

Wilfried Vandervorst

List of Publications by Year in descending order

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55
papers

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304743

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times ranked

2277
citing authors

#	ARTICLE	IF	CITATIONS
1	The Prospect of Spatially Accurate Reconstructed Atom Probe Data Using Experimental Emitter Shapes. <i>Microscopy and Microanalysis</i> , 2022, 28, 1141-1149.	0.4	2
2	Orbitrap ϕ -SIMS analysis of advanced semiconductor inorganic structures. <i>Vacuum</i> , 2022, 202, 111182.	3.5	3
3	Apparent size effects on dopant activation in nanometer-wide Si fins. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2021, 39, 023202.	1.2	1
4	A scheme to correct for inaccuracies in the compositional analysis of SixGe1-x by Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2021, 27, 178-179.	0.4	0
5	Evaporation Dynamics of Boron Dopants in Silicon. <i>Microscopy and Microanalysis</i> , 2021, 27, 418-420.	0.4	1
6	Stoichiometric analysis of superficial Ba doped Strontium Titanium Oxide layers using APT: the case of the missing Oxygen!. <i>Microscopy and Microanalysis</i> , 2021, 27, 2480-2481.	0.4	2
7	Electrical Contact Formation in Micro Four-Point Probe Measurements. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 1900579.	1.8	1
8	Enhancing the defect contrast in ECCI through angular filtering of BSEs. <i>Ultramicroscopy</i> , 2020, 210, 112922.	1.9	6
9	Potential sources of compositional inaccuracy in the atom probe tomography of InxGa1-xAs. <i>Ultramicroscopy</i> , 2020, 210, 112918.	1.9	10
10	Application of electron channeling contrast imaging to 3D semiconductor structures through proper detector configurations. <i>Ultramicroscopy</i> , 2020, 210, 112928.	1.9	6
11	Understanding the effect of confinement in scanning spreading resistance microscopy measurements. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	7
12	A demonstration of donor passivation through direct formation of V-As complexes in As-doped Ge1-xSnx. <i>Journal of Applied Physics</i> , 2020, 127, .	2.5	2
13	Heavily phosphorus doped germanium: Strong interaction of phosphorus with vacancies and impact of tin alloying on doping activation. <i>Journal of Applied Physics</i> , 2019, 125, .	2.5	6
14	Chemical vapor deposition of monolayer-thin WS2 crystals from the WF6 and H2S precursors at low deposition temperature. <i>Journal of Chemical Physics</i> , 2019, 150, 104703.	3.0	11
15	Evolution of phosphorus-vacancy clusters in epitaxial germanium. <i>Journal of Applied Physics</i> , 2019, 125, .	2.5	13
16	Width-Dependent Sheet Resistance of Nanometer-Wide Si Fins as Measured with Micro Four-Point Probe. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700857.	1.8	7
17	Mesoscopic physical removal of material using sliding nano-diamond contacts. <i>Scientific Reports</i> , 2018, 8, 2994.	3.3	30
18	Non-destructive characterization of extended crystalline defects in confined semiconductor device structures. <i>Nanoscale</i> , 2018, 10, 7058-7066.	5.6	22

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19	Nucleation and growth mechanism of 2D SnS ₂ by chemical vapor deposition: initial 3D growth followed by 2D lateral growth. 2D Materials, 2018, 5, 035006.	4.4	23
20	Nucleation mechanism during WS ₂ plasma enhanced atomic layer deposition on amorphous Al ₂ O ₃ and sapphire substrates. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	2.1	30
21	Electrical characterization of single nanometer-wide Si fins in dense arrays. Beilstein Journal of Nanotechnology, 2018, 9, 1863-1867.	2.8	5
22	Two-Dimensional Crystal Grain Size Tuning in WS ₂ Atomic Layer Deposition: An Insight in the Nucleation Mechanism. Chemistry of Materials, 2018, 30, 7648-7663.	6.7	57
23	High-throughput ion beam analysis at imec. Nuclear Instruments & Methods in Physics Research B, 2017, 406, 25-29.	1.4	31
24	Direct Probing of the Dielectric Scavenging-Layer Interface in Oxide Filamentary-Based Valence Change Memory. ACS Applied Materials & Interfaces, 2017, 9, 10820-10824.	8.0	50
25	Plasma-Enhanced Atomic Layer Deposition of Two-Dimensional WS ₂ from WF ₆ , H ₂ Plasma, and H ₂ S. Chemistry of Materials, 2017, 29, 2927-2938.	6.7	74
26	Nucleation and growth mechanisms of Al ₂ O ₃ atomic layer deposition on synthetic polycrystalline MoS ₂ . Journal of Chemical Physics, 2017, 146, 052810.	3.0	41
27	MoS ₂ Functionalization with a Sub-nm Thin SiO ₂ Layer for Atomic Layer Deposition of High- ϵ^{r} Dielectrics. Chemistry of Materials, 2017, 29, 6772-6780.	6.7	27
28	Dopant, composition and carrier profiling for 3D structures. Materials Science in Semiconductor Processing, 2017, 62, 31-48.	4.0	36
29	Controlled Sulfurization Process for the Synthesis of Large Area MoS ₂ Films and MoS ₂ /WS ₂ Heterostructures. Advanced Materials Interfaces, 2016, 3, 1500635.	3.7	61
30	Nanoscale structural rearrangements of the Cu-filament in conductive-bridge memories. Nanoscale, 2016, 8, 13915-13923.	5.6	44
31	Outwitting the series resistance in scanning spreading resistance microscopy. Ultramicroscopy, 2016, 161, 59-65.	1.9	14
32	Scanning spreading resistance microscopy for electrical characterization of diamond interfacial layers. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2578-2582.	1.8	6
33	Suppression of boron incorporation at the early growth phases of boron-doped diamond thin films. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2595-2599.	1.8	9
34	Nano-scale feature analysis achieving high effective lateral resolution with micro-scale material characterization techniques: Application to back-end processing. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 506-511.	1.8	4
35	Evaluation of the electrical contact area in contact-mode scanning probe microscopy. Journal of Applied Physics, 2015, 117, .	2.5	46
36	Imaging the Three-Dimensional Conductive Channel in Filamentary-Based Oxide Resistive Switching Memory. Nano Letters, 2015, 15, 7970-7975.	9.1	165

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37	Scanning probe tomography for advanced material characterization. , 2014, , .		2
38	Scanning probe microscopy as a scalpel to probe filament formation in conductive bridging memory devices. Microelectronic Engineering, 2014, 120, 67-70.	2.4	26
39	Electrical probing of B-doped diamond seeds embedded into the interfacial layer of a conductive diamond film. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2284-2289.	1.8	9
40	Strained Ge FinFET structures fabricated by selective epitaxial growth. , 2014, , .		6
41	RRAMs based on anionic and cationic switching: a short overview. Physica Status Solidi - Rapid Research Letters, 2014, 8, 501-511.	2.4	38
42	Diamond nanoprobe for electrical probing of nanoelectronics device structures. Microelectronic Engineering, 2014, 121, 19-23.	2.4	5
43	Cellulose Nanofiber Paper as an Ultra Flexible Nonvolatile Memory. Scientific Reports, 2014, 4, 5532.	3.3	122
44	Initial growth stages of heavily boron-doped HFCVD diamond for electrical probe application. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2002-2007.	1.8	4
45	Conductive-AFM tomography for 3D filament observation in resistive switching devices. , 2013, , .		19
46	Ge _{1-x} Sn _x Materials: Challenges and Applications. ECS Journal of Solid State Science and Technology, 2013, 2, N35-N40.	1.8	29
47	Epitaxy of III-V based channels on Si and transistor integration for 12-10nm node CMOS. , 2012, , .		2
48	Spin-seeding approach for diamond growth on large area silicon wafer substrates. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1659-1663.	1.8	26
49	Evolution of metastable phases in silicon during nanoindentation: mechanism analysis and experimental verification. Nanotechnology, 2009, 20, 305705.	2.6	109
50	Performance Enhancement of PFET Planar Devices by Plasma Immersion Ion Implantation (P3I). , 2008, , .		2
51	Progress towards a physical contact model for scanning spreading resistance microscopy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 102, 132-137.	3.5	47
52	Scanning spreading resistance microscopy and spectroscopy for routine and quantitative two-dimensional carrier profiling. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 471.	1.6	99
53	New aspects of nanopotentiometry for complementary metal-oxide-semiconductor transistors. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 586.	1.6	21
54	One- and two-dimensional carrier profiling in semiconductors by nanospreading resistance profiling. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 380.	1.6	56

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55	Minimizing the size of force-controlled point contacts on silicon for carrier profiling. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 1513.	1.6	3