Elisabeth Blanquet

List of Publications by Year
in descending order

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131	1,913	24	36
papers	citations	h-index	g-index

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132	132	132	2025
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Coupling powder bed additive manufacturing and vapor phase deposition methods for elaboration of coated 3D Ti-6Al-4V architectures with enhanced surface properties. Surface and Coatings Technology, 2021, 415, 127130.	4.8	11
2	Prediction of dislocation density in AlN or GaN films deposited on (0001) sapphire. Journal of Materials Science, 2020, 55, 9152-9162.	3.7	2
3	Improved critical temperature of superconducting plasma-enhanced atomic layer deposition of niobium nitride thin films by thermal annealing. Thin Solid Films, 2020, 709, 138232.	1.8	11
4	Synthesis of upconversion TiO2:Er3+-Yb3+ nanoparticles and deposition of thin films by spin coating technique. Ceramics International, 2020, 46, 28183-28192.	4.8	13
5	<i>In situ</i> x-ray studies of the incipient ZnO atomic layer deposition on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>In</mml:mi><mml:mrow><mml:mn>0.53 Physical Review Materials, 2020, 4, .	2.4	7
6	Chemical vapor deposition of titanium nitride thin films: kinetics and experiments. CrystEngComm, 2019, 21, 3974-3981.	2.6	22
7	Crystal quality of SiGe films fabricated by the condensation technique and characterized by medium energy ion scattering. Semiconductor Science and Technology, 2019, 34, 065005.	2.0	1
8	Influence of oxide density on O₂ diffusivity in thermally grown SiO₂ on Si and SiGe and on oxidation kinetics. Semiconductor Science and Technology, 2019, 34, 065023.	2.0	0
9	Deposition and characterization of (Ti, Al)N coatings deposited by thermal LPCVD in an industrial reactor. Surface and Coatings Technology, 2019, 358, 923-933.	4.8	12
10	Impact of silica-substrate chemistry on tantalum nitride thin films deposited by atomic layer deposition: Microstructure, chemistry and electrical behaviors. Thin Solid Films, 2019, 669, 392-398.	1.8	2
11	Reactive chemical vapor deposition of heteroepitaxial Ti_{1â^'x}Al_xN films. CrystEngComm, 2018, 20, 1711-1715.	2.6	6
12	Aluminum nitride thin films deposited by hydrogen plasma enhanced and thermal atomic layer deposition. Surface and Coatings Technology, 2018, 347, 181-190.	4.8	23
13	Superconducting properties of NbTiN thin films deposited by high-temperature chemical vapor deposition. Physical Review B, 2018, 97, .	3.2	14
14	The initial stages of ZnO atomic layer deposition on atomically flat In_{0.53}Ga_{0.47}As substrates. Nanoscale, 2018, 10, 11585-11596.	5.6	11
15	A comparative study of graphene growth on SiC by hydrogen-CVD or Si sublimation through thermodynamic simulations. CrystEngComm, 2018, 20, 3702-3710.	2.6	8
16	A niching genetic algorithm applied to optimize a SiC-bulk crystal growth system. Journal of Crystal Growth, 2017, 468, 914-918.	1.5	9
17	HVPE of aluminum nitride, film evaluation and multiscale modeling of the growth process. Journal of Crystal Growth, 2017, 468, 235-240.	1.5	3
18	Study of surface reaction during selective epitaxy growth of silicon by thermodynamic analysis and density functional theory calculation. Journal of Crystal Growth, 2017, 468, 278-282.	1.5	13

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19	A Chemical Vapor Deposition Route to Epitaxial Superconducting NbTiN Thin Films. Chemistry of Materials, 2017, 29, 5824-5830.	6.7	11
20	Oxidation kinetics of Si and SiGe by dry rapid thermal oxidation, <i>in-situ</i> steam generation oxidation and dry furnace oxidation. Journal of Applied Physics, 2017, 121, .	2.5	12
21	SiGe oxidation kinetics and oxide density measured by resonant soft X-ray reflectivity. , 2017, , .		2
22	Growth of boron nitride films on wâ€AlN (0001), 4Â° offâ€cut 4Hâ€SiC (0001), W (110) and Cr (110) substrates by Chemical Vapor Deposition. Crystal Research and Technology, 2016, 51, 231-238.	1.3	8
23	Superconducting properties of very high quality NbN thin films grown by high temperature chemical vapor deposition. Superconductor Science and Technology, 2016, 29, 105011.	3.5	55
24	Comparative Analysis of Growth Rate Enhancement and Ge Redistribution during Silicon-Germanium Oxidation by Rapid Thermal Oxidation. ECS Transactions, 2016, 75, 67-78.	0.5	5
25	Evolution of Crystal Structure During the Initial Stages of ZnO Atomic Layer Deposition. Chemistry of Materials, 2016, 28, 592-600.	6.7	31
26	A first step toward bridging silicon carbide crystal properties and physical chemistry of crystal growth. CrystEngComm, 2016, 18, 2119-2124.	2.6	11
27	Al2O3 thin films deposited by thermal atomic layer deposition: Characterization for photovoltaic applications. Thin Solid Films, 2016, 617, 108-113.	1.8	35
28	Characterization of Al2O3 Thin Films Prepared by Thermal ALD. Energy Procedia, 2015, 77, 558-564.	1.8	36
29	Undoped TiO2 and nitrogen-doped TiO2 thin films deposited by atomic layer deposition on planar and architectured surfaces for photovoltaic applications. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, 01A141.	2.1	13
30	X-ray photoelectron spectroscopy analysis of the effect of temperature upon surface composition of InP etched in Cl2-based inductively coupled plasma. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, 011219.	1.2	8
31	Niobium nitride thin films deposited by high temperature chemical vapor deposition. Surface and Coatings Technology, 2014, 260, 126-132.	4.8	33
32	Influence of the V/III ratio in the gas phase on thin epitaxial AlN layers grown on (0001) sapphire by high temperature hydride vapor phase epitaxy. Thin Solid Films, 2014, 573, 140-147.	1.8	27
33	CFD modeling of the high-temperature HVPE growth of aluminum nitride layers on c-plane sapphire: from theoretical chemistry to process evaluation. Theoretical Chemistry Accounts, 2014, 133, 1.	1.4	13
34	Study of Ti-Rich and Al-Rich Contact Metallization for AlGaN/GaN HEMT Power Devices. ECS Transactions, 2014, 64, 263-272.	0.5	3
35	Growth of Boron Nitride on (0001) AlN Templates by High Temperature-Hydride Vapor Phase Epitaxy (HT-HVPE). Physics Procedia, 2013, 46, 102-106.	1.2	15
36	New method to evaluate materials outgassing used in MEMS thin film packaging technology. Microelectronic Engineering, 2013, 107, 97-100.	2.4	3

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37	Analysis of the iodine gas phase produced by interaction of CsI and MoO3 vapours in flowing steam. Nuclear Engineering and Design, 2013, 263, 462-472.	1.7	25
38	Epitaxial growth of AlN on c-plane sapphire by High Temperature Hydride Vapor Phase Epitaxy: Influence of the gas phase N/Al ratio and low temperature protective layer. Surface and Coatings Technology, 2013, 237, 118-125.	4.8	15
39	High temperature chemical vapor deposition of aluminum nitride, growth and evaluation. Surface and Coatings Technology, 2013, 230, 111-118.	4.8	24
40	Effects of the V/III ratio on the quality of aluminum nitride grown on (0001) sapphire by high temperature hydride vapor phase epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 362-365.	0.8	10
41	Preferential orientation of fluorine-doped SnO2 thin films: The effects of growth temperature. Acta Materialia, 2013, 61, 22-31.	7.9	74
42	Experimental kinetic study of oxidation of uranium monocarbide powders under controlled oxygen partial pressures below 230Â°C. Journal of Nuclear Materials, 2013, 432, 505-519.	2.7	12
43	Outgassing characterization of MEMS thin film packaging materials. , 2013, , .		5
44	Characterization of nitrogen-doped TiO<inf>2</inf> thin films for photovoltaic applications. , 2013, , .		2
45	Tetragonal Zirconia Stabilization by Metal Addition for Metal-Insulator-Metal Capacitor Applications. ECS Transactions, 2013, 58, 223-233.	0.5	4
46	Atomic Layer Deposition of TiO2 ultrathin films on 3D substrates for energy applications. Materials Research Society Symposia Proceedings, 2012, 1439, 63-68.	0.1	2
47	Effects of AlN nucleation layers on the growth of AlN films using high temperature hydride vapor phase epitaxy. Journal of Alloys and Compounds, 2012, 526, 103-109.	5.5	42
48	Significance of initial stages on the epitaxial growth of AlN using high temperature halide chemical vapor deposition. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 511-514.	0.8	3
49	Growth and Characterization of Thick Polycrystalline AlN Layers by HTCVD. Journal of the Electrochemical Society, 2011, 158, H328.	2.9	7
50	Investigation on AlN epitaxial growth and related etching phenomenon at high temperature using high temperature chemical vapor deposition process. Journal of Crystal Growth, 2011, 335, 17-24.	1.5	18
51	Conformal Atomic Layer Deposition of TA-Based Diffusion Barrier Film Using a Novel Mono-Guanidinate Precursor. Journal of Nanoscience and Nanotechnology, 2011, 11, 8383-8386.	0.9	3
52	Aluminum nitride homoepitaxial growth on polar and nonâ€polar AlN PVT substrates by high temperature CVD (HTCVD). Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2019-2021.	0.8	14
53	Developments of TaN ALD Process for 3D Conformal Coatings. Chemical Vapor Deposition, 2011, 17, 284-295.	1.3	6
54	Experimental study of uranium carbide pyrophoricity. Powder Technology, 2011, 208, 312-317.	4.2	18

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55	Stability of High Temperature Chemical Vapor Deposited Silicon Based Structures on Metals for Solar Conversion. Journal of Nanoscience and Nanotechnology, 2011, 11, 8318-8322.	0.9	0
56	Plasma Enhanced Atomic Layer Deposition of ZrO2: A Thermodynamic Approach. ECS Transactions, 2011, 35, 497-513.	0.5	1
57	Atomic layer deposition of tantalum oxide thin films for their use as diffusion barriers in microelectronic devices. Microelectronic Engineering, 2010, 87, 373-378.	2.4	36
58	Epitaxial and polycrystalline growth of AlN by high temperature CVD: Experimental results and simulation. Surface and Coatings Technology, 2010, 205, 1294-1301.	4.8	29
59	High temperature chemical vapor deposition of AlN/W1âˆ’xRex coatings on bulk SiC. Surface and Coatings Technology, 2010, 205, 1302-1306.	4.8	3
60	Cracking study of pentakis(dimethylamino)tantalum vapors by Knudsen cell mass spectrometry. Rapid Communications in Mass Spectrometry, 2010, 24, 2949-2956.	1.5	4
61	ALD TaN from PDMAT and a New Monoguanidinate Tantalum Molecule Precursor in TSV Architectures. ECS Meeting Abstracts, 2010, , .	0.0	0
62	(Invited) Developments of ALD Processes: Experiments and Thermodynamic Evaluations. ECS Transactions, 2010, 33, 321-332.	0.5	2
63	ALD TaN from PDMAT in TSV Architectures. ECS Transactions, 2010, 33, 183-193.	0.5	2
64	Chemical vapour deposition and atomic layer deposition of amorphous and nanocrystalline metallic coatings: Towards deposition of multimetallic films. Journal of Alloys and Compounds, 2010, 504, S422-S424.	5.5	10
65	PEALD ZrO₂ Films Deposition on TiN and Si Substrates. ECS Transactions, 2009, 25, 235-241.	0.5	4
66	Influence of the N/Al Ratio in the Gas Phase on the Growth of AlN by High Temperature Chemical Vapor Deposition (HTCVD). Materials Science Forum, 2009, 615-617, 987-990.	0.3	2
67	High-speed Growth and Characterization of Polycrystalline AlN Layers by High Temperature Chemical Vapor Deposition (HTCVD). ECS Transactions, 2009, 25, 323-326.	0.5	7
68	ESD and ALD Depositions of Ta[sub 2]O[sub 5] Thin Films Investigated as Barriers to Copper Diffusion for Advanced Metallization. Journal of the Electrochemical Society, 2009, 156, H311.	2.9	18
69	On gaseous phase of ALD precursors by means of thermodynamics. ECS Transactions, 2009, 25, 567-573.	0.5	0
70	Gaseous Phase Study of the Zr-Organometallic ALD Precursor TEMAZ by Mass Spectrometry. Journal of the Electrochemical Society, 2009, 156, H71.	2.9	18
71	A special reactor coupled with a high-temperature mass spectrometer for the investigation of the vaporization and cracking of organometallic compounds. Rapid Communications in Mass Spectrometry, 2009, 23, 793-800.	1.5	7
72	Influence of total pressure and precursors flow rates on the growth of aluminium nitride by high temperature chemical vapor deposition (HTCVD). Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S348-S351.	0.8	3

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73	Experimental thermodynamics for the evaluation of ALD growth processes. Surface and Coatings Technology, 2009, 204, 882-886.	4.8	15
74	Thermodynamic and experimental investigations on the growth of thick aluminum nitride layers by high temperature CVD. Journal of Crystal Growth, 2009, 311, 3371-3379.	1.5	26
75	Thermodynamic and experimental study of UC powders ignition. Journal of Nuclear Materials, 2009, 393, 333-342.	2.7	28
76	XPS studies of the ALD-growth of TaN diffusion barriers: Impact of the dielectric surface chemistry on the growth mechanism. Microelectronic Engineering, 2008, 85, 2068-2070.	2.4	23
77	Low-Temperature Low-Resistivity PEALD TiN Using TDMAT under Hydrogen Reducing Ambient. Journal of the Electrochemical Society, 2008, 155, H625.	2.9	44
78	Elaboration of Ta2O5Thin Films Using Electrostatic Spray Deposition for Microelectronic Applications. Journal of Physical Chemistry C, 2007, 111, 5708-5714.	3.1	24
79	Knudsen cell mass spectrometry applied to the investigation of organometallic precursors vapours. Surface and Coatings Technology, 2007, 201, 8813-8817.	4.8	10
80	Chlorinated silicon carbide CVD revisited for polycrystalline bulk growth. Surface and Coatings Technology, 2007, 201, 8888-8892.	4.8	15
81	Chemical vapor deposition of thin films and coatings: Evaluation and process modeling. Surface and Coatings Technology, 2007, 202, 790-797.	4.8	14
82	DNA microarrays on silicon nanostructures: Optimization of the multilayer stack for fluorescence detection. Biosensors and Bioelectronics, 2007, 22, 2086-2092.	10.1	17
83	Silicon nanostructures for DNA biochip applications. Materials Science and Engineering C, 2007, 27, 1500-1503.	7.3	11
84	Plasma etching of HfO2 at elevated temperatures in chlorine-based chemistry. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 30-40.	2.1	27
85	High temperature processing of poly-SiC substrates from the vapor phase for wafer-bonding. Surface and Coatings Technology, 2006, 201, 4014-4020.	4.8	4
86	Density functional study of the stability and electronic properties of TaxNy compounds used as copper diffusion barriers. Microelectronic Engineering, 2006, 83, 2077-2081.	2.4	22
87	Thermodynamic Aspects of the Growth of SiC Single Crystals using the CF-PVT Process. Chemical Vapor Deposition, 2006, 12, 541-548.	1.3	16
88	Silicon Carbide Growth: C/Si Ratio Evaluation and Modeling. Materials Research Society Symposia Proceedings, 2006, 911, 2.	0.1	0
89	SiC single crystal growth by a modified physical vapor transport technique. Journal of Crystal Growth, 2005, 275, e555-e560.	1.5	35
90	Progress and Limits of the Numerical Simulation of SiC Bulk and Epitaxy Growth Processes. Materials Science Forum, 2005, 483-485, 3-8.	0.3	3

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91	Contribution of numerical simulation to silicon carbide bulk growth and epitaxy. Journal of Physics Condensed Matter, 2004, 16, S1579-S1595.	1.8	6
92	Detection of subnanometric layer at the Siâˆ•SiO2 interface and related strain measurements. Applied Physics Letters, 2004, 85, 5574-5576.	3.3	6
93	Modeling and simulation of SiC CVD in the horizontal hot-wall reactor concept. Journal of Crystal Growth, 2004, 267, 436-451.	1.5	52
94	Modeling and simulation of SiC CVD in the horizontal hot-wall reactor concept. Journal of Crystal Growth, 2004, 267, 436-436.	1.5	3
95	Free Growth of 4H-SiC by Sublimation Method. Materials Science Forum, 2004, 457-460, 71-74.	0.3	5
96	Vapor phase techniques for the fabrication of homoepitaxial layers of silicon carbide: process modeling and characterization. Applied Surface Science, 2003, 212-213, 177-183.	6.1	4
97	Simulation of the Large-Area Growth of Homoepitaxial 4H-SiC by Chemical Vapor Deposition. Materials Science Forum, 2002, 389-393, 223-226.	0.3	4
98	Heat and mass transfer simulation of SiC boule growth by sublimation. Materials Research Society Symposia Proceedings, 2000, 640, 1.	0.1	3
99	Combined thermodynamic and mass transport modeling for material processing from the vapor phase. Thin Solid Films, 2000, 365, 264-274.	1.8	6
100	Application of equilibrium thermodynamics to the development of diffusion barriers for copper metallization (invited). Microelectronic Engineering, 2000, 50, 357-368.	2.4	35
101	SiC In-Situ Pre-Growth Etching: A Thermodynamic Study. Materials Science Forum, 2000, 338-342, 1041-1044.	0.3	13
102	Evaporation Behavior of SiC Powder for Single Crystal Growth-An Experimental Study on Thermodynamics and Kinetics. Materials Science Forum, 2000, 338-342, 91-94.	0.3	11
103	Investigation into the Film Growth of AlN on SiC by Low Pressure Chemical Vapour Deposition. Materials Science Forum, 2000, 338-342, 1507-1510.	0.3	1
104	Modelling of SiC sublimation growth process : Influence of experimental parameters on crystal shape. European Physical Journal Special Topics, 1999, 09, Pr8-213-Pr8-219.	0.2	4
105	Contribution to the modeling of CVD silicon carbide growth. European Physical Journal Special Topics, 1999, 09, Pr8-205-Pr8-212.	0.2	8
106	Thermodynamic Calculations as the Basis for CVD Production of Silicide Coatings. MRS Bulletin, 1999, 24, 27-31.	3.5	119
107	State of the art in the modelling of SiC sublimation growth. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 61-62, 18-28.	3.5	50
108	Modelling of SiC sublimation growth process: analyses of macrodefects formation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 61-62, 82-85.	3.5	8

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109	LPCVD and PACVD (Ti,Al)N films: morphology and mechanical properties. Surface and Coatings Technology, 1999, 115, 103-110.	4.8	20
110	Thermodynamic Modeling of the Ti-Al-N System and Application to the Simulation of CVD Processes of the (Ti,Al)N Metastable Phase. Chemical Vapor Deposition, 1999, 5, 109-115.	1.3	13
111	Diffusion Barriers for Copper Metallization: Predicting Phase Stability and Reactivity using Equilibrium Thermodynamics. Materials Research Society Symposia Proceedings, 1999, 564, 299.	0.1	1
112	Les diffÃ©rentes voies de modÃ©lisation macroscopique du procÃ©dÃ© de dÃ©pÃ´t de SiC par voie gazeuse. Annales De Chimie: Science Des Materiaux, 1998, 23, 753-789.	0.4	7
113	Defects formation in sublimation grown 6H-SiC single crystal boules. Diamond and Related Materials, 1997, 6, 1249-1261.	3.9	14
114	Evaluation of LPCVD Meî—¸Siî—¸N (Meî—»Ta, Ti, W, Re) diffusion barriers for Cu metallizations. Microelectronic Engineering, 1997, 37-38, 189-195.	2.4	29
115	Different macroscopic approaches to the modelling of the sublimation growth of SiC single crystals. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 46, 308-312.	3.5	20
116	Macroscopic modelling of silicon carbide sublimation: toward a microscopic modelling of defect formation. Surface and Coatings Technology, 1997, 94-95, 279-284.	4.8	5
117	Thermodynamic Heat Transfer and Mass Transport Modeling of the Sublimation Growth of Silicon Carbide Crystals. Journal of the Electrochemical Society, 1996, 143, 3727-3735.	2.9	67
118	LPCVD RexSiyNz diffusion barriers in Si/SiO2/Cu metallizations. Applied Surface Science, 1995, 91, 277-284.	6.1	3
119	A thermodynamic and experimental approach to ReSi2 LPCVD. Thin Solid Films, 1995, 259, 25-31.	1.8	7
120	Morphology and Thermal Stability of Me-Si-N (Me=Re, W, Ta) for Microelectronics. European Physical Journal Special Topics, 1995, 05, C5-1141-C5-1148.	0.2	4
121	LPCVD WSi2 Films Using Tungsten Chlorides and Silane. Journal of the Electrochemical Society, 1993, 140, 475-484.	2.9	21
122	Thermodynamic and Experimental Study of Î²-FeSi2 Lpcvd. Materials Research Society Symposia Proceedings, 1993, 320, 91.	0.1	0
123	Chemical vapor deposition of refractory metal silicides. Applied Surface Science, 1989, 38, 407.	6.1	0
124	A thermodynamic and experimental approach to TaSi2 chemical vapour deposition. Thin Solid Films, 1989, 177, 189-206.	1.8	11
125	A thermodynamic evaluation of four Si-M (M = Mo, Ta, Ti, W) binary systems. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 1989, 13, 273-292.	1.6	89
126	CHEMICAL VAPOR DEPOSITION OF TaSi2 AND WSi2 AT ATMOSPHERIC PRESSURE FROM IN SITU PREPARED METAL CHLORIDES. Journal De Physique Colloque, 1989, 50, C5-557-C5-563.	0.2	1

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127	Growth of Thick AlN Layers by High Temperature CVD (HTCVD). Materials Science Forum, 0, 600-603, 1269-1272.	0.3	5
128	Thermodynamics Simulations Applied to Gas-Solid Materials Fabrication Processes. , 0, , .		0
129	Comparison of Thermodynamic Databases for the Modeling of SiC Growth by PVT. Materials Science Forum, 0, 778-780, 35-38.	0.3	1
130	Assessment of SiC Crystal Chemistry during the PVT Growth Process: Coupled Numerical Modeling and Thermodynamics Approach. Materials Science Forum, 0, 821-823, 96-99.	0.3	0
131	Ti-Al-N-Based Hard Coatings: Thermodynamical Background, CVD Deposition, and Properties. A Review. , 0, , .		4