Thibault J-Y Derrien

List of Publications by Year
in descending order

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28	1,242	687363 13	677142 22
papers	citations	h-index	g-index

28	28	28	1059
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-speed manufacturing of highly regular femtosecond laser-induced periodic surface structures: physical origin of regularity. Scientific Reports, 2017, 7, 8485.	3.3	251
2	Fundamentals of ultrafast laserâ€“material interaction. MRS Bulletin, 2016, 41, 960-968.	3.5	185
3	Possible surface plasmon polariton excitation under femtosecond laser irradiation of silicon. Journal of Applied Physics, 2013, 114, .	2.5	136
4	Plasmonic formation mechanism of periodic 100-nm-structures upon femtosecond laser irradiation of silicon in water. Journal of Applied Physics, 2014, 116, .	2.5	104
5	Rippled area formed by surface plasmon polaritons upon femtosecond laser double-pulse irradiation of silicon. Optics Express, 2013, 21, 29643.	3.4	86
6	Relaxation dynamics of femtosecond-laser-induced temperature modulation on the surfaces of metals and semiconductors. Applied Surface Science, 2016, 374, 157-164.	6.1	72
7	Rippled area formed by surface plasmon polaritons upon femtosecond laser double-pulse irradiation of silicon: the role of carrier generation and relaxation processes. Applied Physics A: Materials Science and Processing, 2014, 117, 77-81.	2.3	67
8	LIPSS on thin metallic films: New insights from multiplicity of laser-excited electromagnetic modes and efficiency of metal oxidation. Applied Surface Science, 2019, 491, 650-658.	6.1	50
9	Properties of surface plasmon polaritons on lossy materials: lifetimes, periods and excitation conditions. Journal of Optics (United Kingdom), 2016, 18, 115007.	2.2	48
10	Formation of femtosecond laser induced surface structures on silicon: Insights from numerical modeling and single pulse experiments. Applied Surface Science, 2012, 258, 9487-9490.	6.1	40
11	Femtosecond Laser-Induced Periodic Surface Structures on Fused Silica: The Impact of the Initial Substrate Temperature. Materials, 2018, 11, 1340.	2.9	40
12	How to optimize ultrashort pulse laser interaction with glass surfaces in cutting regimes?. Applied Surface Science, 2015, 336, 364-374.	6.1	35
13	Wavelength dependence of picosecond laser-induced periodic surface structures on copper. Applied Surface Science, 2017, 417, 88-92.	6.1	29
14	Periodic surface functional group density on graphene via laser-induced substrate patterning at Si/SiO2 interface. Nano Research, 2020, 13, 2332-2339.	10.4	14
15	Laser surface micro-/nano-structuring by a simple transportable micro-sphere lens array. Journal of Applied Physics, 2012, 112, 103111.	2.5	13
16	Insights into Laser-Materials Interaction Through Modeling on Atomic and Macroscopic Scales. Springer Series in Materials Science, 2018, , 107-148.	0.6	12
17	Study On Laser-Induced Periodic Structures And Photovoltaic Application. , 2010, , .		11
18	Laser-ablative nanostructuring of surfaces. International Journal of Nanotechnology, 2012, 9, 230.	0.2	10

#	Article	IF	Citations
19	Large area laser surface micro/nanopatterning by contact microsphere lens arrays. Applied Physics A: Materials Science and Processing, 2013, 111, 701-709.	2.3	9
20	Laser Applications for Nanotechnology : Insights From Numerical Modeling. AIP Conference Proceedings, 2010, , .	0.4	7
21	Photoionization and transient Wannier-Stark ladder in silicon: First-principles simulations versus Keldysh theory. Physical Review B, 2021, 104, .	3.2	7
22	Modeling of silicon in femtosecond laser-induced modification regimes: accounting for ambipolar diffusion. , 2017, , .		6
23	Femtosecond laser interactions with semiconductor and dielectric materials. , 2012, , .		4
24	The evidence of the role of surface plasmon polaritons in formation of femtosecond highly-regular laser-induced periodic structures on Cr films. Journal of Physics: Conference Series, 2018, 1092, 012025.	0.4	3
25	MODELING THE MELTING THRESHOLD OF MO FILMS UPON ULTRASHORT LASER IRRADIATION. MM Science Journal, 2019, 2019, 3585-3593.	0.4	2
26	Evaluation of luminosity reduction in the ilc head-on scheme from parasitic collisions. , 2007, , .		1
27	Multiplicity of Laser-Excited Electromagnetic Modes and their Roles in LIPSS Formation on Thin Metallic Films. , 2019, , .		0
28	Periodic Surface Functional Group Density on Graphene Induced by Pulsed Laser Patterning of SiO2/Si Substrate. , 2020, , .		0