Nickolai I Klyui

List of Publications by Year
in descending order

80	914	516215 16	525886 27
papers	citations	h-index	g-index

80	80	80	994
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Flexible Supercapacitors Based on Polyaniline Arrays Coated Graphene Aerogel Electrodes. Nanoscale Research Letters, 2017, 12, 394.	3.1	67
2	The enhanced field emission from microtips covered by ultrathin layers. Journal of Micromechanics and Microengineering, 1997, 7, 1-6.	1.5	65
3	MOF-derived nitrogen-doped CoO@CoP arrays as bifunctional electrocatalysts for efficient overall water splitting. Electrochimica Acta, 2020, 330, 135210.	2.6	64
4	Porous biomorphic silicon carbide ceramics coated with hydroxyapatite as prospective materials for bone implants. Materials Science and Engineering C, 2016, 68, 143-152.	3.8	54
5	Energy Band Structure and Optical Properties of Wurtziteâ€Structure Silicon Carbide Crystals. Physica Status Solidi (B): Basic Research, 1990, 162, 477-487.	0.7	40
6	Hierarchical porous ZnO microflowers with ultra-high ethanol gas-sensing at low concentration. Chemical Physics Letters, 2018, 699, 1-7.	1.2	39
7	Electronic band structure and optical properties of cubic silicon carbide crystals. Physica B: Condensed Matter, 1993, 185, 394-399.	1.3	36
8	Silicon solar cells with antireflection diamond-like carbon and silicon carbide films. Solar Energy Materials and Solar Cells, 2002, 72, 597-603.	3.0	34
9	Porous silicon Bragg mirrors on single- and multi-crystalline silicon for solar cells. Renewable Energy, 2013, 55, 79-84.	4.3	28
10	Enhancement of field emission from cathodes with superthin diamond-like carbon films. Applied Surface Science, 1997, 111, 213-217.	3.1	27
11	CoO_x(OH)_y/C nanocomposites in situ derived from Na₄Co₃(PO₄)₂P₂O₇ as sustainable electrocatalysts for water splitting. Dalton Transactions, 2018, 47, 15703-15713.	1.6	24
12	Effects of low doping on the improvement of cathode materials Na_{3+x}V_{2â”’x}M_x(PO₄)₃ (M = Co²⁺, Cu²⁺; x = 0.01â€“0.05) for SIBs. Journal of Materials Chemistry A, 2021, 9, 17380-17389.	5.2	24
13	Parameters of the tip arrays covered by low work function layers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 2130.	1.6	21
14	Properties of plasma enhanced chemical vapor deposition diamond-like carbon films as field electron emitters prepared in different regimes. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 679.	1.6	21
15	Intensive visible photoluminescence of a-C:H:N films. Materials Letters, 1998, 35, 334-338.	1.3	19
16	Facile Synthesis of Hierarchical Tin Oxide Nanoflowers with Ultra-High Methanol Gas Sensing at Low Working Temperature. Nanoscale Research Letters, 2019, 14, 84.	3.1	19
17	Enhancing the cycling stability of the polyaniline hybrids benefited from the hollow manganese dioxide/acetylene black skeleton. Chemical Engineering Journal, 2016, 290, 361-370.	6.6	17
18	Palladium nanoparticles embedded in microporous carbon as electrocatalysts for water splitting in alkaline media. International Journal of Hydrogen Energy, 2021, 46, 21462-21474.	3.8	17

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19	New complex phosphates Cs₃M^{II}Bi(P₂O₇)₂ (M^{II} â€“ Ca, Sr) Tj ETQq1 1 0.78431 2274-2284.	1.6	16
20	Electron Energy Structure and Optical Properties of Microcrystalline Silicon. Physica Status Solidi (B): Basic Research, 1989, 155, 723-732.	0.7	15
21	Features of the use of optical reflection from thin porous silicon for detection of organic liquids. Sensors and Actuators B: Chemical, 2017, 242, 1177-1185.	4.0	12
22	Na₄Ni₃P₄O₁₅â€“Ni(OH)₂ coreâ€“shell nanoparticles as hybrid electrocatalysts for the oxygen evolution reaction in alkaline electrolytes. Dalton Transactions, 2020, 49, 8226-8237.	1.6	12
23	Properties of gas detonation ceramic coatings and their effect on the osseointegration of titanium implants for bone defect replacement. Ceramics International, 2021, 47, 25425-25439.	2.3	12
24	Characteristic Features of the Electronic Structure of Carbon Films. Physica Status Solidi (B): Basic Research, 1988, 145, 209-217.	0.7	11
25	C-reactive protein detection based on ISFET structure with gate dielectric SiO2-CeO2. Microelectronic Engineering, 2019, 215, 110993.	1.1	11
26	Bi(nanoparticles)/CN_x(nanosheets) nanocomposites as high capacity and stable electrode materials for supercapacitors: the role of urea. Dalton Transactions, 2020, 49, 12197-12209.	1.6	11
27	Peculiarities of field emission from silicon carbide films. Applied Surface Science, 2003, 215, 237-241.	3.1	9
28	Influence of deposition conditions on the antireflection properties of diamond-like carbon films for Si-based solar cells. Technical Physics, 2006, 51, 654-658.	0.2	9
29	Nonstoichiometric amorphous silicon carbide films as promising antireflection and protective coatings for germanium in IR spectral range. Optical Materials, 2019, 88, 445-450.	1.7	9
30	Colorimetric analysis of optical reflection from thin porous silicon for detection of organic liquids. Sensors and Actuators B: Chemical, 2019, 280, 102-108.	4.0	9
31	Porous silicon photoluminescence modification by surface treatments and impregnation of carbon based nanoclusters. Physica Status Solidi A, 2003, 197, 355-359.	1.7	8
32	Antireflection properties of diamond-like carbon films on Cd1 âˆ’ x Zn x Te (x âˆ¼ 0.04) single crystals. Technical Physics Letters, 2008, 34, 377-380.	0.2	8
33	Effect of H+ implantation on the optical properties of semi-insulating GaAs crystals in the IR spectral region. Semiconductors, 2017, 51, 305-309.	0.2	8
34	Microraman and microhardness study of nitrogen implanted diamond-like carbon films. Carbon, 1998, 36, 791-794.	5.4	7
35	Effect of oxygen on ion-beam induced synthesis of SiC in silicon. Nuclear Instruments & Methods in Physics Research B, 1999, 147, 256-260.	0.6	7
36	Light emission of the silicon carbide nanoclusters embedded into porous silicon. Materials Science and Engineering C, 2002, 19, 229-231.	3.8	7

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37	Photo-assisted field emission and electro-reflectance modulation investigations of GaN nanorod arrays. Thin Solid Films, 2014, 564, 218-221.	0.8	7
38	Effect of discharge power and silicon content on optical and mechanical properties of carbon-rich amorphous silicon carbide filmsÂobtained by PECVD. Journal of Alloys and Compounds, 2019, 801, 285-294.	2.8	7
39	Origin of luminescence in ZnMoO4 crystals: Insights from spectroscopic studies and electronic structure calculations. Journal of Luminescence, 2019, 211, 127-137.	1.5	7
40	Partial Substitution of Potassium with Sodium in the K₂Ti₂(PO₄)₃ Langbeiniteâ€Type Framework: Synthesis and Crystalline Structure of K_{1.75}Na_{0.25}Ti₂(PO₄)₃. ChemistryOpen, 2018, 7, 504-512.	0.9	6
41	Effect of annealing in zinc vapors on charge trapping properties of ZnSe, ZnSe(Te) and ZnSe(Al) scintillation crystals: Revealing the mechanisms by DFT computational studies. Optical Materials, 2019, 97, 109402.	1.7	6
42	Mn2+ luminescence of Gd(Zn,Mg)B5O10 pentaborate under high pressure. Dalton Transactions, 2020, 49, 14268-14279.	1.6	6
43	High efficient solar cells and modules based on diamond-like carbon film - multicrystalline Si structures. Semiconductor Physics, Quantum Electronics and Optoelectronics, 2003, 6, 197-201.	0.3	6
44	Distinctive features of time-resolved photoluminescence of porous silicon coated with a layer of diamondlike carbon. Technical Physics, 1998, 43, 423-426.	0.2	5
45	Possibility of a double-well potential formation in diamondlike amorphous carbon. Physical Review B, 1998, 58, 3526-3528.	1.1	5
46	Electron Field Emission from Undoped and Doped DLC Films. Materials Research Society Symposia Proceedings, 1999, 558, 577.	0.1	5
47	Raman spectroscopy and microhardness of ion-implanted a-C:H-films. Ceramics International, 2000, 26, 29-32.	2.3	5
48	Micro-Raman study of high pressure induced graphite-diamond phase-structural transformation: The role of a nitrogen containing precursor. Journal of Applied Physics, 2000, 88, 4875.	1.1	5
49	Ion-plasma treatment of Cd1 â^' x Zn x Te (x â^¼ 0.04) single crystals and application of antireflection diamond-like carbon films. Technical Physics, 2012, 57, 1121-1126.	0.2	4
50	Application of diamond-like carbon films to increase transmission of semi-insulating GaAs crystals in the IR spectral range. Technical Physics Letters, 2012, 38, 609-612.	0.2	4
51	Photoluminescence of porous-silicon/diamondlike-carbon-film structures subjected to rapid thermal annealing. Technical Physics Letters, 1999, 25, 304-306.	0.2	3
52	Increasing the degradation resistance of semi-insulating gallium arsenide crystals by plasma processing. Technical Physics Letters, 2012, 38, 1016-1019.	0.2	3
53	Electroreflectance study of the effect of Î³ radiation on the optical properties of epitaxial GaN films. Semiconductors, 2012, 46, 302-305.	0.2	3
54	Improvement in the degradation resistance of silicon nanostructures by the deposition of diamond-like carbon films. Semiconductors, 2015, 49, 1030-1034.	0.2	3

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55	Effect of Plasma, RF, and RIE Treatments on Properties of Double-Sided High Voltage Solar Cells with Vertically Aligned p-n Junctions. International Journal of Photoenergy, 2016, 2016, 1-8.	1.4	3
56	EPR and Raman study of silicon layers obtained by gas detonation spraying. Materials Science in Semiconductor Processing, 2017, 71, 232-239.	1.9	3
57	Scheelite-related MIIxBi_{1â^'x}V_{1â^'x}Mo_xO₄(M^{II}â€“ Ca, Sr) solid solution-based photoanodes for enhanced photoelectrochemical water oxidation. Dalton Transactions, 2020, 49, 2345-2355.	1.6	3
58	Improvement of Solar Cells Efficiency and Radiation Stability by Deposition of Diamond-Like Carbon Films. , 2011, , .		3
59	SiC Buried Layer Formation Induced by Ion Implantation. Solid State Phenomena, 1995, 47-48, 211-216.	0.3	2
60	Influence of nitrogen on the optical and mechanical properties of diamond-like carbon films. Technical Physics Letters, 1998, 24, 408-409.	0.2	2
61	Electron Processes in Low-Dimension Porous Si-Fulleren System: Photoluminescence Study. Molecular Crystals and Liquid Crystals, 1998, 324, 13-18.	0.3	2
62	Photoluminescence of porous silicon layers formed in ion-implanted silicon wafers. Technical Physics Letters, 2000, 26, 944-946.	0.2	2
63	Improvement of radiation stability of semi-insulating gallium arsenide crystals by deposition of diamond-like carbon films. Optical Materials, 2016, 62, 372-377.	1.7	2
64	Modification of Optical Properties of a-C:H and a-C:H:N Films Subjected to Ion Implantation and UV Treatment. Molecular Crystals and Liquid Crystals, 1998, 324, 19-24.	0.3	1
65	Photoluminescent properties of nitrogen-containing DLC films. Ceramics International, 2000, 26, 411-414.	2.3	1
66	Optical properties of diamond-like carbon films subjected to ultraviolet irradiation. Semiconductor Physics, Quantum Electronics and Optoelectronics, 2008, 11, 396-399.	0.3	1
67	Electronic band structure and optical properties of cubic silicon carbide crystals. , 1993, , 394-399.		1
68	Interaction of calcium phosphate and CaO (CaCO3) while their disposing on the titanium surface under gas detonation conditions. Reports National Academy of Science of Ukraine, 2017, , 66-72.	0.0	1
69	Investigation of Ion Implanted Silicon by Electroreflectance Spectroscopy. Physica Status Solidi A, 1989, 112, 805-810.	1.7	0
70	Investigation of multilayer SOI structures by electroreflectance spectroscopy. Materials Letters, 1993, 18, 137-140.	1.3	0
71	Oxygen plasma treatment of Gdî—¸Baî—¸Cuî—¸O high-Tc superconducting films. Physica C: Superconductivity and Its Applications, 1994, 235-240, 1211-1212.	0.6	0
72	Oxygen plasma treatment effect on optical properties of GdBa2Cu3O7â^'x high-Tc superconducting films. Thin Solid Films, 1994, 238, 119-122.	0.8	0

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73	Field Electron Emission From Silicon Tip Arrays Coated With Nitrogen Doped DLC Films.. , 1997, , .		0
74	Influence of oxygen on the ion-beam synthesis of silicon carbide buried layers in silicon. Semiconductors, 1998, 32, 1261-1265.	0.2	0
75	Properties of PE-CVD DLC films as field electron emitters prepared in different regimes. , 0, , .		0
76	Diagnostics of nitrogen-implanted diamond-like carbon films by optical and microhardness measurements. , 1998, 3359, 339.		0
77	Optical study of the influence of oxygen on the synthesis of SiC-buried layer in Cz-Si and Fz-Si. , 1998, 3359, 375.		0
78	Evaluation of the Interface Properties of Recombination Sensors From the Measurement of Capacitance-Voltage Characteristics. , 2019, , .		0
79	Micro-Raman study of CNx composites subjected to high pressure treatment. Semiconductor Physics, Quantum Electronics and Optoelectronics, 1999, 2, 13-18.	0.3	0
80	Rietveld refinement of the langbeinite-type phosphate K₂Ni_{0.5}Hf_{1.5}(PO₄)₃. Acta Crystallographica Section E: Crystallographic Communications, 2020, 76, 1634-1637.	0.2	0