

Ikurou Umezu

List of Publications by Year in descending order

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35
papers

508
citations

933447

10
h-index

642732

23
g-index

35
all docs

35
docs citations

35
times ranked

422
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical Properties of Silicon Nanocrystallites Prepared by Excimer Laser Ablation in Inert Gas. Japanese Journal of Applied Physics, 1996, 35, 1361-1365.	1.5	138
2	Fabrication and subband gap optical properties of silicon supersaturated with chalcogens by ion implantation and pulsed laser melting. Journal of Applied Physics, 2010, 107, .	2.5	96
3	Emergence of very broad infrared absorption band by hyperdoping of silicon with chalcogens. Journal of Applied Physics, 2013, 113, .	2.5	70
4	Formation of nanoscale fine-structured silicon by pulsed laser ablation in hydrogen background gas. Physical Review B, 2007, 76, .	3.2	43
5	Structural and optical properties of surface-hydrogenated silicon nanocrystallites prepared by reactive pulsed laser ablation. Journal Physics D: Applied Physics, 2005, 38, 3507-3511.	2.8	17
6	Oxidation processes of surface hydrogenated silicon nanocrystallites prepared by pulsed laser ablation and their effects on the photoluminescence wavelength. Journal of Applied Physics, 2008, 103, 024305.	2.5	16
7	Effect of structure on radiative recombination processes in amorphous silicon suboxide prepared by rf sputtering. Journal of Applied Physics, 2002, 92, 5936-5941.	2.5	15
8	Surface hydrogenation of silicon nanocrystallites during pulsed laser ablation of silicon target in hydrogen background gas. Journal of Applied Physics, 2008, 103, 114309.	2.5	14
9	Hyperdoping of silicon with deep-level impurities by pulsed YAG laser melting. Applied Physics A: Materials Science and Processing, 2014, 117, 155-159.	2.3	12
10	Formation of core-shell structured silicon nanoparticles during pulsed laser ablation. Journal of Applied Physics, 2010, 107, 094318.	2.5	11
11	Emission induced by collision of two plumes during pulsed laser ablation. Applied Physics A: Materials Science and Processing, 2010, 101, 133-136.	2.3	9
12	Effect of gas pressure on reactive pulsed laser ablation of a silicon target. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 84-86.	2.1	8
13	Effects of collision between two plumes on plume expansion dynamics during pulsed laser ablation in background gas. Applied Physics A: Materials Science and Processing, 2013, 110, 629-632.	2.3	8
14	InTaO4-based nanostructures synthesized by reactive pulsed laser ablation. Applied Physics A: Materials Science and Processing, 2008, 93, 961-966.	2.3	7
15	Synthesis of GaN nanocrystallites by pulsed laser ablation in pure nitrogen background gases. Applied Physics A: Materials Science and Processing, 2011, 104, 907-911.	2.3	7
16	Reaction between nitrogen gas and silicon species during pulsed laser ablation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 1680-1682.	2.1	6
17	Formation of surface stabilized Si nanocrystal by pulsed laser ablation in hydrogen gas. Applied Physics A: Materials Science and Processing, 2008, 93, 717-720.	2.3	5
18	Structural properties of TiO2 nanocrystallites condensed in vapor-phase for photocatalyst applications. Applied Physics A: Materials Science and Processing, 2014, 117, 223-227.	2.3	4

#	ARTICLE	IF	CITATIONS
19	Dynamics of colliding laser ablation plumes in background gas. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	4
20	e-beam irradiation effects on IR absorption bands in single-walled carbon nanotubes. Solid State Communications, 2017, 250, 119-122.	1.9	4
21	Numerical Analysis of Behavior on Opposing Unsteady Supersonic Jets in a Flow Field with Shields. Materials Science Forum, 2018, 910, 96-101.	0.3	4
22	Pulsed-laser-deposited TiO ₂ nanocrystalline films supporting Au nanoparticles for visible-light-operating plasmonic photocatalysts. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	3
23	Effect of counter shock wave on the expanding plume. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	3
24	Pulsed laser irradiation-induced microstructures in the Mn ion implanted Si. Nuclear Instruments & Methods in Physics Research B, 2015, 365, 110-113.	1.4	2
25	Expansion of laser-induced plume after the passage of a counter shock wave through a background gas. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	2.3	2
26	Mechanisms of Visible Photoluminescence from Size-Controlled Silicon Nanoparticles. Materials Research Society Symposia Proceedings, 2002, 737, 325.	0.1	0
27	Correlation between electronic structure and chemical bond on the surface of hydrogenated silicon nanocrystallites. AIP Conference Proceedings, 2005, , .	0.4	0
28	Correlation between PL emission band and growth of oxide layer on surface of silicon nanocrystallites. AIP Conference Proceedings, 2005, , .	0.4	0
29	Preparation of surface controlled silicon nanocrystallites by pulsed laser ablation. AIP Conference Proceedings, 2005, , .	0.4	0
30	Fractal Growth Of Silicon Nanocrystallites During Pulsed Laser Ablation. AIP Conference Proceedings, 2007, , .	0.4	0
31	Effect of Non-equilibrium Pulsed Ejection of Si Species into Background Gas on the Formation of Si Nanocrystallite and Nanocrystal-film. Materials Research Society Symposia Proceedings, 2011, 1305, 1.	0.1	0
32	Hierarchical pattern structure in TiO ₂ nano-aggregates prepared by pulsed laser ablation in background gas. , 2013, , .		0
33	Non-equilibrium Growth Processes of Porous TiO ₂ Nanocrystal-films during Pulsed Laser Ablation. Materials Research Society Symposia Proceedings, 2013, 1497, 1.	0.1	0
34	Correlation between crystallinity and mid-infrared optical absorption spectra of silicon supersaturated with sulfur. Materials Research Society Symposia Proceedings, 2015, 1738, 1.	0.1	0
35	Effect of Surface Oxidation on Optical Absorption of Silicon Nanocrystallites. AIP Conference Proceedings, 2007, , .	0.4	0