

Stefano Chiussi

List of Publications by Year in descending order

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114
papers

3,161
citations

304743

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161849

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114
all docs

114
docs citations

114
times ranked

3386
citing authors

#	ARTICLE	IF	CITATIONS
1	Lasing in direct-bandgap GeSn alloy grown on Si. <i>Nature Photonics</i> , 2015, 9, 88-92.	31.4	1,016
2	FTIR and XPS studies of bioactive silica based glasses. <i>Journal of Non-Crystalline Solids</i> , 2003, 332, 20-27.	3.1	315
3	Influence of the non-bridging oxygen groups on the bioactivity of silicate glasses. <i>Journal of Materials Science: Materials in Medicine</i> , 2002, 13, 1221-1225.	3.6	175
4	New biomorphic SiC ceramics coated with bioactive glass for biomedical applications. <i>Biomaterials</i> , 2003, 24, 4827-4832.	11.4	154
5	Raman spectroscopic study of bioactive silica based glasses. <i>Journal of Non-Crystalline Solids</i> , 2003, 320, 92-99.	3.1	127
6	Physicochemical properties of calcium phosphate coatings produced by pulsed laser deposition at different water vapour pressures. <i>Biomaterials</i> , 1998, 19, 883-888.	11.4	77
7	Tensely strained GeSn alloys as optical gain media. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	63
8	Calcium phosphate coatings grown at different substrate temperatures by pulsed ArF-laser deposition. <i>Thin Solid Films</i> , 1998, 317, 363-366.	1.8	60
9	Carbon nitride films prepared by excimer laser ablation. <i>Applied Surface Science</i> , 1997, 109-110, 380-383.	6.1	44
10	Growth and characterization of SiGeSn quantum well photodiodes. <i>Optics Express</i> , 2015, 23, 25048.	3.4	40
11	Pulsed laser deposition of silicon substituted hydroxyapatite coatings from synthetical and biological sources. <i>Applied Surface Science</i> , 2007, 254, 1189-1193.	6.1	38
12	The role of the reactive atmosphere in pulsed laser deposition of bioactive glass films. <i>Thin Solid Films</i> , 2004, 453-454, 224-228.	1.8	34
13	Structural characterization of bioceramics and mineralized tissues based on Raman and XRD techniques. <i>Ceramics International</i> , 2018, 44, 495-504.	4.8	34
14	Study of the stoichiometry transfer in pulsed laser deposition of bioactive silica-based glasses. <i>Thin Solid Films</i> , 2004, 453-454, 219-223.	1.8	32
15	A new generation of bio-derived ceramic materials for medical applications. <i>Journal of Biomedical Materials Research - Part A</i> , 2009, 88A, 807-813.	4.0	32
16	Ageing of pulsed-laser-deposited bioactive glass films. <i>Vacuum</i> , 2002, 67, 647-651.	3.5	30
17	Role of silylene in the deposition of hydrogenated amorphous silicon. <i>The Journal of Physical Chemistry</i> , 1991, 95, 9302-9310.	2.9	29
18	Study of the composition transfer in the pulsed laser deposition of silicon substituted hydroxyapatite thin films. <i>Applied Surface Science</i> , 2007, 253, 8282-8286.	6.1	27

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19	Improvement of electrospun polymer fiber meshes pore size by femtosecond laser irradiation. Applied Surface Science, 2011, 257, 4091-4095.	6.1	27
20	Pulsed laser deposition of hydroxylapatite thin films on biomorphic silicon carbide ceramics. Applied Surface Science, 2005, 248, 355-359.	6.1	26
21	Laser synthesis of germanium tin alloys on virtual germanium. Applied Physics Letters, 2012, 100, 104101.	3.3	26
22	ArF laser CVD of hydrogenated amorphous silicon: The role of buffer gases. Applied Physics A: Solids and Surfaces, 1989, 48, 405-414.	1.4	24
23	Pulsed laser deposition of silicon-substituted hydroxyapatite coatings. Vacuum, 2008, 82, 1383-1385.	3.5	23
24	Excimer laser removal of beeswax from galician granite monuments. Journal of Cultural Heritage, 2009, 10, 48-52.	3.3	22
25	Hanle-effect measurements of spin injection from $Mn_{0.5}Ge_3C_{0.8}/Al_2O_3$ -contacts into degenerately doped Ge channels on Si. Applied Physics Letters, 2014, 105, 222408.	3.3	22
26	Experimental determination of La ₂ O ₃ thermal conductivity and its application to the thermal analysis of a-Ge/La ₂ O ₃ /c-Si laser annealing. Thin Solid Films, 2008, 516, 7400-7405.	1.8	21
27	<i>In vitro</i> response of pre-osteoblastic cells to laser microgrooved PEEK. Biomedical Materials (Bristol), 2013, 8, 055006.	3.3	21
28	Study of dopant activation in biaxially compressively strained SiGe layers using excimer laser annealing. Journal of Applied Physics, 2013, 113, .	2.5	21
29	Extensive Studies on Biomorphic SiC Ceramics Properties for Medical Applications. Key Engineering Materials, 2004, 254-256, 1029-1032.	0.4	19
30	Compositional, structural and optical properties of Si-rich a-SiC:H thin films deposited by ArF-LCVD. Applied Surface Science, 2005, 248, 113-117.	6.1	19
31	The role of the thickness and the substrate on the <i>in vitro</i> bioactivity of silica-based glass coatings. Materials Science and Engineering C, 2005, 25, 187-193.	7.3	19
32	Amorphous germanium layers prepared by UV-photo-induced chemical vapour deposition. Applied Surface Science, 1996, 106, 75-79.	6.1	18
33	Oxidation processes in hydrogenated amorphous silicon nitride films deposited by ArF laser-induced CVD at low temperatures. Thin Solid Films, 1998, 317, 214-218.	1.8	18
34	Plasma assisted pulsed laser deposition of hydroxylapatite thin films. Applied Surface Science, 2005, 248, 360-364.	6.1	18
35	Device-Compatible Chiroptical Surfaces through Self-Assembly of Enantiopure Allenes. Langmuir, 2018, 34, 4548-4553.	3.5	18
36	Analytical and numerical calculations of the temperature distribution in Si and Ge targets irradiated by excimer lasers. Applied Surface Science, 2005, 248, 455-460.	6.1	17

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37	Excimer laser chemical ammonia patterning on PET film. <i>Journal of Materials Science: Materials in Medicine</i> , 2009, 20, 597-606.	3.6	17
38	Pilot research on the evaluation and detection of head and neck squamous cell carcinoma by Raman spectroscopy. <i>Journal of Raman Spectroscopy</i> , 2014, 45, 550-557.	2.5	17
39	Photo-induced deposition and characterization of variable bandgap a-SiN:H alloy films. <i>Applied Surface Science</i> , 2000, 168, 52-56.	6.1	16
40	Influence of the Network Modifier Content on the Bioactivity of Silicate Glasses. <i>Key Engineering Materials</i> , 2004, 254-256, 23-26.	0.4	16
41	High resolution electron microscopy and x-ray photoelectron spectroscopy studies of heteroepitaxial Si _x Ge(1-x) alloys produced through laser induced processing. <i>Applied Physics Letters</i> , 1998, 72, 2877-2879.	3.3	15
42	Processing of Bioglass Coatings by Excimer Laser Ablation. <i>Key Engineering Materials</i> , 2001, 192-195, 635-638.	0.4	15
43	The role of the temperature and laser fluence on the properties of PLD bioactive glass films. <i>Applied Physics A: Materials Science and Processing</i> , 2004, 79, 983-986.	2.3	15
44	X-ray diffraction and x-ray photoelectron spectroscopy study of partially strained SiGe layers produced via excimer laser processing. <i>Journal of Applied Physics</i> , 1997, 82, 147-154.	2.5	12
45	Laser crystallisation of poly-SiGe for microbolometers. <i>Applied Surface Science</i> , 2002, 186, 166-172.	6.1	12
46	Finite elements analysis of heteroepitaxial SiGe layers grown by excimer laser. <i>Applied Surface Science</i> , 2005, 248, 461-465.	6.1	12
47	Optimisation of Raman analysis of walnut oil used as protective coating of Galician granite monuments. <i>Journal of Raman Spectroscopy</i> , 2010, 41, 1449-1454.	2.5	12
48	Silicon germanium tin alloys formed by pulsed laser induced epitaxy. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	12
49	Fabrication of GeSn-multiple quantum wells by overgrowth of Sn on Ge by using molecular beam epitaxy. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	12
50	Modification of silicon nitride films to oxynitrides by ArF excimer laser irradiation. <i>Surface and Coatings Technology</i> , 1996, 80, 211-215.	4.8	11
51	Influence of laser fluence in ArF-excimer laser assisted crystallisation of a-SiGe:H films. <i>Applied Surface Science</i> , 2003, 208-209, 358-363.	6.1	11
52	UV-laser-assisted processing of thin silicon-germanium-carbon films. <i>Thin Solid Films</i> , 2006, 508, 48-52.	1.8	11
53	Growth and modification of thin a-Si:H/a-Ge:H bi-layers to sacrificial c-SiGe alloys through ArF-Excimer laser assisted processing. <i>Applied Surface Science</i> , 2008, 254, 6030-6033.	6.1	11
54	Finite element simulation for ultraviolet excimer laser processing of patterned Si/SiGe/Si(100) heterostructures. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	10

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55	Laser assisted formation of binary and ternary Ge/Si/Sn alloys. Thin Solid Films, 2012, 520, 3262-3265.	1.8	10
56	Study on excimer laser irradiation for controlled dehydrogenation and crystallization of boron doped hydrogenated amorphous/nanocrystalline silicon multilayers. Thin Solid Films, 2013, 536, 147-151.	1.8	10
57	ArF excimer laser epitaxy of SixGe(1-x) alloys studied by XRD and XPS. Applied Surface Science, 1996, 106, 179-185.	6.1	9
58	Comparative evaluation of UV and IR Nd:YAG laser cleaning of beeswax layers on granite substrates. Applied Surface Science, 2011, 257, 5484-5490.	6.1	9
59	Hydrogenated Amorphous Silicon by Infrared Multiphoton Absorption with a Pulsed CO ₂ Laser. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1990, 94, 1105-1110.	0.9	8
60	Laser-induced integrated processing for heteroepitaxial SixGe(1-x) alloys. Applied Surface Science, 1996, 102, 42-46.	6.1	8
61	ArF-excimer laser induced chemical vapour deposition of amorphous hydrogenated SiGeC films. Applied Surface Science, 2003, 208-209, 682-687.	6.1	8
62	Evaluation of the Glass Bioactivity Grade by IR Analysis and the Stevels Parameter. Key Engineering Materials, 2005, 284-286, 465-468.	0.4	8
63	Analysis of excimer laser annealing of amorphous SiGe on La ₂ O ₃ /Si structures. Applied Surface Science, 2007, 253, 7957-7963.	6.1	8
64	Multi-stacks of epitaxial GeSn self-assembled dots in Si: Structural analysis. Journal of Applied Physics, 2015, 117, 125706.	2.5	8
65	Photoluminescence from ultrathin Ge-rich multiple quantum wells observed up to room temperature: Experiments and modeling. Physical Review B, 2016, 94, .	3.2	8
66	Comparison of modifications induced by ArF excimer laser irradiation on silicon nitride films deposited by different LCVD methods. Surface and Coatings Technology, 1998, 100-101, 393-397.	4.8	7
67	Pulsed laser deposition of bioactive glass films in ammonia and disilane atmospheres. Applied Surface Science, 2005, 248, 369-375.	6.1	7
68	Estudio de la Citotoxicidad de Cerámicas Biomédicas de SiC Recubiertas con Vidrio Bioactivo. Boletín De La Sociedad Española De Cerámica Y Vidrio, 2006, 45, 109-114.	1.9	7
69	Growth and modification of thin SiGeC films at low substrate temperatures through UV laser assisted processing. Applied Surface Science, 2004, 234, 422-428.	6.1	6
70	Analysis of plume deflection in the silicon laser ablation process. Applied Physics A: Materials Science and Processing, 2007, 88, 667-671.	2.3	6
71	Numerical analysis of temperature profile and thermal-stress during excimer laser induced heteroepitaxial growth of patterned amorphous silicon and germanium bi-layers deposited on Si(100). Thin Solid Films, 2010, 518, 2431-2436.	1.8	6
72	Amorphous silicon thin film solar cells deposited on flexible substrates using different zinc oxide layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1061-1064.	0.8	6

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73	Photochemical vapour deposition of hydrogenated amorphous silicon-carbon thin films by using a Xe ²⁺ — excimer lamp. Applied Surface Science, 1996, 106, 55-59.	6.1	5
74	Numerical analysis of Excimer laser assisted processing of multi-layers for the tailored dehydrogenation of amorphous and nano-crystalline silicon films. Applied Surface Science, 2007, 254, 898-903.	6.1	5
75	Numerical simulation of the UV-excimer laser assisted modification of amorphous hydrogenated Si/Ge bilayers to graded epitaxial heterostructures. Thin Solid Films, 2008, 517, 222-226.	1.8	5
76	Characterization of Thin Calcium Phosphate Coating. , 2009, , 25-66.		5
77	Influence of the substrate temperature on the structure of Ge containing thin films produced by ArF laser induced chemical vapour deposition. Applied Surface Science, 2005, 248, 108-112.	6.1	4
78	Biomorphic Silicon Carbide Ceramics Coated with Bioactive Glass for Medical Applications. Materials Science Forum, 2006, 514-516, 970-974.	0.3	4
79	Calibration of Raman Spectroscopy at 1064 nm for Beeswax Quantification. Applied Spectroscopy, 2007, 61, 1259-1264.	2.2	4
80	Numerical studies of temperature profile and hydrodynamic phenomena during excimer laser assisted heteroepitaxial growth of patterned silicon and germanium bi-layers. Thin Solid Films, 2010, 518, S143-S146.	1.8	4
81	Surface modification of a biodegradable composite by UV laser ablation: <i>in vitro</i> biological performance. Journal of Tissue Engineering and Regenerative Medicine, 2010, 4, n/a-n/a.	2.7	4
82	Growth of patterned GeSn and GePb alloys by pulsed laser induced epitaxy. , 2017, , .		4
83	Characterization of Si-rich a-Si _{1-x} N _x :H alloys deposited by laser-CVD. Applied Surface Science, 1999, 138-139, 383-387.	6.1	3
84	In Vitro Bioactivity Study of PLD-Coatings and Bulk Bioactive Glasses. Key Engineering Materials, 2004, 254-256, 355-358.	0.4	3
85	Biological response of laser macrostructured and oxidized titanium alloy: An in vitro and in vivo study. Journal of Applied Biomaterials and Biomechanics, 2011, 9, 214-222.	0.4	3
86	193 nm Excimer laser processing of Si/Ge/Si(100) micropatterns. Applied Surface Science, 2016, 362, 217-220.	6.1	3
87	Laser assisted integrated processing of SiGeC films on silicon. Thin Solid Films, 2004, 453-454, 46-51.	1.8	2
88	Experimental and theoretical study of the Nd:YAG laser removal of beeswax on Galician granite at 355 nm. Applied Physics A: Materials Science and Processing, 2010, 100, 741-746.	2.3	2
89	Dopant profile engineering using ArF excimer laser, flash lamp and spike annealing for junction formation. , 2014, , .		2
90	Biominalization of marine-patterned C-scaffolds. Bioinspired, Biomimetic and Nanobiomaterials, 2014, 3, 106-114.	0.9	2

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91	Raman shifts in MBE-grown Si _x Ge _{1-x} Sn _y alloys with large Si content. Journal of Raman Spectroscopy, 2021, 52, 1167-1175.	2.5	2
92	Flexible sensing devices integrating molecularly-imprinted polymers for the detection of 3-nitrotyrosine biomarker. Biosensors and Bioelectronics: X, 2022, 10, 100107.	1.7	2
93	Osseointegration of Calcium Phosphate Nanofilms on Titanium Alloy Implants. Key Engineering Materials, 2007, 361-363, 645-648.	0.4	1
94	In Vitro Evaluation of Combined Laser Processing on Ti6Al4V Discs: Macrostructuring and Pulsed Laser Deposition. Key Engineering Materials, 2007, 361-363, 625-628.	0.4	1
95	A growth rate, structure and surface morphology study of Si _{1-x-y} Ge _x C _y films deposited by ArF-LCVD in tilted geometry. Vacuum, 2008, 82, 1525-1528.	3.5	1
96	FEM for modelling 193 nm excimer laser treatment of SiO ₂ /Si/Si(1-x)Ge _x heterostructures on SOI substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 936-939.	0.8	1
97	FEM numerical analysis of excimer laser induced modification in alternating multi-layers of amorphous and nano-crystalline silicon films. Applied Surface Science, 2012, 258, 9342-9346.	6.1	1
98	Structure and composition of Silicon-Germanium-Tin microstructures obtained through Mask Projection assisted Pulsed Laser Induced Epitaxy. Microelectronic Engineering, 2014, 125, 18-21.	2.4	1
99	(Si)GeSn nanostructures for optoelectronic device applications. , 2016, , .		1
100	Experimental and theoretical study of the ND:YAG laser removal of beeswax on Galician granite at 355 nm. Applied Physics A: Materials Science and Processing, 2010, 100, 741.	2.3	1
101	Innovative Bioinspired SIC Ceramics from Vegetable Resources. , 2012, , 51-67.		1
102	Nuevas tecnologÍas en el procesamiento de recubrimientos de cerÁmicas bioactivas. Boletín De La Sociedad Española De Cerámica Y Vidrio, 2006, 45, 65-69.	1.9	1
103	Capas de a-SiN:H modificadas mediante la irradiación con un láser de excímero. Revista De Metalurgia, 1998, 34, 164-169.	0.5	1
104	<title>Crystallization of 500-nm-thick a-SiGe:H films through ArF-excimer laser radiation</title>. , 2003, , .		0
105	High-resolution electron microscopy study of SiGeC thin films grown on Si(100) by laser-assisted techniques. Applied Surface Science, 2006, 252, 4527-4530.	6.1	0
106	Influence of Substrate Temperature in Plasma Assisted Pulsed Laser Deposition of Hydroxyapatite Thin Films. Materials Science Forum, 2006, 514-516, 1029-1033.	0.3	0
107	(Invited) Pulsed UV-Laser Processing of Amorphous and Crystalline Group IV Semiconductors. ECS Transactions, 2011, 41, 315-330.	0.5	0
108	Si-Ge-Sn heterostructures: Growth and applications. , 2014, , .		0

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109	(Invited) UV Excimer Laser Assisted Heteroepitaxy of (Si)GeSn on Si(100). ECS Transactions, 2014, 64, 115-125.	0.5	0
110	Spin accumulation in n-Ge on Si with sputtered Mn ₅ Ge ₃ C _{0.8} -contacts. , 2014, , .		0
111	Fabrication of GePb-Alloys by Means of Pulsed Laser Induced Epitaxy. , 2019, , .		0
112	Ellipsometric analysis of concentration gradients induced in semiconductor crystals by pulsed laser induced epitaxy. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, 061213.	1.2	0
113	Producción y tratamiento de películas de Si _{1-x} Ge _x mediante técnicas asistidas por láser de excímero. Revista De Metalurgia, 1998, 34, 78-81.	0.5	0
114	Ex vivo analysis of the oral epithelium by high-wavenumber Raman spectroscopy. International Journal of Biomedical Engineering and Technology, 2017, 24, 154.	0.2	0