Andrew I Yakimov

List of Publications by Citations

150 papers	1,731 citations	21 h-index	35 g-index
159 ext. papers	1,829 ext. citations	1.9 avg, IF	4.26 L-index

#	Paper	IF	Citations
150	Normal-incidence infrared photoconductivity in Si p-i-n diode with embedded Ge self-assembled quantum dots. *Applied Physics Letters*, **1999**, 75, 1413-1415	3.4	101
149	Silicon-germanium nanostructures with quantum dots: Formation mechanisms and electrical properties. *Semiconductors*, **2000**, 34, 1229-1247	0.7	92
148	Interlevel Ge/Si quantum dot infrared photodetector. *Journal of Applied Physics*, **2001**, 89, 5676-5681	2.5	84
147	Molecular beam epitaxy of silicon–germanium nanostructures. *Thin Solid Films*, **2000**, 367, 75-84	2.2	69
146	Electronic states in Ge/Si quantum dots with type-II band alignment initiated by space-charge spectroscopy. *Physical Review B*, **2006**, 73,	3.3	62
145	Electronic structure of Ge/Si quantum dots. *Nanotechnology*, **2002**, 13, 75-80	3.4	59
144	Long-range Coulomb interaction in arrays of self-assembled quantum dots. *Physical Review B*, **2000**, 61, 10868-10876	3.3	58
143	Interband absorption in charged Ge/Si type-II quantum dots. *Physical Review B*, **2001**, 63,	3.3	48
142	In situ RHEED control of self-organized Ge quantum dots. *Thin Solid Films*, **2000**, 380, 158-163	2.2	40
141	Conductance oscillations in Ge/Si heterostructures containing quantum dots. *Journal of Physics Condensed Matter*, **1994**, 6, 2573-2582	1.8	39
140	Hopping conduction and field effect in Si modulation-doped structures with embedded Ge quantum dots. *Physical Review B*, **1999**, 59, 12598-12603	3.3	36
139	Formation of zero-dimensional hole states in Ge/Si heterostructures probed with capacitance spectroscopy. *Thin Solid Films*, **1998**, 336, 332-335	2.2	33
138	Stark effect in type-II Ge/Si quantum dots. *Physical Review B*, **2003**, 67,	3.3	33
137	Excitons in charged Ge/Si type-II quantum dots. *Semiconductor Science and Technology*, **2000**, 15, 1125-1130	1.8	31
136	Coulomb staircase in a Si/Ge structure. *The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties*, **1992**, 65, 701-705		31
135	Ge/Si photodiodes with embedded arrays of Ge quantum dots forthe near infrared (1.3–1.5 μm) region. *Semiconductors*, **2003**, 37, 1345-1349	0.7	28
134	Phononless hopping conduction in two-dimensional layers of quantum dots. *JETP Letters*, **2003**, 77, 376-380	1.3	25

133	Photovoltaic Ge/SiGe quantum dot mid-infrared photodetector enhanced by surface plasmons. *Optics Express*, **2017**, 25, 25602-25611	3.3	24
132	Effect of the growth rate on the morphology and structural properties of hut-shaped Ge islands in Si(001). *Nanotechnology*, **2006**, 17, 4743-7	3.4	24
131	Effect of pulsed laser action on hole-energy spectrum of GeSi self-assembled quantum dots. *Physical Review B*, **2005**, 72,	3.3	22
130	Type-II Ge/Si quantum dots. *Semiconductors*, **2001**, 35, 1095-1105	0.7	21
129	Raman scattering of Ge dot superlattices. *European Physical Journal B*, **2000**, 16, 355-359	1.2	21
128	Germanium Self-Assembled Quantum Dots in Silicon for Nano- and Optoelectronics. *Journal of Nanoelectronics and Optoelectronics*, **2006**, 1, 119-175	1.3	21
127	Calculating the energy spectrum and electronic structure of two holes in a pair of strained Ge/Si coupled quantum dots. *Physical Review B*, **2010**, 81,	3.3	20
126	Magnetic correlations on the insulating side of the metal-insulator transition in amorphous Si1-xMnx. *Physical Review B*, **1995**, 51, 16549-16552	3.3	20
125	Influence of delta-doping on the performance of Ge/Si quantum-dot mid-infrared photodetectors. *Journal of Applied Physics*, **2012**, 112, 034511	2.5	19
124	Depolarization shift of the in-plane polarized interlevel resonance in a dense array of quantum dots. *Physical Review B*, **2000**, 62, 9939-9942	3.3	19
123	Low-dimensional hopping conduction in porous amorphous silicon. *Physica B: Condensed Matter*, **1995**, 205, 298-304	2.8	19
122	Plasmon polariton enhanced mid-infrared photodetectors based on Ge quantum dots in Si. *Journal of Applied Physics*, **2017**, 122, 133101	2.5	17
121	Effect of overgrowth temperature on the mid-infrared response of Ge/Si(001) quantum dots. *Applied Physics Letters*, **2012**, 100, 053507	3.4	16
120	Hole states in GeSi quantum-dot molecules produced by strain-driven self-assembly. *Journal of Applied Physics*, **2007**, 102, 093714	2.5	16
119	Surface plasmon dispersion in a mid-infrared Ge/Si quantum dot photodetector coupled with a perforated gold metasurface. *Applied Physics Letters*, **2018**, 112, 171107	3.4	15
118	Electronic states in vertically ordered Ge/Si quantum dots detected by photocurrent spectroscopy. *Physical Review B*, **2014**, 90,	3.3	14
117	Phonon bottleneck in p-type Ge/Si quantum dots. *Applied Physics Letters*, **2015**, 107, 213502	3.4	14
116	Enhanced oscillator strength of interband transitions in coupled GeSi quantum dots. *Applied Physics Letters*, **2008**, 93, 132105	3.4	14

115	Evidence for two-dimensional correlated hopping in arrays of Ge/Si quantum dots. *Physical Review B*, **2003**, 68,	3.3	14
114	Hopping conductivity and Coulomb correlations in 2D arrays of Ge/Si quantum dots. *Journal of Experimental and Theoretical Physics*, **2005**, 100, 722	1	14
113	Spatial separation of electrons in Ge/Si(001) heterostructures with quantum dots. *JETP Letters*, **2001**, 73, 529-531	1.2	14
112	Evidence for a negative interband photoconductivity in arrays of Ge/Si type-II quantum dots. *Physical Review B*, **2000**, 62, R16283-R16286	3.3	14
111	Photoconductive gain and quantum efficiency of remotely doped Ge/Si quantum dot photodetectors. *Materials Research Express*, **2016**, 3, 105032	1.7	14
110	Raman scattering study of Ge dot superlattices. *Applied Surface Science*, **2001**, 175-176, 629-635	6.7	13
109	Localization of electrons in dome-shaped GeSi/Si islands. *Applied Physics Letters*, **2015**, 106, 032104	3.4	12
108	Bonding–antibonding ground-state transition in coupled Ge/Si quantum dots. *Semiconductor Science and Technology*, **2009**, 24, 095002	1.8	12
107	Ge/Si waveguide photodiodes with built-in layers of Ge quantum dots for fiber-optic communication lines. *Semiconductors*, **2004**, 38, 1225-1229	0.7	12
106	Ge/Si quantum-dot metal–oxide–semiconductor field-effect transistor. *Applied Physics Letters*, **2002**, 80, 4783-4785	3.4	12
105	Broadband Ge/SiGe quantum dot photodetector on pseudosubstrate. *Nanoscale Research Letters*, **2013**, 8, 217	5	11
104	Formation of zero-dimensional hole states during molecular-beam epitaxy of Ge on Si (100). *JETP Letters*, **1998**, 68, 135-141	1.2	11
103	Asymmetry of single-particle hole states in a strained Ge/Si double quantum dot. *Physical Review B*, **2008**, 78,	3.3	11
102	Growth and characterization of CaF2/Ge/CaF2/Si(111) quantum dots for resonant tunneling diodes operating at room temperature. *Applied Physics Letters*, **2002**, 81, 499-501	3.4	11
101	Photoconduction in tunnel-coupled Ge/Si quantum dot arrays. *Journal of Experimental and Theoretical Physics*, **2006**, 103, 269-277	1	10
100	Ge/Si photodiodes and phototransistors with embedded arrays of germanium quantum dots for fiber-optic communication lines. *Physics of the Solid State*, **2005**, 47, 34	0.8	10
99	Hopping Transport through an Ensemble of Ge Self-Assembled Quantum Dots. *Physica Status Solidi (B): Basic Research*, **2000**, 218, 99-105	1.3	10
98	Quantum dot based mid-infrared photodetector enhanced by a hybrid metal-dielectric optical antenna. *Journal Physics D: Applied Physics*, **2020**, 53, 335105	3	9

97	Hydrogen passivation of self-assembled Ge/Si quantum dots. *Semiconductor Science and Technology* , **2014**, 29, 085011	1.8	9
96	Determination of the composition and strains in GexSi1 -based nanostructures from Raman spectroscopy data with consideration of the contribution of the heterointerface. *Semiconductors*, **2007**, 41, 930-934	0.7	9
95	Modification of quantum dots in Ge/Si nanostructures by pulsed laser irradiation. *Semiconductors*, **2006**, 40, 202-209	0.7	9
94	Photovoltaic Ge/Si quantum dot detectors operating in the mid-wave atmospheric window (3 to 5 m). *Nanoscale Research Letters*, **2012**, 7, 494	5	8
93	The Meyer-Neldel rule in the processes of thermal emission and hole capture in Ge/Si quantum dots. *JETP Letters*, **2004**, 80, 321-325	1.2	8
92	Spatially indirect excitons in self-assembled Ge/Si quantum dots. *Nanotechnology*, **2001**, 12, 441-446	3.4	8
91	Oscillations of hopping conductance in an array of charge-tunable self-assembled quantum dots. *Journal of Physics Condensed Matter*, **1999**, 11, 9715-9722	1.8	8
90	Spontaneous fluctuations of variable-range hopping current in amorphous silicon microstructures. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1993**, 179, 131-134	2.3	8
89	Comparison of two-dimensional arrays of gold disks and holes for plasmonic enhancement of Ge/Si quantum dot mid-infrared photodetectors. *Optical Materials Express*, **2018**, 8, 3479	2.6	8
88	Near-infrared photoresponse in Ge/Si quantum dots enhanced by localized surface plasmons supported by aluminum nanodisks. *Journal of Applied Physics*, **2020**, 128, 143101	2.5	7
87	Strain-induced localization of electrons in layers of the second-type Ge/Si quantum dots. *JETP Letters*, **2015**, 101, 750-753	1.2	7
86	Midinfrared photoresponse of Ge quantum dots on a strained Si0.65Ge0.35layer. *Semiconductor Science and Technology*, **2011**, 26, 085018	1.8	7
85	Excitons in Ge/Si double quantum dots. *JETP Letters*, **2009**, 90, 569-573	1.2	7
84	Effect of Spin-Glass Ordering on Conduction in a-Si1 Mnc near the Metal nsulator Transition. *Physica Status Solidi (B): Basic Research*, **1998**, 205, 299-303	1.3	7
83	Binding of electron states in multilayer strained Ge/Si heterostructures with type-II quantum dots. *JETP Letters*, **2006**, 83, 156-161	1.2	7
82	Negative interband photoconductivity in Ge/Si heterostructures with quantum dots of the second type. *JETP Letters*, **2000**, 72, 186-189	1.2	7
81	Hopping conduction and resonant tunnelling in amorphous silicon microstructures. *Journal of Physics Condensed Matter*, **1994**, 6, 2583-2594	1.8	7
80	Silicon-Based Nanoheterostructures With Quantum Dots **2017**, 59-99		6

79	Ge/Si heterostructures with Ge quantum dots for mid-infrared photodetectors. *Optoelectronics, Instrumentation and Data Processing*, **2013**, 49, 467-475	0.6	6
78	Electromodulated reflectance study of self-assembled Ge/Si quantum dots. *Nanoscale Research Letters*, **2011**, 6, 208	5	6
77	MBE growth of ultra small coherent Ge quantum dots in silicon for applications in nanoelectronics. *Journal of Physics and Chemistry of Solids*, **2008**, 69, 669-672	3.9	6
76	Localization of electrons in multiple layers of self-assembled GeSi□Si islands. *Applied Physics Letters*, **2006**, 89, 163126	3.4	6
75	Suppression of hole relaxation in small Ge/Si quantum dots. *JETP Letters*, **2015**, 102, 594-598	1.2	5
74	Antibonding ground state of holes in double vertically coupled Ge/Si quantum dots. *JETP Letters*, **2012**, 94, 744-747	1.2	5
73	Infrared absorption and admittance spectroscopy of Ge quantum dots on a strained SiGe layer. *Semiconductor Science and Technology*, **2011**, 26, 125002	1.8	5
72	Metal-insulator transition in amorphous Si1□ Mnc obtained by ion implantation. *JETP Letters*, **1997**, 65, 354-358	1.2	5
71	Hole states in artificial molecules formed by vertically coupled Ge/Si quantum dots. *JETP Letters*, **2007**, 85, 429-433	1.2	5
70	Bonding state of a hole in Ge/Si double quantum dots. *JETP Letters*, **2007**, 86, 478-481	1.2	5
69	Current-voltage characteristics of porous amorphous Si1-xMnx in the one-dimensional hopping regime. *Philosophical Magazine Letters*, **1996**, 73, 17-26	1	5
68	On the process of hole trapping in Ge/Si heterostructures with Ge quantum dots. *Semiconductors*, **2014**, 48, 1036-1040	0.7	4
67	Molecular ground hole state of vertically coupled GeSi/Si self-assembled quantum dots. *Nanotechnology*, **2008**, 19, 055202	3.4	4
66	Ge/Si quantum dots in external electric and magnetic fields. *Physics of the Solid State*, **2004**, 46, 56-59	0.8	4
65	Barrier height and tunneling current in Schottky diodes with embedded layers of quantum dots. *JETP Letters*, **2002**, 75, 102-106	1.2	4
64	Pulsed-laser modification of germanium nanoclusters in silicon. *Semiconductors*, **2003**, 37, 1315-1320	0.7	4
63	AC-hopping conductance of self-organized Ge/Si quantum dot arrays. *Physica E: Low-Dimensional Systems and Nanostructures*, **2005**, 26, 450-454	3	4
62	Si-Ge-GaAs nanoheterostructures for photovoltaic cells. *Physics of the Solid State*, **2005**, 47, 63	0.8	4

61	Longitudinal conductivity of Ge/Si heterostructures with quantum dots. *JETP Letters*, **1996**, 63, 444-447	1.2	4
60	Self-assembled strained GeSiSn nanoscale structures grown by MBE on Si(100). *Journal of Crystal Growth*, **2017**, 457, 215-219	1.6	3
59	Photoinduced and equilibrium optical absorption in Ge/Si quantum dots. *Semiconductors*, **2012**, 46, 1529-1533	0.7	3
58	The Kondo effect in amorphous. *Journal of Physics Condensed Matter*, **1997**, 9, 499-506	1.8	3
57	Suppression of the fractal conductivity channel and superlocalization effects in porous a-Si:H. *Journal of Experimental and Theoretical Physics*, **1997**, 85, 501-506	1	3
56	One-dimensional localization in porous a-Si1−xMnx. *JETP Letters*, **1998**, 67, 284-288	1.2	3
55	Hopping magnetoresistance in two-dimensional arrays of Ge/Si quantum dots. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2006**, 3, 296-299		3
54	Ge dots on Si (111) and (100) surfaces with SiO2 coverage: Raman study. *Physica E: Low-Dimensional Systems and Nanostructures*, **2004**, 23, 320-323	3	3
53	Many-particle effects in excitonic transitions in type-II Ge/Si quantum dots. *Physica E: Low-Dimensional Systems and Nanostructures*, **2002**, 13, 1026-1029	3	3
52	Contribution of the electron-electron interaction to the optical properties of dense arrays of Ge/Si quantum dots. *Journal of Experimental and Theoretical Physics*, **2001**, 92, 500-513	1	3
51	Quantum dot Ge/Si heterostructures. *Physics-Uspekhi*, **2001**, 44, 1304-1307	2.8	3
50	GERMANIUM SELF-ASSEMBLED QUANTUM DOTS IN SILICON FOR MID-INFRARED PHOTODETECTORS. *International Journal of High Speed Electronics and Systems*, **2002**, 12, 873-889	0.5	3
49	Electrical properties of ion-doped amorphous silicon. *Physica Status Solidi A*, **1989**, 113, 519-527		3
48	Intraband optical transitions of holes in strained SiGe quantum wells. *JETP Letters*, **2013**, 97, 159-162	1.2	2
47	Development of a high-voltage waveguide photodetector comprised of Schottky diodes and based on the GeSi structure with Ge quantum dots for portable thermophotovoltaic converters. *Optoelectronics, Instrumentation and Data Processing*, **2017**, 53, 190-196	0.6	2
46	Influence of delta-doping on the hole capture probability in Ge/Si quantum dot mid-infrared photodetectors. *Nanoscale Research Letters*, **2014**, 9, 504	5	2
45	Bidirectional photocurrent of holes in layers of Ge/Si quantum dots. *JETP Letters*, **2014**, 100, 91-94	1.2	2
44	Double-occupancy probability and entanglement of two holes in double Ge/Si quantum dots. *JETP Letters*, **2010**, 92, 36-39	1.2	2

43	The temperature-induced transition from 3d to 1d hopping conduction in porous amorphous. *Journal of Physics Condensed Matter*, **1997**, 9, 889-899	1.8	2
42	MBE growth of vertically ordered Ge quantum dots on Si. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2007**, 4, 262-264		2
41	GERMANIUM SELF-ASSEMBLED QUANTUM DOTS IN SILICON FOR MID-INFRARED PHOTODETECTORS. *Selected Topics in Electornics and Systems*, **2003**, 281-297	0	2
40	Two-dimensional phononless VRH conduction in arrays of Ge/Si quantum dots. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2004**, 1, 51-54		2
39	Many-electron Coulomb correlations in hopping transport along layers of quantum dots. *JETP Letters*, **2003**, 78, 241-245	1.2	2
38	Hopping photoconduction and its long-time kinetics in a heterosystem with Ge quantum dots in Si. *JETP Letters*, **2003**, 78, 587-591	1.2	2
37	Molecular epitaxy and the electronic properties of Ge/Si heterosystems with quantum dots. *Low Temperature Physics*, **2004**, 30, 877-884	0.7	2
36	Quantum Dots Microstructure and Energy Spectrum Peculiarities. *Physica Scripta*, **2005**, 439	2.6	2
35	Interlevel optical transitions and many-body effects in a dense array of Ge/Si quantum dots. *Thin Solid Films*, **2000**, 380, 82-85	2.2	2
34	Increase in the Photocurrent in Layers of Ge/Si Quantum Dots by Modes of a Two-Dimensional Photonic Crystal. *JETP Letters*, **2021**, 113, 498-503	1.2	2
33	Plasmonic Field Enhancement by Metallic Subwave Lattices on Silicon in the Near-Infrared Range. *JETP Letters*, **2019**, 110, 411-416	1.2	2
32	Enhanced Optical Properties of Silicon Based Quantum Dot Heterostructures. *Defect and Diffusion Forum*, **2018**, 386, 68-74	0.7	2
31	Near-Infrared Photoresponse in Ge/Si Quantum Dots Enhanced by Photon-Trapping Hole Arrays. *Nanomaterials*, **2021**, 11,	5.4	2
30	Hole states in vertically coupled double Ge/Si quantum dots. *Microelectronics Journal*, **2009**, 40, 785-787	1.8	1
29	Light absorption related to hole transitions in quantum dots and impurity centers in quantum wells under external excitation. *Journal of Physics: Conference Series*, **2009**, 193, 012059	0.3	1
28	SiGe Nanodots in Electro-Optical SOI Devices. *NATO Science for Peace and Security Series B: Physics and Biophysics*, **2007**, 113-128	0.2	1
27	Raman scattering diagnostics of as grown and pulsed laser modified Ge-Si nanostructures with quantum dots **2007**,		1
26	Self-assembling of Ge quantum dots in the CaF2/Ge/CaF2/Si heteroepitaxial system and the development of tunnel-resonance diode on its basis. *Physics of the Solid State*, **2004**, 46, 89-91	0.8	1

25	Non-equilibrium transport in arrays of type-II Ge/Si quantum dots. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2004**, 1, 21-24		1
24	Hopping photoconductivity and its long-time relaxation in two-dimensional array of Ge/Si quantum dots. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2005**, 2, 3118-3121		1
23	Local structure of self-organized uniform Ge quantum dots on Si(001). *Solid State Ionics*, **2001**, 141-142, 135-139	3.3	1
22	Anisotropic negative magnetoresistance in one-dimensional channels of porous silicon. *JETP Letters*, **1999**, 69, 202-206	1.2	1
21	Inelastic resonant tunneling in amorphous silicon microstructures. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1994**, 194, 133-136	2.3	1
20	Wide coulomb gap in localized states of 3d-metals in amorphous silicon. *Journal of Non-Crystalline Solids*, **1987**, 90, 111-114	3.9	1
19	Strain-dependent intersubband absorption in the valence band of SiGe quantum wells. *Semiconductor Science and Technology*, **2014**, 29, 045008	1.8	0
18	Simulation-Based Multi-Criterion Approach to Production Processes Control. *IFAC-PapersOnLine*, **2017**, 50, 15580-15585	0.7	0
17	Valence-band offsets in strained SiGeSn/Si layers with different tin contents. *Semiconductors*, **2017**, 51, 329-334	0.7	
16	Energy Spectrum of Charge Carriers in Elastically Strained Assemblies of Ge/Si Quantum Dots. *Journal of Surface Investigation*, **2018**, 12, 306-316	0.5	
15	Plasmon Enhancement of the Electric Field in Mid-Infrared Ge/Si Quantum-Dot Photodetectors with Different Thicknesses of the Active Region. *Semiconductors*, **2019**, 53, 195-199	0.7	
14	Selective enhancement of the hole photocurrent by surface plasmon□olaritons in layers of Ge/Si quantum dots. *JETP Letters*, **2017**, 105, 426-429	1.2	
13	Electronic structure of double Ge quantum dots in Si. *JETP Letters*, **2012**, 96, 75-83	1.2	
12	Physics and technology of quantum dot semiconductor nanostructures for IR application. *Bulletin of the Russian Academy of Sciences: Physics*, **2009**, 73, 66-69	0.4	
11	Investigation of time characteristics of photodetectors based on Ge/Si nanoheterostructures. *Russian Physics Journal*, **2010**, 53, 504-507	0.7	
10	Localization of electrons in type-II Ge/Si quantum dots stacked in a multilayer structure. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2007**, 4, 442-444		
9	SPACE-CHARGE SPECTROSCOPY OF ELECTRONIC STATES IN Ge/Si QUANTUM DOTS WITH TYPE-II BAND ALIGNMENT. *International Journal of Nanoscience*, **2007**, 06, 353-356	0.6	
8	STARK SPECTROSCOPY OF Ge/Si(001) SELF-ASSEMBLED QUANTUM DOTS. *International Journal of Nanoscience*, **2003**, 02, 505-510	0.6	

7	Mechanisms of low-temperature high-frequency conductivity in systems with a dense array of Ge0.7Si0.3 quantum dots in silicon. *Journal of Experimental and Theoretical Physics*, **2005**, 101, 1122-1129	1
6	Mechanism of Two-Level Hopping Current Fluctuations in Mesoscopic a-Si Based Structures. *Physica Status Solidi (B): Basic Research*, **2000**, 218, 155-158	1.3
5	Photostimulated mesoscopic current fluctuations in a-Si based microstructures. *JETP Letters*, **1996**, 64, 724-728	1.2
4	Effect of Adhesive Layers on Photocurrent Enhancement in Near-Infrared Quantum-Dot Photodetectors Coupled with Metal-Nanodisk Arrays. *Semiconductors*, **2021**, 55, 654	0.7
3	Optical Properties Of Arrays Of Ge/Si Quantum Dots In Electric Field **2003**, 307-314	
2	Enhancement of the hole photocurrent in layers of Ge/Si quantum dots with abrupt heterointerfaces. *JETP Letters*, **2016**, 104, 479-482	1.2
1	Localization of Surface Plasmon Waves in Hybrid Photodetectors with Subwavelength Metallic Arrays. *JETP Letters*, **2018**, 108, 374-378	1.2