

Bruno Douine

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Integral Modeling of AC Losses in HTS Tapes With Magnetic Substrates. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-7.	1.1	4
2	Flux Pinning Docking Interfaces in Satellites Using Superconducting Foams as Trapped Field Magnets. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	3
3	Axial-Field Synchronous Machine With HTS Armature Windings: Realization and Preliminary Tests. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	7
4	Microstructural Parameters for Modelling of Superconducting Foams. Materials, 2022, 15, 2303.	1.3	1
5	Characterization of a Superconducting Power Filter for Embedded Electrical Grid Application. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-4.	1.1	2
6	Study of a new axial-field superconducting inductor for a synchronous machine. International Journal of Applied Electromagnetics and Mechanics, 2022, , 1-12.	0.3	0
7	The Application of X-ray Micro-CT in the Study of HTS Tape Coils. Inventions, 2022, 7, 60.	1.3	0
8	Semianalytical Modeling of AC Losses in HTS Stacks Near Ferromagnetic Parts. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-6.	1.1	5
9	Magnetic phases in superconducting, polycrystalline bulk FeSe samples. AIP Advances, 2021, 11, .	0.6	16
10	Characterization of High-Temperature Superconductor Bulks for Electrical Machine Application. Materials, 2021, 14, 1636.	1.3	13
11	Review on the Use of Superconducting Bulks for Magnetic Screening in Electrical Machines for Aircraft Applications. Materials, 2021, 14, 2847.	1.3	19
12	Superconducting Power Filter for Aircraft Electric DC Grids. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.1	3
13	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.	1.1	14
14	DC modeling and characterization of HTS coils with non uniform current density distribution. Superconductor Science and Technology, 2021, 34, 124001.	1.8	2
15	CONTRIBUTION TO THE EXPERIMENTAL CHARACTERIZATION OF THE ELECTROMAGNETIC PROPERTIES OF HTS. Progress in Electromagnetics Research M, 2020, 93, 137-144.	0.5	7
16	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.	1.1	17
17	On the origin of the sharp, low-field pinning force peaks in MgB ₂ superconductors. AIP Advances, 2020, 10, 015035.	0.6	9
18	An Integro-Differential Time-Domain Scheme for Electromagnetic Field Modeling in HTS Materials. IEEE Transactions on Magnetics, 2020, 56, 1-4.	1.2	1

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19	3D Semi-Analytical Modeling and Optimization of Fully HTS Ironless Axial Flux Electrical Machines. Physica C: Superconductivity and Its Applications, 2020, 574, 1353660.	0.6	10
20	Feasibility Study of a Superconducting Power Filter for HVDC grids. , 2020, , .		3
21	Transition frequency of transport ac losses in high temperature superconducting coated conductors. Journal of Applied Physics, 2019, 126, .	1.1	24
22	Modelling and Optimal Sizing of Photovoltaic Water Pumping Systems “ Sensitivity Analysis. , 2019, , .		6
23	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.	0.5	11
24	Frequency-Dependent Transport AC Losses of Coated Superconductors Up To Tens of Kilohertz. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	9
25	Current Flow and Flux Pinning Properties of YBCO Foam Struts. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	7
26	Comparison of Temperature and Field Dependencies of the Critical Current Densities of Bulk YBCO, MgB ₂ , and Iron-Based Superconductors. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	6
27	Effect of irradiance data on the optimal sizing of photovoltaic water pumping systems. , 2019, , .		3
28	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.	1.1	16
29	Technical Cost of Operating a Photovoltaic Installation as a STATCOM at Nighttime. IEEE Transactions on Sustainable Energy, 2019, 10, 75-81.	5.9	13
30	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.	1.1	2
31	Distribution of Current Density, Temperature, and Mechanical Deformation in YBCO Bulks Under Field-Cooling Magnetization. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	9
32	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.	1.1	7
33	Influence of The Temporal Resolution of The Water Consumption Profile on Photovoltaic Water Pumping Systems Modelling and Sizing. , 2018, , .		7
34	Candidate Interleaved DC-DC Buck Converters for Electrolyzers: State-of-the-Art and Perspectives. , 2018, , .		6
35	Eddy current modeling in linear and nonlinear multifilamentary composite materials. Open Physics, 2018, 16, 183-187.	0.8	1
36	Evaluation of the Reactive Power Support Capability and Associated Technical Costs of Photovoltaic Farms™ Operation. Energies, 2018, 11, 1567.	1.6	11

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37	Solar Electric Motor on Superconducting Bearings: Design and Tests in Liquid Nitrogen. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	4
38	Magnetic Field Transfer of Superconductor-Ferromagnet Heterostructures up to 10 kHz. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	2
39	Increase of Stability Margin in Embedded DC Electric Grid With Superconducting Stabilizer. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.1	5
40	Test of an Original Superconducting Synchronous Machine Based on Magnetic Shielding. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	13
41	Design of a Vector Magnet Generating Up to 3 T With Three-Axis Orientation. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	0
42	Relaxation and pinning in spark-plasma sintered MgB ₂ superconductor. Superconductor Science and Technology, 2016, 29, 025006.	1.8	16
43	Magnetization and Demagnetization Studies of an HTS Bulk in an Iron Core. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-7.	1.1	6
44	High Magnetic Field Generated by Bulk MgB ₂ Prepared by Spark Plasma Sintering. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	23
45	Comparison Between Modeling and Experimental Results of Magnetic Flux Trapped in YBCO Bulks. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	10
46	Improved Method for Determining the J_C -Value of HTS Bulks. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.1	5
47	Improvement of the Magnetization of a Superconducting Bulk using an Iron Core. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.1	15
48	Determination of J_C and J_C -Value of HTS Pellets by Measurement and Simulation of Magnetic Field Penetration. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-8.	1.1	13
49	New Experimental Method for Investigating AC Losses in Concentric HTS Power Cables. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	9
50	The design of magnetic flux concentration superconducting machines. , 2014, , .		0
51	Power system stability improvement with superconducting fault current limiter. , 2014, , .		3
52	Development of MgB ₂ -Based Bulk Supermagnets. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	18
53	Critical current density determination of superconducting material. , 2014, , .		0
54	Improvement of YBCO Superconductor Magnetic Shielding by Using Multiple Bulks. Journal of Superconductivity and Novel Magnetism, 2014, 27, 903-907.	0.8	10

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55	Thin-Layer Insulation of HTS: Analytical Study. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.1	0
56	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.	0.6	2
57	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.	0.6	4
58	A New Direct Magnetic Method for Determining $\{m\}_{m C}$ in Bulk Superconductors From Magnetic Field Diffusion Measurements. IEEE Transactions on Applied Superconductivity, 2012, 22, 9001604-9001604.	1.1	9
59	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.	1.1	5
60	Influence of Speed Variation of a Transverse Magnetic Field on a Magnetization of HTS Cylinder. IEEE Transactions on Applied Superconductivity, 2011, 21, 3434-3441.	1.1	6
61	A 2-D Robust FE-FV Mixed Method to Handle Strong Nonlinearities in Superconductors. IEEE Transactions on Magnetics, 2010, 46, 3445-3448.	1.2	9
62	Influence of temperature on stability of trapped flux magnets. Cryogenics, 2010, 50, 215-221.	0.9	1
63	$\{J_{C}(B)\}$ Determination Method With the Help of the Virgin Magnetization Curve of a Superconducting Cylinder. IEEE Transactions on Applied Superconductivity, 2010, 20, 82-86.	1.1	8
64	Superconducting Multistack Inductor for Synchronous Motors Using the Diamagnetism Property of Bulk Material. IEEE Transactions on Industrial Electronics, 2010, 57, 146-153.	5.2	25
65	Scaling Solution and n Dependence of the Eddy-Current Distribution in a Flat Superconductor. IEEE Transactions on Applied Superconductivity, 2010, 20, 2248-2254.	1.1	3
66	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.	1.1	3
67	The design of an original structure of current limiter. Superconductor Science and Technology, 2009, 22, 125021.	1.8	0
68	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.	1.1	9
69	Les pertes en champ propre dans les câbles supraconducteurs cylindriques. Revue Internationale De Génie Électrique, 2009, 12, 311-335.	0.0	0
70	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.	1.1	4
71	Self Field Effect Compensation in an HTS Tube. IEEE Transactions on Applied Superconductivity, 2008, 18, 1698-1703.	1.1	4
72	EXPERIMENTAL INVESTIGATION OF TRAPPED FLUX STABILITY IN BULK YBCO. AIP Conference Proceedings, 2008, , .	0.3	3

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73	Full penetration current variation of a superconducting tube. Journal of Physics: Conference Series, 2008, 97, 012029.	0.3	0
74	Some Considerations About the Cooling of the Rotor of a Superconducting Motor. IEEE Transactions on Applied Superconductivity, 2007, 17, 44-51.	1.1	6
75	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.	1.1	81
76	Design and Testing of a Superconducting Rotating Machine. IEEE Transactions on Applied Superconductivity, 2007, 17, 27-33.	1.1	31
77	Influence of $J_c(B)$ on the full penetration current of superconducting tube. Physica C: Superconductivity and Its Applications, 2006, 443, 23-28.	0.6	8
78	Theoretical Study of a New Kind HTS Motor. IEEE Transactions on Applied Superconductivity, 2005, 15, 2186-2189.	1.1	19
79	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.	1.1	13
80	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.	0.6	5
81	AC losses in a BSCCO current lead: comparison between calculation and measurement. IEEE Transactions on Applied Superconductivity, 2002, 12, 1603-1606.	1.1	6
82	AC loss measurements of a high critical temperature superconductor transporting sinusoidal or non-sinusoidal current. IEEE Transactions on Applied Superconductivity, 2000, 10, 1489-1492.	1.1	13