

# Bruno Douine

## List of Publications by Year in descending order

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times ranked

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#	ARTICLE	IF	CITATIONS
1	Influence of Temperature and/or Field Dependences of the $E$ - $J$ Power Law on Trapped Magnetic Field in Bulk YBaCuO. IEEE Transactions on Applied Superconductivity, 2007, 17, 3028-3031.	1.7	81
2	Design and Testing of a Superconducting Rotating Machine. IEEE Transactions on Applied Superconductivity, 2007, 17, 27-33.	1.7	31
3	Superconducting Multistack Inductor for Synchronous Motors Using the Diamagnetism Property of Bulk Material. IEEE Transactions on Industrial Electronics, 2010, 57, 146-153.	7.9	25
4	Transition frequency of transport ac losses in high temperature superconducting coated conductors. Journal of Applied Physics, 2019, 126, .	2.5	24
5	High Magnetic Field Generated by Bulk MgB <sub>2</sub> Prepared by Spark Plasma Sintering. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	23
6	Theoretical Study of a New Kind HTS Motor. IEEE Transactions on Applied Superconductivity, 2005, 15, 2186-2189.	1.7	19
7	Review on the Use of Superconducting Bulks for Magnetic Screening in Electrical Machines for Aircraft Applications. Materials, 2021, 14, 2847.	2.9	19
8	Development of MgB <sub>2</sub> -Based Bulk Supermagnets. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	18
9	A 3-D Strong-Coupled Electromagnetic-Thermal Model for HTS Bulk and Its Uses to Study the Dynamic Characteristics of a Linear HTS Maglev Bearing. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-14.	1.7	17
10	Relaxation and pinning in spark-plasma sintered MgB <sub>2</sub> superconductor. Superconductor Science and Technology, 2016, 29, 025006.	3.5	16
11	Generic Model of Three-Phase (RE)BCO Resistive Superconducting Fault Current Limiters for Transient Analysis of Power Systems. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-11.	1.7	16
12	Magnetic phases in superconducting, polycrystalline bulk FeSe samples. AIP Advances, 2021, 11, .	1.3	16
13	Improvement of the Magnetization of a Superconducting Bulk using an Iron Core. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.7	15
14	Modelling the Frequency Dependence of the Open-Circuit Voltage of a High- $T_c$ Superconducting Dynamo. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-7.	1.7	14
15	AC loss measurements of a high critical temperature superconductor transporting sinusoidal or non-sinusoidal current. IEEE Transactions on Applied Superconductivity, 2000, 10, 1489-1492.	1.7	13
16	AC Transport Losses Calculation in a Bi-2223 Current Lead Using Thermal Coupling With an Analytical Formula. IEEE Transactions on Applied Superconductivity, 2005, 15, 1508-1511.	1.7	13
17	Determination of $J_C$ and $J_n$ Value of HTS Pellets by Measurement and Simulation of Magnetic Field Penetration. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-6.	1.7	13
18	Test of an Original Superconducting Synchronous Machine Based on Magnetic Shielding. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	13

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19	Technical Cost of Operating a Photovoltaic Installation as a STATCOM at Nighttime. IEEE Transactions on Sustainable Energy, 2019, 10, 75-81.	8.8	13
20	Characterization of High-Temperature Superconductor Bulks for Electrical Machine Application. Materials, 2021, 14, 1636.	2.9	13
21	Evaluation of the Reactive Power Support Capability and Associated Technical Costs of Photovoltaic Farmsâ€™ Operation. Energies, 2018, 11, 1567.	3.1	11
22	A volume integral approach for the modelling and design of HTS coils. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2019, 38, 1133-1140.	0.9	11
23	Improvement of YBCO Superconductor Magnetic Shielding by Using Multiple Bulks. Journal of Superconductivity and Novel Magnetism, 2014, 27, 903-907.	1.8	10
24	Comparison Between Modeling and Experimental Results of Magnetic Flux Trapped in YBCO Bulks. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	10
25	3D Semi-Analytical Modeling and Optimization of Fully HTS Ironless Axial Flux Electrical Machines. Physica C: Superconductivity and Its Applications, 2020, 574, 1353660.	1.2	10
26	New Hybrid FE-FV Method for Computing Current Distribution in 2-D Superconductors: Application to an HTS Cylinder in Transverse Magnetic Field. IEEE Transactions on Applied Superconductivity, 2009, 19, 2423-2427.	1.7	9
27	A 2-D Robust FE-FV Mixed Method to Handle Strong Nonlinearities in Superconductors. IEEE Transactions on Magnetics, 2010, 46, 3445-3448.	2.1	9
28	A New Direct Magnetic Method for Determining $J_{mC}$ in Bulk Superconductors From Magnetic Field Diffusion Measurements. IEEE Transactions on Applied Superconductivity, 2012, 22, 9001604-9001604.	1.7	9
29	New Experimental Method for Investigating AC Losses in Concentric HTS Power Cables. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.7	9
30	Distribution of Current Density, Temperature, and Mechanical Deformation in YBCO Bulks Under Field-Cooling Magnetization. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	9
31	Frequency-Dependent Transport AC Losses of Coated Superconductors Up To Tens of Kilohertz. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	9
32	On the origin of the sharp, low-field pinning force peaks in MgB2 superconductors. AIP Advances, 2020, 10, 015035.	1.3	9
33	Influence of $J_c(B)$ on the full penetration current of superconducting tube. Physica C: Superconductivity and Its Applications, 2006, 443, 23-28.	1.2	8
34	$J_{c}(B)$ Determination Method With the Help of the Virgin Magnetization Curve of a Superconducting Cylinder. IEEE Transactions on Applied Superconductivity, 2010, 20, 82-86.	1.7	8
35	Analytical Modeling of an Inductor in a Magnetic Circuit for Pulsed Field Magnetization of HTS Bulks. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-6.	1.7	7
36	Influence of The Temporal Resolution of The Water Consumption Profile on Photovoltaic Water Pumping Systems Modelling and Sizing. , 2018, , .		7

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37	Current Flow and Flux Pinning Properties of YBCO Foam Struts. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	7
38	CONTRIBUTION TO THE EXPERIMENTAL CHARACTERIZATION OF THE ELECTROMAGNETIC PROPERTIES OF HTS. Progress in Electromagnetics Research M, 2020, 93, 137-144.	0.9	7
39	Axial-Field Synchronous Machine With HTS Armature Windings: Realization and Preliminary Tests. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.7	7
40	AC losses in a BSCCO current lead: comparison between calculation and measurement. IEEE Transactions on Applied Superconductivity, 2002, 12, 1603-1606.	1.7	6
41	Some Considerations About the Cooling of the Rotor of a Superconducting Motor. IEEE Transactions on Applied Superconductivity, 2007, 17, 44-51.	1.7	6
42	Influence of Speed Variation of a Transverse Magnetic Field on a Magnetization of HTS Cylinder. IEEE Transactions on Applied Superconductivity, 2011, 21, 3434-3441.	1.7	6
43	Magnetization and Demagnetization Studies of an HTS Bulk in an Iron Core. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-7.	1.7	6
44	Candidate Interleaved DC-DC Buck Converters for Electrolyzers: State-of-the-Art and Perspectives. , 2018, , .		6
45	Modelling and Optimal Sizing of Photovoltaic Water Pumping Systems " Sensitivity Analysis. , 2019, , .		6
46	Comparison of Temperature and Field Dependencies of the Critical Current Densities of Bulk YBCO, MgB <sub>2</sub> , and Iron-Based Superconductors. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	6
47	Calculation of losses in a HTS current lead with the help of the dimensional analysis. Physica C: Superconductivity and Its Applications, 2003, 399, 138-142.	1.2	5
48	Enhancement of the $E(J,B)$ Power Law Characterization for Superconducting Wires from Electrical Measurements on a Coil. IEEE Transactions on Applied Superconductivity, 2012, 22, 6400504-6400504.	1.7	5
49	Increase of Stability Margin in Embedded DC Electric Grid With Superconducting Stabilizer. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.7	5
50	Improved Method for Determining the $n$ -Value of HTS Bulks. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.7	5
51	Semianalytical Modeling of AC Losses in HTS Stacks Near Ferromagnetic Parts. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-6.	1.7	5
52	Analytical Calculation of the Instantaneous Power in a Current Carrying Superconducting Tube With $J_{c}(B)$ . IEEE Transactions on Applied Superconductivity, 2008, 18, 1717-1723.	1.7	4
53	Self Field Effect Compensation in an HTS Tube. IEEE Transactions on Applied Superconductivity, 2008, 18, 1698-1703.	1.7	4
54	Field mapping measurements to determine spatial and field dependence of critical current density in YBCO tapes. Physica C: Superconductivity and Its Applications, 2013, 492, 158-164.	1.2	4

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55	Solar Electric Motor on Superconducting Bearings: Design and Tests in Liquid Nitrogen. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.7	4
56	Integral Modeling of AC Losses in HTS Tapes With Magnetic Substrates. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-7.	1.7	4
57	EXPERIMENTAL INVESTIGATION OF TRAPPED FLUX STABILITY IN BULK YBCO. AIP Conference Proceedings, 2008, , .	0.4	3
58	Finite Element AC-Losses Computation in Multi-Layer HTS Cable Using Complex Representation of the Electromagnetic Field. IEEE Transactions on Applied Superconductivity, 2009, 19, 3348-3351.	1.7	3
59	Scaling Solution and $n$ Dependence of the Eddy-Current Distribution in a Flat Superconductor. IEEE Transactions on Applied Superconductivity, 2010, 20, 2248-2254.	1.7	3
60	Power system stability improvement with superconducting fault current limiter. , 2014, , .		3
61	Effect of irradiance data on the optimal sizing of photovoltaic water pumping systems. , 2019, , .		3
62	Superconducting Power Filter for Aircraft Electric DC Grids. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.7	3
63	Feasibility Study of a Superconducting Power Filter for HVDC grids. , 2020, , .		3
64	Flux Pinning Docking Interfaces in Satellites Using Superconducting Foams as Trapped Field Magnets. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.7	3
65	Influence of the inductor shape, and the magnetization processes on a trapped magnetic flux in a superconducting bulk. Physica C: Superconductivity and Its Applications, 2014, 503, 1-6.	1.2	2
66	Magnetic Field Transfer of Superconductor-Ferromagnet Heterostructures up to 10 kHz. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.7	2
67	Determination of the Complete Penetration Magnetic Field of a HTS Pellet From the Measurements of the Magnetic Field at Its Top-Center Surface. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-4.	1.7	2
68	DC modeling and characterization of HTS coils with non uniform current density distribution. Superconductor Science and Technology, 2021, 34, 124001.	3.5	2
69	Characterization of a Superconducting Power Filter for Embedded Electrical Grid Application. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-4.	1.7	2
70	Influence of temperature on stability of trapped flux magnets. Cryogenics, 2010, 50, 215-221.	1.7	1
71	Eddy current modeling in linear and nonlinear multifilamentary composite materials. Open Physics, 2018, 16, 183-187.	1.7	1
72	An Integro-Differential Time-Domain Scheme for Electromagnetic Field Modeling in HTS Materials. IEEE Transactions on Magnetics, 2020, 56, 1-4.	2.1	1

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73	Microstructural Parameters for Modelling of Superconducting Foams. <i>Materials</i> , 2022, 15, 2303.	2.9	1
74	Full penetration current variation of a superconducting tube. <i>Journal of Physics: Conference Series</i> , 2008, 97, 012029.	0.4	0
75	The design of an original structure of current limiter. <i>Superconductor Science and Technology</i> , 2009, 22, 125021.	3.5	0
76	The design of magnetic flux concentration superconducting machines. , 2014, , .		0
77	Critical current density determination of superconducting material. , 2014, , .		0
78	Thin-Layer Insulation of HTS: Analytical Study. <i>IEEE Transactions on Applied Superconductivity</i> , 2014, 24, 1-5.	1.7	0
79	Design of a Vector Magnet Generating Up to 3 T With Three-Axis Orientation. <i>IEEE Transactions on Applied Superconductivity</i> , 2016, 26, 1-5.	1.7	0
80	Les pertes en champ propre dans les câbles supraconducteurs cylindriques. <i>Revue Internationale De Génie Électrique</i> , 2009, 12, 311-335.	0.0	0
81	Study of a new axial-field superconducting inductor for a synchronous machine. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2022, , 1-12.	0.6	0
82	The Application of X-ray Micro-CT in the Study of HTS Tape Coils. <i>Inventions</i> , 2022, 7, 60.	2.5	0