

# Chang-wan Kim

## List of Publications by Year in descending order

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88  
papers

1,223  
citations

361296

20  
h-index

454834

30  
g-index

89  
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89  
docs citations

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times ranked

1104  
citing authors

#	ARTICLE	IF	CITATIONS
1	A statistical analysis of thermal characteristics of 55-Ah large-format LIB pouch cell with different tab-type, tab size, and tab position. <i>Case Studies in Thermal Engineering</i> , 2022, 30, 101777.	2.8	2
2	Prediction of Internal Circuit and Mechanical-Electrical-Thermal Response of Lithium-Ion Battery Cell with Mechanical-Thermal Coupled Analysis. <i>Energies</i> , 2022, 15, 929.	1.6	4
3	Design optimization of tab attachment positions and cell aspect ratio to minimize temperature difference in 45-Ah LFP large-format lithium-ion pouch cells. <i>Applied Thermal Engineering</i> , 2021, 182, 116143.	3.0	9
4	Topology Optimization to Reduce Electromagnetic Force Induced Vibration for the Specific Frequency of PMSM Motor Using Electromagnetic-Structural Coupled Analysis. <i>Energies</i> , 2021, 14, 431.	1.6	5
5	Design of end coil angular position and centerline shape of C-type side load coil spring for reducing side load of MacPherson strut suspension. <i>Journal of Mechanical Science and Technology</i> , 2021, 35, 1153-1160.	0.7	1
6	Data-driven health condition and RUL prognosis for liquid filtration systems. <i>Journal of Mechanical Science and Technology</i> , 2021, 35, 1597-1607.	0.7	6
7	Optimization of Lithium-Ion Battery Pouch Cell for Maximization of Energy Density while Preventing Internal Short Circuit Caused by Separator Failure under Crush Load. <i>Journal of the Electrochemical Society</i> , 2021, 168, 030536.	1.3	7
8	Optimization of laminated composite structures under nonlinear dynamic loading using the equivalent static load method. <i>Journal of Mechanical Science and Technology</i> , 2021, 35, 4105-4113.	0.7	2
9	Reliability-Based Design Optimization for Reducing the Performance Failure and Maximizing the Specific Energy of Lithium-Ion Batteries Considering Manufacturing Uncertainty of Porous Electrodes. <i>Energies</i> , 2021, 14, 6100.	1.6	1
10	Reliability-Based Robust Design Optimization of Lithium-Ion Battery Cells for Maximizing the Energy Density by Increasing Reliability and Robustness. <i>Energies</i> , 2021, 14, 6236.	1.6	8
11	The Effect of Tab Attachment Positions and Cell Aspect Ratio on Temperature Difference in Large-Format LIBs Using Design of Experiments. <i>Energies</i> , 2021, 14, 116.	1.6	5
12	Optimization of a Lithium-Ion Battery for Maximization of Energy Density with Design of Experiments and Micro-genetic Algorithm. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2020, 7, 829-836.	2.7	25
13	Two-way nonlinear mechanical-electrochemical-thermal coupled analysis method to predict thermal runaway of lithium-ion battery cells caused by quasi-static indentation. <i>Journal of Power Sources</i> , 2020, 475, 228678.	4.0	16
14	Optimization for maximum specific energy density of a lithium-ion battery using progressive quadratic response surface method and design of experiments. <i>Scientific Reports</i> , 2020, 10, 15586.	1.6	23
15	Data-driven fault diagnosis based on coal-fired power plant operating data. <i>Journal of Mechanical Science and Technology</i> , 2020, 34, 3931-3936.	0.7	5
16	Thermal behaviors analysis of 55 Ah large-format lithium-ion pouch cells with different cell aspect ratios, tab locations, and C-rates. <i>Applied Thermal Engineering</i> , 2020, 175, 115422.	3.0	20
17	Reliability-based robust design optimization for torque ripple reduction considering manufacturing uncertainty of interior permanent magnet synchronous motor. <i>Journal of Mechanical Science and Technology</i> , 2020, 34, 1249-1256.	0.7	9
18	Load analysis and structural strength evaluation of semi-submersible platform for wind turbines in Jeju Island sea states using hydrodynamic-structure interaction analysis. <i>Journal of Mechanical Science and Technology</i> , 2020, 34, 1227-1235.	0.7	4

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19	Detailed Layered Nonlinear Finite Element Analysis for Lithium-Ion Battery Cells to Predict Internal Short Circuits Due to Separator Fractures under Hemisphere Indentation. <i>Journal of the Electrochemical Society</i> , 2020, 167, 120511.	1.3	8
20	Optimal design to reduce torque ripple of IPM motor with radial based function meta-model considering design sensitivity analysis. <i>Journal of Mechanical Science and Technology</i> , 2019, 33, 3955-3961.	0.7	4
21	Metamodel-Based Optimization of a Lithium-Ion Battery Cell for Maximization of Energy Density with Evolutionary Algorithm. <i>Journal of the Electrochemical Society</i> , 2019, 166, A211-A216.	1.3	3
22	Two-DOF Anthropomorphic Test Devices Reproducing Human Rider Motion Intent for the Evaluation of Dynamic Stability and Safety of Unicycle Robots. <i>International Journal of Control, Automation and Systems</i> , 2019, 17, 1569-1578.	1.6	2
23	An improved dynamic model of friction draft gear with a transitional characteristic accounting for housing deformation. <i>Vehicle System Dynamics</i> , 2018, 56, 1471-1491.	2.2	11
24	Sequential Approximate Optimization of MacPherson Strut Suspension for Minimizing Side Load by Using Progressive Meta-Model Method. <i>International Journal of Automotive Technology</i> , 2018, 19, 455-461.	0.7	4
25	Numerical analysis of accelerated degradation in large lithium-ion batteries. <i>Computers and Chemical Engineering</i> , 2018, 112, 82-91.	2.0	21
26	Freight cars shunting impacts analysis using an improved dynamic model of friction draft gear. <i>Vehicle System Dynamics</i> , 2018, 56, 1492-1507.	2.2	3
27	Kriging Model Based Optimization of MacPherson Strut Suspension for Minimizing Side Load using Flexible Multi-Body Dynamics. <i>International Journal of Precision Engineering and Manufacturing</i> , 2018, 19, 873-879.	1.1	12
28	Analysis on Dynamics Characteristics of Maglev with Loop Type Linear Synchronous Motor Section Change Algorithm using Electro-Mechanical Co-Simulation. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2018, 5, 401-408.	2.7	4
29	A Study on Vibration Characteristics of Brushless DC Motor by Electromagnetic-Structural Coupled Analysis Using Entire Finite Element Model. <i>IEEE Transactions on Energy Conversion</i> , 2018, 33, 1712-1718.	3.7	26
30	Absolute nodal coordinate formulation of tetrahedral solid element. <i>Nonlinear Dynamics</i> , 2017, 88, 2457-2471.	2.7	10
31	Dynamical response of multi-walled carbon nanotube resonators based on continuum mechanics modeling for mass sensing applications. <i>Journal of Mechanical Science and Technology</i> , 2017, 31, 2385-2391.	0.7	6
32	Geometrically nonlinear dynamic behavior on detection sensitivity of carbon nanotube-based mass sensor using finite element method. <i>Finite Elements in Analysis and Design</i> , 2017, 126, 39-49.	1.7	11
33	Efficient three-stage approach to fatigue life assessment for transport machines in the context of stilt sprayer performance. <i>Engineering Failure Analysis</i> , 2017, 81, 10-30.	1.8	3
34	Thermal effects on nonlinear vibration of a carbon nanotube-based mass sensor using finite element analysis. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 85, 125-136.	1.3	14
35	Analysis of Membrane Behavior of a Normally Closed Microvalve Using a Fluid-Structure Interaction Model. <i>Micromachines</i> , 2017, 8, 355.	1.4	8
36	Finite-size effect on the dynamic and sensing performances of graphene resonators: the role of edge stress. <i>Beilstein Journal of Nanotechnology</i> , 2016, 7, 685-696.	1.5	5

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37	Influence of the Chemical Molar Ratio on the Copper Nanoparticles: Controlled Surfactants, Reducing Agents, and Precursors. Bulletin of the Korean Chemical Society, 2016, 37, 700-704.	1.0	3
38	Defect-related photoluminescence properties of as-synthesized and annealed NiO nanostructures via hydrothermal method. Thin Solid Films, 2016, 598, 33-38.	0.8	12
39	MILP-Based Dynamic Efficiency Scheduling Model of Battery Energy Storage Systems. Journal of Electrical Engineering and Technology, 2016, 11, 1063-1069.	1.2	16
40	Analysis on mass sensing characteristics of SWCNT-based nano-mechanical resonators using continuum mechanics based finite element analysis. Journal of Mechanical Science and Technology, 2015, 29, 4801-4806.	0.7	7
41	Feedback Linearization Control of a Cardiovascular Circulatory Simulator. IEEE Transactions on Control Systems Technology, 2015, 23, 1970-1977.	3.2	6
42	Comparison of photoluminescence of carbon nanotube/ZnO nanostructures synthesized by gas- and solution-phase transport. Applied Physics A: Materials Science and Processing, 2015, 118, 733-738.	1.1	1
43	Characterization and gas sensing properties of bead-like ZnO using multi-walled carbon nanotube templates. Ceramics International, 2015, 41, 7729-7734.	2.3	13
44	Facile fabrication of morphology-tunable SnO nanostructures by catalyst-free growth. Materials Letters, 2015, 158, 5-8.	1.3	3
45	Effects of mechanical deformation on energy conversion efficiency of piezoelectric nanogenerators. Nanotechnology, 2015, 26, 275402.	1.3	10
46	Thermal effects on mass detection sensitivity of carbon nanotube resonators in nonlinear oscillation regime. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 74, 39-44.	1.3	14
47	Elastomeric microfluidic valve with low, constant opening threshold pressure. RSC Advances, 2015, 5, 23239-23245.	1.7	20
48	Wear simulation for the centre plate arrangement of a freight car. Vehicle System Dynamics, 2015, 53, 856-876.	2.2	6
49	Analysis of in-wheel motorized wheelchair cornering performance with electro-mechanical co-simulation. International Journal of Precision Engineering and Manufacturing, 2015, 16, 501-507.	1.1	3
50	Effects of post-annealing treatment on the microstructural evolution and quality of Cu(OH) <sub>2</sub> nanowires. Journal of Alloys and Compounds, 2015, 652, 153-157.	2.8	5
51	Shape-selective synthesis and photoluminescence of SnO <sub>2</sub> nanostructures under different catalyst conditions. Applied Physics A: Materials Science and Processing, 2015, 121, 715-721.	1.1	5
52	Sliding mode control for the Frank-Starling response of a piston pump mock ventricle. Journal of Process Control, 2015, 25, 70-77.	1.7	4
53	The simplest 3-, 6- and 8-noded fully-parameterized ANCF plate elements using only transverse slopes. Multibody System Dynamics, 2015, 34, 23-51.	1.7	20
54	Feasibility study of offshore wind turbine substructures for southwest offshore wind farm project in Korea. Renewable Energy, 2015, 74, 406-413.	4.3	32

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55	GPU-based parallel computation for structural dynamic response analysis with CUDA. Journal of Mechanical Science and Technology, 2014, 28, 4155-4162.	0.7	5
56	Three-Dimensional Solid Brick Element Using Slopes in the Absolute Nodal Coordinate Formulation. Journal of Computational and Nonlinear Dynamics, 2014, 9, .	0.7	41
57	Roll to roll air-floating oven drying process design and analysis for printed electronics. International Journal of Precision Engineering and Manufacturing, 2014, 15, 1303-1310.	1.1	10
58	Dynamic analysis of three-dimensional drivetrain system of wind turbine. International Journal of Precision Engineering and Manufacturing, 2014, 15, 1351-1357.	1.1	17
59	Dynamic modeling and numerical analysis of a cold rolling mill. International Journal of Precision Engineering and Manufacturing, 2013, 14, 407-413.	1.1	33
60	A triangular plate element 2343 using second-order absolute-nodal-coordinate slopes: numerical computation of shape functions. Nonlinear Dynamics, 2013, 74, 769-781.	2.7	19
61	Load analysis and comparison of different jacket foundations. Renewable Energy, 2013, 54, 201-210.	4.3	48
62	Dynamic modeling and analysis of a wind turbine drivetrain using the torsional dynamic model. International Journal of Precision Engineering and Manufacturing, 2013, 14, 153-159.	1.1	43
63	A study on the effect of different modeling parameters on the dynamic response of a jacket-type offshore wind turbine in the Korean Southwest Sea. Renewable Energy, 2013, 58, 50-59.	4.3	53
64	Three- and four-noded planar elements using absolute nodal coordinate formulation. Multibody System Dynamics, 2013, 29, 255-269.	1.7	20
65	Frequency response computation of structures including non-proportional damping in a shared memory environment. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2013, 227, 288-298.	1.1	2
66	Finite element analysis of railway disc brake considering structural, thermal, and wear phenomena. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2012, 226, 1845-1860.	1.1	12
67	Nonlinear vibration behavior of graphene resonators and their applications in sensitive mass detection. Nanoscale Research Letters, 2012, 7, 499.	3.1	49
68	Experimental and Numerical Investigation of the Vibration Characteristics in a Cold Rolling Mill Using Multibody Dynamics. ISIJ International, 2012, 52, 2042-2047.	0.6	23
69	Development of a Mathematical Model for the Prediction of Vibration in a Cold Rolling Mill Including the Driving System. ISIJ International, 2012, 52, 1135-1144.	0.6	16
70	Study on the marine growth effect on the dynamic response of offshore wind turbines. International Journal of Precision Engineering and Manufacturing, 2012, 13, 1167-1176.	1.1	41
71	Investigation of Unbalanced Mass of a Work Roll in a Cold Rolling Mill. Transactions of the Korean Society of Mechanical Engineers, A, 2012, 36, 429-435.	0.1	0
72	Finite size effect on nanomechanical mass detection: the role of surface elasticity. Nanotechnology, 2011, 22, 265502.	1.3	26

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73	On a component mode synthesis on multi-level and its application to dynamics analysis of vehicle system supported with spring-stiffness damper system. <i>Journal of Mechanical Science and Technology</i> , 2011, 25, 3115-3121.	0.7	5
74	An efficient and robust contact algorithm for a compliant contact force model between bodies of complex geometry. <i>Multibody System Dynamics</i> , 2010, 23, 99-120.	1.7	57
75	A Novel Method to Guarantee the Specified Thickness and Surface Roughness of the Roll-to-Roll Printed Patterns Using the Tension of a Moving Substrate. <i>Journal of Microelectromechanical Systems</i> , 2010, 19, 1243-1253.	1.7	56
76	Nanomechanical In Situ Monitoring of Proteolysis of Peptide by Cathepsin B. <i>PLoS ONE</i> , 2009, 4, e6248.	1.1	26
77	Nanomechanical mass detection using nonlinear oscillations. <i>Applied Physics Letters</i> , 2009, 95, 203104.	1.5	64
78	Theory of Thin-Walled, Pretwisted Composite Beams with Elastic Couplings. <i>Advanced Composite Materials</i> , 2009, 18, 105-119.	1.0	4
79	Damped dynamic response determination in the frequency domain for partially damped large scale structures. <i>Journal of Sound and Vibration</i> , 2009, 326, 703-708.	2.1	3
80	Automotive structure vibration with component mode synthesis on a multi-level. <i>International Journal of Automotive Technology</i> , 2008, 9, 119-122.	0.7	7
81	Fast frequency response analysis of large-scale structures with non-proportional damping. <i>International Journal for Numerical Methods in Engineering</i> , 2007, 69, 978-992.	1.5	10
82	Analysis of the equilibrated residual method for a posteriori error estimation on meshes with hanging nodes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2007, 196, 3493-3507.	3.4	24
83	Efficient enforced motion analysis of full-scale vehicle structures with global and local structural damping. <i>Journal of Sound and Vibration</i> , 2007, 306, 940-945.	2.1	0
84	Fast frequency response analysis of partially damped structures with non-proportional viscous damping. <i>Journal of Sound and Vibration</i> , 2006, 297, 1075-1081.	2.1	11
85	A preconditioned iterative method for modal frequency-response analysis of structures with non-proportional damping. <i>Journal of Sound and Vibration</i> , 2006, 297, 1097-1103.	2.1	2
86	Use of distributed-memory parallel processing in computing the dynamic response of the passenger car system. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2006, 220, 1373-1381.	1.1	3
87	Efficient Modal Frequency Response Analysis of Large Structures with Structural Damping. <i>AIAA Journal</i> , 2006, 44, 2130-2133.	1.5	5
88	Deterministic Fatigue Damage Evaluation of Semi-submersible Platform for Wind Turbines Using Hydrodynamic-Structure Interaction Analysis. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 0, , 1.	2.7	0