

# Konstantin Galkin

## List of Publications by Year in descending order

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74  
papers

364  
citations

840776

11  
h-index

996975

15  
g-index

75  
all docs

75  
docs citations

75  
times ranked

291  
citing authors

#	ARTICLE	IF	CITATIONS
1	A low temperature growth of Ca silicides on Si(100) and Si(111) substrates: Formation, structure, optical properties and energy band structure parameters. Journal of Alloys and Compounds, 2020, 813, 152101.	5.5	13
2	Structure, optical properties and resistance to laser radiation of thin barium disilicide films grown on silicon. Journal of Physics: Conference Series, 2019, 1236, 012003.	0.4	3
3	An Influence of the Si(111)3-4 <sup>o</sup> Vicinal Surface on the Solid Phase Epitaxy of $\hat{1}\pm$ -FeSi <sub>2</sub> Nanorods and their Crystal Parameters. Key Engineering Materials, 2019, 806, 30-35.	0.4	3
4	Comparison of Crystal and Phonon Structures for Polycrystalline BaSi <sub>2</sub> Films Grown by SPE Method on Si(111) Substrate. Defect and Diffusion Forum, 2018, 386, 48-54.	0.4	2
5	A room-temperature-operated Si LED with $\hat{1}\pm$ -FeSi <sub>2</sub> nanocrystals in the active layer: $\hat{1}\pm$ W emission power at 1.5 $\hat{1}\pm$ m. Journal of Applied Physics, 2017, 121, .	2.5	13
6	Stress-induced indirect to direct band gap transition in $\hat{1}\pm$ -FeSi <sub>2</sub> nanocrystals embedded in Si. AIP Conference Proceedings, 2017, , .	0.4	1
7	On the way to enhance the optical absorption of a-Si in NIR by embedding Mg <sub>2</sub> Si thin film. Applied Physics Letters, 2016, 109, .	3.3	11
8	The Structure and Magnetic Properties of Bronze, Stainless steel and Alloy Layers Formed by Direct Laser Welding on Nonmagnetic Substrates. Solid State Phenomena, 2016, 247, 158-167.	0.3	0
9	Formation and Optical Properties of BaSi <sub>2</sub> Films on Si (111) – a Promising Nanomaterial for Solar Cells. KnE Materials Science, 2016, 1, 46.	0.1	0
10	Enhancement of the Si p-n diode NIR photoresponse by embedding $\hat{1}\pm$ -FeSi <sub>2</sub> nanocrystallites. Scientific Reports, 2015, 5, 14795.	3.3	24
11	Pulsed modification of germanium films on silicon, sapphire, and quartz substrates: Structure and optical properties. Semiconductors, 2015, 49, 729-735.	0.5	6
12	Vibrational spectra of zirconium fluoride complexes with different structures of anionic sublattice. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2015, 118, 114-124.	0.6	13
13	Characterization of the silicon/ $\hat{1}\pm$ -FeSi <sub>2</sub> nanocrystallites heterostructures for the NIR photodetection at low temperature. Japanese Journal of Applied Physics, 2015, 54, 07JB02.	1.5	5
14	Non-doped and doped Mg stannide films on Si(111) substrates: Formation, optical, and electrical properties. Japanese Journal of Applied Physics, 2015, 54, 07JC06.	1.5	5
15	Formation, Structure and Optical Properties of Nanocrystalline BaSi <sub>2</sub> Films on Si(111) Substrate. Solid State Phenomena, 2015, 245, 42-48.	0.3	8
16	How plasma preprocessing affects the luminescence properties of porous silicon. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2014, 81, 431.	0.4	1
17	Structure and Optical Properties of Ca Silicide Films and Si/Ca <sub>3</sub> Si <sub>4</sub> /Si(111) Heterostructures. Solid State Phenomena, 2014, 213, 71-79.	0.3	5
18	Formation of Mg silicides on amorphous Si. Origin and role of high pressure in the film growth. Materials Chemistry and Physics, 2014, 148, 1078-1082.	4.0	5

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19	Pulsed nanosecond annealing of magnesium-implanted silicon. Technical Physics, 2013, 58, 94-99.	0.7	2
20	Pulsed laser/ion beam treatment of Ge/Si and Ge/Al <sub>2</sub> O <sub>3</sub> thin film structures. , 2013, , .		0
21	Structural and optical properties of magnetron sputtered and pulsed beam annealed Ge/Si layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1824-1827.	0.8	5
22	Formation and optical properties of semiconducting thick Ca silicide films and Si/Ca <sub>x</sub> Si <sub>1-x</sub> heterostructures on Si(111) substrate. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1819-1823.	0.8	8
23	Silicon-silicide quasi-zero dimensional heterostructures for silicon based photonics, opto- and thermoelectronics. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1670-1676.	0.8	11
24	Technological possibilities of Si:H thin film deposition with embedded cubic Mg <sub>2</sub> Si nanoparticles. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1712-1716.	0.8	10
25	Growth, structure, optical and electrical properties of Si <sub>2</sub> Mg <sub>2</sub> /Si(111) double heterostructures and Schottky diodes on their base. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1720-1723.	0.8	3
26	Approach to a creation of silicon-silicide smart materials for silicon-based thermoelectronics and photonics. , 2012, , .		1
27	The study of Si(5 5 12) cleaning in the ultra-high vacuum conditions. Physics Procedia, 2012, 23, 29-32.	1.2	1
28	An influence of Mg adsorption on the Si(5 5 12) substrate conductivity and surface morphology. Physics Procedia, 2012, 23, 33-36.	1.2	0
29	Influence of the Si(111)-2 $\sqrt{3}$ -Fe surface reconstruction on formation, morphology and optical properties of manganese silicide. Physics Procedia, 2012, 23, 37-40.	1.2	1
30	Formation, optical and electrical properties of a new semiconductor phase of calcium silicide on Si(111). Physics Procedia, 2012, 23, 41-44.	1.2	14
31	Synthesis of Mg <sub>2</sub> Si precipitates in Mg-implanted silicon by pulsed ion-beam treatment. Physics Procedia, 2012, 23, 45-48.	1.2	2
32	The model of the magnesium silicide phase (2/3 $\sqrt{3}$ -2/3 $\sqrt{3}$ )-R30 $\bar{A}$ ° on Si(111). Physics Procedia, 2011, 11, 47-50		3
33	Growth, optical and electrical properties of Ca <sub>2</sub> Si film grown on Si(111) and Mg <sub>2</sub> Si/Si (111) substrates. Physics Procedia, 2011, 11, 95-98.	1.2	17
34	Ultra high vacuum growth of CrSi <sub>2</sub> and $\langle \text{mml:math altimg="si1.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="h.$	1.2	1
35	Formation of nanocrystalline CrSi <sub>2</sub> layers in Si by ion implantation and pulsed annealing. Physics Procedia, 2011, 11, 43-46.	1.2	1
36	AES and EELS study of desorption of magnesium silicide films on Si(111). Physics Procedia, 2011, 11, 51-54.	1.2	0

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37	Silicon overgrowth atop low-dimensional Mg <sub>2</sub> Si on Si(111): structure, optical and thermoelectrical properties. <i>Physics Procedia</i> , 2011, 11, 55-58.	1.2	14
38	Influence of Si(111) $\hat{\sim}$ 3Å— $\hat{\sim}$ 3 Å° -Sb surface phase on the formation and conductance of low-dimensional magnesium silicide layer on Si(111) substrate. <i>Physics Procedia</i> , 2011, 11, 91-94.	1.2	0
39	INFLUENCE OF EMBEDDED LOW-DIMENSIONAL Mg <sub>2</sub> Si ON THE CONDUCTIVITY OF Si/Mg <sub>2</sub> Si/Si(111) HETEROSYSTEMS. , 2011, , .		0
40	Calcium monosilicates as components of composite materials. <i>Theoretical Foundations of Chemical Engineering</i> , 2010, 44, 461-466.	0.7	2
41	Study of ultrathin iron silicide films grown by solid phase epitaxy on the Si(001) surface. <i>Physics of the Solid State</i> , 2010, 52, 397-403.	0.6	9
42	Influence of Cr <sup>+</sup> ion implantation and pulsed ion-beam annealing on the formation and optical properties of Si/CrSi <sub>2</sub> /Si(111) heterostructures. <i>Technical Physics</i> , 2010, 55, 1036-1044.	0.7	4
43	OPTICAL AND ELECTRONIC PROPERTIES OF M <sub>2</sub> Si (M = Mg, Ca, Sr) GROWN BY REACTIVE DEPOSITION TECHNIQUE. <i>International Journal of Modern Physics B</i> , 2010, 24, 3693-3699.	2.0	14
44	Optical properties of silicon-silicide nanoheterostructures grown by consecutive plasma-epitaxy synthesis. <i>Journal of Applied Spectroscopy</i> , 2009, 76, 840-846.	0.7	1
45	Mott criterion application to analysis of electrical conductivity in Na- $\hat{\sim}$ 2-aluminates doped by yttrium. <i>Physics of the Solid State</i> , 2009, 51, 1622-1625.	0.6	0
46	Calculation of Desorption Parameters for Mg/Si(111) System. <i>E-Journal of Surface Science and Nanotechnology</i> , 2009, 7, 816-820.	0.4	1
47	Reversible luminescence thermochromism and phase transition in crystals of thiophenylacetylacetoneboron difluoride. <i>Journal of Luminescence</i> , 2008, 128, 1799-1802.	3.1	15
48	Optical and electron spectroscopy study of initial stages of room-temperature Mg film growth on Si(111). <i>Semiconductors</i> , 2008, 42, 475-480.	0.5	0
49	INFLUENCE OF EVAPORATION CONDITIONS ON Mg/Si(111) INTERFACE FORMATION. , 2007, , .		0
50	A study of the temperature dependence of adsorption and silicidation kinetics at the Mg/Si(111) interface. <i>Thin Solid Films</i> , 2007, 515, 8192-8196.	1.8	19
51	Solid phase growth and properties of Mg <sub>2</sub> Si films on Si(111). <i>Thin Solid Films</i> , 2007, 515, 8230-8236.	1.8	30
52	MORPHOLOGY, OPTICAL PROPERTIES AND BAND STRUCTURE PARAMETERS OF MONOCRYSTALLINE SILICON MODIFIED BY COMPRESSION PLASMA FLOW. , 2007, , .		1
53	Optical properties of multilayer materials based on silicon and nanosized magnesium silicide crystallites. <i>Journal of Applied Spectroscopy</i> , 2006, 73, 227-233.	0.7	8
54	HIGH DENSITY NANOSIZE Mg <sub>2</sub> Si CLUSTERS IN SILICON MATRIX. , 2005, , .		0

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55	Multilayer Si(111)/Mg <sub>2</sub> Si clusters/Si heterostructures: Formation, optical and thermoelectric properties. E-Journal of Surface Science and Nanotechnology, 2005, 3, 12-20.	0.4	14
56	<title>Solid phase growth and properties of Mg<sub>2</sub>Si epitaxial films on Si(111)</title>. , 2005, , .		1
57	<title>Growth and properties of silicon heterostructures with buried nanosize Mg<sub>2</sub>Si clusters</title>. , 2005, 5851, 427.		0
58	<title>Optical and structural properties of monocrystalline silicon wafers modified by compression plasma flow</title>. , 2005, , .		1
59	Electrical and optical properties of thick Mg <sub>2</sub> Si films on Si(111). , 2003, , .		3
60	Influence of Preliminary Plasma Processing on Luminescent Properties of Porous Silicon. Solid State Phenomena, 0, 213, 90-95.	0.3	0
61	Fibrous Noble Opals: Electron and Atomic-Force Microscopy and Spectrometry Data. Solid State Phenomena, 0, 213, 109-113.	0.3	0
62	Thermal Properties of Si Mechanically Alloyed with FeSi <sub>2</sub> and CrSi <sub>2</sub> . Applied Mechanics and Materials, 0, 799-800, 207-211.	0.2	0
63	Formation of Bulk and Nanocrystallite Layers of GaSb on Silicon. Solid State Phenomena, 0, 245, 72-79.	0.3	0
64	Extended near-IR Spectral Sensitivity and Electroluminescence Properties of Silicon Diode Structure with GaSb/Si Composite Layer. Solid State Phenomena, 0, 247, 61-65.	0.3	1
65	Formation and Optical Properties of Thin Mg <sub>2</sub> Ge Films on Si(001) Substrate. Solid State Phenomena, 0, 247, 66-72.	0.3	0
66	Thermoelectric Properties of Nanostructured Material Based on Si and GaSb. Defect and Diffusion Forum, 0, 386, 102-109.	0.4	1
67	Comparison of the Structural, Optical and Thermoelectrical Properties of Ca Silicide Films with Variable Composition on Si Substrates. Defect and Diffusion Forum, 0, 386, 3-8.	0.4	10
68	Comparative Analysis of the Effect of Immersion of Porous Silicon in Aqueous Solutions of Li and Fe Salts on the Stability, Peak Position and Intensity of its Photoluminescence. Defect and Diffusion Forum, 0, 386, 75-79.	0.4	2
69	SWIR-NIR Highly Absorbent Si <sub>1-x</sub> Sn <sub>x</sub> Alloy Film on Si(100) Substrate: Crystal Structure, Optical Properties and Thermal Stability. Defect and Diffusion Forum, 0, 386, 86-94.	0.4	3
70	Multilayer Heterostructures with Embedded CrSi <sub>2</sub> and $\hat{I}^2$ -FeSi <sub>2</sub> Nanocrystals on Si(111) Substrate: From the Formation to Photoelectric Properties. Solid State Phenomena, 0, 312, 45-53.	0.3	2
71	Formation and properties of p-i-n diodes based on hydrogenated amorphous silicon with embedded CrSi <sub>2</sub> , Mg <sub>2</sub> Si and Ca <sub>2</sub> Si nanocrystallites for energy conversion applications. , 0, , .		2
72	Transport Properties of CaSi <sub>2</sub> and Ca <sub>2</sub> Si Thin Films. Solid State Phenomena, 0, 312, 3-8.	0.3	2

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73	Relationship between the Photoluminescence Spectra and IR Spectroscopy of Mesoporous Silicon Samples during Long-Term Storage: The Effect of Immersion in an Aqueous LiBr Solutions. Solid State Phenomena, 0, 312, 38-44.	0.3	0
74	Relationship between the Photoluminescence Spectra and IR Spectroscopy of Mesoporous Silicon Samples during Long-Term Storage: The Effect of Immersion in an Aqueous Fe(NO <sub>3</sub> ) <sub>3</sub> Solutions. Solid State Phenomena, 0, 312, 54-61.	0.3	0