powder bed fusion of pure copper with a 1â€‰kW cw green laser. Optics and Laser Technology, 2022, 147, 107612.	4.6	12
21	Deep penetration laser welding with Nd:YAG lasers combination up to 11 kW laser power. , 2003, , .		6
22	Laser based method for surface tension and density measurements for liquid refractory metals (Nb,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.7	6
23	Application of vision to laser welding: Increase of operating tolerances using beam-oscillation and filler-wire. , 1997, , .		4
24	Adaptive control of high-thickness laser welding. Welding International, 1999, 13, 465-469.	0.7	4
25	Surface oxidation of nickel base alloys and stainless steel under pure oxygen atmosphere: Application to oxygen safety. Journal of Laser Applications, 2019, 31, .	1.7	4
26	Study of Nd-YAG laser welding of Zn-coated steel thin sheets. , 2004, , .		4
27	Detailed Investigation of the Sequence of Mechanisms Participating in Metals Ignition in Oxygen Using Laser Heating and In Situ, Real-Time Diagnostics. , 2016, , 308-325.		4
28	Absorption dynamic behaviour of metals during laser solid state treatments. Journal Physics D: Applied Physics, 1996, 29, 225-232.	2.8	3
29	Process control applied to laser surface remelting. , 1997, , .		2
30	Nd: YAG laser welding of aluminium to low carbon steel. , 2004, , .		2
31	Study of keyhole behavior for full penetration Nd-YAG cw laser welding. , 2004, , .		2
32	Importance of the coupling between the induced vapor plume and the melt pool, for Nd-YAG CW laser welding. , 2005, , .		2
33	Characteristic melt pool hydrodynamic behaviors for CW Nd-YAG deep penetration laser welding. , 2008, , .		2
34	Laser welding using Nd:YAG lasers up to 12 kW. Application to high thickness welding. , 2002, , .		2
35	Non-stationary behaviour of the keyhole for continuous high power laser welding. , 1997, , .		1
36	Application of a modern high-power laser to heavy section welding. , 2000, 3888, 404.		1

#	ARTICLE	IF	CITATIONS
37	Laser and hybrid welding of high strength steel. Application to pressure vessel manufacturing. , 2005, , .		1
38	Physical study of hybrid Nd:YAG laser-mag welding process. , 2009, , .		1
39	Time-resolved CO 2 metal coupling determination for solid phase laser process optimization. , 1994, 2207, 313.		0
40	Study of keyhole geometry for full penetration Nd-Yag CW laser welding. , 0, , .		0
41	Determination of Transmitted Energy by Combustion of Known Volume of Metallic Particles in Pure Oxygen Pressurized Atmosphere. , 2021, , 116-153.		0
42	Development of a miniaturized and instrumented Nd:YAG cutting and welding tool. , 2003, , .		0
43	Pressure Dependence of Aluminum Ignition in Gaseous Oxygen and Possible Ignition Mechanisms in Brazed Aluminum Heat Exchangers. , 2012, , 117-146.		0
44	Hybrid laser welding of clad tubes. , 2013, , .		0
45	Study of carbon-fiber-reinforced-polymer under moderate laser intensity. Application to laser drilling. , 2013, , .		0
46	Laser Ignition of Metallic Rods and Discs in Gaseous Oxygen: A Complementary Approach to the Standard ASTM G124 Test Method. , 2021, , 46-77.		0