

# Alessandro Giussani

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/600758/publications.pdf>

Version: 2024-02-01

66  
papers

1,303  
citations

331670

21  
h-index

361022

35  
g-index

67  
all docs

67  
docs citations

67  
times ranked

1431  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evolution of nanodiamond seeds during the chemical vapor deposition of diamond on silicon substrates in oxygen-rich plasmas. Applied Surface Science, 2022, 581, 152103.	6.1	10
2	Characterisation of optical phonons within epitaxial Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> /InAs(111) structures. Solid State Communications, 2022, 351, 114788.	1.9	1
3	Block copolymerâ€™nanodiamond coassembly in solution: towards multifunctional hybrid materials. Nanoscale, 2021, 13, 1639-1651.	5.6	4
4	Boundary curvature effect on the wrinkling of thin suspended films. Applied Physics Letters, 2020, 116, .	3.3	8
5	Nanocrystalline diamond-glass platform for the development of three-dimensional micro- and nanodevices. Diamond and Related Materials, 2019, 98, 107511.	3.9	12
6	Orientations of Al <sub>4</sub> C <sub>3</sub> and Al films grown on GaAs substrates. Materials Science in Semiconductor Processing, 2019, 98, 49-54.	4.0	1
7	Self-Assembled InAsP and InAlAs Nanowires on Graphene Via Pseudo-Van Der Waals Epitaxy. , 2018, , .		0
8	Exploring the subsurface atomic structure of the epitaxially grown phase-change material $\text{Ge}_2\text{Sb}_2\text{Te}_5$ . Physical Review B, 2017, 96, .	3.2	10
9	Integration of thin Al films on In <sub>0.18</sub> Ga <sub>0.82</sub> As metamorphic grade structures for low-cost III-V photovoltaics. , 2017, , .		0
10	Crystallinity Control in Low-Temperature Growth of Poly-Crystalline Ge by Ion Beam Deposition. , 2017, , .		0
11	Development of GaSb solar cells on GaAs by MOVPE via interface misfit technique. , 2017, , .		1
12	Development of Aluminum Epilayers as Buffers for GaInAs. , 2017, , .		0
13	Giant Rashbaâ€™type Spin Splitting in Ferroelectric GeTe(111). Advanced Materials, 2016, 28, 560-565.	21.0	155
14	Metal - Insulator Transition Driven by Vacancy Ordering in GeSbTe Phase Change Materials. Scientific Reports, 2016, 6, 23843.	3.3	93
15	Sub-nanometre resolution of atomic motion during electronic excitation in phase-change materials. Scientific Reports, 2016, 6, 20633.	3.3	29
16	High Yield Fabrication of SPSL-Based DUVLEDs on 6-inch Sapphire Substrates. , 2016, , .		0
17	Laser-driven switching dynamics in phase change materials investigated by time-resolved X-ray absorption spectroscopy. Phase Transitions, 2015, 88, 82-89.	1.3	3
18	Local structure of epitaxial GeTe and Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> films grown on InAs and Si substrates with (100) and (111) orientations: An x-ray absorption near-edge structure study. Journal of Applied Physics, 2015, 117, 125308.	2.5	9

#	ARTICLE	IF	CITATIONS
19	Picosecond strain dynamics in $\text{Ge}_2\text{Sb}_2\text{Te}_5$ by time-resolved x-ray diffraction. <i>Physical Review B</i> , 2014, 90, .		19
20	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
21	Structural change upon annealing of amorphous GeSbTe grown on Si(111). <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	35
22	Multiple state transport deduced by weak antilocalization and electron-electron interaction effects in $\text{Sb}_2\text{Te}_3$ layers. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 095802.	1.8	3
23	Ferroelectric switching in epitaxial GeTe films. <i>APL Materials</i> , 2014, 2, .	5.1	67
24	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
25	Mirror-symmetric Magneto-optical Kerr Rotation using Visible Light in $[(\text{GeTe})_2(\text{Sb}_2\text{Te}_3)]_n$ Topological Superlattices. <i>Scientific Reports</i> , 2014, 4, 5727.	3.3	57
26	A Density Function Investigation of Excited-State Effects due to Ultrafast Excitation in $\text{Ge}_2\text{Sb}_2\text{Te}_5$ Epitaxial Films. , 2014, , .		0
27	Ultra-fast Processes in Optically Excited $\text{Ge}_2\text{Sb}_2\text{Te}_5$ by Transient X-ray Diffraction Using a Free-Electron Laser. , 2014, , .		0
28	Evidence for topological band inversion of the phase change material $\text{Ge}_2\text{Sb}_2\text{Te}_5$ . <i>Applied Physics Letters</i> , 2013, 103, .	3.3	28
29	Transport properties in a $\text{SbTe}$ binary topological-insulator system. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 345801.	1.8	18
30	Stacking behavior of twin-free type- $\text{B}$ oriented $\text{CeO}_2$ (111) films on hexagonal $\text{PrO}$ layers. <i>Physical Review B</i> , 2012, 86, .	3.2	12
31	Recrystallization of an amorphized epitaxial phase-change alloy: A phoenix arising from the ashes. <i>Applied Physics Letters</i> , 2012, 101, 061903.	3.3	18
32	Epitaxial phase-change materials. <i>Physica Status Solidi - Rapid Research Letters</i> , 2012, 6, 415-417.	2.4	29
33	Robust topological surface states in $\text{Sb}_2\text{Te}_3$ layers as seen from the weak antilocalization effect. <i>Physical Review B</i> , 2012, 86, .	3.2	72
34	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
35	Crystalline GeTe-based phase-change alloys: Disorder in order. <i>Physical Review B</i> , 2012, 86, .	3.2	28
36	Insight into the Growth and Control of Single-Crystal Layers of $\text{GeSbTe}$ Phase-Change Material. <i>Crystal Growth and Design</i> , 2011, 11, 4606-4610.	3.0	34

#	ARTICLE	IF	CITATIONS
37	Complex interface and growth analysis of single crystalline epi-Si(111)/Y <sub>2</sub> O <sub>3</sub> /Pr <sub>2</sub> O <sub>3</sub> /Si(111) heterostructures: Strain engineering by oxide buffer control. Surface and Interface Analysis, 2011, 43, 827-835.	1.8	7
38	Post-deposition annealing of praseodymia films on Si(111) at low temperatures. Journal of Physics Condensed Matter, 2011, 23, 115904.	1.8	1
39	Laboratory-based characterization of heteroepitaxial structures: Advanced experiments not needing synchrotron radiation. Powder Diffraction, 2010, 25, 92-98.	0.2	3
40	Integration of strained and relaxed silicon thin films on silicon wafers via engineered oxide heterostructures: Experiment and theory. Journal of Applied Physics, 2010, 108, .	2.5	6
41	Single crystalline Pr <sub>2</sub> xYxO <sub>3</sub> (x=2) dielectrics on Si with tailored electronic and crystallographic structure. Journal of Applied Physics, 2010, 108, .	2.5	6
42	Single crystalline Sc <sub>2</sub> O <sub>3</sub> /Y <sub>2</sub> O <sub>3</sub> heterostructures as novel engineered buffer approach for GaN integration on Si (111). Journal of Applied Physics, 2010, 108, 063502.	2.5	30
43	A novel engineered oxide buffer approach for fully lattice-matched SOI heterostructures. New Journal of Physics, 2010, 12, 093005.	2.9	14
44	Defect structure of Ge(111)/cubic Pr <sub>2</sub> O <sub>3</sub> (111)/Si(111) heterostructures: Thickness and annealing dependence. Journal of Applied Physics, 2009, 106, 073502.	2.5	19
45	Characterization of Semiconductor Films Epitaxially Grown on Thin Metal Oxide Buffer Layers. Solid State Phenomena, 2009, 156-158, 467-472.	0.3	7
46	Heteroepitaxial Integration of Single Crystalline Ge(111) layers on Si(111) via Pr <sub>2</sub> O <sub>3</sub> (111) Heterostructures. ECS Transactions, 2009, 16, 287-291.	0.5	0
47	Structure and defects of epitaxial Si(111) layers on Y <sub>2</sub> O <sub>3</sub> (111)/Si(111) support systems. Journal of Vacuum Science & Technology B, 2009, 27, 305.	1.3	11
48	Postdeposition annealing induced transition from hexagonal Pr <sub>2</sub> O <sub>3</sub> to cubic Pr <sub>2</sub> O <sub>3</sub> films on Si(111). Journal of Applied Physics, 2009, 105, .	2.5	18
49	Synchrotron x-ray characterization of structural defects in epi-Ge/Pr <sub>2</sub> O <sub>3</sub> /Si(111) layer stacks. Journal Physics D: Applied Physics, 2009, 42, 8215411.	42.8	6
50	X-ray characterization of epi-Ge/Pr <sub>2</sub> O <sub>3</sub> /Si(111) layer stacks by pole figures and reciprocal space mapping. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1809-1815.	1.8	6
51	Engineered Si wafers: On the role of oxide heterostructures as buffers for the integration of alternative semiconductors. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 653-662.	0.8	31
52	Ge integration on Si via rare earth oxide buffers: From MBE to CVD (Invited Paper). Microelectronic Engineering, 2009, 86, 1615-1620.	2.4	13
53	Atomically smooth and single crystalline Ge(111)/cubic-Pr <sub>2</sub> O <sub>3</sub> (111)/Si(111) heterostructures: Structural and chemical composition study. Journal of Applied Physics, 2009, 105, 033512.	2.5	34
54	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

#	ARTICLE	IF	CITATIONS
55	Engineering the semiconductor/oxide interaction for stacking twin suppression in single crystalline epitaxial silicon(111)/insulator/Si(111) heterostructures. <i>New Journal of Physics</i> , 2008, 10, 113004.	2.9	24
56	Epitaxy of single crystalline PrO <sub>2</sub> films on Si(111). <i>Applied Physics Letters</i> , 2008, 93, 032905.	3.3	25
57	The influence of lattice oxygen on the initial growth behavior of heteroepitaxial Ge layers on single crystalline PrO <sub>2</sub> (111)~Si(111) support systems. <i>Journal of Applied Physics</i> , 2008, 103, 084110.	2.5	30
58	Lattice engineering of dielectric heterostructures on Si by isomorphic oxide-on-oxide epitaxy. <i>Journal of Applied Physics</i> , 2008, 103, 084102.	2.5	12
59	Self-assembled Ge nanocrystals on high-k cubic Pr <sub>2</sub> O <sub>3</sub> (111)~Si(111) support systems. <i>Journal of Applied Physics</i> , 2007, 102, 034107.	2.5	22
60	Structural and physical analysis on MOCVD Ti~Si~N films. <i>Journal of Physics and Chemistry of Solids</i> , 2007, 68, 1046-1051.	4.0	9
61	Combined IR and XPS analysis of the native (1 0 0) surface of single~crystalline silicon after HF<sub>aq</sub> etching. <i>Surface and Interface Analysis</i> , 2007, 39, 836-844.	1.8	12
62	Characterization of ALD-deposited Al oxide films for high-k purposes: A chemical investigation. <i>Materials Science in Semiconductor Processing</i> , 2006, 9, 1000-1005.	4.0	0
63	Auger and XPS characterization of a multi layered Ti~Co~Si system for self aligned silicides purposes: a stoichiometry and chemical investigation. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2004, 114-115, 203-208.	3.5	0
64	Detection of Metal Segregation at the Oxide-Silicon Interface. <i>Journal of the Electrochemical Society</i> , 2002, 149, G429.	2.9	13
65	Interface properties of annealed and nitrided HTO layers. <i>Microelectronic Engineering</i> , 2001, 59, 379-384.	2.4	2
66	Metal contamination reduction in the evolution of ion implantation technology. , 0, , .		4