

Bangcheng Han

List of Publications by Year in descending order

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201674

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all docs

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times ranked

1442
citing authors

#	ARTICLE	IF	CITATIONS
1	Minimizing magnetic fields of the low-noise MnZn ferrite magnetic shield for atomic magnetometer. Journal Physics D: Applied Physics, 2022, 55, 015003.	2.8	9
2	Position Extraction of Ultralow-Speed Gimbal Servo System With Linear Hall Sensors. IEEE Transactions on Industrial Electronics, 2022, 69, 2947-2955.	7.9	5
3	Parameter Modeling Analysis of a Cylindrical Ferrite Magnetic Shield to Reduce Magnetic Noise. IEEE Transactions on Industrial Electronics, 2022, 69, 991-998.	7.9	36
4	Design of Uniform Magnetic Field Coil by Quasi-Elliptic Function Fitting Method With Multiple Optimizations in Miniature Atomic Sensors. IEEE Transactions on Industrial Electronics, 2022, 69, 11755-11764.	7.9	13
5	Bandwidth Expansion Through Large-Amplitude Modulation and Proportional Feedback for Single-Beam Atomic Magnetometers. IEEE Sensors Journal, 2022, 22, 2016-2023.	4.7	5
6	<i>In Situ</i> Measurement of Nonorthogonal Angles of a Three-Axis Vector Optically Pumped Magnetometer. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.	4.7	9
7	Suppression of the magnetic noise response caused by elliptically polarized light in an optical rotation detection system. Optics Express, 2022, 30, 3854.	3.4	8
8	Speed Fluctuation Suppression by Model-Based Feed-Forward Control in Gimbal System With Harmonic Drive. IEEE Transactions on Power Electronics, 2022, 37, 6678-6687.	7.9	3
9	Thermal Analysis of Wearable OPM-MEG Array System for Auditory Evoked Experiments. IEEE Sensors Journal, 2022, 22, 4514-4523.	4.7	3
10	The influence of modulated magnetic field on light absorption in SERF atomic magnetometer. Review of Scientific Instruments, 2022, 93, 013001.	1.3	4
11	Triaxial Vector Operation in Near-Zero Field of Atomic Magnetometer With Femtotesla Sensitivity. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	4.7	10
12	Design of Bi-Planar Coil for Acquiring Near-Zero Magnetic Environment. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	4.7	11
13	<i>In Situ</i> Compensation of Triaxial Magnetic Field Gradient for Atomic Magnetometers. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-8.	4.7	9
14	Enhancement of bandwidth in spin-exchange relaxation-free (SERF) magnetometers with amplitude-modulated light. Applied Physics Letters, 2022, 120, .	3.3	19
15	Optimized gas pressure of an Rb vapor cell in a single-beam SERF magnetometer. Optics Express, 2022, 30, 336.	3.4	19
16	Suppression of Moving Gimbal Effects of the AMB-rotor System Considering Multi-channel Coupling Current. , 2022, , .		1
17	A novel worm gear actuated repeatable locking/unlocking device for magnetically suspended control moment gyro. Aerospace Science and Technology, 2022, 126, 107594.	4.8	1
18	Ultrahigh Sensitivity Optical Rotation Detection Based on Reflecting Photo-Elastic Modulation System. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-7.	4.7	0

#	ARTICLE	IF	CITATIONS
19	Whirl Mode Suppression for AMB-Rotor Systems in Control Moment Gyros Considering Significant Gyroscopic Effects. IEEE Transactions on Industrial Electronics, 2021, 68, 4249-4258.	7.9	29
20	Stable Control of Nutation and Precession for the Radial Four-Degree-of-Freedom AMB-Rotor System Considering Strong Gyroscopic Effects. IEEE Transactions on Industrial Electronics, 2021, 68, 11369-11378.	7.9	10
21	Single-Beam Miniaturized Atomic Magnetometer With Square-Wave Modulation for Magnetoencephalography. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-6.	4.7	9
22	Design of Biplanar Coils for Degrading Residual Field in Magnetic Shielding Room. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	4.7	22
23	Probe noise characteristics of the spin-exchange relaxation-free (SERF) magnetometer. Optics Express, 2021, 29, 5055.	3.4	11
24	Analysis of coil constant of triaxial uniform coils in Mn ²⁺ /Zn ferrite magnetic shields. Journal Physics D: Applied Physics, 2021, 54, 275001.	2.8	21
25	Effect of gaps on magnetic noise of cylindrical ferrite shield. Journal Physics D: Applied Physics, 2021, 54, 255002.	2.8	10
26	High-sensitivity operation of a single-beam atomic magnetometer for three-axis magnetic field measurement. Optics Express, 2021, 29, 15641.	3.4	63
27	Design of Highly Linear Gradient Field Coils Based on an Improved Target-Field Method. IEEE Sensors Journal, 2021, 21, 16256-16263.	4.7	6
28	Indium Tin Oxide Non-Magnetic Heating Film for Miniaturized SERF Gradient Magnetometer. IEEE Sensors Journal, 2021, 21, 16554-16559.	4.7	11
29	Dual-Axis Closed Loop of a Single-Beam Atomic Magnetometer: Toward High Bandwidth and High Sensitivity. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.	4.7	18
30	Magnetic noise calculation of mu-metal shields at extremely low frequencies for atomic devices. Journal Physics D: Applied Physics, 2021, 54, 025004.	2.8	7
31	Improvement of spin polarization spatial uniformity in optically pumped atomic magnetometers based on counter-propagating pump beams and atomic diffusion. Measurement Science and Technology, 2021, 32, 035902.	2.6	13
32	Determination of Spin Polarization in Spin-Exchange Relaxation-Free Atomic Magnetometer Using Transient Response. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 845-852.	4.7	41
33	A Second-Order Dual Mode Repetitive Control for Magnetically Suspended Rotor. IEEE Transactions on Industrial Electronics, 2020, 67, 4946-4956.	7.9	14
34	Design and Optimization of Multilayer Cylindrical Magnetic Shield for SERF Atomic Magnetometer Application. IEEE Sensors Journal, 2020, 20, 1793-1800.	4.7	14
35	Improved Second-Order Repetitive Control With Parameter Optimization for Magnetically Suspended Rotor System. IEEE Sensors Journal, 2020, 20, 2294-2303.	4.7	4
36	Sensorless Control of Segmented PMLSM for Long-Distance Auto-Transportation System Based on Parameter Calibration. IEEE Access, 2020, 8, 102467-102476.	4.2	10

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37	Position Estimation for Ultra-Low Speed Gimbal Servo System of SGMSCMG Based on Linear Hall Sensors. IEEE Sensors Journal, 2020, 20, 12174-12183.	4.7	9
38	Study of Magnetic Noise of a Multi-Annular Ferrite Shield. IEEE Access, 2020, 8, 40918-40924.	4.2	17
39	Single-Beam Atomic Magnetometer Based on the Transverse Magnetic-Modulation or DC-Offset. IEEE Sensors Journal, 2020, 20, 5827-5833.	4.7	35
40	Harmonic Vibration Force Suppression of Magnetically Suspended Rotor With Frequency-Domain Adaptive LMS. IEEE Sensors Journal, 2020, 20, 1166-1175.	4.7	10
41	Simultaneous Determination of the Spin Polarizations of Noble-Gas and Alkali-Metal Atoms Based on the Dynamics of the Spin Ensembles. Physical Review Applied, 2020, 13, .	3.8	17
42	In-Situ Measurement of Electrical-Heating-Induced Magnetic Field for an Atomic Magnetometer. Sensors, 2020, 20, 1826.	3.8	20
43	Deep Learning Methodology for Differentiating Glioma Recurrence From Radiation Necrosis Using Multimodal Magnetic Resonance Imaging: Algorithm Development and Validation. JMIR Medical Informatics, 2020, 8, e19805.	2.6	15
44	A Loss Separation Method of a High-Speed Magnetic Levitated PMSM Based on Drag System Experiment Without Torque Meter. IEEE Transactions on Industrial Electronics, 2019, 66, 2976-2986.	7.9	17
45	Initial Rotor Position Detection Method of SPMSM Based on New High Frequency Voltage Injection Method. IEEE Transactions on Power Electronics, 2019, 34, 3553-3562.	7.9	22
46	Study of Shielding Ratio of Cylindrical Ferrite Enclosure With Gaps and Holes. IEEE Sensors Journal, 2019, 19, 6085-6092.	4.7	19
47	An Improved Target-Field Method for the Design of Uniform Magnetic Field Coils in Miniature Atomic Sensors. IEEE Access, 2019, 7, 74800-74810.	4.2	28
48	Thermal Analysis and Experimental Validation of a 30 kW 60000 r/min High-Speed Permanent Magnet Motor With Magnetic Bearings. IEEE Access, 2019, 7, 92184-92192.	4.2	42
49	A Novel Asymmetrical Heating Method for Improving the Temperature Spatial Homogeneity of Vapor Cell in Atomic Magnetometer. IEEE Access, 2019, 7, 71245-71251.	4.2	4
50	Multilayer Cylindrical Magnetic Shield for SERF Atomic Co-Magnetometer Application. IEEE Sensors Journal, 2019, 19, 2916-2923.	4.7	21
51	Hybrid Odd Repetitive Controller for Magnetically Suspended Rotor System. IEEE Sensors Journal, 2019, 19, 10281-10288.	4.7	7
52	Temperature Drift Compensation for Exponential Hysteresis Characteristics of High-Temperature Eddy Current Displacement Sensors. IEEE Sensors Journal, 2019, 19, 11041-11049.	4.7	23
53	Multidisciplinary Design Strategies for Turbomolecular Pumps With Ultrahigh Vacuum Performance. IEEE Transactions on Industrial Electronics, 2019, 66, 9549-9558.	7.9	9
54	Harmonic Current Suppression of Magnetically Suspended Rotor System via Odd-Harmonic Fractional RC. IEEE Sensors Journal, 2019, 19, 4812-4819.	4.7	8

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55	Prediction and experiment of DC-bias iron loss in radial magnetic bearing for a small scale turbomolecular pump. Vacuum, 2019, 163, 224-235.	3.5	9
56	A Non-Modulated Triaxial Magnetic Field Compensation Method for Spin-Exchange Relaxation-Free Magnetometer Based on Zero-Field Resonance. IEEE Access, 2019, 7, 167557-167565.	4.2	11
57	Losses estimation, thermal-structure coupled simulation analysis of a magnetic-bearing reaction wheel. International Journal of Applied Electromagnetics and Mechanics, 2019, 60, 33-53.	0.6	5
58	Robust Odd Repetitive Controller for Magnetically Suspended Rotor System. IEEE Transactions on Industrial Electronics, 2019, 66, 2025-2033.	7.9	10
59	Sensorless Drive of High-Speed BLDC Motors Based on Virtual Third-Harmonic Back EMF and High-Precision Compensation. IEEE Transactions on Power Electronics, 2019, 34, 8787-8796.	7.9	33
60	A Novel Sensorless Rotor Position Detection Method for High-Speed Surface PM Motors in a Wide Speed Range. IEEE Transactions on Power Electronics, 2018, 33, 7083-7093.	7.9	59
61	Loss Calculation, Thermal Analysis, and Measurement of Magnetically Suspended PM Machine. IEEE Transactions on Industrial Electronics, 2018, 65, 4514-4523.	7.9	17
62	Analysis and Experiment of Self-Differential Eddy Current Displacement Sensor for AMBs Used in Molecular Pump. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 1815-1824.	4.7	23
63	High-Precision Parameter Identification of High-Speed Magnetic Suspension Motor. IEEE Transactions on Energy Conversion, 2018, 33, 20-31.	5.2	6
64	High-Precision Sensorless Drive for High-Speed BLDC Motors Based on the Virtual Third Harmonic Back-EMF. IEEE Transactions on Power Electronics, 2018, 33, 1528-1540.	7.9	60
65	Robust Control for a Magnetically Suspended Control Moment Gyro with Strong Gyroscopic Effects. , 2018, , .		6
66	A Modal Analysis Method for Turbomolecular Pump Rotor Assembly with Separable Thrust Disk. , 2018, , .		2
67	Composite Decoupling Control of Gimbal Servo System in Double-Gimbaled Variable Speed CMG Via Disturbance Observer. IEEE/ASME Transactions on Mechatronics, 2017, 22, 312-320.	5.8	41
68	Effects of Notch Filters on Imbalance Rejection With Heteropolar and Homopolar Magnetic Bearings in a 30-kW 6000-r/min Motor. IEEE Transactions on Industrial Electronics, 2017, 64, 8033-8041.	7.9	17
69	Optimized Differential Self-Inductance Displacement Sensor for Magnetic Bearings: Design, Analysis and Experiment. IEEE Sensors Journal, 2017, 17, 4378-4387.	4.7	24
70	Weight-Reduction Design Based on Integrated Radial-Axial Magnetic Bearing of a Large-Scale MSCMG for Space Station Application. IEEE Transactions on Industrial Electronics, 2017, 64, 2205-2214.	7.9	47
71	Magnetic flux leakage modelling and optimisation of a CRAHMB for DC motor. IET Electric Power Applications, 2017, 11, 212-221.	1.8	13
72	Power Consumption Reduction for Magnetic Bearing Systems During Torque Output of Control Moment Gyros. IEEE Transactions on Power Electronics, 2017, 32, 5752-5759.	7.9	56

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73	Sensorless Control for High-Speed Brushless DC Motor Based on the Line-to-Line Back EMF. IEEE Transactions on Power Electronics, 2016, 31, 4669-4683.	7.9	99
74	Integrated radial/thrust magnetic bearing without thrust disk for a high-speed driving system. IET Electric Power Applications, 2016, 10, 276-283.	1.8	13
75	Adaptive Compensation Method for High-Speed Surface PMSM Sensorless Drives of EMF-Based Position Estimation Error. IEEE Transactions on Power Electronics, 2016, 31, 1438-1449.	7.9	242
76	Modeling and Design of 3-DOF Magnetic Bearing for High-Speed Motor Including Eddy-Current Effects and Leakage Effects. IEEE Transactions on Industrial Electronics, 2016, 63, 3656-3665.	7.9	70
77	Optimum Compensator Design for the Flexible Rotor in Magnetically Suspended Motor to Pass the First Bending Critical Speed. IEEE Transactions on Industrial Electronics, 2016, 63, 343-354.	7.9	31
78	Vibration Suppression Control for AMB-Supported Motor Driveline System Using Synchronous Rotating Frame Transformation. IEEE Transactions on Industrial Electronics, 2015, 62, 5700-5708.	7.9	77
79	Multi-objective Optimization of a Combined Radial-Axial Magnetic Bearing for Magnetically Suspended Compressor. IEEE Transactions on Industrial Electronics, 2015, , 1-1.	7.9	52
80	Suppression of Imbalance Vibration in AMB-Rotor Systems Using Adaptive Frequency Estimator. IEEE Transactions on Industrial Electronics, 2015, 62, 7696-7705.	7.9	65
81	Loss Calculation and Thermal Analysis of Rotors supported by Active Magnetic Bearings for High-speed Permanent Magnet Electrical Machines. IEEE Transactions on Industrial Electronics, 2015, , 1-1.	7.9	132
82	Design, Modeling, Fabrication, Back-to-Back Test of a Magnetic Bearing System for High-Speed BLDCM Application. Journal of Engineering for Gas Turbines and Power, 2015, 137, .	1.1	3
83	High-precise Rotor Position Detection for High-speed Surface PMSM Drive based on Linear Hall-effect Sensors. IEEE Transactions on Power Electronics, 2015, , 1-1.	7.9	63
84	Analysis of Circulating Current Loss for High-Speed Permanent Magnet Motor. IEEE Transactions on Magnetics, 2015, 51, 1-13.	2.1	37
85	Optimization of Damping Compensation for a Flexible Rotor System With Active Magnetic Bearing Considering Gyroscopic Effect. IEEE/ASME Transactions on Mechatronics, 2015, 20, 1130-1137.	5.8	61
86	Design, Modeling, Fabrication, and Test of a Large-Scale Single-Gimbal Magnetically Suspended Control Moment Gyro. IEEE Transactions on Industrial Electronics, 2015, 62, 7424-7435.	7.9	56
87	The multiple objective optimization of high-speed rotor supported by magnetic bearing in BLDCM. International Journal of Applied Electromagnetics and Mechanics, 2014, 46, 663-673.	0.6	15
88	Composite Hierarchical Antidisturbance Control for Magnetic Bearing System Subject to Multiple External Disturbances. IEEE Transactions on Industrial Electronics, 2014, 61, 7004-7012.	7.9	109
89	AMB Vibration Control for Structural Resonance of Double-Gimbal Control Moment Gyro With High-Speed Magnetically Suspended Rotor. IEEE/ASME Transactions on Mechatronics, 2013, 18, 32-43.	5.8	143
90	Dynamic Factor Models of a Thrust Magnetic Bearing With Permanent Magnet Bias and Subsidiary Air Gap. IEEE Transactions on Magnetics, 2013, 49, 1221-1230.	2.1	21

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91	Modeling and Analysis of Coupling Performance Between Passive Magnetic Bearing and Hybrid Magnetic Radial Bearing for Magnetically Suspended Flywheel. IEEE Transactions on Magnetics, 2013, 49, 5356-5370.	2.1	48
92	Design and Implementation of a Fault-Tolerant Magnetic Bearing System for MSCMG. Mathematical Problems in Engineering, 2013, 2013, 1-12.	1.1	3
93	The influences of parameters on performance of hybrid axial magnetic bearing. , 2008, , .		3