

Mikael Syvjrvi

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

77
papers

1,396
citations

19
h-index

35
g-index

79
ext. papers

1,610
ext. citations

4.2
avg, IF

4.17
L-index

#	Paper	IF	Citations
77	Advancements in net-zero pertinency of lignocellulosic biomass for climate neutral energy production. <i>Renewable and Sustainable Energy Reviews</i> , 2022 , 161, 112393	16.2	1
76	Progress in paper-based analytical devices for climate neutral biosensing. <i>Biosensors and Bioelectronics: X</i> , 2022 , 11, 100166	2.9	
75	Catalytic Effect of Silicon Carbide on the Composite Anode of Fuel Cells. <i>ACS Applied Energy Materials</i> , 2021 , 4, 6436-6444	6.1	1
74	Nanoporous Cubic Silicon Carbide Photoanodes for Enhanced Solar Water Splitting. <i>ACS Nano</i> , 2021 , 15, 5502-5512	16.7	9
73	New Approaches and Understandings in the Growth of Cubic Silicon Carbide. <i>Materials</i> , 2021 , 14,	3.5	6
72	Epitaxial Graphene Growth on the Step-Structured Surface of Off-Axis C-Face 3C-SiC(1010). <i>Physica Status Solidi (B): Basic Research</i> , 2020 , 257, 1900718	1.3	1
71	Atomic-Scale Tuning of Graphene/Cubic SiC Schottky Junction for Stable Low-Bias Photoelectrochemical Solar-to-Fuel Conversion. <i>ACS Nano</i> , 2020 , 14, 4905-4915	16.7	17
70	Structural Modifications in Epitaxial Graphene on SiC Following 10 keV Nitrogen Ion Implantation. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 4013	2.6	4
69	A patterning-free approach for growth of free-standing graphene nanoribbons using step-bunched facets of off-oriented 4H-SiC(0 0 0 1) epilayers. <i>Journal Physics D: Applied Physics</i> , 2020 , 53, 115102	3	1
68	Surface functionalization of epitaxial graphene using ion implantation for sensing and optical applications. <i>Carbon</i> , 2020 , 157, 169-184	10.4	8
67	Cubic SiC Photoanode Coupling with Ni:FeOOH Oxygen-Evolution Cocatalyst for Sustainable Photoelectrochemical Water Oxidation. <i>Solar Rrl</i> , 2020 , 4, 1900364	7.1	11
66	A nanostructured NiO/cubic SiC p-n heterojunction photoanode for enhanced solar water splitting. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 4721-4728	13	30
65	A comparative study of high-quality C-face and Si-face 3C-SiC(1 1 1) grown on off-oriented 4H-SiC substrates. <i>Journal Physics D: Applied Physics</i> , 2019 , 52, 345103	3	7
64	Bioelectrocatalysis on Anodized Epitaxial Graphene and Conventional Graphitic Interfaces. <i>ChemElectroChem</i> , 2019 , 6, 3791-3796	4.3	1
63	An adhesive bonding approach by hydrogen silsesquioxane for silicon carbide-based LED applications. <i>Materials Science in Semiconductor Processing</i> , 2019 , 91, 9-12	4.3	3
62	Flat-Band Electronic Structure and Interlayer Spacing Influence in Rhombohedral Four-Layer Graphene. <i>Nano Letters</i> , 2018 , 18, 5862-5866	11.5	14
61	Elimination of step bunching in the growth of large-area monolayer and multilayer graphene on off-axis 3C SiC (111). <i>Carbon</i> , 2018 , 140, 533-542	10.4	12

60	3C-SiC Hetero-Epitaxially Grown on Silicon Compliance Substrates and New 3C-SiC Substrates for Sustainable Wide-Band-Gap Power Devices (CHALLENGE). <i>Materials Science Forum</i> , 2018 , 924, 913-918	0.4	10
59	Boron-doping of cubic SiC for intermediate band solar cells: a scanning transmission electron microscopy study. <i>SciPost Physics</i> , 2018 , 5,	6.1	2
58	Modifications in structural, optical and electrical properties of epitaxial graphene on SiC due to 100 MeV silver ion irradiation. <i>Materials Science in Semiconductor Processing</i> , 2018 , 74, 122-128	4.3	9
57	Atomically manipulated proton transfer energizes water oxidation on silicon carbide photoanodes. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 24358-24366	13	13
56	Optical and Microstructural Investigation of Heavy B-Doping Effects in Sublimation-Grown 3C-SiC. <i>Materials Science Forum</i> , 2018 , 924, 221-224	0.4	1
55	Structural and optical modification in 4H-SiC following 30 keV silver ion irradiation 2018 ,		1
54	Surface functionalization of epitaxial graphene on SiC by ion irradiation for gas sensing application. <i>Applied Surface Science</i> , 2017 , 403, 707-716	6.7	19
53	Monitoring of epitaxial graphene anodization. <i>Electrochimica Acta</i> , 2017 , 238, 91-98	6.7	16
52	Characterization of B-Implanted 3C-SiC for Intermediate Band Solar Cells. <i>Materials Science Forum</i> , 2017 , 897, 299-302	0.4	1
51	White Light Emission from Fluorescent SiC with Porous Surface. <i>Scientific Reports</i> , 2017 , 7, 9798	4.9	24
50	Growth, Defects and Doping of 3C-SiC on Hexagonal Polytypes. <i>ECS Journal of Solid State Science and Technology</i> , 2017 , 6, P741-P745	2	
49	(Invited) Growth, Defects and Doping of 3C-SiC on Hexagonal Polytypes. <i>ECS Transactions</i> , 2017 , 80, 107-115		1
48	Isolated Spin Qubits in SiC with a High-Fidelity Infrared Spin-to-Photon Interface. <i>Physical Review X</i> , 2017 , 7,	9.1	78
47	Boron-Implanted 3C-SiC for Intermediate Band Solar Cells. <i>Materials Science Forum</i> , 2016 , 858, 291-294	0.4	5
46	Cubic silicon carbide as a potential photovoltaic material. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 145, 104-108	6.4	32
45	Tuning the Emission Energy of Chemically Doped Graphene Quantum Dots. <i>Nanomaterials</i> , 2016 , 6,	5.4	30
44	Growth optimization and applicability of thick on-axis SiC layers using sublimation epitaxy in vacuum. <i>Journal of Crystal Growth</i> , 2016 , 448, 51-57	1.6	3
43	Surface engineering of SiC via sublimation etching. <i>Applied Surface Science</i> , 2016 , 390, 816-822	6.7	8

42	Solar Driven Energy Conversion Applications Based on 3C-SiC. <i>Materials Science Forum</i> , 2016 , 858, 1028-1031	10
41	Physical Vapor Growth of Double Position Boundary Free, Quasi-Bulk 3C-SiC on High Quality 3C-SiC on Si CVD Templates. <i>Materials Science Forum</i> , 2016 , 858, 89-92	0.4 6
40	Surface passivation of nano-textured fluorescent SiC by atomic layer deposited TiO ₂ . <i>Physica Scripta</i> , 2016 , 91, 074001	2.6 3
39	Single Domain 3C-SiC Growth on Off-Oriented 4H-SiC Substrates. <i>Crystal Growth and Design</i> , 2015 , 15, 2940-2947	3.5 31
38	Quantitative Study of the Role of Supersaturation during Sublimation Growth on the Yield of 50 mm 3C-SiC. <i>Materials Science Forum</i> , 2015 , 821-823, 77-80	0.4 12
37	A carbon fiber solder matrix composite for thermal management of microelectronic devices. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 7184-7187	7.1 16
36	Large area buffer-free graphene on non-polar (0 0 1) cubic silicon carbide. <i>Carbon</i> , 2014 , 80, 823-829	10.4 12
35	Advances in wide bandgap SiC for optoelectronics. <i>European Physical Journal B</i> , 2014 , 87, 1	1.2 46
34	Broadband antireflection and light extraction enhancement in fluorescent SiC with nanodome structures. <i>Scientific Reports</i> , 2014 , 4, 4662	4.9 15
33	Lateral Enlargement Growth Mechanism of 3C-SiC on Off-Oriented 4H-SiC Substrates. <i>Crystal Growth and Design</i> , 2014 , 14, 6514-6520	3.5 37
32	Optical Investigation of 3C-SiC Hetero-Epitaxial Layers Grown by Sublimation Epitaxy under Gas Atmosphere. <i>Materials Science Forum</i> , 2014 , 778-780, 243-246	0.4
31	Polytype Inclusions in Cubic Silicon Carbide. <i>Materials Science Forum</i> , 2013 , 740-742, 335-338	0.4
30	Polycrystalline SiC as Source Material for the Growth of Fluorescent SiC Layers. <i>Materials Science Forum</i> , 2013 , 740-742, 39-42	0.4 8
29	Photoluminescence Topography of Fluorescent SiC and its Corresponding Source Crystals. <i>Materials Science Forum</i> , 2013 , 740-742, 421-424	0.4
28	Growth of large area monolayer graphene on 3C-SiC and a comparison with other SiC polytypes. <i>Carbon</i> , 2013 , 57, 477-484	10.4 80
27	Broadband antireflection silicon carbide surface by self-assembled nanopatterned reactive-ion etching. <i>Optical Materials Express</i> , 2013 , 3, 86	2.6 11
26	Lateral Boron Distribution in Polycrystalline SiC Source Materials. <i>Materials Science Forum</i> , 2013 , 740-742, 397-400	0.4 1
25	Fabrication of Broadband Antireflective Sub-Wavelength Structures on Fluorescent SiC. <i>Materials Science Forum</i> , 2013 , 740-742, 1024-1027	0.4

24	White light-emitting diode based on fluorescent SiC. <i>Thin Solid Films</i> , 2012 , 522, 23-25	2.2	21
23	Nucleation Control of Cubic Silicon Carbide on 6H- Substrates. <i>Crystal Growth and Design</i> , 2012 , 12, 197-204	3.4	22
22	Cubic SiC formation on the C-face of 6HSiC (0001) substrates. <i>Journal of Crystal Growth</i> , 2012 , 348, 91-96	1.6	16
21	Broadband light-extraction enhanced by arrays of whispering gallery resonators. <i>Applied Physics Letters</i> , 2012 , 101, 241108	3.4	13
20	Photoluminescence and Raman Spectroscopy Characterization of Boron- and Nitrogen-Doped 6H Silicon Carbide. <i>Materials Science Forum</i> , 2012 , 717-720, 233-236	0.4	2
19	Progress in 3C-SiC Growth and Novel Applications. <i>Materials Science Forum</i> , 2012 , 711, 3-10	0.4	12
18	Broadband and omnidirectional light harvesting enhancement of fluorescent SiC. <i>Optics Express</i> , 2012 , 20, 7575-9	3.3	13
17	Omnidirectional luminescence enhancement of fluorescent SiC via pseudoperiodic antireflective subwavelength structures. <i>Optics Letters</i> , 2012 , 37, 3816-8	3	11
16	The influence of substrate morphology on thickness uniformity and unintentional doping of epitaxial graphene on SiC. <i>Applied Physics Letters</i> , 2012 , 100, 241607	3.4	43
15	Donor-acceptor-pair emission characterization in N-B doped fluorescent SiC. <i>Optical Materials Express</i> , 2011 , 1, 1439	2.6	39
14	Engineering and metrology of epitaxial graphene. <i>Solid State Communications</i> , 2011 , 151, 1094-1099	1.6	21
13	Fluorescent SiC and its application to white light-emitting diodes. <i>Journal of Semiconductors</i> , 2011 , 32, 013004	2.3	47
12	Towards a quantum resistance standard based on epitaxial graphene. <i>Nature Nanotechnology</i> , 2010 , 5, 186-9	28.7	338
11	TEM Investigation of the 3C/6H-SiC Transformation Interface in Layers Grown by Sublimation Epitaxy. <i>Solid State Phenomena</i> , 2010 , 163, 97-100	0.4	3
10	Analysis of the Formation Conditions for Large Area Epitaxial Graphene on SiC Substrates. <i>Materials Science Forum</i> , 2010 , 645-648, 565-568	0.4	57
9	Sublimation Growth and Structural Characterization of 3C-SiC on Hexagonal and Cubic SiC Seeds. <i>Materials Science Forum</i> , 2010 , 645-648, 175-178	0.4	16
8	The Influence of the Temperature Gradient on the Defect Structure of 3C-SiC Grown Heteroepitaxially on 6H-SiC by Sublimation Epitaxy. <i>Materials Science Forum</i> , 2010 , 645-648, 367-370	0.4	2
7	Structural Properties of 3C-SiC Grown by Sublimation Epitaxy. <i>Materials Science Forum</i> , 2009 , 615-617, 181-184	0.4	5

6	Structure Evolution of 3C-SiC on Cubic and Hexagonal Substrates. <i>Materials Science Forum</i> , 2006 , 527-529, 283-286	0.4	14
5	Electrical analysis and interface states evaluation of Ni Schottky diodes on 4H-SiC thick epilayers. <i>Physica Status Solidi A</i> , 2005 , 202, 2508-2514		5
4	Evaluation of On-State Resistance and Boron-Related Levels in n-Type 4H-SiC. <i>Materials Science Forum</i> , 2005 , 483-485, 425-428	0.4	2
3	Characterizations of SiC/SiO ₂ Interface Quality Toward High Power MOSFETs Realization. <i>Materials Science Forum</i> , 2004 , 457-460, 1281-1286	0.4	7
2	Optical Properties of Aluminium and Nitrogen in Compensated 4H-SiC Epitaxial Layers. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 640, 1		
1	Wetting Properties and Interfacial Energies in Liquid Phase Growth of SiC. <i>Materials Science Forum</i> , 1998 , 264-268, 159-162	0.4	19