Alexei T Kozakov

List of Publications by Citations

102 papers	766 citations	14 h-index	22 g-index
105 ext. papers	903 ext. citations	2.2 avg, IF	4 L-index

#	Paper	IF	Citations
102	X-ray photoelectron study of the valence state of iron in iron-containing single-crystal (BiFeO3, PbFe1/2Nb1/2O3), and ceramic (BaFe1/2Nb1/2O3) multiferroics. *Journal of Electron Spectroscopy and Related Phenomena*, **2011**, 184, 16-23	1.7	72
101	Humidity-dependent friction mechanism in an ultrananocrystalline diamond film. *Journal Physics D: Applied Physics*, **2013**, 46, 275501	3	47
100	Valence state of the manganese ions in mixed-valence La1 BiMn1+O3 ceramics by Mn 2p and Mn 3s X-ray photoelectron spectra. *Journal of Electron Spectroscopy and Related Phenomena*, **2012**, 185, 175-183	1.7	41
99	Valence and magnetic state of transition-metal and rare-earth ions in single-crystal multiferroics RMn2O5 (R=Y, Bi, Eu, Gd) from X-ray photoelectron spectroscopy data. *Journal of Electron Spectroscopy and Related Phenomena*, **2011**, 184, 508-516	1.7	35
98	Single-crystal rare earths manganites La1 BixAyMn O3 (A = Ba, Pb): Crystal structure, composition, and Mn ions valence state. X-ray diffraction and XPS study. *Journal of Electron Spectroscopy and Related Phenomena*, **2013**, 186, 14-24	1.7	32
97	Valence state of manganese and iron ions in La1 AxMnO3 (A = Ca, Sr) and Bi1 SrxFeO3 systems from Mn2p, Mn3s, Fe2p and Fe3s X-ray photoelectron spectra. Effect of delocalization on Fe3s spectra splitting. *Journal of Alloys and Compounds*, **2015**, 647, 947-955	5.7	26
96	Bi1-Ca FeO3- (0 x 1) ceramics: Crystal structure, phase and elemental composition, and chemical bonding from X-ray diffraction, Raman scattering, Mssbauer, and X-ray photoelectron spectra. *Journal of Alloys and Compounds*, **2016**, 664, 392-405	5.7	26
95	Superlubrication properties of ultra-nanocrystalline diamond film sliding against a zirconia ball. *RSC Advances*, **2015**, 5, 100663-100673	3.7	21
94	X-ray photoelectron study of temperature effect on the valence state of Mn in single crystal YMnO 3. *Journal of Electron Spectroscopy and Related Phenomena*, **2014**, 195, 1-7	1.7	21
93	Structure, non-stoichiometry, valence of ions, dielectric and magnetic properties of single-phase Bi0.9La0.1FeO3 multiferroics. *Journal of Magnetism and Magnetic Materials*, **2019**, 483, 100-113	2.8	19
92	Bias Field Effect on Dielectric and Pyroelectric Properties of (1-x)Pb(Fe1/2Nb1/2)O3 PbTiO3 Ceramics. *Ferroelectrics*, **2009**, 389, 107-113	0.6	18
91	X-ray photoelectron spectroscopy and low temperature Mssbauer study of Ce3+ substituted MnFe2O4. *Journal of Materials Science: Materials in Electronics*, **2019**, 30, 10162-10171	2.1	16
90	Liquid-phase sintered bismuth ferrite multiferroics and their giant dielectric constant. *Ceramics International*, **2019**, 45, 14873-14879	5.1	15
89	Valence state of transition metal ions in Co1 e Cr2O4 (x= 0.1, 0.2, 0.5) ceramics from X-ray photoelectron and Mssbauer spectroscopy data. *Journal of Alloys and Compounds*, **2015**, 636, 241-248	5.7	15
88	Solvothermal synthesis of Sm-doped FeO nanoparticles. *Materials Science and Engineering C*, **2017**, 80, 110-116	8.3	14
87	Phase transitions, dielectric properties and valence of magnetic ions in PbFe0.5 Cr x Nb0.5O3 multiferroic ceramics. *Journal of Materials Science*, **2017**, 52, 10140-10155	4.3	14
86	Electronic structure of bismuth ferrite and hematite single crystals: X-ray photoelectron study and calculation. *Physics of the Solid State*, **2011**, 53, 41-47	0.8	14

85	Load dependent friction coefficient of crystalline graphite and anomalous behavior of wear dimension. *Tribology International*, **2015**, 88, 280-289	4.9	11
84	Chemical bonding in the Bi1−xSrxFeO3−y system by X-ray photoelectron and Mössbauer spectroscopy. *Journal of Electron Spectroscopy and Related Phenomena*, **2013**, 189, 106-115	1.7	11
83	Surface and bulk phase analysis of the tribolayer of nanocrystalline diamond films sliding against steel balls. *Diamond and Related Materials*, **2019**, 97, 107472	3.5	10
82	Role of transfer layer on tribological properties of nanocrystalline diamond nanowire film sliding against alumina allotropes. *Diamond and Related Materials*, **2014**, 48, 6-18	3.5	10
81	Chemical bonding and valence state of 3d-metal ions in Ni 1− x Co x Cr 2 O 4 spinels from X-ray diffraction and X-ray photoelectron spectroscopy data. *Journal of Electron Spectroscopy and Related Phenomena*, **2014**, 195, 208-219	1.7	10
80	Study of friction and wear in the wheel-rail system by X-ray electron and auger-electron spectroscopy and quantum chemistry. *Journal of Friction and Wear*, **2010**, 31, 11-22	0.9	10
79	Improving the lubricating properties of 10W40 oil using oxidized graphite additives. *Journal of Friction and Wear*, **2017**, 38, 349-354	0.9	9
78	Valence state of cations in manganites Pr1-Ca MnO3 (0.3≤x≤0.5) from X-ray diffraction and X-ray photoelectron spectroscopy. *Journal of Alloys and Compounds*, **2018**, 740, 132-142	5.7	9
77	Tribochemical aspects of interactions between high-dispersed serpentine particles and metal friction surface. *Journal of Friction and Wear*, **2012**, 33, 108-114	0.9	9
76	Improvement of performance of lubricating materials with additives of clayey minerals. *Journal of Friction and Wear*, **2011**, 32, 442-451	0.9	9
75	Study of the phase composition and tribological properties of carbon tool steels after laser surface hardening by quasi - CW fiber laser. *Surface and Coatings Technology*, **2020**, 385, 125427	4.4	9
74	Controlled atmosphere dependent tribological properties of thermally annealed ultrananocrystalline diamond films. *Diamond and Related Materials*, **2019**, 97, 107437	3.5	8
73	Ɛystal structure, valence state of ions and magnetic properties of HoFeO3 and HoFe0.8Sc0.2O3 nanoparticles from X-ray diffraction, X-ray photoelectron, and Mössbauer spectroscopy data. *Journal of Alloys and Compounds*, **2020**, 842, 155805	5.7	8
72	Temperature effect on X-ray photoelectron spectra of 3d transition metal ions. *Journal of Electron Spectroscopy and Related Phenomena*, **2014**, 195, 200-207	1.7	8
71	Microstructure, chemical bonds, and friction properties of nanocrystalline diamond films deposited in two different plasma media. *Physics of the Solid State*, **2013**, 55, 2076-2087	0.8	8
70	Determination of sp2 and sp3 phase fractions on the surface of diamond films from C1s, valence band X-ray photoelectron spectra and CKVV X-ray-excited Auger spectra. *Applied Surface Science*, **2021**, 536, 147807	6.7	8
69	Phase transitions, dielectric, magnetic properties and valence of ions in AFe2/3W1/3O3 (A = Ba, Sr) multiferroic ceramics. *Journal of Alloys and Compounds*, **2018**, 740, 1037-1045	5.7	7
68	Temperature dependence of the concentration of surface phases in a BaTiO3 single crystal according to X-ray photoelectron spectroscopy data. *Bulletin of the Russian Academy of Sciences: Physics*, **2012**, 76, 120-124	0.4	7

67	Using auger electron spectroscopy for studying the composition of the surface of multicomponent alloys under the effect of pulsed laser irradiation. *Inorganic Materials: Applied Research*, **2011**, 2, 254-260	0.6	7
66	Valence state of B and Ta cations in the AB1/2Ta1/2O3 ceramics (A = Ca, Sr, Ba, Pb; B = Fe, Sc) from X-ray photoelectron and Mössbauer spectroscopy data. *Journal of Electron Spectroscopy and Related Phenomena*, **2020**, 239, 146918	1.7	7
65	Quantum Confinement Effect in a Nanoscale Mo/Si Multilayer Structure. *Journal of Physical Chemistry C*, **2020**, 124, 17795-17805	3.8	7
64	Friction anisotropy in boronated graphite. *Applied Surface Science*, **2015**, 324, 443-454	6.7	6
63	Deactivation of Co-Al2O3/SiO2 Fischer–Tropsch Synthesis Catalyst in Industrially Relevant Conditions. *Catalysis Letters*, **2020**, 150, 1932-1941	2.8	6
62	Relaxation dynamics, phase pattern in the vicinity of the Curie temperature, Fe valent state and the Mössbauer effect in PFN ceramics. *Ceramics International*, **2012**, 38, 6157-6161	5.1	6
61	Surface compositions of 9XC and R6M5 tool steels after laser pulse irradiation according to X-ray photoelectron spectroscopy data. *Journal of Surface Investigation*, **2011**, 5, 431-439	0.5	6
60	Tribofilm stability of ionic liquid functionalized graphene-oxide in metallic contact interfaces. *Journal of Molecular Liquids*, **2019**, 296, 111813	6	6
59	Valence state of manganese ions in the La1− BiLaMnLa1−OLa3−−ceramics. *Physics of the Solid State*, **2013**, 55, 743-747	0.8	5
58	Electron emission from charged surfaces of ferroelectrics-electrets: Part 1. Properties of the electron emission. *Journal of Electron Spectroscopy and Related Phenomena*, **2005**, 142, 59-66	1.7	5
57	Electron emission from charged surfaces of ferroelectrics-electrets. *Journal of Electron Spectroscopy and Related Phenomena*, **2005**, 142, 67-74	1.7	5
56	A new high-brightness stepped-crystal diffractor for X-ray microanalysis. *Technical Physics Letters*, **2001**, 27, 11-13	0.7	5
55	Electret state and surface composition of the PbMg13/Nb23/O3single crystal. *Journal Physics D: Applied Physics*, **1993**, 26, 967-971	3	5
54	Formation of Surface Structures under Friction in Synthetic Oils. *Journal of Friction and Wear*, **2020**, 41, 417-420	0.9	5
53	Auger and X-Ray Photoelectron Spectroscopy Study of the Tribocontact Surface after Laser Modification. *Materials Science Forum*, **2016**, 870, 298-302	0.4	5
52	Effects of doping of lead titanate with alkaline-earth elements. *Physics of the Solid State*, **2016**, 58, 115-120	0.8	4
51	X-ray photoelectron study and first principle calculations of the electronic structure of PbFe1/2Nb1/2O3 single crystal in the ferroelectric and paraelectric phases. *Journal of Alloys and Compounds*, **2013**, 579, 401-405	5.7	4
50	Composition of an oxide layer formed by laser radiation and the structure of an oxide-metal interface on the surface of 9XC and P6M5 tool steels according to XPS. *Bulletin of the Russian Academy of Sciences: Physics*, **2011**, 75, 635-638	0.4	4

49	Study of the segregation processes and chemical bonding at equilibrium and nonequilibrium oxidation of the R6M5 alloy surface. *Bulletin of the Russian Academy of Sciences: Physics*, **2009**, 73, 694-696	0.4	4
48	Phonon, plasmon and electronic properties of surfaces and interfaces of periodic W/Si and Si/W multilayers. *Physical Chemistry Chemical Physics*, **2021**, 23, 15076-15090	3.6	4
47	Isomorphism problems in lead-barium titanate. *Journal of Alloys and Compounds*, **2020**, 829, 154589	5.7	3
46	Effect of sintering temperature on the chemical state of ions in the Ba1 □x Sr x TiO3 (x = 0.2) system, according to X-ray photoelectron spectroscopy data. *Bulletin of the Russian Academy of Sciences: Physics*, **2014**, 78, 681-686	0.4	3
45	Ferropiezoelectric properties and microstructure of PbFe1/2Nb1/2O3 ceramics. *Bulletin of the Russian Academy of Sciences: Physics*, **2012**, 76, 782-785	0.4	3
44	Modelling of a Potential Relief on a Surface of Charged Polar Dielectrics. *Ferroelectrics*, **2007**, 353, 212-220	0.6	3
43	Peculiarities of segregation phenomena at the surface of Pd x V1 □x alloys in an oxygen medium. *Journal of Surface Investigation*, **2007**, 1, 443-449	0.5	3
42	X-Ray-induced low-energy electron emission from solids (one-dimensional theoretical model). *Journal of Electron Spectroscopy and Related Phenomena*, **2001**, 120, 77-88	1.7	3
41	X-ray diffraction study of the dependence of the fine TiC structure on dispersion of hardening phase particles. *Acta Metallurgica Et Materialia*, **1995**, 43, 2115-2119		3
40	Regularities of complex-formation in the interaction of bis-(acetonitrile)palladium chloride with a polystyrene-polybutadiene block copolymer. *Polymer Science USSR*, **1987**, 29, 2653-2659		3
39	Mechanisms of structural thermal adaptability of silicate coatings. *Journal of Friction and Wear*, **2014**, 35, 141-148	0.9	2
38	Electronic structure of PbSc1/2Nb1/2O3 single-crystal ferroelectric-relaxor in the paraelectric and ferroelectric state. *Surface Science*, **2017**, 666, 1-8	1.8	2
37	Electronic structure of single-crystal solid solutions Pb1-Ba TiO3 (0 □x □1) from X-ray photoelectron spectroscopy and real-space multiple electron scattering calculations. *Journal of Alloys and Compounds*, **2017**, 695, 3170-3177	5.7	2
36	Electronic structure of a PbFe1/2Nb1/2O3 single crystal in the ferroelectric and paraelectric states, according to X-Ray photoelectron spectroscopy data and first principle calculations. *Bulletin of the Russian Academy of Sciences: Physics*, **2012**, 76, 1143-1145	0.4	2
35	The relaxation dynamics, iron valence state, and M□ssbauer effect in PFN ceramics. *Bulletin of the Russian Academy of Sciences: Physics*, **2011**, 75, 731-733	0.4	2
34	Study of the segregation phenomena on the surface of binary alloys and steels in oxygen environment. *Bulletin of the Russian Academy of Sciences: Physics*, **2009**, 73, 690-693	0.4	2
33	Phase Composition and Tribological Characteristics of the Surface Layers of Carbon Tool Steels after Laser Processing in Air. *Journal of Surface Investigation*, **2021**, 15, 350-360	0.5	2
32	X-ray photoelectron studies of near surface oxidation and plasmon excitation in spatially confined bi- and tri- layers periodic multilayer mirrors. *Thin Solid Films*, **2021**, 717, 138449	2.2	2

31	Synthesis, Structure, and X-Ray Photoelectron Spectra of Cobalt and Copper Complexes with 2-{(E)-[2-(4-Hydroxybutylamino)benzimidazol-1-yl]iminomethyl}phenol. *Russian Journal of General Chemistry*, **2018**, 88, 2550-2558	0.7	2
30	Electron-beam-induced polarization of lithium- and manganese-modified lead ferroniobate ceramics and its respective emission phenomena. *Technical Physics*, **2014**, 59, 434-437	0.5	1
29	Electronic structure of single-crystal RMn2O5 multiferroics (R = Y, Bi, Eu, Gd) according to X-ray photoelectron spectroscopy data. *Journal of Surface Investigation*, **2012**, 6, 738-747	0.5	1
28	Anomalous electron emission spectra and polarization phenomena in a lead magnesium niobate single crystal. *Physics of the Solid State*, **1997**, 39, 1284-1288	0.8	1
27	Charge distribution in surface layers of polarized electret ceramics according to electron spectroscopy measurements. *Physics of the Solid State*, **2008**, 50, 2044-2052	0.8	1
26	Specific features and properties of lead-titanate-based anisotropic ceramics. *Ferroelectrics*, **1995**, 167, 223-228	0.6	1
25	Satellites in the x-ray M series. *Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika)*, **1970**, 13, 1394-1395		1
24	Surface Modification Features of Tool Steels by Laser Radiation. *Journal of Friction and Wear*, **2020**, 41, 549-553	0.9	1
23	X-ray photoelectron spectroscopy study of an exchange bias system on the basis of Co70Fe30/Mn83Ir17 interface. *Journal of Applied Physics*, **2018**, 124, 155301	2.5	1
22	Effect of Nd: YAG pulsed laser radiation on oxidation and segregation processes in the surface layers of T8 high speed tool steel: Tribological consequences. *Applied Surface Science*, **2021**, 564, 150434	6.7	1
21	Gram-Scale Synthesis of CoO/C as Base for PtCo/C High-Performance Catalysts for the Oxygen Reduction Reaction. *Catalysts*, **2021**, 11, 1539	4	1
20	Characterization of Graphenic Carbon Produced by Pulsed Laser Ablation of Sacrificial Carbon Tapes. *Applied Sciences (Switzerland)*, **2021**, 11, 11972	2.6	1
19	Determining the valence state of manganese ions in complex oxides La1− Ca x MnO3 (x = 0.5, 0.7, 0.85, and 0.9) based on Mn2p and Mn3s X-ray photoelectron spectra. *Bulletin of the Russian Academy of Sciences: Physics*, **2016**, 80, 638-640	0.4	0
18	Phase formation and the formation of microstructures and macroscopic responses in BST ceramics. *Bulletin of the Russian Academy of Sciences: Physics*, **2016**, 80, 1364-1366	0.4	0
17	Effect of synthesis conditions on local atomic structure and properties of low-toxic maghemite nanoparticles for local magnetic hyperthermia in oncology. *Journal of Nanoparticle Research*, **2022**, 24, 1	2.3	0
16	The study of the pyrolysis products of Ni (II) and Pd (II) chelate complexes as catalysts for the oxygen electroreduction reaction. *Journal of Solid State Electrochemistry*, **2021**, 25, 789-796	2.6	0
15	Valence state and X-ray photoelectron 2p spectra of chromium ions in the La1− Sr x CrO3 (x = 0, 0.1, 0.3, 0.5) system. *Bulletin of the Russian Academy of Sciences: Physics*, **2017**, 81, 331-333	0.4	
14	Fine structure of the X-ray photoelectron Ni 2 p spectrum in Ni1− Co x Cr2O4 compounds. *Bulletin of the Russian Academy of Sciences: Physics*, **2015**, 79, 1371-1375	0.4	

13	Effect of polarization on the intensity of anomalous electron emission in the (1 □ x)PbMg1/3Nb2/3O3 + xPbTiO3 system. *Physics of the Solid State*, **2009**, 51, 1385-1389	0.8
12	Research of Electrophysical Properties of Superficial Layers and Interfaces in Polar Dielectric Materials on the Anomalous Electron Emission Spectra. *Ferroelectrics*, **2009**, 391, 22-32	0.6
11	Anomalous electron emission from lithium niobate and lithium tantalate single crystals. *Physics of the Solid State*, **1997**, 39, 594-597	0.8
10	Spectra of low-energy electrons excited by soft x rays. *Technical Physics*, **1997**, 42, 318-321	0.5
9	Soft X-ray radiation-induced electron emission from the surface of polarized ferroelectrics. *Journal of Structural Chemistry*, **1998**, 39, 844-849	0.9
8	Structure and optical properties of ZnO nanowires fabricated by pulsed laser deposition on GaN/Si(111) films with the use of Au and NiO catalysts. *Bulletin of the Russian Academy of Sciences: Physics*, **2008**, 72, 1129-1131	0.4
7	Physical aspects of the shape of electron emission spectra for ferroelectric electrets. *Physics of the Solid State*, **2002**, 44, 153-156	0.8
6	Potential relief on the surface of polarized ferroelectric electrets from an analysis of the anomalous electron emission spectra. *Physics of the Solid State*, **2003**, 45, 1288-1294	0.8
5	The effect of injected-charge spatial distribution on the x-ray induced electron emission intensity in ferroelectric electrets. *Physics of the Solid State*, **2000**, 42, 2148-2150	0.8
4	Focusing properties of the electric field between charged conical surfaces. *Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika)*, **1981**, 24, 927-931	
3	Structure of the short-wavelength L-series satellites. *Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika)*, **1969**, 12, 540-542	
2	Crystal Structure, Phase and Elemental Composition and Chemical Bonding in Bi1□XAXFeO3□Y Systems (A = Sr, Ca; 0 □ X □ 1) from X-ray Diffraction, M□ssbauer, and X-ray Photoelectron Spectra. *Springer Proceedings in Physics*, **2017**, 145-153	0.2
1	X-ray photoelectron and m□ssbauer spectroscopy studies of the valence state of transition metal ions in Co1□ Fe x Cr2O4 (x = 0.1, 0.2, 0.5) ceramics. *Physics of the Solid State*, **2016**, 58, 108-114	0.8