

Alessandro Giussani

List of Publications by Year in descending order

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papers

1,303
citations

331670

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361022

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67
all docs

67
docs citations

67
times ranked

1431
citing authors

#	ARTICLE	IF	CITATIONS
1	Giant Rashba-type Spin Splitting in Ferroelectric GeTe(111). <i>Advanced Materials</i> , 2016, 28, 560-565.	21.0	155
2	Metal - Insulator Transition Driven by Vacancy Ordering in GeSbTe Phase Change Materials. <i>Scientific Reports</i> , 2016, 6, 23843.	3.3	93
3	Robust topological surface states in Sb_2Te_3 layers as seen from the weak antilocalization effect. <i>Physical Review B</i> , 2012, 86, .	3.2	72
4	Surface Reconstruction-Induced Coincidence Lattice Formation Between Two-Dimensionally Bonded Materials and a Three-Dimensionally Bonded Substrate. <i>Nano Letters</i> , 2014, 14, 3534-3538.	9.1	70
5	Ferroelectric switching in epitaxial GeTe films. <i>APL Materials</i> , 2014, 2, .	5.1	67
6	Toward Truly Single Crystalline GeTe Films: The Relevance of the Substrate Surface. <i>Journal of Physical Chemistry C</i> , 2014, 118, 29724-29730.	3.1	61
7	Mirror-symmetric Magneto-optical Kerr Rotation using Visible Light in $[(\text{GeTe})_2(\text{Sb}_2\text{Te}_3)_1]_n$ Topological Superlattices. <i>Scientific Reports</i> , 2014, 4, 5727.	3.3	57
8	On the epitaxy of germanium telluride thin films on silicon substrates. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 1939-1944.	1.5	35
9	Structural change upon annealing of amorphous GeSbTe grown on Si(111). <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	35
10	Atomically smooth and single crystalline Ge(111)/cubic-Pr ₂ O ₃ (111)/Si(111) heterostructures: Structural and chemical composition study. <i>Journal of Applied Physics</i> , 2009, 105, 033512.	2.5	34
11	Insight into the Growth and Control of Single-Crystal Layers of Ge ₂ Sb ₂ Te ₅ Phase-Change Material. <i>Crystal Growth and Design</i> , 2011, 11, 4606-4610.	3.0	34
12	Engineered Si wafers: On the role of oxide heterostructures as buffers for the integration of alternative semiconductors. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009, 6, 653-662.	0.8	31
13	The influence of lattice oxygen on the initial growth behavior of heteroepitaxial Ge layers on single crystalline PrO ₂ (111)-Si(111) support systems. <i>Journal of Applied Physics</i> , 2008, 103, 084110.	2.5	30
14	Single crystalline Sc ₂ O ₃ /Y ₂ O ₃ heterostructures as novel engineered buffer approach for GaN integration on Si (111). <i>Journal of Applied Physics</i> , 2010, 108, 063502.	2.5	30
15	Epitaxial phase-change materials. <i>Physica Status Solidi - Rapid Research Letters</i> , 2012, 6, 415-417.	2.4	29
16	Sub-nanometre resolution of atomic motion during electronic excitation in phase-change materials. <i>Scientific Reports</i> , 2016, 6, 20633.	3.3	29
17	Crystalline GeTe-based phase-change alloys: Disorder in order. <i>Physical Review B</i> , 2012, 86, .	3.2	28
18	Evidence for topological band inversion of the phase change material Ge ₂ Sb ₂ Te ₅ . <i>Applied Physics Letters</i> , 2013, 103, .	3.3	28

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19	Epitaxy of single crystalline PrO ₂ films on Si(111). Applied Physics Letters, 2008, 93, 032905.	3.3	25
20	Engineering the semiconductor/oxide interaction for stacking twin suppression in single crystalline epitaxial silicon(111)/insulator/Si(111) heterostructures. New Journal of Physics, 2008, 10, 113004.	2.9	24
21	Self-assembled Ge nanocrystals on high-k cubic Pr ₂ O ₃ (111)/Si(111) support systems. Journal of Applied Physics, 2007, 102, 034107.	2.5	22
22	Defect structure of Ge(111)/cubic Pr ₂ O ₃ (111)/Si(111) heterostructures: Thickness and annealing dependence. Journal of Applied Physics, 2009, 106, 073502.	2.5	19
23	Picosecond strain dynamics in Ge/Si by time-resolved x-ray diffraction. Physical Review B, 2014, 90, .	2.5	19
24	Postdeposition annealing induced transition from hexagonal Pr ₂ O ₃ to cubic PrO ₂ films on Si(111). Journal of Applied Physics, 2009, 105, .	2.5	18
25	Recrystallization of an amorphized epitaxial phase-change alloy: A phoenix arising from the ashes. Applied Physics Letters, 2012, 101, 061903.	3.3	18
26	Transport properties in a SbTe binary topological-insulator system. Journal of Physics Condensed Matter, 2013, 25, 345801.	1.8	18
27	Chemical, energetic, and geometric heterogeneity of device-quality (100) surfaces of single crystalline silicon after HFAq etching. Applied Surface Science, 2008, 254, 5781-5790.	6.1	16
28	A novel engineered oxide buffer approach for fully lattice-matched SOI heterostructures. New Journal of Physics, 2010, 12, 093005.	2.9	14
29	Detection of Metal Segregation at the Oxide-Silicon Interface. Journal of the Electrochemical Society, 2002, 149, G429.	2.9	13
30	Ge integration on Si via rare earth oxide buffers: From MBE to CVD (Invited Paper). Microelectronic Engineering, 2009, 86, 1615-1620.	2.4	13
31	Combined IR and XPS analysis of the native (1 0 0) surface of single-crystalline silicon after HF etching. Surface and Interface Analysis, 2007, 39, 836-844.	1.8	12
32	Lattice engineering of dielectric heterostructures on Si by isomorphic oxide-on-oxide epitaxy. Journal of Applied Physics, 2008, 103, 084102.	2.5	12
33	B/Si oriented CeO ₂ (111) films on hexagonal PrO ₂ /Si(111) support systems. Journal of Applied Physics, 2007, 102, 034107.	3.2	12
34	Nanocrystalline diamond-glass platform for the development of three-dimensional micro- and nanodevices. Diamond and Related Materials, 2019, 98, 107511.	3.9	12
35	Structure and defects of epitaxial Si(111) layers on Y ₂ O ₃ (111)/Si(111) support systems. Journal of Vacuum Science & Technology B, 2009, 27, 305.	1.3	11
36	Exploring the subsurface atomic structure of the epitaxially grown phase-change material GeSb_2Te_5 . Physical Review B, 2017, 96, .	3.2	10

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37	Evolution of nanodiamond seeds during the chemical vapor deposition of diamond on silicon substrates in oxygen-rich plasmas. <i>Applied Surface Science</i> , 2022, 581, 152103.	6.1	10
38	Structural and physical analysis on MOCVD Tiâ€“Siâ€“N films. <i>Journal of Physics and Chemistry of Solids</i> , 2007, 68, 1046-1051.	4.0	9
39	Local structure of epitaxial GeTe and Ge₂Sb₂Te₅ films grown on InAs and Si substrates with (100) and (111) orientations: An x-ray absorption near-edge structure study. <i>Journal of Applied Physics</i> , 2015, 117, 125308.	2.5	9
40	Boundary curvature effect on the wrinkling of thin suspended films. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	8
41	Characterization of Semiconductor Films Epitaxially Grown on Thin Metal Oxide Buffer Layers. <i>Solid State Phenomena</i> , 2009, 156-158, 467-472.	0.3	7
42	Complex interface and growth analysis of single crystalline epiâ€“Si(111)/Y₂O₃/Pr₂O₃/Si(111) heterostructures: Strain engineering by oxide buffer control. <i>Surface and Interface Analysis</i> , 2011, 43, 827-835.	1.8	7
43	Synchrotron x-ray characterization of structural defects in epi-Ge/Pr₂O₃/Si(1â€“1) layer stacks. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 8215411.	2.8	6
44	Xâ€“ray characterization of epiâ€“Ge/Pr₂O₃/Si(111) layer stacks by pole figures and reciprocal space mapping. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2009, 206, 1809-1815.	1.8	6
45	Integration of strained and relaxed silicon thin films on silicon wafers via engineered oxide heterostructures: Experiment and theory. <i>Journal of Applied Physics</i> , 2010, 108, .	2.5	6
46	Single crystalline Pr₂xYxO₃ (x=â€“2) dielectrics on Si with tailored electronic and crystallographic structure. <i>Journal of Applied Physics</i> , 2010, 108, .	2.5	6
47	Metal contamination reduction in the evolution of ion implantation technology. , 0, , .		4
48	Block copolymerâ€“nanodiamond coassembly in solution: towards multifunctional hybrid materials. <i>Nanoscale</i> , 2021, 13, 1639-1651.	5.6	4
49	Laboratory-based characterization of heteroepitaxial structures: Advanced experiments not needing synchrotron radiation. <i>Powder Diffraction</i> , 2010, 25, 92-98.	0.2	3
50	Multiple state transport deduced by weak antilocalization and electronâ€“electron interaction effects in Sb₂Te₃ layers. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 095802.	1.8	3
51	Laser-driven switching dynamics in phase change materials investigated by time-resolved X-ray absorption spectroscopy. <i>Phase Transitions</i> , 2015, 88, 82-89.	1.3	3
52	Interface properties of annealed and nitrated HTO layers. <i>Microelectronic Engineering</i> , 2001, 59, 379-384.	2.4	2
53	Post-deposition annealing of praseodymia films on Si(111) at low temperatures. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 115904.	1.8	1
54	Development of GaSb solar cells on GaAs by MOVPE via interface misfit technique. , 2017, , .		1

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55	Orientations of Al ₄ C ₃ and Al films grown on GaAs substrates. Materials Science in Semiconductor Processing, 2019, 98, 49-54.	4.0	1
56	Characterisation of optical phonons within epitaxial Ge ₂ Sb ₂ Te ₅ /InAs(111) structures. Solid State Communications, 2022, 351, 114788.	1.9	1
57	Auger and XPS characterization of a multi layered Ti-Co-Si system for self aligned silicides purposes: a stoichiometry and chemical investigation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 114-115, 203-208.	3.5	0
58	Characterization of ALD-deposited Al oxide films for high-k purposes: A chemical investigation. Materials Science in Semiconductor Processing, 2006, 9, 1000-1005.	4.0	0
59	Heteroepitaxial Integration of Single Crystalline Ge(111) layers on Si(111) via PrO ₂ (111) Heterostructures. ECS Transactions, 2009, 16, 287-291.	0.5	0
60	Integration of thin Al films on In _{0.18} Ga _{0.82} As metamorphic grade structures for low-cost III-V photovoltaics. , 2017, , .		0
61	Crystallinity Control in Low-Temperature Growth of Poly-Crystalline Ge by Ion Beam Deposition. , 2017, , .		0
62	Development of Aluminum Epilayers as Buffers for GaInAs. , 2017, , .		0
63	Self-Assembled InAsP and InAlAs Nanowires on Graphene Via Pseudo-Van Der Waals Epitaxy. , 2018, , .		0
64	A Density Function Investigation of Excited-State Effects due to Ultrafast Excitation in Ge ₂ Sb ₂ Te ₅ Epitaxial Films. , 2014, , .		0
65	Ultra-fast Processes in Optically Excited Ge ₂ Sb ₂ Te ₅ by Transient X-ray Diffraction Using a Free-Electron Laser. , 2014, , .		0
66	High Yield Fabrication of SPSL-Based DUVLEDs on 6-inch Sapphire Substrates. , 2016, , .		0