

# Markus Pristovsek

## List of Publications by Year in descending order

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135  
papers

2,287  
citations

218677

26  
h-index

330143

37  
g-index

135  
all docs

135  
docs citations

135  
times ranked

1709  
citing authors

#	ARTICLE	IF	CITATIONS
1	Defect characterization of $\{101\bar{1}3\}$ GaN by electron microscopy. Journal of Applied Physics, 2022, 131, .	2.5	5
2	Interplay of sidewall damage and light extraction efficiency of micro-LEDs. Optics Letters, 2022, 47, 2250.	3.3	15
3	The stability of graphene and boron nitride for III-nitride epitaxy and post-growth exfoliation. Chemical Science, 2021, 12, 7713-7719.	7.4	24
4	X-ray characterisation of the basal stacking fault densities of $(112\bar{1},2)$ GaN. CrystEngComm, 2021, 23, 6059-6069.	2.6	4
5	Strain-induced yellow to blue emission tailoring of axial InGaN/GaN quantum wells in GaN nanorods synthesized by nanoimprint lithography. Scientific Reports, 2021, 11, 6754.	3.3	7
6	The Effect of Interface Diffusion on Raman Spectra of Wurtzite Short-Period GaN/AlN Superlattices. Nanomaterials, 2021, 11, 2396.	4.1	5
7	Scalable synthesis of multilayer h-BN on AlN by metalorganic vapor phase epitaxy: nucleation and growth mechanism. 2D Materials, 2020, 7, 015004.	4.4	17
8	Indium incorporation and optical properties of polar, semipolar and nonpolar InAlN. Semiconductor Science and Technology, 2020, 35, 035004.	2.0	11
9		3.8	2
10	Epitaxial Combination of Two-Dimensional Hexagonal Boron Nitride with Single-Crystalline Diamond Substrate. ACS Applied Materials & Interfaces, 2020, 12, 46466-46475.	8.0	13
11	Pulsed-flow growth of polar, semipolar and nonpolar AlGaIn. Journal of Materials Chemistry C, 2020, 8, 8668-8675.	5.5	9
12	Limitation of simple np-n tunnel junction based LEDs grown by metal-organic vapor phase epitaxy. Semiconductor Science and Technology, 2020, 35, 115005.	2.0	4
13	Wurtzite $\text{Al}_x\text{In}_{1-y}\text{N}$ : a new III-V compound semiconductor lattice-matched to GaN (0001). Applied Physics Express, 2020, 13, 111001.	2.4	3
14	Untwinned semipolar $(10\bar{1}1\bar{3})$ $\text{Al}_{x-1}\text{Ga}_x\text{N}$ layers grown on m-plane sapphire. Semiconductor Science and Technology, 2019, 34, 125012.	2.0	4
15	Monolithic integration of tricolor micro-LEDs and color mixing investigation by analog and digital dimming. Japanese Journal of Applied Physics, 2019, 58, SCCC06.	1.5	19
16	Controlling the orientations of directional sputtered non- and semi-polar GaN/AlN layers. Japanese Journal of Applied Physics, 2019, 58, SC1044.	1.5	3
17	Corrigendum to "Morphological study of InGaN on GaN substrate by supersaturation". Cryst. Growth 508 (2019) 58-65. Journal of Crystal Growth, 2019, 514, 13.	1.5	1
18	Ammonia decomposition and reaction by high-resolution mass spectrometry for group III Nitride epitaxial growth. Journal of Crystal Growth, 2019, 516, 63-66.	1.5	8

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19	Effect of substrate misorientation on the concentration of impurities and surface morphology of an epitaxial GaN layer on N-polar GaN substrate by MOVPE. Journal of Crystal Growth, 2019, 512, 78-83.	1.5	13
20	Nonpolar m-plane $\text{Al}_x\text{Ga}_{1-x}\text{N}$ layers grown on m-plane sapphire by MOVPE. Journal of Crystal Growth, 2019, 512, 100-104.	1.5	13
21	Aluminium incorporation in polar, semi- and non-polar AlGaIn layers: a comparative study of x-ray diffraction and optical properties. Scientific Reports, 2019, 9, 15802.	3.3	12
22	How to obtain metal-polar untwinned high-quality ( $10^{18}\text{ cm}^{-3}$ ) GaN on m-plane sapphire. Journal of Crystal Growth, 2019, 507, 205-208.	1.5	16
23	Morphological study of InGaIn on GaN substrate by supersaturation. Journal of Crystal Growth, 2019, 508, 58-65.	1.5	10
24	Effect of gas phase temperature on InGaIn grown by metalorganic vapor phase epitaxy. Journal of Crystal Growth, 2019, 509, 50-53.	1.5	4
25	Growth of hexagonal boron nitride on sapphire substrate by pulsed-mode metalorganic vapor phase epitaxy. Journal of Crystal Growth, 2018, 482, 1-8.	1.5	46
26	What is red? On the chromaticity of orange-red InGaIn/GaN based LEDs. Journal of Applied Physics, 2018, 124, .	2.5	27
27	Comparing high-purity <i>c</i> - and <i>m</i> -plane GaN layers for Schottky barrier diodes grown homoepitaxially by metalorganic vapor phase epitaxy. Japanese Journal of Applied Physics, 2018, 57, 105501.	1.5	5
28	MOVPE growth and high-temperature annealing of (101 $\bar{0}$ ) AlN layers on (101 $\bar{0}$ ) sapphire. Journal of Crystal Growth, 2018, 502, 14-18.	1.5	14
29	Simultaneous Growth of Various InGaIn/GaN Core-Shell Microstructures for Color Tunable Device Applications. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800361.	1.8	14
30	High-temperature thermal annealing of nonpolar (10 $\bar{0}$ ) GaN layers on m-plane sapphire by MOVPE. Journal of Crystal Growth, 2018, 478, 1-8.	1.5	13

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37	Radiative recombination mechanisms in polar and non-polar InGaN/GaN quantum well LED structures. Applied Physics Letters, 2016, 109, .	3.3	41
38	Breakdown of the green gap in (0001) InGaN LEDs. , 2016, , .		0
39	Comparative study of (0001) and $(11\bar{2}2)$ InGaN based light emitting diodes. Japanese Journal of Applied Physics, 2016, 55, 05FJ10.	1.5	7
40	The impact of the surface on step-bunching and diffusion of Ga on GaAs (001) in metal-organic vapour phase epitaxy. Materials Research Express, 2016, 3, 075902.	1.6	4
41	MOVPE growth and indium incorporation of polar, semipolar (112) and $(201\bar{1})$ InGaN. Physica Status Solidi (B): Basic Research, 2016, 253, 93-98.	1.5	5
42	Toward defect-free semi-polar GaN templates on pre-structured sapphire (Phys. Status Solidi B 5/2016). Physica Status Solidi (B): Basic Research, 2016, 253, 1024-1024.	1.5	0
43	Structural and optical properties of $(11\bar{2}\bar{1}..2)$ InGaN quantum wells compared to (0001) and $(11\bar{2}\bar{1}..0)$ . Semiconductor Science and Technology, 2016, 31, 085007.	2.0	5
44	Determination of axial and lateral exciton diffusion length in GaN by electron energy dependent cathodoluminescence. Journal of Applied Physics, 2016, 120, .	2.5	14
45	Optimizing GaN ( ) hetero-epitaxial templates grown on ( ) sapphire. Physica Status Solidi (B): Basic Research, 2016, 253, 61-66.	1.5	19
46	Development of semipolar (11-22) LEDs on GaN templates. Proceedings of SPIE, 2016, , .	0.8	8
47	Origin of faceted surface hillocks on semi-polar $(11\bar{2}\bar{1}..2)$ GaN templates. Journal of Applied Physics, 2016, 119, 124301.	1.5	8
48	Effect of heterostructure design on carrier injection and emission characteristics of 295-nm light emitting diodes. Journal of Applied Physics, 2015, 117, .	2.5	32
49	Low defect large area semi-polar (112) GaN grown on patterned (113) silicon. Physica Status Solidi (B): Basic Research, 2015, 252, 1104-1108.	1.5	16
50	Surface and crystal structure of nitridated sapphire substrates and their effect on polar InN layers. Applied Surface Science, 2014, 307, 461-467.	6.1	11
51	Role of nitridation on polarity and growth of InN by metal-organic vapor phase epitaxy. Journal of Crystal Growth, 2013, 376, 17-22.	1.5	5
52	Energetics of Quantum Dot Formation and Relaxation of InGaAs on GaAs(001). Japanese Journal of Applied Physics, 2013, 52, 041201.	1.5	7
53	Structural and optical properties of semipolar AlGaIn grown on sapphire by metal-organic vapor phase epitaxy. Journal of Crystal Growth, 2013, 367, 42-47.	1.5	40
54	Growth mode transition and relaxation of thin InGaIn layers on GaN (0001). Journal of Crystal Growth, 2013, 372, 65-72.	1.5	19



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73	Influence of a GaN Cap Layer on the Morphology and the Physical Properties of Embedded Self-Organized InN Quantum Dots on GaN(0001) Grown by Metal-Organic Vapour Phase Epitaxy. Japanese Journal of Applied Physics, 2011, 50, 031004.	1.5	8
74	Influence of a GaN Cap Layer on the Morphology and the Physical Properties of Embedded Self-Organized InN Quantum Dots on GaN(0001) Grown by Metal-Organic Vapour Phase Epitaxy. Japanese Journal of Applied Physics, 2011, 50, 031004.	1.5	3
75	Growth of semipolar (10 $\bar{1}$ 1 $\bar{1}$ 3) InN on c-plane sapphire using MOVPE. Physica Status Solidi - Rapid Research Letters, 2010, 4, 127-129.	2.4	14
76	Metalorganic vapor phase epitaxy of InN on GaN using tertiary-butylhydrazine as nitrogen source. Journal of Crystal Growth, 2010, 312, 1983-1985.	1.5	1
77	Orientation control of GaN and grown on sapphire by metal-organic vapor phase epitaxy. Journal of Crystal Growth, 2010, 312, 2171-2174.	1.5	42
78	Determination of the complex linear electro-optic coefficient of GaAs and InP. Physica Status Solidi (B): Basic Research, 2010, 247, 1974-1978.	1.5	4
79	Volmer-Weber growth mode of InN quantum dots on GaN by MOVPE. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S545.	0.8	18
80	Growth mode of InGaN on GaN (0001) in MOVPE. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S565-S569.	0.8	22
81	Shape of indium nitride quantum dots and nanostructures grown by metal organic vapour phase epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S574-S577.	0.8	3
82	Properties of InMnP (001) grown by MOVPE. Journal of Crystal Growth, 2008, 310, 4046-4049.	1.5	4
83	Ripening of InAs quantum dots on GaAs (001) investigated with in situ scanning tunneling microscopy in metal-organic vapor phase epitaxy. Journal of Crystal Growth, 2008, 310, 4751-4753.	1.5	13
84	Indium nitride quantum dot growth modes in metalorganic vapour phase epitaxy. Journal of Crystal Growth, 2008, 310, 4959-4962.	1.5	10
85	Growth and characterization of manganese-doped InAsP. Journal of Crystal Growth, 2008, 310, 5028-5031.	1.5	0
86	The critical thickness of InGaN on (0001)GaN. Journal of Crystal Growth, 2008, 310, 4913-4915.	1.5	104
87	In-Situ Monitoring for Nano-Structure Growth in MOVPE. Nanoscience and Technology, 2008, , 67-86.	1.5	0
88	Homoepitaxial growth rate measurement using in situ reflectance anisotropy spectroscopy. Journal of Crystal Growth, 2007, 298, 46-49.	1.5	6
89	In situ scanning tunnelling microscopy during metal-organic vapour phase epitaxy. Journal of Crystal Growth, 2007, 298, 8-11.	1.5	7
90	Segregation and desorption of antimony in InP (001) in MOVPE. Journal of Crystal Growth, 2007, 298, 159-162.	1.5	8

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91	InN growth on sapphire using different nitridation procedures. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, 1622-1625.	1.8	9
92	In situ scanning tunneling microscopy during metal-organic vapor phase epitaxy. <i>Applied Physics Letters</i> , 2006, 89, 063108.	3.3	6
93	Growth of strained GaAsSb layers on GaAs (001) by MOVPE. <i>Journal of Crystal Growth</i> , 2005, 276, 347-353.	1.5	26
94	Development of InN metalorganic vapor phase epitaxy using in-situ spectroscopic ellipsometry. <i>Crystal Research and Technology</i> , 2005, 40, 993-996.	1.3	3
95	A fast reflectance anisotropy spectrometer for in situ growth monitoring. <i>Physica Status Solidi (B): Basic Research</i> , 2005, 242, 2561-2569.	1.5	16
96	Structural analysis by reflectance anisotropy spectroscopy: As and Sb on GaAs(110). <i>Journal of Physics Condensed Matter</i> , 2004, 16, S4367-S4374.	1.8	4
97	Lateral short range ordering of step bunches in InGaAs/GaAs superlattices. <i>Journal of Applied Physics</i> , 2004, 95, 1736-1739.	2.5	3
98	In situ study of GaAs growth mechanisms using tri-methyl gallium and tri-ethyl gallium precursors in metal-organic vapour phase epitaxy. <i>Journal of Crystal Growth</i> , 2004, 262, 78-83.	1.5	25
99	InN growth and annealing investigations using in-situ spectroscopic ellipsometry. <i>Journal of Crystal Growth</i> , 2004, 272, 87-93.	1.5	14
100	In situ study of low-temperature growth and Mn, Si, Sn doping of GaAs ( ) in molecular beam epitaxy. <i>Journal of Crystal Growth</i> , 2004, 265, 425-433.	1.5	2
101	Nitrogen-arsenic exchange processes and investigation of the nitrided GaAs surfaces in MOVPE. <i>Journal of Crystal Growth</i> , 2004, 272, 30-36.	1.5	4
102	Ga-rich GaAs(001) surfaces observed by STM during high-temperature annealing in MBE. <i>Journal of Crystal Growth</i> , 2003, 251, 46-50.	1.5	17
103	In situ scanning tunneling microscopy of InAs quantum dots on GaAs( ) during molecular beam epitaxial growth. <i>Surface Science</i> , 2003, 544, 234-240.	1.9	14
104	Structure of Ga-stabilized GaAs(001) surfaces at high temperatures. <i>Applied Surface Science</i> , 2003, 212-213, 146-150.	6.1	5
105	Gallium-rich reconstructions on GaAs(001). <i>Physica Status Solidi (B): Basic Research</i> , 2003, 240, 91-98.	1.5	27
106	Influence of the reconstruction of GaAs (001) on the electro-optical bulk properties. <i>Journal of Crystal Growth</i> , 2003, 248, 254-258.	1.5	12
107	Structure analysis of the Ga-stabilized GaAs(001) $\sqrt{3} \times \sqrt{3}$ surface at high temperatures. <i>Physical Review B</i> , 2002, 65, .	3.2	28
108	Novel Organopalladium Material Formed on a Sulfur-Terminated GaAs(001) Surface. <i>Japanese Journal of Applied Physics</i> , 2002, 41, L1197-L1199.	1.5	17

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109	Real-time calibration of wafer temperature, growth rate and composition by optical in-situ techniques during Al <sub>x</sub> Ga <sub>1-x</sub> As growth in MOVPE. <i>Journal of Crystal Growth</i> , 2002, 240, 87-97.	1.5	28
110	In-situ Determination of the Carrier Concentration of (001) GaAs by Reflectance Anisotropy Spectroscopy. <i>Physica Status Solidi A</i> , 2001, 188, 1423-1429.	1.7	21
111	In situ investigation of GaAs (001) intrinsic carbon p-doping in metal-organic vapour phase epitaxy. <i>Journal of Crystal Growth</i> , 2000, 221, 149-155.	1.5	21
112	Diffusion of Ga on the GaAs (113) surface in the [11̄,0] direction during MOVPE growth. <i>Applied Surface Science</i> , 2000, 166, 433-436.	6.1	6
113	Atomic structure and composition of the (2̄-4) reconstruction of InGaP(001). <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2000, 18, 2210.	1.6	7
114	Surface structure of ordered InGaP(001): The(2̄-4)reconstruction. <i>Physical Review B</i> , 2000, 62, 12601-12604.	3.2	23
115	Dynamic study of the surfaces of (001) gallium arsenide in metal-organic vapor-phase epitaxy during arsenic desorption. <i>Journal of Applied Physics</i> , 2000, 87, 1245-1250.	2.5	14
116	GaP(001) and InP(001): Reflectance anisotropy and surface geometry. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1999, 17, 1691.	1.6	50
117	(2̄-4)GaP(001) surface: Atomic structure and optical anisotropy. <i>Physical Review B</i> , 1999, 60, 2488-2494.	3.2	58
118	Comparative study of the GaAs (113), (115), (001), (115), (113), and (110) surfaces by atomic force microscopy, low energy electron diffraction, and reflectance anisotropy spectroscopy. <i>Microelectronics Journal</i> , 1999, 30, 449-453.	2.0	9
119	Spectroscopic process sensors in MOVPE device production. <i>Applied Physics A: Materials Science and Processing</i> , 1999, 68, 309-313.	2.3	32
120	Real-time monitoring of MOVPE device growth by reflectance anisotropy spectroscopy and related optical techniques. <i>Journal of Crystal Growth</i> , 1998, 195, 151-162.	1.5	54
121	Reconstructions of the GaAs (113) surface. <i>Journal of Crystal Growth</i> , 1998, 195, 1-5.	1.5	14
122	In situ characterization of GaAs growth in nitrogen atmosphere during MOVPE: a comparison to hydrogen atmosphere. <i>Journal of Crystal Growth</i> , 1998, 195, 211-216.	1.5	30
123	Response of the surface dielectric function to dynamic surface modifications: application of reflectance anisotropy spectroscopy and spectroscopic ellipsometry. <i>Thin Solid Films</i> , 1998, 313-314, 537-543.	1.8	9
124	Ellipsometric and reflectance-anisotropy measurements on rotating samples. <i>Thin Solid Films</i> , 1998, 313-314, 620-624.	1.8	24
125	Photoluminescence Scanning Near-Field Optical Microscopy on InAs Quantum Dots. <i>Physica Status Solidi A</i> , 1998, 170, 401-410.	1.7	4
126	Atomic structure of InP(001)-(2̄-4): A dimer reconstruction. <i>Physical Review B</i> , 1998, 57, 14596-14599.	3.2	64



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127	Optical anisotropies of InP(001) surfaces. Journal of Applied Physics, 1997, 81, 3611-3615.	2.5	17
128	Structure of InP (001) surfaces prepared by decapping and by ion bombardment and annealing. Physical Review B, 1997, 56, R1661-R1663.	3.2	18
129	In situ surface passivation of III-V semiconductors in MOVPE by amorphous As and P layers. Journal of Crystal Growth, 1997, 170, 230-236.	1.5	24
130	Scanning-tunneling-microscopy study of InP(001) surfaces prepared by UHV decapping of metal-organic vapor-phase-epitaxy-grown samples. Physical Review B, 1996, 53, R13257-R13259.	3.2	37
131	Reflectance anisotropy oscillations during MOCVD and MBE growth of GaAs (001). Physica Status Solidi A, 1995, 152, 35-47.	1.7	43
132	Metalorganic vapour phase epitaxial growth on vicinal GaAs (001) surfaces studied by reflectance anisotropy spectroscopy. Physica Status Solidi A, 1995, 152, 49-59.	1.7	21
133	Growth oscillations with monolayer periodicity monitored by ellipsometry during metalorganic vapor phase epitaxy of GaAs(001). Applied Physics Letters, 1995, 67, 3783-3785.	3.3	41
134	Efficiency of arsenic and phosphorus precursors investigated by reflectance anisotropy spectroscopy. Journal of Crystal Growth, 1994, 145, 36-43.	1.5	19
135	Surface processes before and during growth of GaAs (001). Journal of Crystal Growth, 1994, 145, 44-52.	1.5	42