Alexander P Potylitsyn

List of Publications by Year
in descending order

112	1,000	623734	477307
papers	citations	14 h-index	29 g-index

112	112	112	659
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Resonant Diffraction. Chemical Reviews, 2001, 101, 1843-1868.	47.7	162
2	THE PHOTON COLLIDER AT TESLA. International Journal of Modern Physics A, 2004, 19, 5097-5186.	1.5	120
3	Beam-Size Measurement with Optical Diffraction Radiation at KEK Accelerator Test Facility. Physical Review Letters, 2004, 93, 244802.	7.8	72
4	Observation of Incoherent Diffraction Radiation from a Single-Edge Target in the Visible-Light Region. Physical Review Letters, 2003, 90, 104801.	7.8	39
5	Extremely Low Vertical-Emittance Beam in the Accelerator Test Facility at KEK. Physical Review Letters, 2002, 88, 194801.	7.8	36
6	Observation of monochromatic X-ray radiation from 900 MeV electrons transmitting through a diamond crystal. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 110, 177-179.	2.1	35
7	Generalized surface current method in the macroscopic theory of diffraction radiation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 1988-1996.	2.1	28
8	Parametric x radiation from thick crystals. Physical Review E, 1995, 51, 6305-6308.	2.1	27
9	Feasibility of optical diffraction radiation for a non-invasive low-emittance beam diagnostics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 472, 309-317.	1.6	27
10	Positron Production in Tungsten Crystals by 1.2-GeV Channeling Electrons. Physical Review Letters, 1998, 80, 1437-1440.	7.8	26
11	Smith-Purcell radiation from periodic beams. Optics Express, 2017, 25, 26310.	3.4	26
12	Resonant diffraction radiation from an ultrarelativistic particle moving close to a tilted grating. Physical Review E, 2000, 61, 7039-7045.	2.1	22
13	A possibility of transverse beam size diagnostics using parametric X-ray radiation. Journal of Physics: Conference Series, 2012, 357, 012018.	0.4	18
14	Noninvasive bunch length measurements exploiting Cherenkov diffraction radiation. Physical Review Accelerators and Beams, 2020, 23, .	1.6	16
15	Parametric X-rays and transition-diffracted radiation in crystal stacks. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 209, 380-384.	2.1	14
16	Observation of optical diffraction radiation from a slit target at KEK accelerator test facility. Nuclear Instruments & Methods in Physics Research B, 2005, 227, 158-169.	1.4	14
17	Observation of the stimulated coherent diffraction radiation in an open resonator at LUCX facility. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 763, 424-432.	1.6	14
18	Vavilovâ€“Cherenkov Radiation in an Inclined Dielectric Plate and Violation of Azimuthal Symmetry. Physics of Particles and Nuclei Letters, 2019, 16, 127-132.	0.4	14

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19	Monochromaticity of coherent Smith-Purcell radiation from finite size grating. Physical Review Accelerators and Beams, 2017, 20, .	1.6	14
20	Energy characteristics of planar-channeling radiation for high-energy electrons in diamond. Physics Letters, Section A: General, Atomic and Solid State Physics, 1981, 83, 337-340.	2.1	13
21	"Shadowing" of the electromagnetic field of relativistic charged particles. Journal of Physics: Conference Series, 2010, 236, 012004.	0.4	12
22	Diffraction radiation of ultrarelativistic particles passing through a slit in a tilted screen. Russian Physics Journal, 2000, 43, 303-308.	0.4	11
23	X-ray diffraction radiation in conditions of Cherenkov effect. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 359, 509-511.	2.1	11
24	Influence of temperature on parametric x-ray intensity. Physical Review E, 1993, 47, 2207-2209.	2.1	10
25	Thomson scattering of coherent diffraction radiation by an electron bunch. Physical Review E, 1999, 60, 2272-2279.	2.1	10
26	Experimental observation and investigation of the prewave zone effect in optical diffraction radiation. Physical Review Special Topics: Accelerators and Beams, 2008, 11, .	1.8	10
27	Variation of Î³-ray spectra with the energy of channeled electrons. Physics Letters, Section A: General, Atomic and Solid State Physics, 1980, 75, 316-318.	2.1	9
28	Influence of KÎ± absorption in (111) Ge crystal on spectral yield of parametric X-rays. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 147, 326-328.	2.1	9
29	Comment on â€œQuantum effects in spontaneous emission by a relativistic, undulating electron beamâ€•by Robb G. R. M. and Bonifacio R.. Europhysics Letters, 2012, 100, 24006.	2.0	9
30	Deflection of a Î³-radiation beam produced by 900 MeV channeled electrons in a bent crystal. Physics Letters, Section A: General, Atomic and Solid State Physics, 1980, 77, 263-265.	2.1	8
31	Stochastics of multiple electronâ€“photon head-on collisions. Nuclear Instruments & Methods in Physics Research B, 2003, 201, 307-314.	1.4	8
32	Angular distribution and energy dependence of parametric X-ray radiation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1986, 118, 363-365.	2.1	7
33	Diffraction radiation from a charged particle moving through a rectangular hole in a rectangular screen. Nuclear Instruments & Methods in Physics Research B, 2005, 227, 198-208.	1.4	6
34	Monochromatic coherent grating transition radiation in sub-THz frequency range. Nuclear Instruments & Methods in Physics Research B, 2017, 402, 153-156.	1.4	6
35	First observation of quasiâ€“monochromatic optical Cherenkov radiation in a dispersive medium (quartz). Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 417, 127680.	2.1	6
36	Channeling radiation of 4.9 MeV electrons in crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 1981, 81, 40-42.	2.1	5

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37	Coherent radiation recoil effect for the optical diffraction radiation beam size monitor at SLAC FFTB. Nuclear Instruments & Methods in Physics Research B, 2005, 227, 170-174.	1.4	5
38	Experimental investigation of coherent Smithâ€“Purcell radiation from a â€œflatâ€•grating. Nuclear Instruments & Methods in Physics Research B, 2005, 227, 175-179.	1.4	5
39	Experimental Research of the Diffraction and Vavilov-Cherenkov Radiation Generation in a Teflon Target. Journal of Physics: Conference Series, 2012, 357, 012020.	0.4	5
40	Sub-millimeter Bunch Length Non-invasive Diagnostic Based on the Diffraction and Cherenkov Radiation. Journal of Physics: Conference Series, 2012, 357, 012023.	0.4	5
41	Interference of the transient radiation fields produced by an electric charge and a magnetic moment. Russian Physics Journal, 2012, 54, 1249-1255.	0.4	5
42	Statistical simulation of multiple Compton backscattering process. Physics of Particles and Nuclei, 2014, 45, 1000-1012.	0.7	5
43	Coherent Cherenkov radiation as an intense THz source. Journal of Physics: Conference Series, 2016, 732, 012006.	0.4	5
44	Image of the transverse bunch profile via coherent optical transition radiation. Physical Review Accelerators and Beams, 2020, 23, .	1.6	5
45	Experimental research of channeling radiation and type-B coherent bremsstrahlung for 300 MeV electrons. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 159, 433-436.	2.1	4
46	On multiphoton bremsstrahlung. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 264, 202-207.	2.1	4
47	Status of optical diffraction radiation experiment at KEK-ATF extraction line. Nuclear Instruments & Methods in Physics Research B, 2003, 201, 140-152.	1.4	4
48	Grating optical diffraction radiation â€“ Promising technique for non-invasive beam diagnostics. Nuclear Instruments & Methods in Physics Research B, 2003, 201, 201-211.	1.4	4
49	Characteristics of final particles in multiple Compton backscattering process. Nuclear Instruments & Methods in Physics Research B, 2013, 309, 15-19.	1.4	4
50	Observation of quasi-monochromatic resonant Cherenkov diffraction radiation. Results in Physics, 2022, 33, 105079.	4.1	4
51	Gamma-radiation of channelled electrons in diamond crystal. Nuclear Instruments & Methods, 1980, 169, 585-588.	1.2	3
52	Effect of channeling on Î³-radiation spectra of 870 MeV electrons in diamond crystal. Physics Letters, Section A: General, Atomic and Solid State Physics, 1981, 82, 54-56.	2.1	3
53	Multiphoton processes in radiation of relativistic electrons in oriented crystals. Nuclear Instruments & Methods in Physics Research B, 2001, 173, 126-131.	1.4	3
54	Quasimonochromatic resonant diffraction radiation as a possible tool for non-invasive beam diagnostics. Nuclear Instruments & Methods in Physics Research B, 2003, 201, 133-139.	1.4	3

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55	Detector for coherent synchrotron radiation measurements from separate electron bunches in a millimeter wavelength region. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 603, 35-37.	1.6	3
56	Development of microwave and soft X-ray sources based on coherent radiation and Thomson scattering. Journal of Physics: Conference Series, 2010, 236, 012009.	0.4	3
57	Acoustic "pumping effect" for quartz monochromators. Journal of Physics: Conference Series, 2012, 357, 012031.	0.4	3
58	Polarization Radiation in a Teflon Target. Journal of Physics: Conference Series, 2014, 517, 012004.	0.4	3
59	Spectral characteristics of Compton backscattering sources. Linear and nonlinear modes. Nuclear Instruments & Methods in Physics Research B, 2015, 355, 246-250.	1.4	3
60	Ultra-monochromatic far-infrared Cherenkov diffraction radiation in a super-radiant regime. Scientific Reports, 2020, 10, 20961.	3.3	3
61	Radiation produced by electrons making multiple passes through thin internal targets in the Tomsk Synchrotron. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii,) Tj ETQq1 1 0.784314 rgBT /Overlock	0.0	2
62	Experimental study of the albedo of a beam of ? rays produced by ultrarelativistic electrons. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika), 1991, 34, 555-564.	0.0	2
63	Investigation of the surface current excitation by a relativistic electron electromagnetic field. Journal of Physics: Conference Series, 2010, 236, 012024.	0.4	2
64	Angular distribution of coherent Cherenkov radiation from a bunch passing through a vacuum channel in the dielectric target. Nuclear Instruments & Methods in Physics Research B, 2017, 402, 139-143.	1.4	2
65	Photon spectrum and polarization for high conversion coefficient in the Compton backscattering process. Nuclear Instruments & Methods in Physics Research B, 2017, 402, 216-219.	1.4	2
66	Diagnostics of Electron Beams Based on Cherenkov Radiation in an Optical Fiber. Russian Physics Journal, 2017, 59, 1681-1685.	0.4	2
67	Diffractive shadowing of coherent polarization radiation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 391, 127135.	2.1	2
68	Spatial resolution improvement for an optical transition radiation monitor by asymmetric light collection. Optics Express, 2018, 26, 30231.	3.4	2
69	APPLICATION OF OPTICAL DIFFRACTION RADIATION TO A NON-INVASIVE LOW-EMITTANCE HIGH-BRIGHTNESS BEAM DIAGNOSTICS. , 2004, , .		2
70	Radiation from a channeled electron in a crystal. Soviet Physics Journal (English Translation of) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142	0.0	1
71	Emission brightness, photon yield, and radiation losses of ultrarelativistic electrons in oriented thick crystals. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii,) Tj ETQq1 1 0.784314 rgBT /Overlock	0.0	1
72	Angular distribution of the soft component of radiation from relativistic electrons near planar orientation in thick single crystals. Soviet Physics Journal (English Translation of Izvestiia Vysshykh) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.0	1

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73	Parametric x-ray radiation from 500-MeV electrons in a tungsten single crystal with a surface mosaicity less than 1.5â€². Physics of Atomic Nuclei, 2001, 64, 952-955.	0.4	1
74	Resonance Diffraction Radiation from Ultrarelativistic Particles. Russian Physics Journal, 2002, 45, 905-913.	0.4	1
75	Beam Test Proposal of an ODR Beam Size Monitor at SLAC FFTB. , 0, , .		1
76	The Possibility of Noninvasive Micron High Energy Electron Beam Size Measurement Using Diffraction Radiation. , 0, , .		1
77	Asymmetry of bremsstrahlung by moderately relativistic polarized electrons. European Physical Journal C, 2010, 70, 107-111.	3.9	1
78	Coherent synchrotron radiation and radiative electron polarization. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 115106.	3.6	1
79	Coherent Diffraction and Cherenkov Radiation in Fibers. Journal of Physics: Conference Series, 2014, 517, 012022.	0.4	1
80	Coherent radiation of relativistic electrons in dielectric fibers. Nuclear Instruments & Methods in Physics Research B, 2015, 355, 125-128.	1.4	1
81	Cherenkov radiation from the target with predetermined dielectric properties, produced by a 3D-printer. Nuclear Instruments & Methods in Physics Research B, 2017, 402, 194-197.	1.4	1
82	A Potential Method for Diagnostics of Subfemtosecond Electron Beams Using Coherent Optical Transition Radiation. Russian Physics Journal, 2019, 61, 2073-2078.	0.4	1
83	Measuring Electron Beam Divergence with Cherenkov Light. Physics of Particles and Nuclei Letters, 2020, 17, 27-31.	0.4	1
84	Asymmetry of formation of ?+-mesons by linearly polarized photons in the region of the first pion-nucleon resonance. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh) Tj ETQq0 0 0 rgBT /Overlock 10 Tf		0
85	Orientation effect of sound excitation by channeled electrons in diamond. Physics Letters, Section A: General, Atomic and Solid State Physics, 1980, 77, 266-268.	2.1	0
86	Observation of spectral line splitting for parametric X-rays. Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 120, 486-488.	2.1	0
87	Properties of coherent bremsstrahlung from electrons in thick single crystals. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika), 1991, 34, 490-506.	0.0	0
88	Change in ? radiation properties due to cooling of single-crystal targets. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika), 1991, 34, 507-514.	0.0	0
89	Spatial distribution of ? rays from electrons passing through a crystal close to the crystal axis. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika), 1991, 34, 522-526.	0.0	0
90	The number of photons emitted by a channeled electron. Soviet Physics Journal (English Translation) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.0	0

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91	Spatial distribution of Î³-radiation from electrons in aligned single crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 174, 169-173.	2.1	0
92	The characteristics of parametric X-rays from electrons near the K-edge in Ge. Radiation Effects and Defects in Solids, 1993, 125, 93-95.	1.2	0
93	Excitation of the 15.1 MeV resonance of C-12 by channeling radiation. Radiation Effects and Defects in Solids, 1993, 125, 89-92.	1.2	0
94	Investigation of resonance diffractive radiation from relativistic electrons in conducting periodic targets. Physics of Atomic Nuclei, 2000, 63, 2029-2032.	0.4	0
95	Title is missing!. Russian Physics Journal, 2001, 44, 292-298.	0.4	0
96	Polarization Bremsstrahlung. Russian Physics Journal, 2001, 44, 213-219.	0.4	0
97	Parametric X Rays in the Region of Anomalous Dispersion. Russian Physics Journal, 2001, 44, 254-262.	0.4	0
98	Asymmetry of parametric x-ray radiation from polarized electrons (quantum approach). Physics of Atomic Nuclei, 2001, 64, 963-965.	0.4	0
99	Title is missing!. Russian Physics Journal, 2002, 45, 922-926.	0.4	0
100	Optical Polarization Radiation of Relativistic Electrons in Conducting Targets. Russian Physics Journal, 2002, 45, 895-904.	0.4	0
101	Energy loss of electrons passing through a laser flash in a storage ring. Nuclear Instruments & Methods in Physics Research B, 2005, 227, 209-215.	1.4	0
102	<title>Monochromatization of high-current nanosecond pulse source of x-ray bremsstrahlung</title>. , 2007, , .		0
103	<title>Coherent bremsstrahlung in thick crystals radiation losses and photon multiplicity</title>. , 2007, , .		0
104	IX International Symposium on Radiation from Relativistic Electrons in Periodic Structures (RREPS-2011). Journal of Physics: Conference Series, 2012, 357, 011001.	0.4	0
105	Radiation properties of metamaterials in millimeter wavelength region. , 2012, , .		0
106	Cavity optimization for compact accelerator-based free-electron maser. , 2012, , .		0
107	RREPS13 and Meghri13. Journal of Physics: Conference Series, 2014, 517, 011001.	0.4	0
108	Undulator-Based and Crystal-Based Gamma Radiation Sources for Positron Generation. Journal of Physics: Conference Series, 2014, 517, 012041.	0.4	0

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109	Scattering of strong electromagnetic wave by relativistic electrons: Thomson and Compton regimes. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 851, 82-91.	1.6	0
110	2D Synchrotron Radiation Interferometer for Measuring the Transverse Dimensions of an Electron Beam in a Circular Accelerator. Russian Physics Journal, 2017, 60, 685-692.	0.4	0
111	Radiation Losses of the Relativistic Charge Moving Near a Dielectric Radiator. Russian Physics Journal, 2020, 62, 2187-2193.	0.4	0
112	Partial Focusing of Coherent Optical Transition Radiation and Measurement of Transverse Size of Femtosecond Electron Bunches. Russian Physics Journal, 2021, 63, 2076-2084.	0.4	0