Raffaella Calarco

List of Publications by Year
in descending order

55 papers	1,650 citations	279798 23 h-index	289244 40 g-index
57 all docs	57 docs citations	57 times ranked	1478 citing authors

#	Article	IF	Citations
1	Giant Rashbaâ€Type Spin Splitting in Ferroelectric GeTe(111). Advanced Materials, 2016, 28, 560-565.	21.0	155
2	Interface formation of two- and three-dimensionally bonded materials in the case of GeTeâ€“Sb₂Te₃ superlattices. Nanoscale, 2015, 7, 19136-19143.	5.6	145
3	Ferroelectric Control of the Spin Texture in GeTe. Nano Letters, 2018, 18, 2751-2758.	9.1	114
4	Metal - Insulator Transition Driven by Vacancy Ordering in GeSbTe Phase Change Materials. Scientific Reports, 2016, 6, 23843.	3.3	93
5	Dynamic reconfiguration of van der Waals gaps within GeTeâ€“Sb₂Te₃ based superlattices. Nanoscale, 2017, 9, 8774-8780.	5.6	71
6	Surface Reconstruction-Induced Coincidence Lattice Formation Between Two-Dimensionally Bonded Materials and a Three-Dimensionally Bonded Substrate. Nano Letters, 2014, 14, 3534-3538.	9.1	70
7	Revisiting the Local Structure in Ge-Sb-Te based Chalcogenide Superlattices. Scientific Reports, 2016, 6, 22353.	3.3	63
8	Room-temperature ferroelectric switching of spin-to-charge conversion in germanium telluride. Nature Electronics, 2021, 4, 740-747.	26.0	62
9	Toward Truly Single Crystalline GeTe Films: The Relevance of the Substrate Surface. Journal of Physical Chemistry C, 2014, 118, 29724-29730.	3.1	61
10	Atomic stacking and van-der-Waals bonding in GeTeâ€“Sb₂Te₃ superlattices. Journal of Materials Research, 2016, 31, 3115-3124.	2.6	53
11	Intermixing during Epitaxial Growth of van der Waals Bonded Nominal GeTe/Sb₂Te₃ Superlattices. Crystal Growth and Design, 2016, 16, 3596-3601.	3.0	51
12	2D or Not 2D: Strain Tuning in Weakly Coupled Heterostructures. Advanced Functional Materials, 2018, 28, 1705901.	14.9	49
13	GeTe: a simple compound blessed with a plethora of properties. CrystEngComm, 2017, 19, 5324-5335.	2.6	41
14	Evidence for Thermalâ€Based Transition in Superâ€Lattice Phase Change Memory. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800634.	2.4	40
15	Chemical and structural arrangement of the trigonal phase in GeSbTe thin films. Nanotechnology, 2017, 28, 065706.	2.6	39
16	On the epitaxy of germanium telluride thin films on silicon substrates. Physica Status Solidi (B): Basic Research, 2012, 249, 1939-1944.	1.5	35
17	Insight into the Growth and Control of Single-Crystal Layers of Geâ€“Sbâ€“Te Phase-Change Material. Crystal Growth and Design, 2011, 11, 4606-4610.	3.0	34
18	Coincident-site lattice matching during van der Waals epitaxy. Scientific Reports, 2016, 5, 18079.	3.3	31

#	Article	IF	Citations
19	Epitaxial phaseâ€change materials. Physica Status Solidi - Rapid Research Letters, 2012, 6, 415-417.	2.4	29
20	Sub-nanometre resolution of atomic motion during electronic excitation in phase-change materials. Scientific Reports, 2016, 6, 20633.	3.3	29
21	Evidence for topological band inversion of the phase change material Ge2Sb2Te5. Applied Physics Letters, 2013, 103, .	3.3	28
22	Improved structural and electrical properties in native Sb2Te3/GexSb2Te3+x van der Waals superlattices due to intermixing mitigation. APL Materials, 2017, 5, .	5.1	26
23	Formation of resonant bonding during growth of ultrathin GeTe films. NPG Asia Materials, 2017, 9, e396-e396.	7.9	25
24	Interplay between Structural and Thermoelectric Properties in Epitaxial Sb₂₊<i>_x</i>Te₃ Alloys. Advanced Functional Materials, 2019, 29, 1805184.	14.9	25
25	Modulation of van der Waals and classical epitaxy induced by strain at the Si step edges in GeSbTe alloys. Scientific Reports, 2017, 7, 1466.	3.3	21
26	Ordered Peierls distortion prevented at growth onset of GeTe ultra-thin films. Scientific Reports, 2016, 6, 32895.	3.3	20
27	Textured Sb2Te3 films and GeTe/Sb2Te3 superlattices grown on amorphous substrates by molecular beam epitaxy. AIP Advances, 2017, 7, .	1.3	20
28	Picosecond strain dynamics in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ge</mml:mi><mml:mn>2</mml:mn></mml: by time-resolved x-ray diffraction. Physical Review B, 2014, 90, .	3.2	19
29	Electrical performance of phase change memory cells with Ge3Sb2Te6 deposited by molecular beam epitaxy. Applied Physics Letters, 2015, 106, .	3.3	17
30	Electrical and optical properties of epitaxial binary and ternary GeTe-Sb2Te3 alloys. Scientific Reports, 2018, 8, 5889.	3.3	17
31	Growth of wurtzite InN on bulk In2O3(111) wafers. Applied Physics Letters, 2012, 101, .	3.3	16
32	Laser induced structural transformation in chalcogenide based superlattices. Applied Physics Letters, 2016, 108, .	3.3	14
33	Investigation of interface abruptness and In content in (In,Ga)N/GaN superlattices. Journal of Applied Physics, 2016, 120, 125307.	2.5	14
34	Growth of crystalline phase change materials by physical deposition methods. Advances in Physics: X, 2017, 2, 675-694.	4.1	12
35	Tailoring the epitaxy of Sb₂Te₃ and GeTe thin films using surface passivation. CrystEngComm, 2018, 20, 340-347.	2.6	12
36	Crystallization and Electrical Properties of Ge-Rich GeSbTe Alloys. Nanomaterials, 2022, 12, 631.	4.1	12

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37	Interband characterization and electronic transport control of nanoscaled<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mi>GeTe</mml:mi><mml:mo>/</m Physical Review B, 2016, 94, .	3.2	9
38	Designing epitaxial GeSbTe alloys by tuning the phase, the composition, and the vacancy ordering. Journal of Applied Physics, 2018, 123, .	2.5	9
39	Growth control of epitaxial GeTeâ€“Sb2Te3 films using a line-of-sight quadrupole mass spectrometer. Journal of Crystal Growth, 2014, 396, 50-53.	1.5	8
40	Thermal annealing studies of GeTe-Sb2Te3 alloys with multiple interfaces. AIP Advances, 2017, 7, .	1.3	7
41	MOCVD Growth of GeTe/Sb2Te3 Coreâ€“Shell Nanowires. Coatings, 2021, 11, 718.	2.6	6
42	Hints for a General Understanding of the Epitaxial Rules for van der Waals Epitaxy from Geâ€Sbâ€Te Alloys. Advanced Materials Interfaces, 2022, 9, .	3.7	6
43	Growth, Electronic and Electrical Characterization of Ge-Rich Geâ€“Sbâ€“Te Alloy. Nanomaterials, 2022, 12, 1340.	4.1	6
44	Impact of substrate nitridation on the growth of InN on In 2 O 3 (111) by plasma-assisted molecular beam epitaxy. Applied Surface Science, 2016, 369, 159-162.	6.1	5
45	Crystallization Study of Geâ€Rich (GeTe)<i>_m</i>(Sb₂Te₃)<i>_n</i> Using Twoâ€Step Annealing Process. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800632.	2.4	5
46	Phase Change Ge-Rich Geâ€“Sbâ€“Te/Sb2Te3 Core-Shell Nanowires by Metal Organic Chemical Vapor Deposition. Nanomaterials, 2021, 11, 3358.	4.1	5
47	Interface Formation during the Growth of Phase Change Material Heterostructures Based on Ge-Rich Ge-Sb-Te Alloys. Nanomaterials, 2022, 12, 1007.	4.1	4
48	Structural and Electrical Properties of Annealed Ge2Sb2Te5 Films Grown on Flexible Polyimide. Nanomaterials, 2022, 12, 2001.	4.1	4
49	Long-range crystal-lattice distortion fields of epitaxial Ge-Sb-Te phase-change materials. Physica Status Solidi (B): Basic Research, 2014, 251, 769-773.	1.5	3
50	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
51	InN and GaN/InN monolayers grown on ZnO(0001Â¯) and ZnO(0001). Journal of Applied Physics, 2018, 124, .	2.5	3
52	Evolution of Lowâ€Frequency Vibrational Modes in Ultrathin GeSbTe Films. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2000434.	2.4	2
53	Influence of Mg doping on In adsorption and In incorporation in (In,Ga)N superlattices. Journal of Applied Physics, 2020, 128, 085303.	2.5	1
54	Long-range crystal-lattice distortion fields of epitaxial Ge-Sb-Te phase-change materials (Phys. Status) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.5	0

#	Article	IF	Citations
55	Investigation of charge-to-spin conversion in GeTe. , 2018, , .		0