

Bangcheng Han

List of Publications by Year in descending order

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201674

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times ranked

1442
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	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
4	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
5	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
6	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
7	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
8	Suppression of Imbalance Vibration in AMB-Rotor Systems Using Adaptive Frequency Estimator. IEEE Transactions on Industrial Electronics, 2015, 62, 7696-7705.	7.9	65
9	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
10	High-sensitivity operation of a single-beam atomic magnetometer for three-axis magnetic field measurement. Optics Express, 2021, 29, 15641.	3.4	63
11	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
12	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
13	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
14	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
15	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
16	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
17	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
18	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

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	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
22	Analysis of Circulating Current Loss for High-Speed Permanent Magnet Motor. IEEE Transactions on Magnetics, 2015, 51, 1-13.	2.1	37
23	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
24	Single-Beam Atomic Magnetometer Based on the Transverse Magnetic-Modulation or DC-Offset. IEEE Sensors Journal, 2020, 20, 5827-5833.	4.7	35
25	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
26	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
27	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
28	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
29	Optimized Differential Self-Inductance Displacement Sensor for Magnetic Bearings: Design, Analysis and Experiment. IEEE Sensors Journal, 2017, 17, 4378-4387.	4.7	24
30	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
31	Temperature Drift Compensation for Exponential Hysteresis Characteristics of High-Temperature Eddy Current Displacement Sensors. IEEE Sensors Journal, 2019, 19, 11041-11049.	4.7	23
32	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
33	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
34	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
35	Multilayer Cylindrical Magnetic Shield for SERF Atomic Co-Magnetometer Application. IEEE Sensors Journal, 2019, 19, 2916-2923.	4.7	21
36	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

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37	In-Situ Measurement of Electrical-Heating-Induced Magnetic Field for an Atomic Magnetometer. Sensors, 2020, 20, 1826.	3.8	20
38	Study of Shielding Ratio of Cylindrical Ferrite Enclosure With Gaps and Holes. IEEE Sensors Journal, 2019, 19, 6085-6092.	4.7	19
39	Enhancement of bandwidth in spin-exchange relaxation-free (SERF) magnetometers with amplitude-modulated light. Applied Physics Letters, 2022, 120, .	3.3	19
40	Optimized gas pressure of an Rb vapor cell in a single-beam SERF magnetometer. Optics Express, 2022, 30, 336.	3.4	19
41	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
42	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
43	Loss Calculation, Thermal Analysis, and Measurement of Magnetically Suspended PM Machine. IEEE Transactions on Industrial Electronics, 2018, 65, 4514-4523.	7.9	17
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	Study of Magnetic Noise of a Multi-Annular Ferrite Shield. IEEE Access, 2020, 8, 40918-40924.	4.2	17
46	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
47	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
48	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
49	A Second-Order Dual Mode Repetitive Control for Magnetically Suspended Rotor. IEEE Transactions on Industrial Electronics, 2020, 67, 4946-4956.	7.9	14
50	Design and Optimization of Multilayer Cylindrical Magnetic Shield for SERF Atomic Magnetometer Application. IEEE Sensors Journal, 2020, 20, 1793-1800.	4.7	14
51	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
52	Magnetic flux leakage modelling and optimisation of a CRAHMB for DC motor. IET Electric Power Applications, 2017, 11, 212-221.	1.8	13
53	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
54	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

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55	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
56	Probe noise characteristics of the spin-exchange relaxation-free (SERF) magnetometer. Optics Express, 2021, 29, 5055.	3.4	11
57	Indium Tin Oxide Non-Magnetic Heating Film for Miniaturized SERF Gradient Magnetometer. IEEE Sensors Journal, 2021, 21, 16554-16559.	4.7	11
58	Design of Bi-Planar Coil for Acquiring Near-Zero Magnetic Environment. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	4.7	11
59	Robust Odd Repetitive Controller for Magnetically Suspended Rotor System. IEEE Transactions on Industrial Electronics, 2019, 66, 2025-2033.	7.9	10
60	Sensorless Control of Segmented PMLSM for Long-Distance Auto-Transportation System Based on Parameter Calibration. IEEE Access, 2020, 8, 102467-102476.	4.2	10
61	Harmonic Vibration Force Suppression of Magnetically Suspended Rotor With Frequency-Domain Adaptive LMS. IEEE Sensors Journal, 2020, 20, 1166-1175.	4.7	10
62	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
63	Effect of gaps on magnetic noise of cylindrical ferrite shield. Journal Physics D: Applied Physics, 2021, 54, 255002.	2.8	10
64	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
65	Multidisciplinary Design Strategies for Turbomolecular Pumps With Ultrahigh Vacuum Performance. IEEE Transactions on Industrial Electronics, 2019, 66, 9549-9558.	7.9	9
66	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
67	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
68	Single-Beam Miniaturized Atomic Magnetometer With Square-Wave Modulation for Magnetoencephalography. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-6.	4.7	9
69	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
70	<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
71	<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
72	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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73	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
74	Hybrid Odd Repetitive Controller for Magnetically Suspended Rotor System. IEEE Sensors Journal, 2019, 19, 10281-10288.	4.7	7
75	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
76	High-Precision Parameter Identification of High-Speed Magnetic Suspension Motor. IEEE Transactions on Energy Conversion, 2018, 33, 20-31.	5.2	6
77	Robust Control for a Magnetically Suspended Control Moment Gyro with Strong Gyroscopic Effects. , 2018, , .		6
78	Design of Highly Linear Gradient Field Coils Based on an Improved Target-Field Method. IEEE Sensors Journal, 2021, 21, 16256-16263.	4.7	6
79	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
80	Position Extraction of Ultralow-Speed Gimbal Servo System With Linear Hall Sensors. IEEE Transactions on Industrial Electronics, 2022, 69, 2947-2955.	7.9	5
81	Bandwidth Expansion Through Large-Amplitude Modulation and Proportional Feedback for Single-Beam Atomic Magnetometers. IEEE Sensors Journal, 2022, 22, 2016-2023.	4.7	5
82	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
83	Improved Second-Order Repetitive Control With Parameter Optimization for Magnetically Suspended Rotor System. IEEE Sensors Journal, 2020, 20, 2294-2303.	4.7	4
84	The influence of modulated magnetic field on light absorption in SERF atomic magnetometer. Review of Scientific Instruments, 2022, 93, 013001.	1.3	4
85	The influences of parameters on performance of hybrid axial magnetic bearing. , 2008, , .		3
86	Design and Implementation of a Fault-Tolerant Magnetic Bearing System for MSCMG. Mathematical Problems in Engineering, 2013, 2013, 1-12.	1.1	3
87	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
88	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
89	Thermal Analysis of Wearable OPM-MEG Array System for Auditory Evoked Experiments. IEEE Sensors Journal, 2022, 22, 4514-4523.	4.7	3
90	A Modal Analysis Method for Turbomolecular Pump Rotor Assembly with Separable Thrust Disk. , 2018, , .		2

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91	Suppression of Moving Gimbal Effects of the AMB-rotor System Considering Multi-channel Coupling Current. , 2022, , .		1
92	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
93	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