Sylvie Schamm-Chardon

List of Publications by Year
in descending order

93	1,448	304743 22	377865 34
papers	citations	h-index	g-index

97	97	97	1758
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structural characterization of amorphous SiCxNy chemical vapor deposited coatings. Journal of Applied Physics, 1997, 81, 6147-6154.	2.5	92
2	A review of molecular beam epitaxy of ferroelectric BaTiO₃films on Si, Ge and GaAs substrates and their applications. Science and Technology of Advanced Materials, 2015, 16, 036005.	6.1	89
3	Imaging Si nanoparticles embedded in SiO2 layers by (S)TEM-EELS. Ultramicroscopy, 2008, 108, 346-357.	1.9	72
4	Physicochemical properties of SiC-based ceramics deposited by low pressure chemical vapor deposition from CH3SiCl3H2. Thin Solid Films, 1995, 254, 75-82.	1.8	51
5	Oxidation of Si nanocrystals fabricated by ultralow-energy ion implantation in thin SiO2 layers. Journal of Applied Physics, 2006, 99, 044302.	2.5	47
6	Multi-dot floating-gates for nonvolatile semiconductor memories: Their ion beam synthesis and morphology. Applied Physics Letters, 2004, 85, 2373-2375.	3.3	44
7	Study of the dielectric properties near the band gap by VEELS: gap measurement in bulk materials. Ultramicroscopy, 2003, 96, 559-564.	1.9	43
8	Si and Ge nanocrystals for future memory devices. Materials Science in Semiconductor Processing, 2012, 15, 615-626.	4.0	41
9	The K2ZrF6 wetting process: Effect of surface chemistry on the ability of a SiC-Fiber preform to be impregnated by aluminum. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1991, 22, 2133-2139.	1.4	39
10	Correlations between gas phase supersaturation, nucleation process and physico-chemical characteristics of silicon carbide deposited from Si-C-H-Cl system on silica substrates. Journal of Materials Science, 1995, 30, 1500-1510.	3.7	37
11	Atomic layer deposition of LaxZr1âˆ’xO2âˆ’Îˆâ€˜(x=0.25) high-k dielectrics for advanced gate stacks. Applied Physics Letters, 2009, 94, .	3.3	37
12	Dielectric properties of Erâˆ’doped HfO2â€˜(Erâ¼15%) grown by atomic layer deposition for high-Îº gate stacks. Applied Physics Letters, 2010, 96, .	3.3	37
13	The energy band alignment of Si nanocrystals in SiO2. Applied Physics Letters, 2011, 99, .	3.3	37
14	Si nanocrystals by ultra-low-energy ion beam-synthesis for non-volatile memory applications. Solid-State Electronics, 2005, 49, 1734-1744.	1.4	36
15	Infrared spectroscopy and X-ray diffraction studies on the crystallographic evolution of La2O3 films upon annealing. Microelectronic Engineering, 2008, 85, 2411-2413.	2.4	33
16	Scaling size of the interplay between quantum confinement and surface related effects in nanostructured silicon. Applied Physics Letters, 2013, 103, .	3.3	33
17	Thermally induced permittivity enhancement in La-doped ZrO2 grown by atomic layer deposition on Ge(100). Applied Physics Letters, 2009, 95, 122902.	3.3	31
18	O3-based atomic layer deposition of hexagonal La2O3 films on Si(100) and Ge(100) substrates. Journal of Applied Physics, 2010, 108, 084108.	2.5	30

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19	Chemical/Structural Nanocharacterization and Electrical Properties of ALD-Grown La[sub 2]O[sub 3]â^•Si Interfaces for Advanced Gate Stacks. Journal of the Electrochemical Society, 2009, 156, H1.	2.9	29
20	V.U.V absorption coefficient measurements of borate matrices. Journal of Alloys and Compounds, 2001, 323-324, 816-819.	5.5	27
21	Nanocrystallized tetragonal metastable ZrO2 thin films deposited by metal-organic chemical vapor deposition for 3D capacitors. Thin Solid Films, 2011, 519, 5638-5644.	1.8	27
22	Quantum dots for memory applications. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1490-1504.	1.8	24
23	The fabrication of tunable nanoporous oxide surfaces by block copolymer lithography and atomic layer deposition. Nanotechnology, 2011, 22, 335303.	2.6	23
24	White electroluminescence from C- and Si-rich thin silicon oxides. Applied Physics Letters, 2006, 89, 253124.	3.3	21
25	Structural and optical properties of high density Si-ncs synthesized in SiNx:H by remote PECVD and annealing. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 147, 218-221.	3.5	20
26	Structural study and ferroelectricity of epitaxial BaTiO3 films on silicon grown by molecular beam epitaxy. Journal of Applied Physics, 2014, 116, .	2.5	20
27	Elaboration by spray pyrolysis and characterization in the VUV range of phosphor particles with spherical shape and micronic size. Journal Physics D: Applied Physics, 2005, 38, 3261-3268.	2.8	18
28	Compatibility between SiC filaments and aluminim in the K2ZrF6 wetting process and its effect on filament strength. Composites Science and Technology, 1991, 40, 193-211.	7.8	17
29	Chlorine and oxygen inhibition effects in the deposition of SiC-based ceramics from the Siî—¸Cî—¸Hî—¸Cl system. Journal of the European Ceramic Society, 1995, 15, 81-88.	5.7	17
30	Decoupling indirect topographic cross-talk in band excitation piezoresponse force microscopy imaging and spectroscopy. Applied Physics Letters, 2016, 108, .	3.3	17
31	Field effect white and tunable electroluminescence from ion beam synthesized Si- and C-rich SiO2 layers. Applied Physics Letters, 2007, 91, 211105.	3.3	15
32	Structural and optical properties of Si nanocrystals embedded in SiO2/SiNx multilayers. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 994-997.	2.7	15
33	Multi-scale analysis of the dielectric properties and structure of resin/carbon-black nanocomposites. EPJ Applied Physics, 2003, 21, 17-26.	0.7	14
34	Oxideâ€“nitrideâ€“oxide dielectric stacks with Si nanoparticles obtained by low-energy ion beam synthesis. Nanotechnology, 2007, 18, 215204.	2.6	14
35	KFM detection of charges injected by AFM into a thin SiO2 layer containing Si nanocrystals. Microelectronic Engineering, 2008, 85, 2358-2361.	2.4	14
36	Evolution of shape, size, and areal density of a single plane of Si nanocrystals embedded in SiO₂ matrix studied by atom probe tomography. RSC Advances, 2016, 6, 3617-3622.	3.6	14

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37	HREM identification of "one-dimensionally-disordered" polytypes in the SiC (CVI) matrix of SiC/SiC composites. Microscopy Microanalysis Microstructures, 1991, 2, 59-73.	0.4	14
38	Ultra-low-energy ion-beam-synthesis of Ge nanocrystals in thin ALD Al2O3 layers for memory applications. Microelectronic Engineering, 2009, 86, 1838-1841.	2.4	13
39	In-plane organization of silicon nanocrystals embedded in SiO2thin films. Nanotechnology, 2013, 24, 075302.	2.6	13
40	High-resolution electron microscopy investigations of stacking faults in Y₁Ba₂Cu₃O_{7â^'Î´} metalorganic chemical vapor deposited thin films. Journal of Materials Research, 1999, 14, 2732-2738.	2.6	12
41	Characterization of ZrO2 thin films deposited by MOCVD for high-density 3D capacitors. Microelectronic Engineering, 2009, 86, 2034-2037.	2.4	12
42	Calculated and experimental electron energy-loss spectra of La2O3, La(OH)3, and LaOF nanophases in high permittivity lanthanum-based oxide layers. Applied Physics Letters, 2011, 98, 243116.	3.3	12
43	Contamination and the quantitative exploitation of EELS low-loss experiments. Ultramicroscopy, 2001, 88, 211-217.	1.9	11
44	Comparative Study of Electrical and Microstructural Properties of 4H-SiC MOSFETs. Materials Science Forum, 0, 717-720, 437-440.	0.3	11
45	Detailed characterisation of focused ion beam induced lateral damage on silicon carbide samples by electrical scanning probe microscopy and transmission electron microscopy. Journal of Applied Physics, 2018, 123, .	2.5	10
46	SiCN Amorphous Materials Chemical Vapour Deposited Using the Si(CH3)4-NH3-H2 System. European Physical Journal Special Topics, 1995, 05, C5-793-C5-800.	0.2	9
47	Element and phase identification via fine structure analysis in EELS: application to MOCVD-Y1Ba2Cu3O7â^'Î´ thin films. Ultramicroscopy, 1998, 74, 159-167.	1.9	9
48	Wet oxidation of nitride layer implanted with low-energy Si ions for improved oxide-nitride-oxide memory stacks. Applied Physics Letters, 2007, 90, .	3.3	9
49	Study of the chemical and structural organization of SIPOS films at the nanometer scale by TEMâ€“EELS and XPS. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 107, 58-65.	3.5	8
50	Structural and electrical properties of Er-doped HfO2 and of its interface with Ge (001). Microelectronic Engineering, 2011, 88, 415-418.	2.4	8
51	Studies of LPCVD Alâ€“Feâ€“O deposits by XPS, EELS and MÃ¶ssbauer spectroscopies. Surface and Coatings Technology, 1998, 105, 31-37.	4.8	6
52	The effects of oxidation conditions on structural and electrical properties of silicon nanoparticles obtained by ultra-low-energy ion implantation. Nanotechnology, 2005, 16, 2987-2992.	2.6	6
53	Photoluminescence characterization of few-nanocrystals electronic devices. Journal of Luminescence, 2006, 121, 340-343.	3.1	6
54	Combining HRTEMâ€“EELS nano-analysis with capacitanceâ€“voltage measurements to evaluate high-Îº thin films deposited on Si and Ge as candidate for future gate dielectrics. Microelectronic Engineering, 2011, 88, 419-422.	2.4	6

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55	Y2O3 nanoprecipitate/YBaCuO matrix interfaces: HREM study. Physica C: Superconductivity and Its Applications, 1994, 235-240, 617-618.	1.2	5
56	Fabrication of nanocrystal memories by ultra low energy ion implantation. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 1907-1911.	0.8	5
57	Temperature-dependent low electric field charging of Si nanocrystals embedded within oxideâ€“nitrideâ€“oxide dielectric stacks. Nanotechnology, 2009, 20, 305704.	2.6	5
58	Kinetic Processes in the CVD of SiC from CH₃SiCl₃-H₂ in a Vertical Hot-Wall Reactor. European Physical Journal Special Topics, 1995, 05, C5-105-C5-112.	0.2	5
59	Nano-analytical investigation of the forming process in an HfO2-based resistive switching memory. Journal of Applied Physics, 2021, 130, .	2.5	5
60	Partial phase diagram of the ternary reciprocal system KF-AlF3-Al2O3-K2O. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 1990, 14, 385-402.	1.6	4
61	Preparation and microstructures of BaTi1â^'xZrxO3hetero-epitaxial thin films on SrTiO3substrates. Journal Physics D: Applied Physics, 2007, 40, 4701-4706.	2.8	4
62	Oxide-nitride-oxide memory stacks formed by low-energy Si ion implantation into nitride and wet oxidation. Microelectronic Engineering, 2007, 84, 1986-1989.	2.4	4
63	Silicon nanoparticles synthesized in SiO2 pockets by stencil-masked low energy ion implantation and thermal annealing. Superlattices and Microstructures, 2008, 44, 395-401.	3.1	4
64	Fabrication of well-ordered arrays of silicon nanocrystals using a block copolymer mask. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1477-1484.	1.8	4
65	Atomic-layer deposited thulium oxide as a passivation layer on germanium. Journal of Applied Physics, 2015, 117, .	2.5	4
66	Nanoscale control of Si nanoparticles within a 2D hexagonal array embedded in SiO2thin films. Nanotechnology, 2017, 28, 014001.	2.6	4
67	Structural and chemical investigation of interface related magnetoelectric effect in Ni/BiFe0.95Mn0.05O3 heterostructures. Applied Surface Science, 2019, 481, 234-240.	6.1	4
68	Reconstruction of depth resolved strain tensor in off-axis single crystals: Application to H+ ions implanted LiTaO3. Applied Physics Letters, 2021, 118, .	3.3	4
69	Y2O3 nanoprecipitates in YBCO thin films obtained by thermal- MOCVD. Physica C: Superconductivity and Its Applications, 1994, 235-240, 619-620.	1.2	3
70	Influence of the thickness of the tunnel layer on the charging characteristics of Si nanocrystals embedded in an ultra-thin SiO2 layer. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 38, 80-84.	2.7	3
71	Extraction of the characteristics of Si nanocrystals by the charge pumping technique. Nanotechnology, 2012, 23, 085206.	2.6	3
72	Nano-Analytical and Electrical Characterization of 4H-SiC MOSFETs. Materials Science Forum, 0, 711, 134-138.	0.3	3

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73	Silicon crystallization in nanodot arrays organized by block copolymer lithography. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	3
74	Atomic scale characterization of SiO2/4H-SiC interfaces in MOSFETs devices. Solid State Communications, 2015, 221, 28-32.	1.9	3
75	Oxidation effects on transport characteristics of nanoscale MOS capacitors with an embedded layer of silicon nanocrystals obtained by low energy ion implantation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 124-125, 494-498.	3.5	2
76	Si nanocrystals by ultra-low energy ion implantation for non-volatile memory applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 124-125, 499-503.	3.5	2
77	Silicon Nanoclusters Embedded into Oxide Host for Non-Volatile Memory Applications. ECS Transactions, 2011, 35, 37-45.	0.5	2
78	Influence of La on the electrical properties of HfSiON: From diffusion to Vth shifts. Microelectronic Engineering, 2013, 109, 200-203.	2.4	2
79	Modifications of silicon nitride materials for SONOS memories. , 2013, , .		2
80	Raman-Brillouin scattering from a thin Ge layer: Acoustic phonons for probing Ge/GeO2 interfaces. Applied Physics Letters, 2014, 104, 061601.	3.3	2
81	Nano-composite MOx materials for NVMs. , 2022, , 201-244.		2
82	Preparation of YBCO on YSZ Layers Deposited on Silicon and Sapphire by MOCVD : Influence of the Intermediate Layer on the Quality of the Superconducting Film. European Physical Journal Special Topics, 1995, 05, C5-439-C5-447.	0.2	1
83	Implantation energy effect on photoluminescence spectroscopy of Si nanocrystals locally fabricated by stencil-masked ultra-low-energy ion-beam-synthesis in silica. Nuclear Instruments & Methods in Physics Research B, 2012, 272, 53-56.	1.4	1
84	Studying Thin Ge films and Ge/GeO2 interfaces by means of ramanâ€“brillouin scattering. Bulletin of the Russian Academy of Sciences: Physics, 2015, 79, 1397-1401.	0.6	1
85	HREM Characterization of Interfaces in Thin MOCVD Superconducting Films. European Physical Journal Special Topics, 1995, 05, C5-927-C5-934.	0.2	0
86	Thermodynamic study and characterization of low pressure chemically vapor deposited silicon oxynitride films from tetraethylorthosilicate, dichlorosilane and ammonia gas mixtures. Thin Solid Films, 2003, 429, 77-83.	1.8	0
87	Electroluminescence from C- and Si- rich silicon oxides in continuous wave and pulsed excitation. , 2007, , .		0
88	Photoluminescence spectroscopy and transport electrical measurements reveal the quantized features of Si nanocrystals embedded in an ultra thin SiO2 layer. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 311-315.	0.8	0
89	ZrO2 Thin Films Grown on 2D and 3D Silicon Surfaces by DLI-MOCVD for Electronic Devices. ECS Transactions, 2009, 25, 1121-1128.	0.5	0
90	Ultra-Low Energy Ion Implantation of Si into HfO2 and HfSiO-based Structures for Non Volatile Memory Applications. Materials Research Society Symposia Proceedings, 2010, 1250, 1.	0.1	0

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91	Organized Nanostructures and Nano-objects: Fabrication, characterization and applications. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1476-1476.	1.8	0
92	Backside versus frontside advanced chemical analysis of high-k/metal gate stacks. Journal of Electron Spectroscopy and Related Phenomena, 2015, 203, 1-7.	1.7	0
93	Investigation of Switching Mechanism in HfO2-Based Oxide Resistive Memories by In-Situ Transmission Electron Microscopy and Electron Energy Loss Spectroscopy. , 2017, , .		0