

Irina Antonova

List of Publications by Citations

Source: <https://exaly.com/author-pdf/5666961/irina-antonova-publications-by-citations.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

125
papers

888
citations

15
h-index

22
g-index

142
ext. papers

1,045
ext. citations

2.3
avg, IF

4.42
L-index

#	Paper	IF	Citations
125	Charge storage, photoluminescence, and cluster statistics in ensembles of Si quantum dots. <i>Physical Review B</i> , 2008 , 77,	3.3	40
124	Graphene-based humidity sensors: the origin of alternating resistance change. <i>Nanotechnology</i> , 2017 , 28, 355501	3.4	39
123	Fluorinated graphene dielectric films obtained from functionalized graphene suspension: preparation and properties. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 13257-66	3.6	37
122	Vertical heterostructures based on graphene and other 2D materials. <i>Semiconductors</i> , 2016 , 50, 66-82	0.7	33
121	Colloidal solutions of niobium trisulfide and niobium triselenide. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 5479-5486	7.1	29
120	Nanostructuring few-layer graphene films with swift heavy ions for electronic application: tuning of electronic and transport properties. <i>Nanoscale</i> , 2018 , 10, 14499-14509	7.7	26
119	Functionalization of graphene and few-layer graphene films in an hydrofluoric acid aqueous solution. <i>Nanotechnologies in Russia</i> , 2014 , 9, 51-59	0.6	23
118	Thin partially reduced oxide-graphene films: structural, optical, and electrical properties. <i>Nanotechnologies in Russia</i> , 2014 , 9, 363-368	0.6	23
117	Extremely high response of electrostatically exfoliated few layer graphene to ammonia adsorption. <i>Nanotechnology</i> , 2011 , 22, 285502	3.4	20
116	Graphene-PEDOT: PSS Humidity Sensors for High Sensitive, Low-Cost, Highly-Reliable, Flexible, and Printed Electronics. <i>Materials</i> , 2019 , 12,	3.5	17
115	Chemical vapor deposition growth of graphene on copper substrates: current trends. <i>Physics-Uspexhi</i> , 2013 , 56, 1013-1020	2.8	17
114	Self-organized arrays of graphene and few-layer graphene quantum dots in fluorographene matrix: Charge transient spectroscopy. <i>Applied Physics Letters</i> , 2014 , 104, 193108	3.4	16
113	Fluorinated graphene suspension for inkjet printed technologies. <i>Nanotechnology</i> , 2016 , 27, 205601	3.4	16
112	Fluorinated graphene suspension for flexible and printed electronics: Flakes, 2D films, and heterostructures. <i>Materials and Design</i> , 2019 , 164, 107526	8.1	16
111	Comparison of various methods for transferring graphene and few layer graphene grown by chemical vapor deposition to an insulating SiO ₂ /Si substrate. <i>Semiconductors</i> , 2014 , 48, 804-808	0.7	15
110	Electrical properties and photoluminescence of SiO _x layers with Si nanocrystals in relation to the SiO _x composition. <i>Semiconductors</i> , 2006 , 40, 1198-1203	0.7	15
109	2D printed graphene conductive layers with high carrier mobility. <i>Current Applied Physics</i> , 2017 , 17, 1655-1661	1.6	14

108	Negative differential resistance in partially fluorinated graphene films. <i>Applied Physics Letters</i> , 2017 , 111, 043108	3.4	14
107	Low-dimensional effects in a three-dimensional system of Si quantum dots modified by high-energy ion irradiation. <i>Nanotechnology</i> , 2009 , 20, 185401	3.4	13
106	Traps at the bonded interface in silicon-on-insulator structures. <i>Applied Physics Letters</i> , 2001 , 79, 4539-4540	3.4	13
105	Films fabricated from partially fluorinated graphene suspension: structural, electronic properties and negative differential resistance. <i>Nanotechnology</i> , 2017 , 28, 074001	3.4	12
104	2D printing technologies using graphene-based materials. <i>Physics-Usppekhi</i> , 2017 , 60, 204-218	2.8	12
103	Resistive switching effect and traps in partially fluorinated graphene films. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 095303	3	12
102	High carrier mobility in chemically modified graphene on an atomically flat high-resistive substrate. <i>Journal Physics D: Applied Physics</i> , 2013 , 46, 285303	3	12
101	Two-layer and composite films based on oxidized and fluorinated graphene. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 19010-19020	3.6	12
100	Charge spectroscopy of Si nanocrystallites embedded in a SiO ₂ matrix. <i>Journal of Applied Physics</i> , 2009 , 106, 064306	2.5	12
99	Graphene suspensions for 2D printing. <i>Technical Physics Letters</i> , 2016 , 42, 438-441	0.7	11
98	Charge deep-level transient spectroscopy of SiO ₂ and Al ₂ O ₃ layers with embedded Ge nanocrystals. <i>Journal of Applied Physics</i> , 2013 , 113, 084308	2.5	11
97	Tunable properties of few-layer graphene-N-methylpyrrolidone hybrid structures. <i>Nanotechnology</i> , 2012 , 23, 315601	3.4	10
96	The modification of Si nanocrystallites embedded in a dielectric matrix by high energy ion irradiation. <i>Nanotechnology</i> , 2009 , 20, 095205	3.4	10
95	Electrical passivation of Si ₃ BiGe ₃ Si structures by 1-octadecene monolayers. <i>Applied Physics Letters</i> , 2007 , 91, 102116	3.4	10
94	Raman characterization of hydrogen ion implanted silicon: High-dose effect. <i>Physica B: Condensed Matter</i> , 2008 , 403, 3424-3428	2.8	10
93	Luminescence Properties of Oxygen-Containing Silicon Annealed at Enhanced Argon Pressure. <i>Physica Status Solidi (B): Basic Research</i> , 1999 , 211, 233-238	1.3	10
92	Removal of Electrically Active Defects in Silicon by 340 MeV Xe ion Bombardment. <i>Physica Status Solidi A</i> , 1995 , 147, K1-K3		10
91	Study of the conversion of the VO to the VO ₂ defect in silicon heat-treated under uniform stress conditions. <i>Journal of Applied Physics</i> , 2002 , 91, 1198-1203	2.5	9

90	Electrical conductivity of silicon-on-insulator structures prepared by bonding silicon wafers to a substrate using hydrogen implantation. <i>Semiconductors</i> , 2000 , 34, 1054-1057	0.7	9
89	Dependence of photoluminescence of silicon on conditions of pressure-annealing. <i>Journal of Alloys and Compounds</i> , 1999 , 286, 258-264	5.7	9
88	Swift heavy-ion irradiation of graphene oxide: Localized reduction and formation of sp-hybridized carbon chains. <i>Carbon</i> , 2019 , 141, 390-399	10.4	9
87	Graphene-oxide films printed on rigid and flexible substrates for a wide spectrum of applications. <i>Semiconductors</i> , 2016 , 50, 1065-1073	0.7	8
86	Fluorinated graphene films with graphene quantum dots for electronic applications. <i>Journal of Applied Physics</i> , 2016 , 119, 224302	2.5	8
85	Resistive switching effects in fluorinated graphene films with graphene quantum dots enhanced by polyvinyl alcohol. <i>Nanotechnology</i> , 2019 , 30, 255701	3.4	7
84	Enhanced formation of Ge nanocrystals in Ge : SiO ₂ layers by swift heavy ions. <i>Journal Physics D: Applied Physics</i> , 2012 , 45, 285302	3	7
83	X-ray and infrared spectroscopy of layers produced by cosputtering of spatially separated SiO ₂ and Si sources. <i>Semiconductors</i> , 2010 , 44, 531-536	0.7	7
82	Electrical passivation of the silicon surface by organic monolayers of 1-octadecene. <i>Semiconductors</i> , 2007 , 41, 991-997	0.7	7
81	Deep levels and electron transport in AlGa _N /Ga _N heterostructures. <i>Semiconductors</i> , 2008 , 42, 52-58	0.7	7
80	Electrical properties of multiple-layer structures formed by implantation of nitrogen or oxygen and annealed under high pressure. <i>Journal of Applied Physics</i> , 2006 , 99, 033506	2.5	7
79	The charge accumulation in an insulator and the states at interfaces of silicon-on-insulator structures as a result of irradiation with electrons and gamma-ray photons. <i>Semiconductors</i> , 2003 , 37, 426-432	0.7	7
78	Light-assisted recharging of graphene quantum dots in fluorographene matrix. <i>Journal of Applied Physics</i> , 2014 , 116, 134310	2.5	6
77	Luminescence and deep-level transient spectroscopy of grown dislocation-rich Si layers. <i>AIP Advances</i> , 2012 , 2, 032152	1.5	6
76	Effect of hydrogen implantation on semiconductor-metal transition and high-pressure thermopower in Si. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 462, 343-346	5.3	6
75	Micro-characterisation of Si wafers by high-pressure thermopower technique. <i>Physica B: Condensed Matter</i> , 2006 , 376-377, 177-180	2.8	6
74	Production and evolution of defects in neutron-irradiated Si subjected to thermal pre-treatments under hydrostatic pressure. <i>Journal of Physics Condensed Matter</i> , 2005 , 17, S2341-S2349	1.8	6
73	Characterization of Silicon-on-Insulator Structures by High-Resolution X-Ray Diffraction. <i>Journal of the Electrochemical Society</i> , 2002 , 149, G490	3.9	6

72	Thermal acceptors in irradiated silicon. <i>Semiconductors</i> , 2000 , 34, 155-160	0.7	6
71	Diffusion of iron and gold in silicon annealed with millisecond pulses. <i>Physica Status Solidi A</i> , 1983 , 76, K213-K215		6
70	Fluorinated graphene nanoparticles with 1-3 nm electrically active graphene quantum dots. <i>Nanotechnology</i> , 2020 , 31, 295602	3.4	5
69	Origin of hole and electron traps in graphene oxide. <i>Materials Research Express</i> , 2016 , 3, 066301	1.7	5
68	Novel Graphene-Based Hybrid Material with Tunable Electronic Properties. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2012 , 20, 543-547	1.8	5
67	Ordered arrays of Si nanocrystals in SiO ₂ : Structural, optical, and electronic properties. <i>Semiconductors</i> , 2010 , 44, 482-487	0.7	5
66	Transformation of electrically active defects as a result of annealing of silicon implanted with high-energy ions. <i>Semiconductors</i> , 2006 , 40, 543-548	0.7	5
65	Modification of the bonded interface in silicon-on-insulator structures under thermal treatment in hydrogen ambient. <i>Journal of Applied Physics</i> , 2003 , 93, 426-431	2.5	5
64	Graphene Flakes for Electronic Applications: DC Plasma Jet-Assisted Synthesis. <i>Nanomaterials</i> , 2020 , 10,	5.4	5
63	Modulation of current in self-forming lateral graphene-based heterostructures. <i>Technical Physics Letters</i> , 2015 , 41, 950-953	0.7	4
62	Formation of oxygen precipitates in silicon. <i>Semiconductors</i> , 1997 , 31, 852-856	0.7	4
61	Thermoelectric properties of hydrogen ion-irradiated silicon crystals under ultrahigh pressures of up to 20 GPa. <i>Physics of the Solid State</i> , 2006 , 48, 47-50	0.8	4
60	Defects in silicon heat-treated under uniform stress and irradiated with fast neutrons. <i>Physica Status Solidi A</i> , 2003 , 199, 207-213		4
59	Thermal Donor and Oxygen Precipitate Formation in Silicon during 450°C Treatments under Atmospheric and Enhanced Pressure. <i>Journal of the Electrochemical Society</i> , 1999 , 146, 1575-1578	3.9	4
58	2D printing technologies using graphene based materials. <i>Uspekhi Fizicheskikh Nauk</i> , 2017 , 187, 220-234	0.5	4
57	Structural and Electrical Properties of Silicon on Isolator Structures Manufactured on FZ- and CZ-Silicon by Smart-Cut Technology 2000 , 47-54		4
56	Graphene Antenna on a Biodegradable Substrate for Frequency Range of Cellular Operators 2018 ,		4
55	Mildly oxidized graphene oxide suspension for printing technologies. <i>Materials Research Express</i> , 2018 , 5, 065608	1.7	3

54	Resistive Switching Effect with ON/OFF Current Relation up to 109 in 2D Printed Composite Films of Fluorinated Graphene with V2O5 Nanoparticles. <i>Advanced Electronic Materials</i> , 2019 , 5, 1900310	6.4	3
53	Layered structures based on hydrogenated graphene with high carrier mobility. <i>Nanotechnologies in Russia</i> , 2013 , 8, 621-626	0.6	3
52	Deep levels, transport and THz emission properties of SiGe/Si quantum-well structures. <i>Science in China Series D: Earth Sciences</i> , 2009 , 52, 6-9		3
51	Formation of electrically active centers in silicon irradiated with electrons and then annealed at temperatures of 400-600°C. <i>Semiconductors</i> , 2004 , 38, 758-762	0.7	3
50	Porous-like silicon prepared from Si:H annealed at high argon pressure. <i>Physica Status Solidi A</i> , 2003 , 197, 236-240		3
49	Effect of interface states on population of quantum wells in SiGe/Si structures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005 , 2, 1924-1928		3
48	Porous-like structures prepared by temperature-pressure treatment of heavily hydrogenated silicon. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005 , 2, 3329-3333		3
47	Pressure-induced formation of thermal donor centers in silicon after oxygen ion bombardment. <i>Semiconductors</i> , 1999 , 33, 1049-1053	0.7	3
46	Robust electrical current modulation in functionalized graphene channels. <i>Journal of Materials Science: Materials in Electronics</i> , 2021 , 32, 1641-1649	2.1	3
45	Growth of Bi2Se3/graphene heterostructures with the room temperature high carrier mobility. <i>Journal of Materials Science</i> , 2021 , 56, 9330-9343	4.3	3
44	High carrier mobility in quasi-suspended few-layer graphene on printed graphene oxide layers. <i>Journal of Materials Science</i> , 2017 , 52, 10230-10236	4.3	2
43	Mechanism of resistive switching in films based on partially fluorinated graphene. <i>Semiconductors</i> , 2017 , 51, 1306-1312	0.7	2
42	New graphene derivative with N-methylpyrrolidone: suspension, structural, optical and electrical properties. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 12494-12504	3.6	2
41	Study of the Properties of Two-Dimensional MoS2 and WS2 Films Synthesized by Chemical-Vapor Deposition. <i>Semiconductors</i> , 2020 , 54, 454-464	0.7	2
40	Charge spectroscopy of SiO2 layers with embedded silicon nanocrystals modified by irradiation with high-energy ions. <i>Semiconductors</i> , 2011 , 45, 582-586	0.7	2
39	Charge spectroscopy of Si nanocrystals in a SiO2 matrix. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009 , 6, 2704-2706		2
38	Deep-level spectroscopy studies of confinement levels in SiGe quantum wells. <i>Journal of Applied Physics</i> , 2009 , 106, 084903	2.5	2
37	Electrical properties of Si:H/p-Si structures fabricated by hydrogen implantation. <i>Semiconductors</i> , 2003 , 37, 92-96	0.7	2

36	Silicon-on-insulator nanotransistors: Prospects and problems of fabrication. <i>Semiconductors</i> , 2003 , 37, 1222-1228	0.7	2
35	Infrared and Photoluminescence Studies on Silicon Oxide Formation in Oxygen-Implanted Silicon Annealed Under Enhanced Pressure. <i>Crystal Research and Technology</i> , 2001 , 36, 943-952	1.3	2
34	Interface states and deep-level centers in silicon-on-insulator structures. <i>Semiconductors</i> , 2001 , 35, 912-917	1.7	2
33	Nanostructuring of CVD graphene by high-energy heavy ions. <i>Diamond and Related Materials</i> , 2022 , 123, 108880	3.5	2
32	Deep levels and electron transport in AlGaIn/GaN heterostructures 2010 , 42, 52		2
31	Electrochemically exfoliated thin BiSe films and van der Waals heterostructures BiSe/graphene. <i>Nanotechnology</i> , 2020 , 31, 125602	3.4	2
30	Optical and electronic properties of the partially fluorinated graphene suspensions and films. <i>Journal of Materials Science</i> , 2017 , 52, 10993-11003	4.3	1
29	Flexibility of Fluorinated Graphene-Based Materials. <i>Materials</i> , 2020 , 13,	3.5	1
28	Fluorinated Graphene Dielectric and Functional Layers for Electronic Applications 2017 ,		1
27	Producing arrays of graphene and few-layer graphene quantum dots in a fluorographene matrix. <i>Optoelectronics, Instrumentation and Data Processing</i> , 2014 , 50, 298-303	0.6	1
26	Comparison of flash-memory elements using materials based on graphene. <i>Technical Physics Letters</i> , 2017 , 43, 889-892	0.7	1
25	Buried porous SiN _x layer in nitrogen-implanted silicon. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009 , 6, 1580-1583		1
24	Confinement levels in SiGe quantum wells studied by charge spectroscopy. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009 , 6, 2707-2709		1
23	Pressure related defect engineering in silicon-on-insulator-like structures produced by either oxygen or nitrogen ion implantation. <i>Physica Status Solidi (B): Basic Research</i> , 2007 , 244, 443-447	1.3	1
22	FIELD EFFECT NANOTRANSISTOR ON ULTRATHIN SILICON-ON-INSULATOR. <i>International Journal of Nanoscience</i> , 2004 , 03, 155-160	0.6	1
21	Traps with near-midgap energies at the bonded Si/SiO ₂ interface in silicon-on-insulator structures. <i>Semiconductors</i> , 2004 , 38, 1394-1399	0.7	1
20	X-ray-emission study of the structure of Si:H layers formed by low-energy hydrogen-ion implantation. <i>Semiconductors</i> , 2002 , 36, 568-573	0.7	1
19	Behavior of charge in a buried insulator of silicon-on-insulator structures subjected to electric fields. <i>Semiconductors</i> , 2002 , 36, 800-804	0.7	1

18	DeleCut: Producing High-Quality SOI Structures by Hydrogen Ion Implantation. <i>Russian Microelectronics</i> , 2002 , 31, 232-237	0.5	1
17	Capacitance study of selectively doped SiGe/Si heterostructures. <i>Semiconductor Science and Technology</i> , 2005 , 20, 335-339	1.8	1
16	Noncrucial Role of the Defects in the Splitting for Hydrogen Implanted Silicon With High Boron Concentration. <i>Materials Research Society Symposia Proceedings</i> , 1998 , 540, 109		1
15	Formation of clusters in gold doped silicon. <i>Physica Status Solidi A</i> , 1989 , 116, K33-K35		1
14	Resistive switching on individual VO nanoparticles encapsulated in fluorinated graphene films. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 20434-20443	3.6	1
13	Graphene/Hexagonal Boron Nitride Composite Nanoparticles for 2D Printing Technologies. <i>Advanced Engineering Materials</i> , 2100917	3.5	1
12	Graphene: Hexagonal Boron Nitride Composite Films with Low-Resistance for Flexible Electronics. <i>Nanomaterials</i> , 2022 , 12, 1703	5.4	1
11	Study of defects in the near-surface layer created in silicon by H ₂ ⁺ or He ⁺ implantation. <i>Vacuum</i> , 2007 , 81, 1047-1050	3.7	0
10	Transformation of radiation defect clusters in B ⁺ ion-implanted silicon. <i>Physica Status Solidi A</i> , 1996 , 153, 329-336		0
9	Resonant tunneling in Si/SiGe/Si structures with a single quantum well under surface passivation. <i>Journal of Applied Physics</i> , 2011 , 110, 123710	2.5	
8	Comparison of Electrical Properties of Silicon-on-Insulator Structures Fabricated with Use of Hydrogen Slicing and BESOI. <i>Electrochemical and Solid-State Letters</i> , 2004 , 7, F21		
7	Transformation of interface states in silicon-on-insulator structures under annealing in hydrogen atmosphere. <i>Semiconductors</i> , 2002 , 36, 60-64	0.7	
6	Formation of shallow donors and acceptors in silicon irradiated with either electrons or high-energy ions and annealed at temperatures of 400-700 °C. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003 , 690-693		
5	Relaxation of a defect subsystem in silicon irradiated with high-energy heavy ions. <i>Semiconductors</i> , 2003 , 37, 546-550	0.7	
4	Charge fluctuations at the bonding interface in the silicon-on-insulator structures. <i>Semiconductors</i> , 2003 , 37, 1303-1307	0.7	
3	Unusual properties of C-T characteristics of hydrogen implanted and annealed Si. <i>EPJ Applied Physics</i> , 2004 , 27, 141-144	1.1	
2	Stabilization of charge at the interface between the buried insulator and silicon in silicon-on-insulator structures. <i>Semiconductors</i> , 2005 , 39, 1153	0.7	
1	Low Dimension Properties of Nanostructures on Ultrathin Layers of Silicon Formed by Oxidation of Ion Cut SOI Wafers and Electron Lithography 2002 , 87-91		

