

# Elisabeth MÃ¼ller

## List of Publications by Year in descending order

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120  
papers

5,073  
citations

147801

31  
h-index

91884

69  
g-index

120  
all docs

120  
docs citations

120  
times ranked

7078  
citing authors

#	ARTICLE	IF	CITATIONS
1	Removal of Oxide Nanoparticles in a Model Wastewater Treatment Plant: Influence of Agglomeration and Surfactants on Clearing Efficiency. <i>Environmental Science &amp; Technology</i> , 2008, 42, 5828-5833.	10.0	431
2	Microscopical Investigations of PEDOT:PSS Thin Films. <i>Advanced Functional Materials</i> , 2009, 19, 1215-1220.	14.9	397
3	Fate and transformation of silver nanoparticles in urban wastewater systems. <i>Water Research</i> , 2013, 47, 3866-3877.	11.3	384
4	Triggered Release from Liposomes through Magnetic Actuation of Iron Oxide Nanoparticle Containing Membranes. <i>Nano Letters</i> , 2011, 11, 1664-1670.	9.1	339
5	High-resolution non-destructive three-dimensional imaging of integrated circuits. <i>Nature</i> , 2017, 543, 402-406.	27.8	316
6	Optically Bright Quantum Dots in Single Nanowires. <i>Nano Letters</i> , 2005, 5, 1439-1443.	9.1	266
7	Rapid Structure Determination of Microcrystalline Molecular Compounds Using Electron Diffraction. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 16313-16317.	13.8	206
8	Structural and electronic properties of metastable epitaxial FeSi <sub>1+x</sub> films on Si(111). <i>Physical Review B</i> , 1992, 45, 13807-13810.	3.2	175
9	Three-Dimensional Si/Ge Quantum Dot Crystals. <i>Nano Letters</i> , 2007, 7, 3150-3156.	9.1	175
10	Scaling Hetero-Epitaxy from Layers to Three-Dimensional Crystals. <i>Science</i> , 2012, 335, 1330-1334.	12.6	149
11	The importance of equity finance for R&D activity. <i>Small Business Economics</i> , 2009, 33, 303-318.	6.7	105
12	Very high hole mobilities in modulation-doped Ge quantum wells grown by low-energy plasma enhanced chemical vapor deposition. <i>Applied Physics Letters</i> , 2002, 80, 2922-2924.	3.3	100
13	Three-dimensional imaging of integrated circuits with macro- to nanoscale zoom. <i>Nature Electronics</i> , 2019, 2, 464-470.	26.0	96
14	Electroluminescence from strain-compensated Si <sub>0.2</sub> Ge <sub>0.8</sub> /Si quantum-cascade structures based on a bound-to-continuum transition. <i>Applied Physics Letters</i> , 2002, 81, 4700-4702.	3.3	87
15	Element-Specific X-Ray Phase Tomography of 3D Structures at the Nanoscale. <i>Physical Review Letters</i> , 2015, 114, 115501.	7.8	80
16	Chemical ordering and boundary structure in strained-layer Si-Ge superlattices. <i>Physical Review Letters</i> , 1989, 63, 1819-1822.	7.8	75
17	A plasma process for ultrafast deposition of SiGe graded buffer layers. <i>Applied Physics Letters</i> , 2000, 76, 427-429.	3.3	74
18	Patent thickets, licensing and innovative performance. <i>Industrial and Corporate Change</i> , 2010, 19, 899-925.	2.8	67

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19	The thermoelectric properties of Ge/SiGe modulation doped superlattices. Journal of Applied Physics, 2013, 113, .	2.5	65
20	Fully automatic stitching and distortion correction of transmission electron microscope images. Journal of Structural Biology, 2010, 171, 163-173.	2.8	59
21	Low energy plasma enhanced chemical vapor deposition. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 89, 288-295.	3.5	55
22	Unexpected Dominance of Vertical Dislocations in High-Misfit Ge/Si(001) Films and Their Elimination by Deep Substrate Patterning. Advanced Materials, 2013, 25, 4408-4412.	21.0	55
23	Correlation between Oxygen Vacancies and Oxygen Evolution Reaction Activity for a Model Electrode: PrBaCo <sub>2</sub> O <sub>5+<math>\delta</math></sub> . Angewandte Chemie - International Edition, 2021, 60, 14609-14619.	13.8	54
24	Epitaxy of metal silicides. Thin Solid Films, 1990, 184, 295-308.	1.8	51
25	High resolution double-sided diffractive optics for hard X-ray microscopy. Optics Express, 2015, 23, 776.	3.4	46
26	Formation and transformation of calcium phosphate phases under biologically relevant conditions: Experiments and modelling. Acta Biomaterialia, 2018, 74, 478-488.	8.3	45
27	Self-aligned Ge and SiGe three-dimensional epitaxy on dense Si pillar arrays. Surface Science Reports, 2013, 68, 390-417.	7.2	43
28	In situ scanning tunneling microscopy study of C-induced Ge quantum dot formation on Si(100). Applied Physics Letters, 1999, 74, 994-996.	3.3	42
29	Ge quantum dot molecules and crystals: Preparation and properties. Surface Science, 2007, 601, 2787-2791.	1.9	38
30	Microscopic environment of Fe in epitaxially stabilized $\delta$ -FeSi. Physical Review B, 1999, 59, 3675-3687.	3.2	34
31	Characterization of Catalysts in an Aberration-Corrected Scanning Transmission Electron Microscope. Journal of Physical Chemistry C, 2011, 115, 1080-1083.	3.1	33
32	Magnetron sputter epitaxy of Si <sub>m</sub> Ge <sub>n</sub> /Si(001) strained-layer superlattices. Applied Physics Letters, 1994, 65, 2220-2222.	3.3	29
33	Nucleation of Ge quantum dots on the C-alloyed Si(001) surface. Thin Solid Films, 2000, 380, 176-179.	1.8	29
34	Hall mobility of narrow Si <sub>0.2</sub> Ge <sub>0.8</sub> /Si quantum wells on Si <sub>0.5</sub> Ge <sub>0.5</sub> relaxed buffer substrates. Applied Physics Letters, 2004, 84, 2829-2831.	3.3	28
35	Impact of template variations on shape and arrangement of Si <sup>*</sup> -Ge quantum dot arrays. Applied Physics Letters, 2008, 92, .	3.3	28
36	Intersubband absorption performed on p-type modulation-doped Si <sub>0.2</sub> Ge <sub>0.8</sub> /Si quantum wells grown on Si <sub>0.5</sub> Ge <sub>0.5</sub> pseudosubstrate. Applied Physics Letters, 2002, 80, 3274-3276.	3.3	27

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37	Formation and ordering effects of C-induced Ge dots grown on Si (001) by molecular beam epitaxy. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2000, 74, 222-228.	3.5	26
38	Crystallization of 8mol% yttria-stabilized zirconia thin-films deposited by RF-sputtering. <i>Solid State Ionics</i> , 2013, 232, 29-36.	2.7	26
39	X-ray diffraction investigation of a three-dimensional Si/SiGe quantum dot crystal. <i>Physical Review B</i> , 2009, 79, .	3.2	25
40	Resonant Ptychographic Tomography Facilitates Three-Dimensional Quantitative Colocalization of Catalyst Components and Chemical Elements. <i>Journal of Physical Chemistry C</i> , 2018, 122, 22920-22929.	3.1	24
41	Minimization of amorphous layer in Ar <sup>+</sup> ion milling for UHR-EM. <i>Ultramicroscopy</i> , 2011, 111, 1224-1232.	1.9	23
42	Ge/SiGe superlattices for thermoelectric energy conversion devices. <i>Journal of Materials Science</i> , 2013, 48, 2829-2835.	3.7	23
43	Ferroelectric Self-Poling in GeTe Films and Crystals. <i>Crystals</i> , 2019, 9, 335.	2.2	22
44	Fabrication of Semiconductor Nanowires for Electronic Transport Measurements. <i>Chimia</i> , 2006, 60, 729-734.	0.6	21
45	A simple and fast TEM preparation method utilizing the pre-orientation in plate-like, needle-shaped and tubular materials. <i>Ultramicroscopy</i> , 2000, 84, 143-147.	1.9	20
46	Fabrication and characterization of high-efficiency double-sided blazed x-ray optics. <i>Optics Letters</i> , 2016, 41, 281.	3.3	20
47	Evolution and stability of ordered SiGe islands grown on patterned Si(100) substrates. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	19
48	Unveiling the morphology of buried In(Ga)As nanostructures by selective wet chemical etching: From quantum dots to quantum rings. <i>Applied Physics Letters</i> , 2007, 90, 173104.	3.3	18
49	Quantum-confined direct-gap transitions in tensile-strained Ge/SiGe multiple quantum wells. <i>Applied Physics Letters</i> , 2011, 99, 031907.	3.3	18
50	3D heteroepitaxy of mismatched semiconductors on silicon. <i>Thin Solid Films</i> , 2014, 557, 42-49.	1.8	18
51	Strain relaxation of graded SiGe buffers grown at very high rates. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2000, 71, 20-23.	3.5	17
52	Size control of carbon-induced Ge quantum dots. <i>Applied Physics Letters</i> , 2000, 77, 3218-3220.	3.3	17
53	Tuning the intersubband absorption in strained AlAsSb <sup>δ</sup> -InGaAs quantum wells towards the telecommunications wavelength range. <i>Journal of Applied Physics</i> , 2006, 100, 116104.	2.5	16
54	Ge/SiGe superlattices for nanostructured thermoelectric modules. <i>Thin Solid Films</i> , 2013, 543, 153-156.	1.8	16

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55	Strain compensated Si/Si <sub>0.2</sub> Ge <sub>0.8</sub> quantum cascade structures grown by low temperature molecular beam epitaxy. <i>Journal of Crystal Growth</i> , 2003, 251, 707-717.	1.5	15
56	Analysis of strain relaxation by microcracks in epitaxial GaAs grown on Ge <sup>+</sup> Si substrates. <i>Journal of Applied Physics</i> , 2007, 101, 103519.	2.5	15
57	Templated self-organization of SiGe quantum structures for nanoelectronics. <i>Materials Science and Engineering C</i> , 2007, 27, 947-953.	7.3	15
58	Unsupported Pt-Ni Aerogels with Enhanced High Current Performance and Durability in Fuel Cell Cathodes. <i>Angewandte Chemie</i> , 2017, 129, 10847-10850.	2.0	15
59	Schnelle Strukturaufklärung mikrokristalliner molekularer Verbindungen durch Elektronenbeugung. <i>Angewandte Chemie</i> , 2018, 130, 16551-16555.	2.0	14
60	Structural and electronic properties of pseudomorphic FeSi <sub>1+x</sub> films on Si(111). <i>Journal of Crystal Growth</i> , 1993, 127, 634-637.	1.5	13
61	Shape and composition change of Ge dots due to Si capping. <i>Applied Surface Science</i> , 2004, 224, 139-142.	6.1	13
62	Current quantization in an optically driven electron pump based on self-assembled quantum dots. <i>Nature Physics</i> , 2011, 7, 423-427.	16.7	13
63	Toward high-performance Li(Ni <sub>x</sub> Co <sub>y</sub> Mn <sub>z</sub> )O <sub>2</sub> cathodes: facile fabrication of an artificial polymeric interphase using functional polyacrylates. <i>Journal of Materials Chemistry A</i> , 2018, 6, 17778-17786.	10.3	13
64	Thin relaxed SiGe virtual substrates grown by low-energy plasma-enhanced chemical vapor deposition. <i>Journal of Crystal Growth</i> , 2005, 281, 281-289.	1.5	12
65	Highly reflective AlGaAsSb/InP Bragg reflector at 1.55 μm grown by MOVPE. <i>Journal of Crystal Growth</i> , 2006, 286, 247-254.	1.5	12
66	SiGe quantum dot crystals with periods down to 35 nm. <i>Nanotechnology</i> , 2015, 26, 255302.	2.6	12
67	Design guidelines for an electron diffractometer for structural chemistry and structural biology. <i>Acta Crystallographica Section D: Structural Biology</i> , 2019, 75, 458-466.	2.3	12
68	High-resolution transmission electron microscopic study of the FeSi <sub>2</sub> /Si(111) interface. <i>Applied Physics Letters</i> , 1994, 64, 1938-1940.	3.3	11
69	Photoluminescence of carbon-induced Ge islands in silicon. <i>Thin Solid Films</i> , 2000, 380, 246-248.	1.8	11
70	High quality SiGe electronic material grown by low energy plasma enhanced chemical vapour deposition. <i>Thin Solid Films</i> , 2004, 459, 37-40.	1.8	10
71	Ge/SiGe Superlattices for Thermoelectric Devices Grown by Low-Energy Plasma-Enhanced Chemical Vapor Deposition. <i>Journal of Electronic Materials</i> , 2013, 42, 2030-2034.	2.2	10
72	Three-dimensional Ge/SiGe multiple quantum wells deposited on Si(001) and Si(111) patterned substrates. <i>Semiconductor Science and Technology</i> , 2015, 30, 105001.	2.0	10

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73	High temperature investigations of Si/SiGe based cascade structures using x-ray scattering methods. Journal Physics D: Applied Physics, 2005, 38, A121-A125.	2.8	9
74	Top-down method to introduce ultra-high elastic strain. Journal of Materials Research, 2017, 32, 726-736.	2.6	9
75	Chemical ordering and boundary structure in crystalline Si <sub>1-x</sub> Ge superlattices. Thin Solid Films, 1989, 183, 165-170.	1.8	8
76	Structural and optical properties of vertically correlated Ge island layers grown at low temperatures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 89, 54-57.	3.5	8
77	Shape transformation of Ge quantum dots due to Si overgrowth. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 602-608.	2.7	8
78	Tunable lateral tunnel coupling between two self-assembled InGaAs quantum dots. , 2007, , .		8
79	Raman spectroscopy of carbon-induced germanium dots. Applied Physics Letters, 2001, 78, 1742-1744.	3.3	7
80	Efficient light emission at 1.54µm from Er in Si excited by hot electron injection through thin suboxide layers. Journal of Applied Physics, 2002, 91, 9764.	2.5	7
81	Influence of capping on strain, composition and shape of SiGe islands. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 101, 71-76.	3.5	7
82	InAs/AlInAs quantum-cascade structures with electroluminescence in the mid-infrared. Journal of Crystal Growth, 2011, 323, 491-495.	1.5	7
83	Resonant tunneling in Si <sub>1-x</sub> Ge superlattices on relaxed buffer substrates. Applied Surface Science, 2004, 224, 377-381.	6.1	6
84	Annealing studies of high Ge composition Si/SiGe multilayers. Zeitschrift Fur Kristallographie - Crystalline Materials, 2004, 219, .	0.8	6
85	Silicon heteroepitaxy: interface structure and physical properties. Journal of Crystal Growth, 1991, 111, 889-896.	1.5	5
86	Investigation of the emitter structure in SiGe/Si resonant tunneling structures. Thin Solid Films, 2000, 369, 390-393.	1.8	5
87	Virtual substrates for the n- and p-type Si-MODFET grown at very high rates. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 74, 113-117.	3.5	5
88	Interface roughness in SiGe quantum-cascade structures from x-ray reflectivity studies. Journal of Applied Physics, 2002, 91, 8974-8978.	2.5	5
89	Intersubband quantum cascades in the Si/SiGe material system. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 829-834.	2.7	5
90	Bandstructure analysis of strain compensated Si/SiGe quantum cascade structures. Optical Materials, 2005, 27, 841-845.	3.6	5

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91	Structural studies of strain-symmetrised modulation-doped Si/SiGe structures grown by molecular beam epitaxy. <i>Journal of Crystal Growth</i> , 2005, 278, 495-499.	1.5	5
92	3D SiGe QUANTUM DOT CRYSTALS: STRUCTURAL CHARACTERIZATION AND ELECTRONIC COUPLING. <i>International Journal of Modern Physics B</i> , 2009, 23, 2836-2841.	2.0	5
93	Tensile strained Ge quantum wells on Si substrate: Post-growth annealing versus low temperature re-growth. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2012, 177, 696-699.	3.5	5
94	Epitaxial Ge-crystal arrays for X-ray detection. <i>Journal of Instrumentation</i> , 2014, 9, C03019-C03019.	1.2	5
95	Valence band intersubband electroluminescence from Si/SiGe quantum cascade structures. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 11, 240-244.	2.7	4
96	Compressively strained Ge channels on relaxed SiGe buffer layers. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003, 101, 102-105.	3.5	4
97	Electrochemical surface reshaping of polycrystalline platinum: Morphology and crystallography. <i>Electrochimica Acta</i> , 2008, 53, 4051-4058.	5.2	4
98	Si/SiGe Bound-to-Continuum Quantum Cascade Emitters. <i>ECS Transactions</i> , 2009, 16, 865-874.	0.5	4
99	Investigation of the local Ge concentration in Si/SiGe nanostructures by convergent-beam electron diffraction. <i>Ultramicroscopy</i> , 2010, 110, 1255-1266.	1.9	4
100	Vortex motion in amorphous ferrimagnetic thin film elements. <i>AIP Advances</i> , 2017, 7, .	1.3	4
101	Fast Deposition Process for Graded SiGe Buffer Layers. <i>Japanese Journal of Applied Physics</i> , 2000, 39, 2050-2053.	1.5	3
102	Title is missing!. <i>Nanotechnology</i> , 2000, 11, 298-304.	2.6	3
103	Si/SiGe quantum cascade structures emitting in the 10 $\mu$ m range. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2002, 89, 30-35.	3.5	3
104	Germanium islands embedded in strained silicon quantum wells grown on patterned substrates. <i>Microelectronics Journal</i> , 2002, 33, 525-529.	2.0	3
105	Transport and absorption in strain-compensated Si/Si $\hat{a}$ <sup>x</sup> Ge $\hat{a}$ <sup>x</sup> multiple quantum well and cascade structures deposited on Si <sub>0.5</sub> Ge <sub>0.5</sub> pseudosubstrates. <i>Materials Science in Semiconductor Processing</i> , 2005, 8, 401-409.	4.0	3
106	The structure of dodecagonal (Ta,V) <sub>1.6</sub> Te imaged by phase-contrast scanning transmission electron microscopy. <i>Journal of Solid State Chemistry</i> , 2012, 194, 106-112.	2.9	3
107	Correlation between Oxygen Vacancies and Oxygen Evolution Reaction Activity for a Model Electrode: PrBaCo <sub>2</sub> O <sub>5+<math>\delta</math></sub> . <i>Angewandte Chemie</i> , 2021, 133, 14730-14740.	2.0	3
108	TEM study of InAs self-assembled quantum dots in GaAs. <i>Thin Solid Films</i> , 1998, 336, 38-41.	1.8	2

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109	Pre-structuring of silicon substrates to investigate MBE-growth of SiGe layers. Microelectronic Engineering, 1999, 46, 275-278.	2.4	2
110	Unexpected Dominance of Vertical Dislocations in High-Misfit Ge/Si(001) Films and Their Elimination by Deep Substrate Patterning (Adv. Mater. 32/2013). Advanced Materials, 2013, 25, 4407-4407.	21.0	2
111	Imaging of retina cellular and subcellular structures using ptychographic hard X-ray tomography. Journal of Cell Science, 2021, 134, .	2.0	2
112	Silicon/silicon suboxide heterostructures grown by molecular beam epitaxy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 89, 274-278.	3.5	1
113	Surface Morphology of 4H-SiC after Thermal Oxidation. Materials Science Forum, 0, 963, 180-183.	0.3	1
114	Low Energy Plasma Enhanced Chemical Vapour Deposition - Plasma Enhanced Deposition of Epitaxial Si and SiGe. Materials Research Society Symposia Proceedings, 2001, 696, 1.	0.1	0
115	Strain-compensated Si/Si <sub>0.2</sub> Ge <sub>0.8</sub> quantum cascade structures grown on Si <sub>0.5</sub> Ge <sub>0.5</sub> pseudo-substrates. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 613-617.	2.7	0
116	Impact of misfit dislocations on wavefront distortion in Si/SiGe/Si optical waveguides. Optics Communications, 2009, 282, 4716-4722.	2.1	0
117	Abbildung und Analytik in einem Strahl-korrigierten STEM. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2010, 636, 2040-2040.	1.2	0
118	High-resolution, Non-destructive X-ray Tomography. Chimia, 2018, 72, 339.	0.6	0
119	Pt catalytic effects on the corrosion and hydrogen chemisorption properties of Zircaloy-2. Journal of Nuclear Materials, 2021, 544, 152716.	2.7	0
120	EELS/EFTTEM in life science: proof of the presence of H <sub>2</sub> O <sub>2</sub> in human skin by Ce deposition in melanosomes. , 2008, , 413-414.		0