

# Najib Cheggour

## List of Publications by Year in descending order

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44  
papers

1,029  
citations

430874

18  
h-index

414414

32  
g-index

46  
all docs

46  
docs citations

46  
times ranked

491  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reversible axial-strain effect and extended strain limits in Y-Ba-Cu-O coatings on deformation-textured substrates. Applied Physics Letters, 2003, 83, 4223-4225.	3.3	126
2	Reversible axial-strain effect in Y-Ba-Cu-O coated conductors. Superconductor Science and Technology, 2005, 18, S319-S324.	3.5	88
3	Mechanical properties of pure Ni and Ni-alloy substrate materials for Y-Ba-Cu-O coated superconductors. Cryogenics, 2006, 46, 432-438.	1.7	80
4	A probe for investigating the effects of temperature, strain, and magnetic field on transport critical currents in superconducting wires and tapes. Review of Scientific Instruments, 2000, 71, 4521.	1.3	65
5	Reversible effect of strain on transport critical current in $\text{Bi}_{2-x}\text{Sr}_x\text{CaCu}_2\text{O}_{8-x}$ superconducting wires: a modified descriptive strain model. Superconductor Science and Technology, 2012, 25, 015001.	3.5	50
6	Internal Tin $\text{Nb}_3\text{Sn}$ Conductors Engineered for Fusion and Particle Accelerator Applications. IEEE Transactions on Applied Superconductivity, 2009, 19, 2573-2579.	1.7	47
7	Progress in scale-up of second-generation high-temperature superconductors at SuperPower Inc. Physica C: Superconductivity and Its Applications, 2005, 426-431, 849-857.	1.2	39
8	Enhancement of the irreversible axial-strain limit of Y-Ba-Cu-O-coated conductors with the addition of a Cu layer. Applied Physics Letters, 2005, 87, 212505.	3.3	36
9	Magnetic-Field Dependence of the Reversible Axial-Strain Effect in Y-Ba-Cu-O Coated Conductors. IEEE Transactions on Applied Superconductivity, 2005, 15, 3577-3580.	1.7	33
10	Unifying the strain and temperature scaling laws for the pinning force density in superconducting niobium-tin multifilamentary wires. Journal of Applied Physics, 1999, 86, 552-555.	2.5	32
11	The unified strain and temperature scaling law for the pinning force density of bronze-route $\text{Nb}_3\text{Sn}$ wires in high magnetic fields. Cryogenics, 2002, 42, 299-309.	1.7	31
12	Transverse compressive stress effect in Y-Ba-Cu-O coatings on biaxially textured Ni and Ni-W substrates. IEEE Transactions on Applied Superconductivity, 2003, 13, 3530-3533.	1.7	30
13	Influence of Ti and Ta doping on the irreversible strain limit of ternary $\text{Nb}_3\text{Sn}$ superconducting wires made by the restacked-rod process. Superconductor Science and Technology, 2010, 23, 052002.	3.5	30
14	Transverse stress and fatigue effects in Y-Ba-Cu-O coated IBAD tapes. IEEE Transactions on Applied Superconductivity, 2001, 11, 3389-3392.	1.7	28
15	Electromechanical Characterization of Bi-2212 Strands. IEEE Transactions on Applied Superconductivity, 2011, 21, 3086-3089.	1.7	23
16	Test Results of the First US ITER TF Conductor in SULTAN. IEEE Transactions on Applied Superconductivity, 2009, 19, 1478-1482.	1.7	22
17	Method for determining the irreversible strain limit of $\text{Nb}_3\text{Sn}$ wires. Superconductor Science and Technology, 2011, 24, 075022.	3.5	19
18	Enhancement of the critical current density in Chevrel phase superconducting wires. Journal of Applied Physics, 1997, 81, 6277-6284.	2.5	18

#	ARTICLE	IF	CITATIONS
19	Effect of Fatigue Under Transverse Compressive Stress on Slit Y-Ba-Cu-O Coated Conductors. IEEE Transactions on Applied Superconductivity, 2007, 17, 3063-3066.	1.7	18
20	Unified Scaling Law for flux pinning in practical superconductors: II. Parameter testing, scaling constants, and the Extrapolative Scaling Expression. Superconductor Science and Technology, 2016, 29, 123002.	3.5	17
21	Compressive Pre-Strain in High-Niobium-Fraction $\text{Nb}_3\text{Sn}$ Superconductors. IEEE Transactions on Applied Superconductivity, 2005, 15, 3560-3563.	1.7	15
22	Irreversibility line and granularity in Chevrel phase superconducting wires. Journal of Applied Physics, 1998, 84, 2181-2183.	2.5	14
23	Strain and Magnetization Properties of High Subelement Count Tube-Type $\text{Nb}_3\text{Sn}$ Strands. IEEE Transactions on Applied Superconductivity, 2011, 21, 2559-2562.	1.7	14
24	Dispersion-Strengthened Silver Alumina for Sheathing $\text{Bi}_2\text{Sr}_2\text{CaCuO}_{8+x}$ Multifilamentary Wire. IEEE Transactions on Applied Superconductivity, 2012, 22, 8400210-8400210.	1.7	14
25	Precipitous change of the irreversible strain limit with heat-treatment temperature in $\text{Nb}_3\text{Sn}$ wires made by the restacked-rod process. Scientific Reports, 2018, 8, 13048.	3.3	13
26	Promising critical current density in the Chevrel phase superconducting wires. Physica C: Superconductivity and Its Applications, 1996, 258, 21-29.	1.2	12
27	Correlation Between Pressure Dependence of Critical Temperature and the Reversible Strain Effect on the Critical Current and Pinning Force in $\text{Bi}_2\text{Sr}_2\text{CaCuO}_{8+x}$ Wires. IEEE Transactions on Applied Superconductivity, 2012, 22, 8400307-8400307.	1.7	12
28	Extrapolative Scaling Expression: A Fitting Equation for Extrapolating Full $I_c(B, T, \mu)$ Data Matrixes From Limited Data. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-7.	1.7	12
29	Strain and Magnetic-Field Characterization of a Bronze-Route $\text{Nb}_3\text{Sn}$ ITER Wire: Benchmarking of Strain Measurement Facilities at NIST and University of Twente. IEEE Transactions on Applied Superconductivity, 2012, 22, 4805104-4805104.	1.7	11
30	Implications of the strain irreversibility cliff on the fabrication of particle-accelerator magnets made of restacked-rod-process $\text{Nb}_3\text{Sn}$ wires. Scientific Reports, 2019, 9, 5466.	3.3	10
31	An Octagonal Architecture for High Strength PIT $\text{Nb}_3\text{Sn}$ Conductors. IEEE Transactions on Applied Superconductivity, 2009, 19, 2598-2601.	1.7	9
32	Interlaboratory Comparisons of NbTi Critical Current Measurements. IEEE Transactions on Applied Superconductivity, 2009, 19, 2633-2636.	1.7	9
33	Unified Scaling Law for flux pinning in practical superconductors: III. Minimum datasets, core parameters, and application of the Extrapolative Scaling Expression. Superconductor Science and Technology, 2017, 30, 033005.	3.5	9
34	Critical-Current Measurements on ITER $\text{Nb}_3\text{Sn}$ Strands: Effect of Temperature. IEEE Transactions on Applied Superconductivity, 2007, 17, 1398-1401.	1.7	8
35	Critical current distribution of hot isostatically pressed $\text{PbMo}_6\text{S}_8$ wires. Physica C: Superconductivity and Its Applications, 1994, 234, 343-354.	1.2	7
36	Critical-Current Measurements on an ITER $\text{Nb}_3\text{Sn}$ Strand: Effect of Axial Tensile Strain. IEEE Transactions on Applied Superconductivity, 2007, 17, 1366-1369.	1.7	7

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37	Variable-temperature transport critical currents of niobium-tin wires under strain in high magnetic fields. IEEE Transactions on Applied Superconductivity, 1999, 9, 2517-2520.	1.7	5
38	The effect of hot isostatic pressing on the strain tolerance of the critical current density found in modified jelly roll Nb/sub 3/Sn wires. IEEE Transactions on Applied Superconductivity, 1999, 9, 1447-1450.	1.7	4
39	Dependence of critical current densities in Chevrel phase superconducting wires on magnetic fields up to 25 T. Physica B: Condensed Matter, 1995, 211, 272-274.	2.7	3
40	Overall critical current density of Chevrel wires at high magnetic field. IEEE Transactions on Applied Superconductivity, 1997, 7, 1759-1762.	1.7	3
41	Development of a Multifilament PIT $\text{V}_{3}\text{Ga}$ Conductor for Fusion Applications. IEEE Transactions on Applied Superconductivity, 2011, 21, 2529-2532.	1.7	2
42	Upper critical field measurements in high-Tc superconducting oxides. Physica B: Condensed Matter, 1989, 155, 186-188.	2.7	1
43	Overall critical current density of chevrel wires in magnetic fields up to 24 tesla. European Physical Journal D, 1996, 46, 2757-2758.	0.4	0
44	A procedural solution for determining the temperature dependence of transport critical current in Nb <sub>3</sub> Sn superconducting wires using magnetization measurements. Superconductor Science and Technology, 0, , .	3.5	0