Nf Shul'ga

List of Publications by Year
in descending order

74 papers	547 citations	687220 13 h-index	752573 20 g-index
76 all docs	76 docs citations	76 times ranked	138 citing authors

#	Article	IF	Citations
1	Dynamic chaos in the motion of charged particles through a crystal. Physics Reports, 1991, 203, 289-343.	10.3	51
2	Multiple scattering of ultrahigh-energy charged particles on atomic strings of a bent crystal. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 353, 373-377.	1.5	28
3	On the space-time evolution of the process of ultrarelativistic electron radiation in a thin layer of substance. Physics Letters, Section A: General, Atomic and Solid State Physics, 1986, 114, 148-152.	0.9	27
4	Initiation and propagation of nuclear burning wave in fast reactor. Progress in Nuclear Energy, 2008, 50, 163-169.	1.3	26
5	Anomalous diffusion and LÃ©vy flights in channeling. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 324, 82-85.	0.9	22
6	Semiclassical theory of high-energy particle radiation in external fields. Physics Reports, 1993, 234, 297-365.	10.3	17
7	Rainbow scattering and orbiting of fast particles in crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 1979, 73, 131-133.	0.9	16
8	Dynamical chaos in the motion of fast charged particles in crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 123, 357-360.	0.9	15
9	On transition infrared radiation by relativistic electrons in a thin layer of matter. Nuclear Instruments & Methods in Physics Research B, 1998, 145, 180-184.	0.6	15
10	Orientation effects in intensity and polarization of Î³-radiation emitted by 1 GeV electrons in single crystals. Nuclear Instruments & Methods in Physics Research B, 1992, 67, 251-255.	0.6	14
11	The influence of crystal thickness on scattering and radiation of high-energy electrons in oriented crystals. Nuclear Instruments & Methods in Physics Research B, 1990, 48, 291-295.	0.6	13
12	A method of path integration and the Landau-Pomeranchuk effect of suppression of fast particle radiation in matter. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 112, 240-242.	0.9	12
13	About transition radiation by relativistic electrons in a thin target in the millimeter range of waves. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 259, 291-294.	0.9	12
14	Bremsstrahlung of ultrarelativistic electrons in a thin layer of substance. Nuclear Instruments & Methods in Physics Research B, 1998, 145, 73-79.	0.6	11
15	Passage of fast charged particles through bent crystals and nanotubes. Nuclear Instruments & Methods in Physics Research B, 2002, 193, 133-138.	0.6	11
16	Simulation of incoherent bremsstrahlung of high energy electrons and positrons in a crystal. Nuclear Instruments & Methods in Physics Research B, 2005, 227, 125-131.	0.6	11
17	A theory of relativistic particle radiation in the quasi-classical approximation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 144, 415-418.	0.9	10
18	New mechanism of jump formation in a spectrum of coherent radiation by relativistic electrons in the field of periodically deformed crystal planes of atoms. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 2065-2068.	0.9	9

#	ARTICLE	IF	CITATIONS
19	About the probability of close collisions during stochastic deflection of positively charged particles by a bent crystal. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 731, 118-121.	1.5	9
20	About the mechanisms of high-energy charged particle deflection by a bent crystal. Nuclear Instruments & Methods in Physics Research B, 2001, 173, 178-183.	0.6	8
21	Experimental verification of the doughnut scattering mechanism of a high-energy beam deflection by a bent crystal. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 454, 161-164.	1.5	7
22	Transition radiation of high energy particles on fiber-like targets. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 313, 307-311.	0.9	7
23	Scattering of ultrarelativistic electrons in ultrathin crystals. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 769, 141-145.	1.5	7
24	Effect of multiple scattering on coherent radiation of fast particles in crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 1989, 135, 147-149.	0.9	6
25	Stability of motion of high energy particles in crystals and random string approximation. Nuclear Instruments & Methods in Physics Research B, 1992, 67, 207-211.	0.6	6
26	Spin rotation and deflection of high energy charged particles in a bent crystal due to multiple scattering by atomic strings. Nuclear Instruments & Methods in Physics Research B, 1992, 67, 212-216.	0.6	6
27	Deflection of high energy particles during multiple scattering by atomic strings of a bent crystal. Nuclear Instruments & Methods in Physics Research B, 1994, 90, 179-182.	0.6	6
28	Investigation of the electron channeling by means of induced electronuclear reactions. Nuclear Instruments & Methods in Physics Research B, 1997, 129, 29-34.	0.6	6
29	Spectral method in quantum theory of channeling phenomena of fast charged particles in crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 4690-4694.	0.9	6
30	Interference effects in string scattering of fast particles in crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 1983, 96, 307-310.	0.9	5
31	Dynamical chaos in the motion of fast charged particles in crystals. Nuclear Instruments & Methods in Physics Research B, 1990, 48, 174-180.	0.6	5
32	Features of the spectral-angular distribution of gamma-quanta emitted by GeV electrons in a thick crystal. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 158, 176-180.	0.9	5
33	Ionization losses of energy of fast clusters being produced during a Coulomb explosion of a molecule and electron-positron pair production in matter. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 165, 175-178.	0.9	5
34	The Gauss theorem in potential scattering theory and semi-classical corrections to the eikonal scattering amplitude. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 427, 114-118.	1.5	5
35	On the influence of scattering on atomic strings on the stability of planar channeling of high-energy positively charged particles. Journal of Instrumentation, 2018, 13, C02020-C02020.	0.5	5
36	Spin rotation at multiple scattering of high energy particles by atomic strings in a crystal. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 150, 402-404.	0.9	4

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37	Quantum effects of the Ramsauerâ€“Townsend type at scattering of relativistic electrons by crystal atomic string. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 264, 412-416.	0.9	4
38	Study of 50 GeV proton ionization loss by semiconductor detector with smoothly tunable thickness. Nuclear Instruments & Methods in Physics Research B, 2017, 391, 69-72.	0.6	4
39	On relativistic electron radiation in a low frequency region in a crystal. Physics Letters, Section A: General, Atomic and Solid State Physics, 1983, 98, 135-137.	0.9	3
40	Electromagnetic showers in crystals at high energies. Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 123, 361-364.	0.9	3
41	The role of channeling in physical processes accompanying the motion of âˆ¼ 1 GeV electrons through a crystal. Nuclear Instruments & Methods in Physics Research B, 1988, 33, 30-33.	0.6	3
42	Suppression effect of high energy electron radiation in a thin crystal. Nuclear Instruments & Methods in Physics Research B, 1996, 119, 59-62.	0.6	3
43	Coherent radiation of electrons with ultrahigh energies in crystals. Nuclear Instruments & Methods in Physics Research B, 1996, 119, 55-58.	0.6	3
44	Simulating spectrum and polarization of coherent radiation by relativistic electrons in crystals. Nuclear Instruments & Methods in Physics Research B, 1998, 145, 128-132.	0.6	3
45	Method of functional integration in the problem of line width of parametric X-ray relativistic electron radiation in a crystal. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 308, 467-470.	0.9	3
46	On the motion of high-energy wave packets and the transition radiation by â€œhalf-bareâ€•electron. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 374, 331-334.	0.9	3
47	Geometrical optics method in the theory of channeling of high energy particles in crystals. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 791, 225-229.	1.5	3
48	Interference effect in the ionization loss of high-energy electron bunches. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 2561-2566.	0.9	3
49	Canonical transformations in the quantum theory of radiation at high energies and the recoil effect under radiation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 158, 275-278.	0.9	2
50	Semiclassical approach to the radiation theory of high energy particles in crystals and the boundary conditions problem. Nuclear Instruments & Methods in Physics Research B, 1992, 67, 262-266.	0.6	2
51	Coherent radiation under regular and chaotic motion of relativistic electrons and positrons in crystals. Nuclear Instruments & Methods in Physics Research B, 1996, 115, 405-407.	0.6	2
52	On the coherent radiation of relativistic electrons and positrons in crystal in the range of high energies of gamma-quanta. Nuclear Instruments & Methods in Physics Research B, 2002, 193, 192-197.	0.6	2
53	On coherent radiation by relativistic electrons in ultrathin crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 3074-3078.	0.9	2
54	Anomalous ionization loss of high-energy e+eâ^' pairs in thin targets. Nuclear Instruments & Methods in Physics Research B, 2017, 402, 44-48.	0.6	2

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55	Regular and chaotic motion domains in the channeling electron's phase space and mean level density for its transverse motion energy. Journal of Instrumentation, 2019, 14, C12022-C12022.	0.5	2
56	Dechanneling kinetics under dynamic chaos conditions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1989, 138, 309-312.	0.9	1
57	Channeling study of high-Tc superconducting single crystal sublattices. Nuclear Instruments & Methods in Physics Research B, 1992, 67, 202-206.	0.6	1
58	Spectral-angular distributions of gamma radiation induced by GeV electrons in thick crystals. Nuclear Instruments & Methods in Physics Research B, 1992, 67, 267-270.	0.6	1
59	Fine structure of the coherent radiation spectrum of ultrahigh energy electrons in a crystal. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 327, 306-308.	1.5	1
60	Ionization energy losses of clusters formed by Coulomb explosion of fast molecules and generation of high energy electron-positron pairs in matter. Nuclear Instruments & Methods in Physics Research B, 1994, 90, 76-79.	0.6	1
61	Suppression effect of ultrarelativistic electron radiation in a thin layer of substance. Nuclear Instruments & Methods in Physics Research B, 1996, 115, 375-379.	0.6	1
62	On ionization energy losses of relativistic particles created in matter. Nuclear Instruments & Methods in Physics Research B, 2000, 164-165, 180-185.	0.6	1
63	Positrons vs electrons channeling in silicon crystal: energy levels, wave functions and quantum chaos manifestations. Journal of Instrumentation, 2018, 13, C01017-C01017.	0.5	1
64	ON COHERENT AND INCOHERENT SCATTERING OF FAST CHARGED PARTICLES IN ULTRATHIN CRYSTALS. , 2020, , 120-125.		1
65	Spectral-angular distributions of relativistic electrons' radiation in a thin layer of matter. , 0, , .		0
66	Concerning transition radiation by a relativistic electron in a thin metallic plate. , 0, , .		0
67	Channeling study of carbon atom location in Reî—¸Cx and Niî—¸Cx systems. Nuclear Instruments & Methods in Physics Research B, 1992, 67, 199-201.	0.6	0
68	The method of surface integral in the theory of wave scattering. , 0, , .		0
69	On the classical and quantum theories of the backward Compton scattering of the electromagnetic waves on the relativistic electron. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 326, 287-291.	0.9	0
70	On the radiation by relativistic electrons in thin layers of matter and their collision with short bunches of relativistic particles. Nuclear Instruments & Methods in Physics Research B, 2005, 227, 152-157.	0.6	0
71	Efficiency of positron source versus shape of target. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 359, 8-9.	0.9	0
72	Simulation of the electron coherent radiation process in a crystalline undulator. Journal of Instrumentation, 2018, 13, C02058-C02058.	0.5	0

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73	On fast charged particles scattering in a thin crystalline undulator. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 790, 574-577.	1.5	0
74	On the influence of periodicity in the arrangement of crystalline atomic strings upon the spectral and spectral-angular distribution of high-energy positively charged particle radiation in crystal. Journal of Instrumentation, 2020, 15, C07019-C07019.	0.5	0