Takashi Tanaka

List of Publications by Year
in descending order

51 papers	3,163 citations	361413 20 h-index	223800 46 g-index
51 all docs	51 docs citations	51 times ranked	3261 citing authors

#	Article	IF	Citations
1	Proposal to generate a pair of intense independently tunable attosecond pulses from undulator radiation. Optics Letters, 2022, 47, 1411-1414.	3.3	1
2	Development of an undulator with a variable magnetic field profile. Journal of Synchrotron Radiation, 2021, 28, 404-409.	2.4	3
3	Thermal demagnetization in in-vacuum undulators and effect of magnetic configuration on choice of magnet grade. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 995, 165112.	1.6	1
4	Major upgrade of the synchrotron radiation calculation code SPECTRA. Journal of Synchrotron Radiation, 2021, 28, 1267-1272.	2.4	20
5	Isolated single-cycle extreme-ultraviolet pulses from undulator radiation. Optics Letters, 2020, 45, 5234.	3.3	4
6	Demonstration of high-performance pole pieces made of monocrystalline dysprosium for short-period undulators. Journal of Synchrotron Radiation, 2019, 26, 1220-1225.	2.4	1
7	Attosecond single-cycle undulator light: a review. Reports on Progress in Physics, 2019, 82, 025901.	20.1	21
8	Shortening the pulse duration in seeded free-electron lasers by chirped microbunching. Optics Express, 2019, 27, 30875.	3.4	7
9	Segmented Undulator for Extensive Polarization Controls in â‰1 nm-rad Emittance Rings. E-Journal of Surface Science and Nanotechnology, 2019, 17, 41-48.	0.4	9
10	Electron bunch compression with an optical laser. Physical Review Accelerators and Beams, 2019, 22, .	1.6	1
11	Numerical methods for free electron laser simulations. Journal of Electromagnetic Waves and Applications, 2018, 32, 371-401.	1.6	1
12	Overview of Undulator Concepts for Attosecond Single-Cycle Light. Journal of Physics: Conference Series, 2018, 1067, 032016.	0.4	1
13	Enhancing the Radiation Resistance of Undulator Permanent Magnets by Tilting the Easy Axis of Magnetization. Physical Review Letters, 2018, 121, 124801.	7.8	8
14	Difference frequency generation in free electron lasers. Optics Letters, 2018, 43, 4485.	3.3	6
15	Universal representation of undulator phase errors. Physical Review Accelerators and Beams, 2018, 21, .	1.6	22
16	Lightweight-compact variable-gap undulator with force cancellation system based on multipole monolithic magnets. Review of Scientific Instruments, 2017, 88, 073302.	1.3	12
17	Current status and future perspectives of accelerator-based x-ray light sources. Journal of Optics (United Kingdom), 2017, 19, 093001.	2.2	6
18	Coherent mode decomposition using mixed Wigner functions of Hermiteâ€“Gaussian beams. Optics Letters, 2017, 42, 1576.	3.3	24

#	Article	IF	Citations
19	High gain harmonic generation free electron lasers enhanced by pseudoenergy bands. Physical Review Accelerators and Beams, 2017, 20, .	1.6	0
20	Recent progress of the synchrotron radiation code SPECTRA. , 2017, , .		0
21	Synthesizing high-order harmonics to generate a sub-cycle pulse in free-electron lasers. Applied Physics Letters, 2016, 109, .	3.3	22
22	Radiation-induced magnetization reversal causing a large flux loss in undulator permanent magnets. Scientific Reports, 2016, 6, 37937.	3.3	19
23	Reducing the group velocity of coherent radiation for upconverting the single-cycle electron density modulation. Applied Physics Letters, 2016, 108, .	3.3	0
24	Spectrum splitting for fast polarization switching ofÂundulator radiation. Journal of Synchrotron Radiation, 2016, 23, 751-757.	2.4	5
25	Using irregularly spaced current peaks to generateÂan isolated attosecond X-ray pulse in free-electron lasers. Journal of Synchrotron Radiation, 2016, 23, 1273-1281.	2.4	14
26	Proposal to Generate an Isolated Monocycle X-Ray Pulse by Counteracting the Slippage Effect in Free-Electron Lasers. Physical Review Letters, 2015, 114, 044801.	7.8	44
27	SIMPLEX: simulator and postprocessor for free-electron laser experiments. Journal of Synchrotron Radiation, 2015, 22, 1319-1326.	2.4	30
28	Undulator Development for SPring-8-II. Synchrotron Radiation News, 2015, 28, 45-49.	0.8	6
29	Simulation of magnetization process of Pure-type superconductor magnet undulator based on T-method. Physica C: Superconductivity and Its Applications, 2015, 518, 106-110.	1.2	4
30	Phase combination for self-cancellation of magnetic force in undulators. Physical Review Special Topics: Accelerators and Beams, 2014, 17, .	1.8	6
31	Numerical methods for characterization of synchrotron radiation based on the Wigner function method. Physical Review Special Topics: Accelerators and Beams, 2014, 17, .	1.8	42
32	New soft X-ray beamline BL07LSU at SPring-8. Journal of Synchrotron Radiation, 2014, 21, 352-365.	2.4	110
33	Two-colour hard X-ray free-electron laser with wide tunability. Nature Communications, 2013, 4, 2919.	12.8	172
34	Proposal for a Pulse-Compression Scheme in X-Ray Free-Electron Lasers to Generate a Multiterawatt, Attosecond X-Ray Pulse. Physical Review Letters, 2013, 110, 084801.	7.8	82
35	Undulator commissioning by characterization of radiation in x-ray free electron lasers. Physical Review Special Topics: Accelerators and Beams, 2012, 15, .	1.8	37
36	A compact X-ray free-electron laser emitting in the sub-Ã¥ngstrÃ¶m region. Nature Photonics, 2012, 6, 540-544.	31.4	1,542

#	Article	IF	Citations
37	Performance upgrade in the JAEA actinide scienceÂbeamline BL23SU at SPring-8 with aÂnewÂtwin-helical undulator. Journal of Synchrotron Radiation, 2012, 19, 388-393.	2.4	109
38	Extreme ultraviolet free electron laser seeded with high-orderâ€˜harmonic of Ti:sapphire laser. Optics Express, 2011, 19, 317.	3.4	123
39	A new undulator scheme providing various polarization states with low on-axis power density. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 659, 537-542.	1.6	5
40	Composite period undulator to improve the wavelength tunability of free electron lasers. Physical Review Special Topics: Accelerators and Beams, 2011, 14, .	1.8	10
41	In situcorrection of field errors induced by temperature gradient in cryogenic undulators. Physical Review Special Topics: Accelerators and Beams, 2009, 12, .	1.8	28
42	Universal function for the brilliance of undulator radiation considering the energy spread effect. Journal of Synchrotron Radiation, 2009, 16, 380-386.	2.4	20
43	Perspectives of synchrotron radiation sources with superconductivity. Physica C: Superconductivity and Its Applications, 2007, 463-465, 1327-1332.	1.2	0
44	Magnetic characterization for cryogenic permanent-magnet undulators: a first result. Journal of Synchrotron Radiation, 2007, 14, 416-420.	2.4	34
45	High-energy electron irradiation of NdFeB permanent magnets: Dependence of radiation damage on the electron energy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 574, 401-406.	1.6	24
46	Pure-type superconducting permanent-magnet undulator. Journal of Synchrotron Radiation, 2005, 12, 442-447.	2.4	23
47	Optimization of asymmetric figure-8 undulator as circularly polarized light source. Physical Review Special Topics: Accelerators and Beams, 2004, 7, .	1.8	13
48	Cryogenic permanent magnet undulators. Physical Review Special Topics: Accelerators and Beams, 2004, 7, .	1.8	119
49	Simple scheme for harmonic suppression by undulator segmentation. Journal of Synchrotron Radiation, 2002, 9, 266-269.	2.4	14
50	SPECTRA: a synchrotron radiation calculation code. Journal of Synchrotron Radiation, 2001, 8, 1221-1228.	2.4	348
51	In-vacuum figure-8 undulator for hard X-rays with both horizontal and vertical polarization. Journal of Synchrotron Radiation, 1998, 5, 412-413.	2.4	10