

# Haigun Lee

## List of Publications by Year in descending order

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papers

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citations

304368

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docs citations

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times ranked

1166  
citing authors

#	ARTICLE	IF	CITATIONS
1	Turn-to-turn contact characteristics for an equivalent circuit model of no-insulation ReBCO pancake coil. Superconductor Science and Technology, 2013, 26, 035012.	1.8	254
2	MOF-derived CoP-nitrogen-doped carbon@NiFeP nanoflakes as an efficient and durable electrocatalyst with multiple catalytically active sites for OER, HER, ORR and rechargeable zinc-air batteries. Chemical Engineering Journal, 2022, 428, 131115.	6.6	203
3	A superconducting joint for GdBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> -F-coated conductors. NPG Asia Materials, 2014, 6, e98-e98.	3.8	112
4	Design and Experiments of Novel Hybrid Type Superconducting Fault Current Limiters. IEEE Transactions on Applied Superconductivity, 2008, 18, 624-627.	1.1	96
5	Field Mapping, NMR Lineshape, and Screening Currents Induced Field Analyses for Homogeneity Improvement in LTS/HTS NMR Magnets. IEEE Transactions on Applied Superconductivity, 2008, 18, 856-859.	1.1	73
6	A Solid Nitrogen Cooled $\text{MgB}_2$ Demonstration Coil for MRI Applications. IEEE Transactions on Applied Superconductivity, 2008, 18, 912-915.	1.1	66
7	Investigation of HTS Racetrack Coil Without Turn-to-Turn Insulation for Superconducting Rotating Machines. IEEE Transactions on Applied Superconductivity, 2012, 22, 5200604-5200604.	1.1	61
8	No-Insulation Coil Under Time-Varying Condition: Magnetic Coupling With External Coil. IEEE Transactions on Applied Superconductivity, 2013, 23, 4601705-4601705.	1.1	57
9	Analysis of a Joint Method Between Superconducting YBCO Coated Conductors. IEEE Transactions on Applied Superconductivity, 2007, 17, 3266-3269.	1.1	53
10	Metal-organic-framework-derived hierarchical Co/CoP-decorated nanoporous carbon polyhedra for robust high-energy storage hybrid supercapacitors. Dalton Transactions, 2020, 49, 1157-1166.	1.6	42
11	Practical Design of a 10 MW Superconducting Wind Power Generator Considering Weight Issue. IEEE Transactions on Applied Superconductivity, 2013, 23, 5201805-5201805.	1.1	41
12	Dynamic Response of No-Insulation and Partial-Insulation Coils for HTS Wind Power Generator. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	35
13	A Design Study on 40 MW Synchronous Motor With No-Insulation HTS Field Winding. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-6.	1.1	33
14	Transient characteristics of a GdBCO racetrack pancake coil without turn-to-turn insulation. Superconductor Science and Technology, 2014, 27, 015001.	1.8	31
15	Joint Characteristics of YBCO Coated Conductor by Removing a Metallic Stabilizer. IEEE Transactions on Applied Superconductivity, 2008, 18, 1220-1223.	1.1	29
16	Corrections to "Effects of Impregnating Materials on Thermal and Electrical Stabilities of the HTS Racetrack Pancake Coils Without Turn-to-Turn Insulation" [Jun 13 7700404]. IEEE Transactions on Applied Superconductivity, 2013, 23, 9700201-9700201.	1.1	29
17	The Fundamental Characteristics of PPLP as Insulating Material for HTS DC Cable. IEEE Transactions on Applied Superconductivity, 2013, 23, 5401704-5401704.	1.1	28
18	Current Status of and Challenges for No-Insulation HTS Winding Technique. TEION KOGAKU (Journal) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.1	24

#	ARTICLE	IF	CITATIONS
19	Design of Damper to Protect the Field Coil of an HTS Synchronous Motor. IEEE Transactions on Applied Superconductivity, 2009, 19, 1683-1686.	1.1	23
20	Effect of Winding Tension on Electrical Behaviors of a No-Insulation ReBCO Pancake Coil. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.1	23
21	Joint Characteristics of the YBCO Coated Conductor (CC) by Chemical Etching. IEEE Transactions on Applied Superconductivity, 2009, 19, 2835-2838.	1.1	22
22	Quench Initiation and Propagation in GdBCO Racetrack Pancake Coil for Large-Scale Rotating Machines. Journal of Superconductivity and Novel Magnetism, 2012, 25, 1071-1076.	0.8	22
23	HTS Wind Power Generator: Electromagnetic Force Between No-Insulation and Insulation Coils Under Time-Varying Conditions. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.1	22
24	Quench and Recovery Characteristics of the Zr-Doped (Gd,Y) BCO Coated Conductor Pancake Coils Insulated With Copper and Kapton Tapes. IEEE Transactions on Applied Superconductivity, 2011, 21, 2415-2419.	1.1	21
25	The Effects of a Stabilizer Thickness of the YBCO Coated Conductor (CC) on the Quench/Recovery Characteristics. IEEE Transactions on Applied Superconductivity, 2010, 20, 1246-1249.	1.1	20
26	Electrical Insulation Characteristics of PPLP as a HTS DC Cable Dielectric and GFRP as Insulating Material for Terminations. IEEE Transactions on Applied Superconductivity, 2012, 22, 7700104-7700104.	1.1	19
27	Charge-Discharge and Thermal-Electrical Characteristics of GdBCO Coils Wound With Various Types of Grease as an Insulation Material. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.1	19
28	High- $T_c$ Superconducting High Gradient Magnetic Separator Using Solid Nitrogen Cooling System for Purification of CMP Wastewater. IEEE Transactions on Applied Superconductivity, 2013, 23, 3700505-3700505.	1.1	18
29	Numerical Analysis on Bifurcated Current Flow in No-Insulation Magnet. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-4.	1.1	18
30	Challenging endeavor to integrate gallium and carbon via direct bonding to evolve GaN on diamond architecture. Scripta Materialia, 2018, 142, 138-142.	2.6	18
31	Normal Zone Initiation and Propagation Characteristics of a Solid Nitrogen Cooled GdBCO Racetrack Pancake Coil. IEEE Transactions on Applied Superconductivity, 2012, 22, 4701704-4701704.	1.1	17
32	Investigation of thermal and electrical stabilities of a GdBCO coil using grease as an insulation material for practical superconducting applications. Review of Scientific Instruments, 2014, 85, 094701.	0.6	17
33	Analytical and experimental investigation of electrical characteristics of a metallic insulation GdBCO coil. Review of Scientific Instruments, 2016, 87, 034701.	0.6	17
34	Feasibility Study of a No-Insulation 1.5-T/600-mm All-REBCO Magnet for MRI Systems. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-4.	1.1	17
35	A study of the electromagnetic characteristics of no-insulation GdBCO racetrack coils under an external magnetic ripple field. Superconductor Science and Technology, 2016, 29, 045010.	1.8	17
36	Thermal and Electrical Stabilities of Solid Nitrogen (SN <sub>2</sub> ) Cooled YBCO Coated Conductors for HTS Magnet Applications. IEEE Transactions on Applied Superconductivity, 2010, 20, 2172-2175.	1.1	15

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37	3-D Field Mapping and Active Shimming of a Screening-Current-Induced Field in an HTS Coil Using Harmonic Analysis for High-Resolution NMR Magnets. IEEE Transactions on Applied Superconductivity, 2013, 23, 4400804-4400804.	1.1	14
38	Thermal Quench Behaviors of No-Insulation Coils Wound Using GdBCO Coated Conductor Tapes With Various Lamination Materials. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.1	14
39	Study for Reducing the Screening Current-Induced Field in a 10-MHz No-Insulation Magnet Using Current Sweep Reversal Method. IEEE Transactions on Applied Superconductivity, 2014, , 1-1.	1.1	13
40	Experimental and Analytical Studies on Electromagnetic Behaviors of the GdBCO Racetrack Coils in a Time-Varying Magnetic Field. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-6.	1.1	13
41	A Study on Electrical Characteristics of Multilayered Metallic-Insulation Coils. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-6.	1.1	13
42	Evaluation of subsurface damage inherent to polished GaN substrates using depth-resolved cathodoluminescence spectroscopy. Thin Solid Films, 2018, 660, 516-520.	0.8	13
43	Design, analysis, and fabrication of salient field-pole for a 1-kW-class HTS rotating machine. Cryogenics, 2019, 97, 126-132.	0.9	13
44	Design Study on a 100-kA/20-K HTS Cable for Fusion Magnets. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	12
45	A Study on Normal Zone Propagation Behavior of Partially Insulated GdBCO Coil. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.1	12
46	Design and Analysis of Cooling Structure on Advanced Air-Core Stator for Megawatt-Class HTS Synchronous Motor. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-7.	1.1	12
47	Conduction-Cooled Brass Current Leads for a Resistive Superconducting Fault Current Limiter (SFCL) System. IEEE Transactions on Applied Superconductivity, 2007, 17, 2248-2251.	1.1	11
48	Experimental Analysis of a Splice Method Between YBCO Coated Conductors on Various Bending Diameters. IEEE Transactions on Applied Superconductivity, 2010, 20, 1577-1580.	1.1	11
49	Analysis of the Mechanical Characteristics of a 17-MW-Class High-Temperature Superconducting Synchronous Motor. Journal of Superconductivity and Novel Magnetism, 2015, 28, 671-679.	0.8	11
50	Insulation Characteristics of PPLP and Design of 250 kV Class HTS DC Cable. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.1	11
51	A Study on Charge-Discharge Characteristics of No-Insulation GdBCO Magnets Energized via a Flux Injector. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-6.	1.1	11
52	Repetitive Over-Current Characteristics of the Joints Between the YBCO Coated Conductor. IEEE Transactions on Applied Superconductivity, 2009, 19, 2419-2422.	1.1	10
53	Experimental Study on Hysteresis of Screening-Current-Induced Field in an HTS Magnet for NMR Applications. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.1	10
54	A novel no-insulation winding technique of high temperature-superconducting racetrack coil for rotating applications: A progress report in Korea university. Review of Scientific Instruments, 2016, 87, 104704.	0.6	10

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55	Note: Progress on the use of MgB <sub>2</sub> superconducting joint technique for the development of MgB <sub>2</sub> magnets for magnetic resonance imaging (MRI). Review of Scientific Instruments, 2017, 88, 086105.	0.6	10
56	Quench and Recovery Characteristics of Solid Nitrogen (SN <sub>2</sub> ) Cooled YBCO Coated Conductor (CC) Tapes with Different Stabilizers. Journal of Superconductivity and Novel Magnetism, 2011, 24, 1697-1706.	0.8	9
57	Characteristic Comparison for the Various Winding Methods of HTS Magnets. IEEE Transactions on Applied Superconductivity, 2012, 22, 4902907-4902907.	1.1	9
58	Properties of room-temperature ferromagnetic semiconductor in manganese-doped bilayer graphene by chemical vapor deposition. Journal of Materials Chemistry C, 2015, 3, 4235-4238.	2.7	9
59	Numerical Analysis on Characteristic Resistance of No-Insulation and Partial-Insulation NbTi Solenoids. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	9
60	Fabrication and Charging Test of HTS Field Windings Using HTS Contactless Rotary Excitation Device. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-7.	1.1	9
61	Analytical Design Method of High-T <sub>c</sub> Coated Conductor for a Resistive Superconducting Fault Current Limiter Using Finite Element Method. IEEE Transactions on Applied Superconductivity, 2010, 20, 1172-1176.	1.1	8
62	Effects of Melting Diffusion and Annealing in Oxygen on Superconducting Characteristics of GdBCO Coated Conductors: Preliminary Results. IEEE Transactions on Applied Superconductivity, 2013, 23, 6600804-6600804.	1.1	8
63	Field Mapping and Automated Shimming of an HTS Magnet by Internal Active Shim Coils Located in the Bore of the Magnet. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.1	8
64	A Study on Cooling Performances and Over-Current Behaviors of GdBCO Coils With Respect to Epoxy Impregnation Methods. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	8
65	Characteristic Analysis of Various Structural Shapes of Superconducting Field Coils. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	8
66	Thermal and electrical properties of thermal-grease-insulated REBCO superconducting coils with respect to winding tension. Metals and Materials International, 2017, 23, 1050-1055.	1.8	8
67	Superconducting Properties of Reacted Mono- and Multifilament MgB <sub>2</sub> Wires With Respect to Bending Diameters Using a Custom-Made Bending Test Probe. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-6.	1.1	8
68	Investigation of multifilament MgB <sub>2</sub> superconducting joint technique for development of MRI magnets. Review of Scientific Instruments, 2018, 89, 094701.	0.6	8
69	In vivo 3D Reconstruction of the Human Pallidothalamic and Nigrothalamic Pathways With Super-Resolution 7T MR Track Density Imaging and Fiber Tractography. Frontiers in Neuroanatomy, 2021, 15, 739576.	0.9	8
70	Stator Winding Fault Influence on the Field Coil of a 10 MW Superconducting Synchronous Generator. IEEE Transactions on Applied Superconductivity, 2013, 23, 5200104-5200104.	1.1	7
71	Feasibility Study for Elimination of the Screening Current-Induced Fields in HTS Coil. Journal of Superconductivity and Novel Magnetism, 2015, 28, 83-88.	0.8	7
72	Investigation of the Key Factors Affecting the Permanent Damage of the REBCO Coated Conductor in Overcurrent Condition. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.1	7

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73	Effects of Stabilizer Thickness of 2G HTS Wire on the Design of a 1.5-MW-Class HTS Synchronous Machine. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	7
74	Study on Thermal-Quench Behaviors of GdBCO Coils Wound With Silicon Grease as an Insulation Material. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	7
75	The Barrier Effect on Breakdown for Design of 154 kV Class HTS Transformer. IEEE Transactions on Applied Superconductivity, 2011, 21, 1434-1437.	1.1	6
76	The Effects of External Pressure on the Thermal and Electrical Properties of Stacked GdBCO Coated Conductor Tapes. IEEE Transactions on Applied Superconductivity, 2012, 22, 4701804-4701804.	1.1	6
77	Observation of ferromagnetic semiconductor behavior in manganese-oxide doped graphene. AIP Advances, 2014, 4, 087120.	0.6	6
78	Characteristic Resistance of No-Insulation and Partial-Insulation Coils With Nonuniform Current Distribution. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.1	6
79	A Study on the Electrical Characteristics of Metal-Clad GdBCO Coils. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	6
80	Comparison Study on Harmonic Loss of MW-Class Wind Generators With HTS Field Winding. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.1	5
81	Investigation on quench initiation and propagation characteristics of GdBCO coil co-wound with a stainless steel tape as turn-to-turn metallic insulation. Review of Scientific Instruments, 2016, 87, 114701.	0.6	5
82	Cooling Performance and Thermal Characteristics of No-Insulation GdBCO Magnet Cooled by a Mixed Cryogen Cooling System. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	5
83	Test and Analysis of Laboratory-Scale D-Shaped Co-Wound No-Insulation HTS Single Pancake Coil for TF Coil Application. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	5
84	Two-Stage Cryocooling Design for Hybrid Superconducting Fault Current Limiter. IEEE Transactions on Applied Superconductivity, 2010, 20, 2047-2050.	1.1	4
85	A Research About Bending Strain Effect on Splice Characteristics in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Coated Conductors Under Various Pressures in Splicing. IEEE Transactions on Applied Superconductivity, 2011, 21, 3001-3004.	1.1	4
86	A Study on the Loss in a Superconducting Magnet by the Control Current in a Hybrid Electro-Magnetic Suspension System. IEEE Transactions on Applied Superconductivity, 2012, 22, 3600105-3600105.	1.1	4
87	The Effect of Bobbin Material on the Thermal Stability of a Conduction-Cooled HTS Racetrack Coil. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.1	4
88	Comparative Study of Magnetic Characteristics of Air-Core and Iron-Core High-Temperature Superconducting Quadrupole Magnets. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	4
89	Preliminary Conceptual Design Study on HTS Toroidal Field Coil for Compact High Magnetic Field Tokamak. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-7.	1.1	4
90	Future Prospects of Positron Emission Tomography—Magnetic Resonance Imaging Hybrid Systems and Applications in Psychiatric Disorders. Pharmaceuticals, 2022, 15, 583.	1.7	4

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91	Fault Current Limitation Characteristics of Bi-2212 Bulk Coil With Different Types of Shunt Coils. IEEE Transactions on Applied Superconductivity, 2007, 17, 1879-1882.	1.1	3
92	Fabrication of a high performance acoustic emission (AE) sensor to monitor and diagnose disturbances in HTS tapes and magnet systems. Metals and Materials International, 2010, 16, 109-113.	1.8	3
93	Over-Current Characteristics Influenced by Ag Stabilizer Thickness in a GdBCO Coated Conductor (CC). IEEE Transactions on Applied Superconductivity, 2011, 21, 3029-3032.	1.1	3
94	Insulation Characteristics of Cryogens for HTS Power Apparatus. IEEE Transactions on Applied Superconductivity, 2012, 22, 7700904-7700904.	1.1	3
95	A Study on Recovery Characteristics of Joined Tapes From the View of Thermal and Electrical Variation for Superconducting Magnets. IEEE Transactions on Applied Superconductivity, 2012, 22, 4703505-4703505.	1.1	3
96	Thermal and Electrical Stabilities of YBCO Coated Conductor Tapes in a Solid Argon-Liquid Nitrogen Mixed Cooling System. Journal of Superconductivity and Novel Magnetism, 2012, 25, 1431-1440.	0.8	3
97	The Effects of Liquid Cryogen on the Thermal/Electrical Characteristics of a GdBCO Coil in a Mixed Cryogen Cooling System. IEEE Transactions on Applied Superconductivity, 2013, 23, 4700405-4700405.	1.1	3
98	Fabrication and testing of high performance acoustic emission sensor with Ta-Doped lead zirconate titanate. Journal of Electroceramics, 2015, 35, 53-58.	0.8	3
99	Current-Lead Design for Variable Electric Current in HTS Power Applications. IEEE Transactions on Applied Superconductivity, 2010, 20, 1725-1728.	1.1	2
100	Processing Parameters that Affect the Tolerable Bending Diameter of Reacted MgB <sub>2</sub> Wires. Metals and Materials International, 2019, 25, 1467-1476.	1.8	2
101	Current-Lead Design for Cryocooled HTS Fault Current Limiters. IEEE Transactions on Applied Superconductivity, 2007, 17, 2244-2247.	1.1	1
102	Theoretical Prediction of the Quench Behavior of a SFCL Module Having a BSCCO-2212 Bulk Coil and a Shunt Coil. IEEE Transactions on Applied Superconductivity, 2007, 17, 1871-1874.	1.1	1
103	Thermal Analysis of PCS for an HTS Pancake Coil in Persistent Current Mode. IEEE Transactions on Applied Superconductivity, 2010, 20, 1009-1012.	1.1	1
104	The Effect of Operating Temperature on Transport AC Loss According to an YBCO Superconducting Tape Array Geometry. IEEE Transactions on Applied Superconductivity, 2011, 21, 3329-3333.	1.1	1
105	Purification of Chemical Mechanical Polishing Wastewater via Superconducting High Gradient Magnetic Separation System with Optimal Coagulation Process. IEEE Transactions on Applied Superconductivity, 2014, , 1-1.	1.1	1
106	Mechanical Bending Characteristics of HTS DC Cable. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.1	1
107	Magnetic Field Stability Analysis on No-Insulation and Turn-to-Turn Soldered HTS Magnets Under Sinusoidal Noise Operation. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.1	1
108	Oxygen out-diffusion in partially melted YBa <sub>2</sub> Cu <sub>3</sub> O <sub>y</sub> ~0.325Ag superconductor at reduced oxygen partial pressure. Metals and Materials International, 2008, 14, 673-678.	1.8	1

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109	Oxygen out-diffusion in partially melted $\text{YBa}_2\text{Cu}_3\text{O}_{y \sim 0.325}\text{Ag}$ superconductor at reduced oxygen partial pressure. <i>Metals and Materials International</i> , 2008, 14, 673-678.	1.8	0
110	Optimal Arrangement of Current Leads to Minimize Electromagnetic Force. <i>IEEE Transactions on Applied Superconductivity</i> , 2010, 20, 1741-1746.	1.1	0
111	Micro-architecture embedding ultra-thin interlayer to bond diamond and silicon via direct fusion. <i>Applied Physics Letters</i> , 2018, 112, 211601.	1.5	0