

# Ivan S Vasil'evskii

## List of Publications by Year in descending order

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papers

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docs citations

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#	ARTICLE	IF	CITATIONS
1	Nonlinear plasmon-exciton infrared photodetector operating in the two-photon absorption mode. , 2022, , .		0
2	Effect of Different De-Embedding Techniques on Small-Signal Parameters of X-Band Low-Noise Amplifier. , 2021, , .		0
3	Plasmonâ€“exciton interaction strongly increases the efficiency of a quantum dot-based near-infrared photodetector operating in the two-photon absorption mode under normal conditions. Nanoscale, 2021, 13, 19929-19935.	5.6	2
4	New Structure for Photoconductive Antennas Based on {LTG-GaAs/GaAs:Si} Superlattice on GaAs(111)A Substrate. Crystallography Reports, 2019, 64, 205-211.	0.6	7
5	Quantum Hall effect in n-InGaAs/InAlAs metamorphic nanoheterostructures with high InAs content. Journal of Magnetism and Magnetic Materials, 2017, 440, 10-12.	2.3	3
6	Terahertz-radiation generation and detection in low-temperature-grown GaAs epitaxial films on GaAs (100) and (111)A substrates. Semiconductors, 2017, 51, 503-508.	0.5	15
7	Electron properties of surface InGaAs/InAlAs quantum wells with inverted doping on InP substrates. Semiconductors, 2017, 51, 760-765.	0.5	0
8	High accuracy magnetic field sensors with wide operation temperature range. IOP Conference Series: Materials Science and Engineering, 2016, 151, 012029.	0.6	0
9	Eigenstate modelling in arbitrary shaped nanostructures with gradual heterointerfaces. Journal of Physics: Conference Series, 2016, 690, 012016.	0.4	2
10	Pseudomorphic HEMT quantum well AlGaAs/InGaAs/GaAs with AlAs:Î“Si donor layer. IOP Conference Series: Materials Science and Engineering, 2016, 151, 012037.	0.6	2
11	Tunable configurational anisotropy of concave triangular nanomagnets. Journal of Applied Physics, 2016, 119, 233906.	2.5	8
12	Features of the diagnostics of metamorphic InAlAs/InGaAs/InAlAs nanoheterostructures by high-resolution X-ray diffraction in the Î“-scanning mode. Semiconductors, 2016, 50, 559-565.	0.5	9
13	Sn-enriched Ge/GeSn nanostructures grown by MBE on (001) GaAs and Si wafers. Semiconductors, 2015, 49, 1564-1570.	0.5	3
14	Temperature dependence of photoluminescence of GaAs/AlGaAs quantum rings. Journal of Physics: Conference Series, 2015, 643, 012073.	0.4	3
15	Structural and electrophysical properties of In <sub>0.52</sub> Al <sub>0.48</sub> As/In <sub>0.53</sub> Ga <sub>0.47</sub> As/In <sub>0.52</sub> Al <sub>0.48</sub> As/InP HEMT nanoheterostructures with different combinations of InAs and GaAs inserts in quantum well. Crystallography Reports, 2015, 60, 397-405.	0.6	1
16	Thermal Stability of Ge/GeSn Nanostructures Grown by MBE on (001) Si/Ge Virtual Wafers. Physics Procedia, 2015, 72, 411-418.	1.2	9
17	Ge/GeSn heterostructures grown on Si (100) by molecular-beam epitaxy. Semiconductors, 2015, 49, 124-129.	0.5	11
18	Specific features of the photoluminescence of HEMT nanoheterostructures containing a composite InAlAs/InGaAs/InAs/InGaAs/InAlAs quantum well. Semiconductors, 2015, 49, 234-241.	0.5	12

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19	Photoluminescence of GaAs/AlGaAs quantum ring arrays. <i>Semiconductors</i> , 2015, 49, 638-643.	0.5	28
20	Photoluminescence properties of modulation-doped $\text{In}_x\text{Al}_{1-x}\text{As}/\text{In}_y\text{Ga}_{1-y}\text{As}/\text{In}_x\text{Al}_{1-x}\text{As}$ structures with strained InAs and GaAs nanoinserts in the quantum well. <i>Semiconductors</i> , 2015, 49, 1207-1217.	0.5	5
21	Experimental evaluation of stable long term operation of semiconductor magnetic sensors at ITER relevant environment. <i>Nuclear Fusion</i> , 2015, 55, 083006.	3.5	21
22	Electrophysical and structural properties of the composite quantum wells $\text{In}_{0.52}\text{Al}_{0.48}\text{As}/\text{In}_x\text{Ga}_{1-x}\text{As}/\text{In}_{0.52}\text{Al}_{0.48}\text{As}$ with ultrathin InAs inserts. <i>Journal of Materials Research</i> , 2015, 30, 3020-3025.	2.6	648
23	Features of diffusion processes during drop epitaxy of quantum rings. <i>Bulletin of the Lebedev Physics Institute</i> , 2014, 41, 243-246.	0.6	3
24	Increase of the electron mobility in HEMT heterostructures with composite spacers containing AlAs nanolayers. <i>Semiconductors</i> , 2014, 48, 1619-1625.	0.5	7
25	Application of reactor neutrons to the investigation of the radiation resistance of semiconductor materials of Group III-V and sensors. <i>Physics of the Solid State</i> , 2014, 56, 157-160.	0.6	4
26	Effect of (100) GaAs substrate misorientation on electrophysical parameters, structural properties and surface morphology of metamorphic HEMT nanoheterostructures InGaAs/InAlAs. <i>Journal of Crystal Growth</i> , 2014, 392, 11-19.	1.5	12
27	Effect of GaAs (100) substrate misorientation on the electrical parameters and surface morphology of metamorphic $\text{In}_{0.7}\text{Al}_{0.3}\text{As}/\text{In}_{0.75}\text{Ga}_{0.25}\text{As}/\text{In}_{0.7}\text{Al}_{0.3}\text{As}$ HEMT nanoheterostructures. <i>Semiconductors</i> , 2014, 48, 63-68.	0.5	1
28	Technology and electronic properties of PHEMT $\text{AlGaAs}/\text{In}_y(z)\text{Ga}_{1-y(z)}\text{As}/\text{GaAs}$ compositionally graded quantum wells. <i>Semiconductors</i> , 2014, 48, 1226-1232.	0.5	2
29	Application of photoluminescence spectroscopy to studies of $\text{In}_{0.38}\text{Al}_{0.62}\text{As}/\text{In}_{0.38}\text{Ga}_{0.62}\text{As}/\text{GaAs}$ metamorphic nanoheterostructures. <i>Semiconductors</i> , 2014, 48, 883-890.	0.5	4
30	Metamorphic InAlAs/InGaAs/InAlAs/GaAs HEMT heterostructures containing strained superlattices and inverse steps in the metamorphic buffer. <i>Journal of Crystal Growth</i> , 2013, 366, 55-60.	1.5	23
31	Persistent photoconductivity and electron mobility in $\text{In}_{0.52}\text{Al}_{0.48}\text{As}/\text{In}_{0.53}\text{Ga}_{0.47}\text{As}/\text{In}_{0.52}\text{Al}_{0.48}\text{As}/\text{InP}$ quantum-well structures. <i>Semiconductors</i> , 2013, 47, 935-942.	0.5	5
32	Study of new designs for the InAlAs metamorphic buffer on GaAs substrates with distributed compensation of elastic deformations. <i>Semiconductors</i> , 2013, 47, 997-1002.	0.5	8
33	Study of the influence of strained superlattices introduced into a metamorphic buffer on the electrophysical properties and the atomic structure of InAlAs/InGaAs MHEMT heterostructures. <i>Semiconductors</i> , 2013, 47, 532-537.	0.5	4
34	Electron mobilities in isomorphic $\text{In}_{0.53}\text{Ga}_{0.47}\text{As}$ quantum wells on InP substrates. <i>Journal of Experimental and Theoretical Physics</i> , 2013, 116, 755-759.	0.9	3
35	Prospects of Using In-Containing Semiconductor Materials in Magnetic Field Sensors for Thermonuclear Reactor Magnetic Diagnostics. <i>IEEE Transactions on Magnetics</i> , 2013, 49, 50-53.	2.1	19
36	Electrical and optical properties of near-surface AlGaAs/InGaAs/AlGaAs quantum wells with different quantum-well depths. <i>Semiconductors</i> , 2013, 47, 1203-1208.	0.5	8

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37	Maximum drift velocity of electrons in selectively doped InAlAs/InGaAs/InAlAs heterostructures with InAs inserts. <i>Semiconductors</i> , 2013, 47, 372-375.	0.5	9
38	Influence of metamorphic buffer design on electrophysical and structural properties of MHEMT nanoheterostructures In <sub>0.7</sub> Al <sub>0.3</sub> As/In <sub>0.7</sub> Ga <sub>0.3</sub> As/In <sub>0.7</sub> Al <sub>0.3</sub> As/GaAs. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
39	Measurement of the concentration of 2D electrons in $\delta$ -doped InGaAs/GaAs pseudomorphic transistor structures using the photoluminescence spectroscopy. <i>Journal of Communications Technology and Electronics</i> , 2013, 58, 243-249.	0.5	3
40	The built-in electric field in P-HEMT heterostructures with near-surface quantum wells Al <sub>x</sub> Ga <sub>1-x</sub> As/In <sub>y</sub> Ga <sub>1-y</sub> As/GaAs. <i>Journal of Physics: Conference Series</i> , 2012, 345, 012015.	0.4	7
41	Effects of phonon confinement on high-electric field electron transport in an InGaAs/InAlAs quantum well with an inserted InAs barrier. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 109, 233-237.	2.3	9
42	Electron effective masses in an InGaAs quantum well with InAs and GaAs inserts. <i>Semiconductor Science and Technology</i> , 2012, 27, 035021.	2.0	24
43	Structural and electrophysical analysis of MHEMT In <sub>0.70</sub> Al <sub>0.30</sub> As/In <sub>0.75</sub> Ga <sub>0.25</sub> As nanoheterostructures with different strain distributions in metamorphic buffer. <i>Crystallography Reports</i> , 2012, 57, 841-847.	0.6	2
44	Electron mobility and effective mass in composite InGaAs quantum wells with InAs and GaAs nanoinserts. <i>Semiconductors</i> , 2012, 46, 484-490.	0.5	17
45	Structural and electrical properties of quantum wells with nanoscale InAs inserts in In <sub>y</sub> Al <sub>1-y</sub> As/In <sub>x</sub> Ga <sub>1-x</sub> As heterostructures on InP substrates. <i>Crystallography Reports</i> , 2011, 56, 298-309.	0.6	11
46	Structural and electrical properties of metamorphic nanoheterostructures with a high InAs content (37%–100%) grown on GaAs and InP substrates. <i>Crystallography Reports</i> , 2011, 56, 875-879.	0.6	2
47	Effect of the built-in electric field on optical and electrical properties of AlGaAs/InGaAs/GaAs P-HEMT nanoheterostructures. <i>Semiconductors</i> , 2011, 45, 657-662.	0.5	19
48	Interrelation of the construction of the metamorphic InAlAs/InGaAs nanoheterostructures with the InAs content in the active layer of 76%–100% with their surface morphology and electrical properties. <i>Semiconductors</i> , 2011, 45, 1158-1163.	0.5	9
49	Electron mobility and drift velocity in selectively doped InAlAs/InGaAs/InAlAs heterostructures. <i>Semiconductors</i> , 2011, 45, 1169-1172.	0.5	5
50	Scattering and electron mobility in combination-doped HFET-structures AlGaAs/InGaAs/AlGaAs with high electron density. <i>Semiconductors</i> , 2011, 45, 1321-1326.	0.5	6
51	Electron Transport in Modulation-Doped InAlAs/InGaAs/InAlAs Heterostructures in High Electric Fields. <i>Acta Physica Polonica A</i> , 2011, 119, 170-172.	0.5	3
52	The electrical and structural properties of In <sub>y</sub> Ga <sub>1-y</sub> As/In <sub>x</sub> Al <sub>1-x</sub> As/InP quantum wells with different InAs content. <i>Crystallography Reports</i> , 2010, 55, 6-9.	0.6	0
53	Electron transport in an In <sub>0.52</sub> Al <sub>0.48</sub> As/In <sub>0.53</sub> Ga <sub>0.47</sub> As/In <sub>0.52</sub> Al <sub>0.48</sub> As quantum well with a $\delta$ -Si doped barrier in high electric fields. <i>Semiconductors</i> , 2010, 44, 898-903.	0.5	5
54	Low temperature electron magnetotransport in In <sub>x</sub> Ga <sub>1-x</sub> As/In <sub>0.52</sub> Al <sub>0.48</sub> As quantum wells with high electron density. <i>Journal of Physics: Conference Series</i> , 2009, 150, 022096.	0.4	0

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55	Drift velocity of electrons in quantum wells in high electric fields. Semiconductors, 2009, 43, 458-462.	0.5	9
56	Electrical and structural properties of PHEMT heterostructures based on AlGaAs/InGaAs/AlGaAs and $\delta$ -doped on two sides. Semiconductors, 2008, 42, 1084-1091.	0.5	25
57	Electron transport and optical properties of shallow GaAs/InGaAs/GaAs quantum wells with a thin central AlAs barrier. Semiconductor Science and Technology, 2007, 22, 222-228.	2.0	12
58	Influence of state hybridization on low-temperature electron transport in shallow quantum wells. Journal of Experimental and Theoretical Physics, 2007, 105, 174-176.	0.9	2
59	Effect of the spacer growth temperature on the electrophysical and structural properties of PHEMTs. Technical Physics, 2007, 52, 440-445.	0.7	1
60	Interband optical transitions in GaAs modulation-doped quantum wells: photorefectance experiment and self-consistent calculations. Semiconductor Science and Technology, 2006, 21, 462-466.	2.0	4
61	<title>Structural and electrophysical properties of pseudomorphic GaAs/InGaAs/GaAs quantum wells: effect of thin central AlAs barrier</title>. , 2006, , .		1
62	Electrical behavior of modulation-and delta-doped $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{In}_y\text{Ga}_{1-y}\text{As}/\text{GaAs}$ PHEMT structures. Russian Microelectronics, 2006, 35, 67-73.	0.5	0
63	The effect of spacer-layer growth temperature on mobility in a two-dimensional electron gas in PHEMT structures. Semiconductors, 2006, 40, 1445-1449.	0.5	20
64	n-AlGaAs/GaAs/n-AlGaAs double quantum wells with an AlAs barrier: Relating the cladding doping level to structural and transport properties. Russian Microelectronics, 2005, 34, 78-87.	0.5	0
65	Electron magnetotransport in coupled quantum wells with double-sided doping. Semiconductors, 2004, 38, 1326-1331.	0.5	0
66	Peculiarities of conductivity in structures delta-doped by Si on vicinal (111)A GaAs substrate. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 172-173.	2.7	0
67	Electron transport in coupled quantum wells with double-Sided doping. Semiconductors, 2003, 37, 686-691.	0.5	4
68	Conductance anisotropy of $\delta$ -Si doped GaAs layers grown by molecular beam epitaxy on (111)A GaAs substrates and misoriented in the $[2\bar{1}1]$ direction. Doklady Physics, 2002, 47, 419-421.	0.7	0