

# Nikolay Chechenin

## List of Publications by Year in descending order

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83  
papers

970  
citations

516710

16  
h-index

552781

26  
g-index

84  
all docs

84  
docs citations

84  
times ranked

641  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanoindentation of amorphous aluminum oxide films I. The influence of the substrate on the plastic properties. <i>Thin Solid Films</i> , 1995, 261, 219-227.	1.8	102
2	Nanoindentation of amorphous aluminum oxide films II. Critical parameters for the breakthrough and a membrane effect in thin hard films on soft substrates. <i>Thin Solid Films</i> , 1995, 261, 228-235.	1.8	50
3	Damage and aluminum distributions in sic during ion implantation and annealing. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1992, 65, 341-344.	1.4	48
4	Nanoindentation of amorphous aluminum oxide films III. The influence of the substrate on the elastic properties. <i>Thin Solid Films</i> , 1997, 304, 70-77.	1.8	45
5	Location of impurities in compounds by asymmetry of channeling dips. <i>Applied Physics Letters</i> , 1981, 39, 758-760.	3.3	35
6	Synthesis and electroconductivity of epoxy/aligned CNTs composites. <i>Applied Surface Science</i> , 2013, 275, 217-221.	6.1	35
7	Characterization of functionalized multiwalled carbon nanotubes and application as an effective filter for heavy metal removal from aqueous solutions. <i>Chinese Journal of Chemical Engineering</i> , 2016, 24, 1695-1702.	3.5	24
8	Depth distribution analysis of martensitic transformations in Xe implanted austenitic stainless steel. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1989, 39, 573-577.	1.4	21
9	Structure and Soft Magnetic Properties of Fe <sub>2</sub> ZrN Films. <i>Physica Status Solidi A</i> , 2002, 189, 833-836.	1.7	21
10	Removal of iron and manganese from aqueous solutions using carbon nanotube filters. <i>Water Science and Technology: Water Supply</i> , 2016, 16, 347-353.	2.1	20
11	Magnetic properties of thin Co/Fe/Ni films. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 316, 451-453.	2.3	19
12	Functionalized carbon nanotubes based filters for chromium removal from aqueous solutions. <i>Water Science and Technology</i> , 2017, 75, 1564-1571.	2.5	19
13	Ion irradiation induced grain growth in nanocrystalline Fe and Fe (Zr). <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1994, 179-180, 582-586.	5.6	18
14	Low-Temperature Nitridation of Iron Layers in NH <sub>3</sub> -H <sub>2</sub> Mixtures. <i>Physica Status Solidi A</i> , 2000, 177, 127-133.	1.7	18
15	Microstructure of nanocrystalline FeZr(N)-films and their soft magnetic properties. <i>Journal of Magnetism and Magnetic Materials</i> , 2002, 242-245, 180-182.	2.3	18
16	Thermal stability of the in-plane magnetic anisotropy and the coercivity of nanocrystalline CoFeNi films. <i>Journal of Magnetism and Magnetic Materials</i> , 2003, 266, 251-257.	2.3	18
17	He ion irradiation effects on multiwalled carbon nanotubes structure. <i>European Physical Journal D</i> , 2017, 71, 1.	1.3	17
18	Variation of structure and magnetic properties with thickness of thin Co <sub>59</sub> Fe <sub>26</sub> Ni <sub>15</sub> films. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 290-291, 1539-1542.	2.3	16

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19	Space radiation environment prediction for VLSI microelectronics devices onboard a LEO satellite using OMERE-TRAD software. <i>Advances in Space Research</i> , 2015, 56, 314-324.	2.6	16
20	Lifetime measurements on the compound nucleus $^{236}\text{U}$ by means of the shadow effect. <i>Nuclear Physics A</i> , 1977, 281, 295-309.	1.5	14
21	Formation of low friction and wear-resistant carbon coatings on tool steel by 75 keV, high-dose carbon ion implantation. <i>Surface and Coatings Technology</i> , 1994, 65, 154-159.	4.8	14
22	Controlling the induced anisotropy in soft magnetic films for high-frequency applications. <i>IEEE Transactions on Magnetics</i> , 2002, 38, 3144-3146.	2.1	14
23	Precipitate formation in low-temperature nitrided cold-rolled $\text{Fe}_{94}\text{Ni}_4\text{Ti}_2$ and $\text{Fe}_{93}\text{Ni}_4\text{Cr}_3$ films. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002, 33, 3075-3087.	2.2	14
24	Influence of stresses and magnetostriction on the soft magnetic behavior of metallic films. <i>Journal of Magnetism and Magnetic Materials</i> , 2006, 299, 219-224.	2.3	14
25	The thermodynamic factor in interdiffusion: A strong effect in amorphous Ni-Zr. <i>Acta Metallurgica Et Materialia</i> , 1995, 43, 551-558.	1.8	13
26	TEM Study of Ti-N and Cr-N Precipitate Formation in Iron Alloys. <i>Physica Status Solidi A</i> , 2000, 177, 117-125.	1.7	13
27	Ozone functionalized CNT-based filters for high removal efficiency of benzene from aqueous solutions. <i>Journal of Water Process Engineering</i> , 2018, 25, 81-87.	5.6	13
28	Temperature effects on nitrogen diffusion and hardness of aluminum surface implanted with nitrogen. <i>Surface and Coatings Technology</i> , 1994, 66, 334-339.	4.8	12
29	Morphological and structural modifications of multiwalled carbon nanotubes by electron beam irradiation. <i>Materials Research Express</i> , 2016, 3, 105013.	1.6	12
30	Asymmetry of depth oscillations for $\sim 110^\circ$ channeling in GaP. <i>Nuclear Instruments &amp; Methods in Physics Research</i> , 1982, 194, 129-132.	0.9	11
31	Investigation of laser-induced defect formation in CdTe crystals by Rutherford backscattering. <i>Physics of the Solid State</i> , 1998, 40, 187-189.	0.6	11
32	Relation between observed micromagnetic ripple and FMR width in ultrasoft magnetic films. <i>IEEE Transactions on Magnetics</i> , 2002, 38, 3027-3029.	2.1	11
33	Thermal stability of ultrasoft $\text{Fe}/\text{Zr}/\text{N}$ films. <i>Journal of Physics Condensed Matter</i> , 2003, 15, 7663-7674.	1.8	11
34	A channeling study of ion-produced disorder in silicon carbide. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1990, 48, 235-239.	1.4	10
35	Impact of high-energy cosmic-ray protons and ions on the elements of spacecraft on-board devices. <i>Journal of Surface Investigation</i> , 2012, 6, 303-313.	0.5	10
36	Inhomogeneous magnetic field influence on magnetic properties of NiFe/IrMn thin film structures. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 475, 763-766.	2.3	10

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37	A "hydrostatic core"™ model of elastic deformations in an indented film/substrate system. Thin Solid Films, 1997, 304, 78-84.	1.8	9
38	Ultrasoft Magnetic Films Investigated with Lorentz Transmission Electron Microscopy and Electron Holography. Microscopy and Microanalysis, 2002, 8, 274-287.	0.4	9
39	Lifetime-effect relations in the blocking technique for a thick crystal. Radiation Effects, 1982, 66, 183-193.	0.4	8
40	The location of substitutional foreign atoms in GaAs by asymmetry of backscattering yield near. Radiation Effects, 1984, 83, 91-97.	0.4	8
41	Decay times for second-chance fission of <sup>239</sup> U studied by crystal blocking. Nuclear Physics A, 1979, 324, 39-52.	1.5	7
42	Melting and Damage Production in Silicon Carbide under Pulsed Laser Irradiation. Physica Status Solidi A, 1990, 121, 399-406.	1.7	7
43	Effect of internal stray fields on the high-frequency properties of magnetic thin films. Physics of the Solid State, 2004, 46, 479-483.	0.6	7
44	Micromagnetism and high-frequency properties of soft magnetic films. Journal of Magnetism and Magnetic Materials, 2006, 300, 198-201.	2.3	7
45	Recoil-nucleus spectra in the interaction of cosmic-ray protons with spacecraft electronics. Physics of Atomic Nuclei, 2008, 71, 1293-1297.	0.4	7
46	Exchange bias in the IrMn/Co structures with alternative sequences of antiferromagnetic and ferromagnetic layers. JETP Letters, 2009, 88, 602-606.	1.4	7
47	Magnetic anisotropy in IrMn/Co structures with an alternative sequence of deposition of antiferromagnetic and ferromagnetic layers. Physics of the Solid State, 2010, 52, 1701-1708.	0.6	7
48	Asymmetry of Magnetization Reversal of Pinned Layer in NiFe/Cu/NiFe/IrMn Spin-Valve Structure. Journal of Superconductivity and Novel Magnetism, 2014, 27, 1547-1552.	1.8	7
49	Lowered interdiffusivity in thin amorphous Ni-Zr films with large composition gradients. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1994, 69, 1083-1091.	0.6	6
50	FCC/BCC competition and enhancement of saturation magnetization in nanocrystalline Co-Ni-Fe films. JETP Letters, 2007, 85, 212-215.	1.4	6
51	On the composition analysis of nc-TiC/a-C:H nanocomposite coatings. Journal Physics D: Applied Physics, 2008, 41, 085402.	2.8	6
52	Nonlinearities in composition dependence of structure parameters and magnetic properties of nanocrystalline fcc/bcc-mixed Co-Ni-Fe thin films. Journal of Applied Physics, 2008, 103, 07E738.	2.5	6
53	On the quantification of unbound hydrogen in diamond-like carbon-based thin films. Scripta Materialia, 2009, 61, 320-323.	5.2	6
54	Dependence of Exchange Bias Field on Thickness of Antiferromagnetic Layer in NiFe/IrMn Structures. Acta Physica Polonica A, 2015, 127, 555-557.	0.5	6

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55	SiC amorphization as a result of Ga <sup>+</sup> implantation. Nuclear Instruments & Methods in Physics Research B, 1988, 33, 788-791.	1.4	5
56	Diffusion in thin-film amorphous metallic alloys. Nuclear Instruments & Methods in Physics Research B, 1994, 85, 206-215.	1.4	5
57	On the formation of ultra-fine grained Fe-base alloys via phase transformations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 367, 176-184.	5.6	5
58	Silicon fragmentation under the effect of high-energy cosmic-ray protons. Physics of Atomic Nuclei, 2009, 72, 1767-1772.	0.4	5
59	Erosion of carbon nanotube-based polymer nanocomposites exposed to oxygen plasma. Journal of Surface Investigation, 2016, 10, 617-622.	0.5	5
60	Exchange Bias and Coercivity Fields as a Function of the Antiferromagnetic Layer Thickness in bi- and tri-layered thin-films Based on IrMn and NiFe. Physics Procedia, 2016, 82, 51-55.	1.2	5
61	Positron Annihilation in Gaseous Nitrided Cold-Rolled FeNiTi Films. Materials Science Forum, 2001, 363-365, 493-495.	0.3	4
62	Soft magnetism in nitrided Fe <sub>93</sub> Ni <sub>4</sub> Cr <sub>3</sub> and Fe <sub>94</sub> Ni <sub>4</sub> Ti <sub>2</sub> cold-rolled alloys. Journal of Magnetism and Magnetic Materials, 2003, 263, 47-56.	2.3	4
63	Effects of topography on the local variation in the magnetization of ultrasoft magnetic films: A Lorentz microscopy study. Philosophical Magazine, 2003, 83, 2899-2913.	1.6	4
64	Dependence of the Exchange Bias on the Thickness of Antiferromagnetic Layer in the Trilayered NiFe/IrMn/NiFe Thin-films. Physics Procedia, 2015, 75, 1066-1071.	1.2	4
65	Channeling in RBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> $\times$ single crystals. Nuclear Instruments & Methods in Physics Research B, 1990, 48, 207-210.	1.4	3
66	Ultra-soft magnetic films: micromagnetism and high frequency properties. Microelectronic Engineering, 2005, 81, 303-309.	2.4	3
67	Tungsten fragmentation in nuclear reactions induced by high-energy cosmic-ray protons. Physics of Atomic Nuclei, 2015, 78, 159-166.	0.4	3
68	Channeling study of laser-induced damage in GaP. Nuclear Instruments & Methods in Physics Research B, 1986, 13, 503-505.	1.4	2
69	Channeling study of the orientational dependence of laser-induced damage in GaAs and GaP. Nuclear Instruments & Methods in Physics Research B, 1988, 33, 844-847.	1.4	2
70	Measurements of self-diffusion of Ni and interdiffusion in thin-film amorphous Ni <sub>57</sub> -Zr using RBS. Nuclear Instruments & Methods in Physics Research B, 1994, 85, 197-201.	1.4	2
71	Ion-beam analysis of the structure and composition of nanocomposite nc-TiC/a-C:H coatings. Journal of Surface Investigation, 2007, 1, 674-678.	0.5	2
72	Influence of surface roughness and deposition order on exchange bias in bilayer structures NiFe/IrMn. EPJ Web of Conferences, 2014, 75, 05010.	0.3	2

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73	Development of methods for calculating basic features of the nuclear contribution to single event upsets under the effect of protons of moderately high energy. <i>Physics of Atomic Nuclei</i> , 2015, 78, 890-894.	0.4	2
74	Temperature-dependent magnetization reversal in exchange bias NiFe/IrMn/NiFe structures. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 482, 370-375.	2.3	2
75	Lifetimes of the nuclei formed by deuterons bombardment of $^{235}\text{U}$ . <i>Nuclear Instruments &amp; Methods</i> , 1980, 170, 145-149.	1.2	1
76	Channeling in $\text{PrBa}_2\text{Cu}_3\text{O}_{7-x}$ -single crystals. <i>Physica C: Superconductivity and Its Applications</i> , 1989, 162-164, 949-950.	1.2	1
77	Formation of oriented rodlike nickel silicide precipitates during magnetron deposition of carbon and nickel on silicon. <i>Journal of Surface Investigation</i> , 2011, 5, 65-69.	0.5	1
78	Comparison of experimental data with predictions of various models for silicon and aluminum fragmentation under the effect of high-energy cosmic rays. <i>Physics of Atomic Nuclei</i> , 2011, 74, 1718-1724.	0.4	1
79	Nuclear contribution into single-event upset in 3D on-board electronics at moderate energy cosmic proton impact. <i>EPJ Web of Conferences</i> , 2016, 117, 05006.	0.3	1
80	Studies of Amorphous Layer Formation in SiC under $\text{Ga}^+$ Bombardment. <i>Physica Status Solidi A</i> , 1989, 112, 707-714.	1.7	0
81	Influence of Pulsed Laser Energy Deposition on Transport Properties and Structure in Trilayer Epitaxial $(\text{Y/Pr})\text{Ba}_2\text{Cu}_3\text{O}_{7-x}/\text{SrTiO}_3$ Films. <i>Physica Status Solidi A</i> , 1993, 136, 107-111.	1.7	0
82	Anatolii Filippovich Tulinov is 75. <i>Physics of Atomic Nuclei</i> , 2000, 63, 918-919.	0.4	0
83	Determining the mass density of a hydrocarbon matrix in thin-film nanocomposites by ion-beam techniques. <i>Technical Physics Letters</i> , 2007, 33, 919-922.	0.7	0