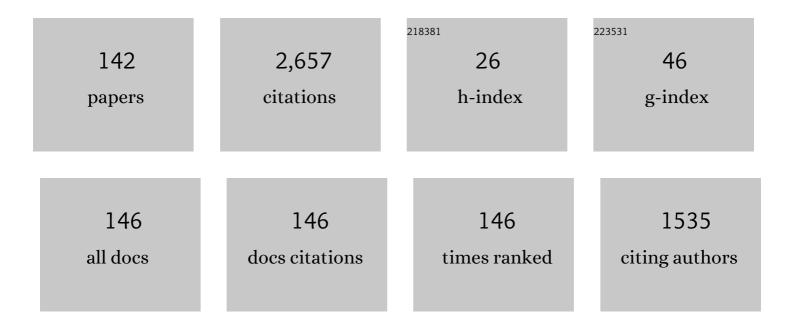
Andreas Fissel

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/2863480/publications.pdf Version: 2024-02-01



#	Article	IF	CITATIONS
1	Lowâ€ŧemperature growth of SiC thin films on Si and 6H–SiC by solidâ€source molecular beam epitaxy. Applied Physics Letters, 1995, 66, 3182-3184.	1.5	225
2	Artificially layered heteropolytypic structures based on SiC polytypes: molecular beam epitaxy, characterization and properties. Physics Reports, 2003, 379, 149-255.	10.3	165
3	Photoemission andab initiotheoretical study of interface and film formation during epitaxial growth and annealing of praseodymium oxide on Si(001). Journal of Applied Physics, 2002, 91, 8986-8991.	1.1	101
4	Impact of oxygen supply during growth on the electrical properties of crystalline Gd2O3 thin films on Si(001). Applied Physics Letters, 2006, 88, 152905.	1.5	94
5	Interface formation during molecular beam epitaxial growth of neodymium oxide on silicon. Journal of Applied Physics, 2006, 99, 074105.	1.1	90
6	Thermodynamic considerations of the epitaxial growth of SiC polytypes. Journal of Crystal Growth, 2000, 212, 438-450.	0.7	85
7	Introducing crystalline rareâ€earth oxides into Si technologies. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 695-707.	0.8	81
8	MBE growth and properties of SiC multi-quantum well structures. Applied Surface Science, 2001, 184, 37-42.	3.1	80
9	Towards understanding epitaxial growth of alternative high-K dielectrics on Si(001): Application to praseodymium oxide. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 1765.	1.6	65
10	Influence of interface layer composition on the electrical properties of epitaxial Gd2O3 thin films for high-K application. Applied Physics Letters, 2007, 90, 113508.	1.5	61
11	Investigation of the electronic structure at interfaces of crystalline and amorphous Gd2O3 thin layers with silicon substrates of different orientations. Applied Physics Letters, 2007, 90, 252101.	1.5	59
12	Impact of Si substrate orientations on electrical properties of crystalline Gd2O3 thin films for high-K application. Applied Physics Letters, 2006, 89, 143514.	1.5	54
13	Epitaxial growth of SiC thin films on Si-stabilized α-SiC(0001) at low temperatures by solid-source molecular beam epitaxy. Journal of Crystal Growth, 1995, 154, 72-80.	0.7	50
14	Advances in the molecular-beam epitaxial growth of artificially layered heteropolytypic structures of SiC. Applied Physics Letters, 2000, 77, 2418-2420.	1.5	49
15	Crystalline ternary rare earth oxide with capacitance equivalent thickness below 1nm for high-K application. Applied Physics Letters, 2006, 88, 172107.	1.5	46
16	0.86-nm CET Gate Stacks With Epitaxial\$hboxGd_2hboxO_3\$High-\$k\$Dielectrics and FUSI NiSi Metal Electrodes. IEEE Electron Device Letters, 2006, 27, 814-816.	2.2	43
17	CMOS integration of epitaxial Gd2O3 high-k gate dielectrics. Solid-State Electronics, 2006, 50, 979-985.	0.8	41
18	On the nature of the D1-defect center in SiC: A photoluminescence study of layers grown by solid-source molecular-beam epitaxy. Applied Physics Letters, 2001, 78, 2512-2514	1.5	39

#	Article	IF	CITATIONS
19	Cooperative solid-vapor-phase epitaxy: An approach for fabrication of single-crystalline insulator/Si/insulator nanostructures. Applied Physics Letters, 2006, 88, 153105.	1.5	34
20	Effective passivation of slow interface states at the interface of single crystalline Gd2O3 and Si(100). Applied Physics Letters, 2008, 92, .	1.5	34
21	Epitaxial growth of AlN and GaN on Si(111) by plasma-assisted molecular beam epitaxy. Journal of Crystal Growth, 1999, 201-202, 359-364.	0.7	33
22	Investigation of two-dimensional growth of AlN(0001) on Si(111) by plasma-assisted molecular beam epitaxy. Journal of Crystal Growth, 1999, 200, 45-54.	0.7	32
23	Growth of 6H–SiC on 6H–SiC(0001) by migration enhanced epitaxy controlled to an atomic level using surface superstructures. Applied Physics Letters, 1996, 68, 1204-1206.	1.5	31
24	Characterization of crystalline rare-earth oxide high-K dielectrics grown by molecular beam epitaxy on silicon carbide. Journal of Vacuum Science & Technology B, 2006, 24, 2115.	1.3	29
25	Growth and characterization of crystalline gadolinium oxide on silicon carbide for high- application. Superlattices and Microstructures, 2006, 40, 551-556.	1.4	28
26	Growth of columnar aluminum nitride layers on Si(111) by molecular beam epitaxy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 50, 228-232.	1.7	27
27	Growth of atomically smooth AlN films with a 5:4 coincidence interface on Si(111) by MBE. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 59, 84-87.	1.7	27
28	Model of the epitaxial growth of SiC-polytypes under surface-stabilized conditons. Journal of Electronic Materials, 1998, 27, 848-852.	1.0	26
29	Crystal structure and strain state of molecular beam epitaxial grown Gd ₂ O ₃ on Si(1 1 1) substrates: a diffraction study. Semiconductor Science and Technology, 2009, 24, 045021.	1.0	26
30	Formation of twinning-superlattice regions by artificial stacking of Si layers. Journal of Crystal Growth, 2006, 290, 392-397.	0.7	25
31	Fabrication of single-crystalline insulatorâ^•Siâ^•insulator nanostructures. Journal of Vacuum Science & Technology B, 2006, 24, 2041.	1.3	23
32	Microhardness of (Hg,Cd)Te. Journal of Crystal Growth, 1988, 86, 502-505.	0.7	21
33	Investigations of Stranski-Krastanov growth kinetics of Si-dots on 6H-SiC(0001). Applied Physics Letters, 1997, 71, 2981-2983.	1.5	21
34	Molecular-beam epitaxy of a strongly lattice-mismatched heterosystem AlN/Si(111) for application in SAW devices. Semiconductors, 1999, 33, 1241-1246.	0.2	21
35	Driving mechanisms for the formation of nanocrystals by annealing of ultrathin Ge layers in <mml:math <br="" xmlns:mml="http://www.w3.org/1998/Math/MathML">display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>SiO</mml:mtext></mml:mrow><mml:mn>2 Physical Review B, 2009, 79, .</mml:mn></mml:msub></mml:mrow></mml:math>	{† <mark>1</mark> <†mml:mr	1>
36	Single-crystalline Si grown on single-crystalline Gd2O3 by modified solid-phase epitaxy. Thin Solid Films, 2010, 518, 2546-2550.	0.8	21

#	Article	IF	CITATIONS
37	MBE growth and properties of epitaxial metal oxides for high- dielectrics. Journal of Crystal Growth, 2005, 278, 18-24.	0.7	20
38	Stranski–Krastanov growth of Si on SiC(0001). Thin Solid Films, 2000, 380, 42-45.	0.8	19
39	Epitaxial multi-component rare earth oxide for high-K application. Thin Solid Films, 2007, 515, 6512-6517.	0.8	19
40	Native defects and complexes in SiC. Journal of Physics Condensed Matter, 2001, 13, 9027-9037.	0.7	18
41	Band offsets between Si and epitaxial rare earth sesquioxides (RE2O3, RE=La,Nd,Gd,Lu): Effect of 4f-shell occupancy. Applied Physics Letters, 2008, 93, 192105.	1.5	18
42	Effect of domain boundaries on the electrical properties of crystalline Gd2O3 thin films. Applied Physics Letters, 2008, 93, .	1.5	18
43	Improving dielectric properties of epitaxial Gd2O3 thin films on silicon by nitrogen doping. Applied Physics Letters, 2013, 102, 022904.	1.5	18
44	Microhardness of Hg1â^'xCdxTe and Hg1â^'xZnxTe. Crystal Research and Technology, 1990, 25, 89-95.	0.6	17
45	Vickers indentation hardness of Hg1â [^] xCdxTe. Crystal Research and Technology, 1989, 24, 557-565.	0.6	15
46	Quantum structures in SiC. Applied Surface Science, 2003, 212-213, 820-825.	3.1	15
47	Integration of functional epitaxial oxides into silicon: from high-k application to nanostructures. Microelectronic Engineering, 2007, 84, 2222-2225.	1.1	15
48	Towards Quantum Structures in SiC. Materials Science Forum, 2002, 389-393, 737-742.	0.3	14
49	Molecular Beam Epitaxy of Rare-Earth Oxides. , 0, , 101-114.		14
50	Formation of Si twinning-superlattice: First step towards Si polytype growth. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 134, 138-141.	1.7	14
51	MBE growth of quantum-size Si-dots on SiC(0001) monitored by RHEED. Thin Solid Films, 1998, 318, 88-92.	0.8	13
52	Si/Ge-nanocrystals on SiC(0001). Thin Solid Films, 2000, 380, 86-88.	0.8	13
53	Superior dielectric properties for template assisted grown (100) oriented Gd2O3thin films on Si(100). Applied Physics Letters, 2014, 104, 012906.	1.5	13
54	RHEED investigations of MBE-growth kinetics of Si on Si(111) and SiC on SiC(100). Surface Science, 1997, 383, 370-377.	0.8	12

#	Article	IF	CITATIONS
55	Improved Epitaxy of Cubic SiC Thin Films on Si(111) by Solid-Source MBE. Materials Science Forum, 1998, 264-268, 255-258.	0.3	12
56	Mechanisms of homo- and heteroepitaxial growth of SiC on α-SiC(0001) by solid-source molecular beam epitaxy. Journal of Electronic Materials, 1999, 28, 206-213.	1.0	12
57	MBE growth of Si on SiC(0001): from superstructures to islands. Journal of Crystal Growth, 2001, 227-228, 777-781.	0.7	12
58	Size-dependent interface band alignment between Si nanocrystals and lattice-matched Gd2O3. Applied Physics Letters, 2009, 95, 102107.	1.5	12
59	Effect of Ge passivation on interfacial properties of crystalline Gd2O3 thin films grown on Si substrates. Applied Physics Letters, 2010, 96, .	1.5	12
60	Conduction and material transport phenomena of degradation in electrically stressed ultra low-k dielectric before breakdown. Journal of Applied Physics, 2012, 112, .	1.1	12
61	Growth mechanisms of SiC on α-SiC(0001) prepared by solid-source molecular beam epitaxy. Festkörperprobleme, 1999, , 87-100.	0.7	11
62	Deformation characteristics and real structure around indents on {111}A-surfaces of II?VI solid solutions. Journal of Materials Science: Materials in Electronics, 1992, 3, 147-156.	1.1	11
63	Structure of SiC-Quantum Wells Studied by TEM and CBED. Crystal Research and Technology, 2002, 37, 466.	0.6	11
64	Integration of functional epitaxial oxides into silicon: From high-K application to nanostructures. Journal of Vacuum Science & Technology B, 2007, 25, 1039.	1.3	11
65	Silicon in functional epitaxial oxides: A new group of nanostructures. Microelectronics Journal, 2008, 39, 512-517.	1.1	11
66	Encapsulated solid phase epitaxy of a Ge quantum well embedded in an epitaxial rare earth oxide. Nanotechnology, 2009, 20, 475604.	1.3	11
67	Epitaxial growth of Gd2O3 on surfactant-mediated grown Ge films on Si(001) substrates. Solid-State Electronics, 2009, 53, 833-836.	0.8	11
68	Epitaxial growth and thermal stability of silicon layers on crystalline gadolinium oxide. Vacuum, 2010, 85, 523-526.	1.6	11
69	Hexagonal and cubic SiC thin films on SiC deposited by solid source MBE. Diamond and Related Materials, 1997, 6, 1316-1320.	1.8	10
70	X-ray investigations of MBE-grown heteroepitaxial SiC layers on 6H–SiC substrates. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 61-62, 179-182.	1.7	10
71	MBE-growth of heteropolytypic low-dimensional structures of SiC. Thin Solid Films, 2000, 380, 89-91.	0.8	10
72	Si ADSORPTION ON SiC(0001) SURFACES. Surface Review and Letters, 2003, 10, 849-860.	0.5	10

#	Article	IF	CITATIONS
73	Growth mechanism for alternating supply epitaxy: the unique pathway to achieve uniform silicon carbide films on multiple large-diameter silicon substrates. RSC Advances, 2016, 6, 16662-16667.	1.7	10
74	Ultraviolet photoelectron spectroscopic study of boron adsorption and surface segregation on Si(111). Physical Review B, 2011, 83, .	1.1	9
75	In situ observation of low temperature growth of Ge on Si(1 1 1) by reflection high energy electron diffraction. Applied Surface Science, 2016, 370, 40-48.	3.1	9
76	Epitaxial lanthanide oxide thin films on Si for high- <i>k</i> gate dielectric application: Growth optimization and defect passivation. Journal of Materials Research, 2017, 32, 699-716.	1.2	9
77	Polytype and Surface Characterization of Silicon Carbide Thin Films. Materials Science Forum, 1998, 264-268, 355-358.	0.3	8
78	A transmission electron microscopy investigation of SiC films grown on Si(111) substrates by solid-source molecular beam epitaxy. Journal of Materials Research, 1998, 13, 3571-3579.	1.2	8
79	Epitaxial growth of SiC-heterostructures on α-SiC(0001) by solid-source MBE. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 61-62, 139-142.	1.7	8
80	High-quality SiC epitaxial layers and low-dimensional heteropolytypic SiC structures grown by solid-source MBE. Journal of Crystal Growth, 2001, 227-228, 805-810.	0.7	8
81	Si-nanoclusters embedded into epitaxial rare earth oxides: Potential candidate for nonvolatile memory applications. Microelectronic Engineering, 2008, 85, 2350-2353.	1.1	8
82	Epitaxial multi-component rare-earth oxide: A high-k material with ultralow mismatch to Si. Materials Letters, 2010, 64, 866-868.	1.3	8
83	Impact of carbon incorporation into epitaxial Gd2O3 thin films on silicon: An experimental study on electrical properties. Applied Physics Letters, 2011, 99, .	1.5	8
84	Epitaxial Gd2O3 on strained Si1â^'xGex layers for next generation complementary metal oxide semiconductor device application. Applied Physics Letters, 2013, 103, 153501.	1.5	8
85	Morphology of mesa surfaces on Si(111) prepared by molecular beam epitaxy at temperatures around the (7×7)-"1×1―surface phase transition. Surface Science, 2013, 618, 27-35.	0.8	7
86	Effective control on flat band voltage of epitaxial lanthanide oxide based metal oxide semiconductor capacitors by interfacial carbon. Applied Physics Letters, 2013, 102, .	1.5	7
87	Preparation of SiC films by solid state source evaporation. Thin Solid Films, 1995, 258, 64-66.	0.8	6
88	Influence of growth conditions on the growth mode and layer structure in MBE-growth of SiC on SiC(0001). Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 46, 324-328.	1.7	6
89	MBE growth kinetics of Si on heavily-doped Si(111):P: a self-surfactant effect. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 73, 163-167.	1.7	6
90	Relationship between growth conditions, thermodynamic properties and crystal structure of SiC. Solid State Sciences, 2001, 3, 1273-1275.	0.8	6

#	Article	IF	CITATIONS
91	Interplay of Surface Structure, Bond Stacking and Heteropolytypic Growth of SiC. Materials Science Forum, 2001, 353-356, 211-214.	0.3	6
92	Polytype and Polarity of Silicon Carbide and Aluminium Nitride Films Growing by MBE: A Nondestructive Identification. Materials Science Forum, 2001, 353-356, 227-230.	0.3	6
93	Embedding silicon nanoclusters into epitaxial rare earth oxide for nonvolatile memory applications. Semiconductor Science and Technology, 2008, 23, 085015.	1.0	6
94	Observation of near interface oxide traps in single crystalline Nd2O3 on Si(111) by quasistatic C-V method. Applied Physics Letters, 2008, 93, .	1.5	6
95	Investigation of band offsets and direct current leakage properties of nitrogen doped epitaxial Gd2O3 thin films on Si. Journal of Applied Physics, 2013, 113, 184108.	1.1	6
96	Investigation of growth conditions for epitaxial growth of SiC on Si in the solid-source molecular beam epitaxy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 46, 164-167.	1.7	5
97	A transmission electron microscopy investigation of SiC films grown on SiC substrates by solid-source molecular beam epitaxy. Journal of Materials Research, 1999, 14, 3226-3236.	1.2	5
98	Integration of low dimensional crystalline Si into functional epitaxial oxides. Microelectronics Journal, 2009, 40, 633-637.	1.1	5
99	Influence of nanostructure formation on the crystal structure and morphology of epitaxially grown Gd2O3 on Si(001). Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2019, 75, 59-70.	0.5	5
100	X-ray, transmission electron microscopy and atomic force microscopy characterization of SiC thin films on Si(111). Journal Physics D: Applied Physics, 1995, 28, 759-763.	1.3	4
101	Thermodynamical Consideration of the Epitaxial Growth of SiC Polytypes. Materials Science Forum, 2000, 338-342, 209-212.	0.3	4
102	Epitaxial praseodymium oxide: a new high-k dielectric. , 0, , .		4
103	Fabrication of single-crystalline insulator/Si/insulator double-barrier nanostructure using cooperative vapor–solid-phase epitaxy. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 38, 6-10.	1.3	4
104	Influence of boron on the initial stages of Si molecular beam epitaxy on Si(111) studied by reflection high-energy electron diffraction. Surface Science, 2009, 603, 477-481.	0.8	4
105	Preparation of large step-free mesas on Si(111) by molecular beam epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 2050-2053.	0.8	4

106

#	Article	IF	CITATIONS
109	Epitaxial growth of non-cubic silicon. Microelectronics Journal, 2005, 36, 506-509.	1.1	3
110	Crystalline Rare-Earth Oxides as High-k Materials for Future CMOS Technologies. ECS Transactions, 2007, 11, 287-297.	0.3	3
111	Electronic structure at interfaces of cubic Gd2O3 with embedded Si nanocrystals. Microelectronic Engineering, 2008, 85, 2382-2384.	1.1	3
112	Role of boron and (â^š3 × â^š3)â€B surface defects on the growth mode of Si on Si(111): A photoemiss electron diffraction study. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 245-253.	sion and 0.8	3
113	Influence of (7×7)–"1×1―phase transition on step-free area formation in molecular beam epitaxial growth of Si on Si (111). Journal of Crystal Growth, 2015, 425, 154-157.	0.7	3
114	Growth and Dielectric Properties of Monoclinic Gd2O3 on Si(001). ECS Transactions, 2019, 93, 57-60.	0.3	3
115	Theory of Si-Rich SiC Surfaces: Consequences for Epitaxial Growth. Materials Science Forum, 1998, 264-268, 339-342.	0.3	2
116	Molecular Beam Epitaxy of Semiconductor Nanostructures Based on SiC. Materials Science Forum, 2005, 483-485, 163-168.	0.3	2
117	Engineering the interface between epitaxial lanthanide oxide thin films and Si substrates: a route towards tuning the electrical properties. Microelectronic Engineering, 2007, 84, 2282-2285.	1.1	2
118	Enhanced Electrical Properties of Carbon Doped Epitaxial Gd2O3 Thin Films on Si Substrates. ECS Transactions, 2011, 41, 101-107.	0.3	2
119	Formation of self-assembled Gd ₂ O ₃ nanowire-like structures during epitaxial growth on Si(001). RSC Advances, 2021, 11, 17526-17536.	1.7	2
120	INTERFACE FORMATION DURING EPITAXIAL GROWTH OF BINARY METAL OXIDES ON SILICON. , 2006, , 361-372.		2
121	Molecular Beam Epitaxial Growth of Heteropolytypic and Low-Dimensional Structures of SiC. Materials Science Forum, 2000, 338-342, 205-208.	0.3	1
122	Interface Engineering During Epitaxial Growth of High-K Lanthanide Oxides on Silicon. Materials Research Society Symposia Proceedings, 2006, 917, 1.	0.1	1
123	Novel Approach for Fabrication of Single-Crystalline Insulator/Si/Insulator Nanostructures. Materials Research Society Symposia Proceedings, 2006, 928, 1.	0.1	1
124	Structural and strain relaxation study of epitaxially grown nano-thick Nd <inf>2</inf> O <inf>3</inf> /Si(111) heterostructure. , 2009, , .		1
125	Towards controlled molecular beam epitaxial growth of artificially stacked Si: Study of boron adsorption and surface segregation on Si(111). Journal of Crystal Growth, 2011, 323, 144-149.	0.7	1
126	Enhanced dielectric properties of nitrogen doped epitaxial Gd2 O3 thin films on Si. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 1412-1416.	0.8	1

#	Article	lF	CITATIONS
127	Impact of surface phase coexistence on the development of step-free areas on Si(111). Frontiers of Materials Science, 2015, 9, 141-146.	1.1	1
128	Interfacial layer formation during the growth of Gd2O3 on Si(001) and its thermal stability. Semiconductor Science and Technology, 0, , .	1.0	1
129	Epitaxial Growth and Properties of SiC Layers Grown on α-SiC(0001) by Solid-Source MBE: A Photoluminescence Study. Materials Science Forum, 2001, 353-356, 409-412.	0.3	0
130	Integration of low dimensional crystalline Si into functional epitaxial oxides for next generation solar cell application. , 2008, , .		0
131	Molecular beam epitaxial growth of Si on heavily boron-doped Si(111) surface: From initial stages to the growth of Si polytypes. Optoelectronic and Microelectronic Materials and Devices (COMMAD), Conference on, 2008, , .	0.0	0
132	Effect of domain boundaries on dielectric properties of lanthanide oxide based gate dielectrics. , 2009, , .		0
133	Epitaxial Lanthanide Oxide based Gate Dielectrics. Materials Research Society Symposia Proceedings, 2009, 1155, 1.	0.1	0
134	Growth of epitaxial lanthanide oxide based gate dielectrics. , 2009, , .		0
135	Si Nanostructures Embedded into Crystalline Rare Earth Oxide Matrix for Opto and Nano Electronic Devices. , 2010, , .		0
136	Semiconductor nanostructures in crystalline rare earth oxide for nanoelectronic device applications. , 2010, , .		0
137	(Invited) Tuning Dielectric Properties of Epitaxial Lanthanide Oxides on Silicon. ECS Transactions, 2014, 61, 3-9.	0.3	0
138	Impact of boron on the step-free area formation on Si(111) mesa structures. Journal of Applied Physics, 2015, 118, 245308.	1.1	0
139	Corrigendum to "Influence of (7 × 7)–"1 × 1―phase transition on step-free area formati beam epitaxial growth of Si on Si(1 1 1)― [J. Cryst. Growth 425 (2015) 154–157]. Journal of Crystal Gro 2019, 524, 125155.	on in mole wt dr. 7	ecular O
140	Development of Multi-Step Procedure for Epitaxial Growth of Crystalline Silicon on Rare-Earth-Metal Oxide for SOI-Applications. E-Journal of Surface Science and Nanotechnology, 2009, 7, 405-408.	0.1	0
141	Structure of SiC films grown on Si(111) and (110) substrates by solid-source molecular beam epitaxy. Acta Crystallographica Section A: Foundations and Advances, 1996, 52, C471-C471.	0.3	0
142	Structure of SiC films grown on Si(111) and (110) substrates by solid-source molecular beam epitaxy. Acta Crystallographica Section A: Foundations and Advances, 1996, 52, C585-C585.	0.3	0