Gianluigi Ciovati

List of Publications by Year
in descending order

42	892	471509 17	477307 29
papers	citations	h-index	g-index

42	42	42	412
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nonlinear Meissner effect in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Nb</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> coplanar resonators. Physical Review Research, 2022, 4, .	3.5	4
2	Design and commissioning of an e-beam irradiation beamline at the Upgraded Injector Test Facility at Jefferson Lab. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2022, 1039, 167093.	1.6	5
3	Evidence of increased radio-frequency losses in cavities from the fundamental power coupler cold window. Physical Review Accelerators and Beams, 2021, 24, .	1.6	0
4	Magnetic field sensors for detection of trapped flux in superconducting radio frequency cavities. Review of Scientific Instruments, 2021, 92, 104705.	1.3	4
5	Reduction of waveguide vacuum trips in CEBAF accelerating cavities with a combination ion pump and non-evaporable getter pump. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 964, 163788.	1.6	0
6	Multi-metallic conduction cooled superconducting radio-frequency cavity with high thermal stability. Superconductor Science and Technology, 2020, 33, 07LT01.	3.5	15
7	Electron Tunneling and X-Ray Photoelectron Spectroscopy Studies of the Superconducting Properties of Nitrogen-Doped Niobium Resonator Cavities. Physical Review Applied, 2020, 13, .	3.8	20
8	Flux expulsion in niobium superconducting radio-frequency cavities of different purity and essential contributions to the flux sensitivity. Physical Review Accelerators and Beams, 2020, 23, .	1.6	27
9	High-Frequency Nonlinear Response of Superconducting Cavity-Grade <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Nb</mml:mi></mml:math> ÂSurfaces. Physical Review Applied, 2019, 11, .	3.8	7
10	Surface characterization of nitrogen-doped high purity niobium coupons compared with superconducting rf cavity performance. Physical Review Accelerators and Beams, 2019, 22, .	1.6	10
11	Effect of cooldown and residual magnetic field on the performance of niobiumâ€“copper clad superconducting radio-frequency cavity. Superconductor Science and Technology, 2018, 31, 015006.	3.5	3
12	Effect of low temperature baking in nitrogen on the performance of a niobium superconducting radio frequency cavity. Physical Review Accelerators and Beams, 2018, 21, .	1.6	33
13	Design of a cw, low-energy, high-power superconducting linac for environmental applications. Physical Review Accelerators and Beams, 2018, 21, .	1.6	21
14	Determination of the magnetic field dependence of the surface resistance of superconductors from cavity tests. Physical Review Accelerators and Beams, 2018, 21, .	1.6	4
15	Impact of Remanent Magnetic Field on the Heat Load of Original CEBAF Cryomodule. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-6.	1.7	1
16	Superconducting radio-frequency cavities made from medium and low-purity niobium ingots. Superconductor Science and Technology, 2016, 29, 064002.	3.5	22
17	High performance superconducting radio frequency ingot niobium technology for continuous wave applications. AIP Conference Proceedings, 2015, , .	0.4	2
18	Enhancement in Quality Factor of SRF Niobium Cavities by Material Diffusion. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.7	17

#	Article	IF	Citations
19	Review of ingot niobium as a material for superconducting radiofrequency accelerating cavities. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 774, 133-150.	1.6	36
20	Decrease of the surface resistance in superconducting niobium resonator cavities by the microwave field. Applied Physics Letters, 2014, 104, .	3.3	33
21	SIMS analysis of high-performance accelerator niobium. Surface and Interface Analysis, 2014, 46, 288-290.	1.8	2
22	Effect of vortex hotspots on the radio-frequency surface resistance of superconductors. Physical Review B, 2013, 87, .	3.2	58
23	Imaging of the Surface Resistance of an SRF Cavity by Low-Temperature Laser Scanning Microscopy. IEEE Transactions on Applied Superconductivity, 2013, 23, 3500506-3500506.	1.7	2
24	Detection of surface carbon and hydrocarbons in hot spot regions of niobium superconducting rf cavities by Raman spectroscopy. Physical Review Special Topics: Accelerators and Beams, 2013, 16, .	1.8	26
25	Effect of high temperature heat treatments on the quality factor of a large-grain superconducting radio-frequency niobium cavity. Physical Review Special Topics: Accelerators and Beams, 2013, 16, .	1.8	71
26	Design and performance of a new induction furnace for heat treatment of superconducting radiofrequency niobium cavities. Review of Scientific Instruments, 2012, 83, 065105.	1.3	11
27	Superconducting Radio-Frequency Technology R&D for Future Accelerator Applications. Reviews of Accelerator Science and Technology, 2012, 05, 285-312.	0.5	20
28	Low temperature laser scanning microscopy of a superconducting radio-frequency cavity. Review of Scientific Instruments, 2012, 83, 034704.	1.3	9
29	Flux pinning characteristics in cylindrical niobium samples used for superconducting radio frequency cavity fabrication. Superconductor Science and Technology, 2012, 25, 065014.	3.5	17
30	Design, fabrication, RF test at 2 K of 1050MHz, Î²=0.49 single cell large and fine grain niobium cavity. Journal of Instrumentation, 2011, 6, T11003-T11003.	1.2	2
31	Buffered electrochemical polishing of niobium. Journal of Applied Electrochemistry, 2011, 41, 721-730.	2.9	17
32	High field<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Q</mml:mi></mml:math>slope and the baking effect: Review of recent experimental results and new data on Nb heat treatments. Physical Review Special Topics: Accelerators and Beams, 2010, 13, .	1.8	65
33	Characterization of etch pits found on a large-grain bulk niobium superconducting radio-frequency resonant cavity. Physical Review Special Topics: Accelerators and Beams, 2010, 13, .	1.8	14
34	Dynamics of vortex penetration, jumpwise instabilities, and nonlinear surface resistance of type-II superconductors in strong rf fields. Physical Review B, 2008, 77, .	3.2	70
35	Evidence of high-field radio-frequency hot spots due to trapped vortices in niobium cavities. Physical Review Special Topics: Accelerators and Beams, 2008, 11, .	1.8	30
36	Development of Large Grain/Single Crystal Niobium Cavity Technology at Jefferson Lab. AIP Conference Proceedings, 2007, , .	0.4	13

#	Article	IF	Citations
37	Measurement of the high-fieldQdrop in a high-purity large-grain niobium cavity for different oxidation processes. Physical Review Special Topics: Accelerators and Beams, 2007, 10, .	1.8	34
38	Improved oxygen diffusion model to explain the effect of low-temperature baking on high field losses in niobium superconducting cavities. Applied Physics Letters, 2006, 89, 022507.	3.3	40
39	Analysis of the medium field Q-slope in superconducting cavities made of bulk niobium. Physica C: Superconductivity and Its Applications, 2006, 441, 57-61.	1.2	13
40	Review of the frontier workshop and Q-slope results. Physica C: Superconductivity and Its Applications, 2006, 441, 44-50.	1.2	21
41	Measurement of the high-fieldQdrop in theTM010andTE011modes in a niobium cavity. Physical Review Special Topics: Accelerators and Beams, 2006, 9, .	1.8	11
42	Effect of low-temperature baking on the radio-frequency properties of niobium superconducting cavities for particle accelerators. Journal of Applied Physics, 2004, 96, 1591-1600.	2.5	82