

# Chang-Sung Seok

## List of Publications by Year in descending order

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94  
papers

857  
citations

623574

14  
h-index

677027

22  
g-index

94  
all docs

94  
docs citations

94  
times ranked

588  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal stress analysis for a disk brake of railway vehicles with consideration of the pressure distribution on a frictional surface. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 483-484, 456-459.	2.6	63
2	Failure mechanisms of coin-type plasma-sprayed thermal barrier coatings with thermal fatigue. <i>Surface and Coatings Technology</i> , 2010, 205, S451-S458.	2.2	40
3	Study on the Aging Behavior of Natural Rubber/Butadiene Rubber (NR/BR) Blends Using a Parallel Spring Model. <i>Polymers</i> , 2018, 10, 658.	2.0	36
4	Evaluation for residual strength and fatigue characteristics after impact in CFRP composites. <i>Composite Structures</i> , 2013, 105, 58-65.	3.1	29
5	A study on thermo mechanical fatigue life prediction of Ni-base superalloy. <i>International Journal of Fatigue</i> , 2014, 62, 62-66.	2.8	26
6	A Study on the Modified Arrhenius Equation Using the Oxygen Permeation Block Model of Crosslink Structure. <i>Polymers</i> , 2019, 11, 136.	2.0	25
7	Evaluation of fracture toughness of nuclear piping using real pipe and tensile compact pipe specimens. <i>Nuclear Engineering and Design</i> , 2013, 259, 198-204.	0.8	23
8	Prediction of post-impact residual strength and fatigue characteristics after impact of CFRP composite structures. <i>Composites Part B: Engineering</i> , 2014, 61, 300-306.	5.9	22
9	The prediction methodology for tire's high speed durability regulation test using a finite element method. <i>International Journal of Fatigue</i> , 2019, 118, 77-86.	2.8	20
10	Estimation of spallation life of thermal barrier coating of gas turbine blade by thermal fatigue test. <i>Surface and Coatings Technology</i> , 2011, 205, S157-S160.	2.2	19
11	Prediction of residual strength of CFRP after impact. <i>Composites Part B: Engineering</i> , 2013, 54, 28-33.	5.9	19
12	Bending fatigue life evaluation of Cu-Mg alloy contact wire. <i>International Journal of Precision Engineering and Manufacturing</i> , 2014, 15, 1331-1335.	1.1	19
13	Prediction of the static fracture strength of hole notched plain weave CFRP composites. <i>Composites Science and Technology</i> , 2011, 71, 1671-1676.	3.8	18
14	Effect of high-temperature degradation on microstructure evolution and mechanical properties of austenitic heat-resistant steel. <i>Journal of Materials Research and Technology</i> , 2019, 8, 2011-2020.	2.6	18
15	Evaluation of fracture toughness characteristics for nuclear piping using various types of specimens. <i>International Journal of Pressure Vessels and Piping</i> , 2012, 90-91, 9-16.	1.2	16
16	Plastic $\hat{\sigma}$ factor considering strength mismatch and crack location in narrow gap weldments. <i>Nuclear Engineering and Design</i> , 2012, 247, 34-41.	0.8	16
17	A study on ring tensile specimens. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 483-484, 248-250.	2.6	15
18	Evaluation of welding characteristics for manual overlay and laser cladding materials in gas turbine blades. <i>Journal of Mechanical Science and Technology</i> , 2012, 26, 2015-2018.	0.7	15

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19	Life Prediction of IN738LC Considering Creep Damage under Low Cycle Fatigue. International Journal of Precision Engineering and Manufacturing - Green Technology, 2018, 5, 311-316.	2.7	15
20	Failure mechanism of plasma-sprayed thermal barrier coatings under high-temperature isothermal aging conditions. Ceramics International, 2021, 47, 15883-15900.	2.3	14
21	Methodology for predicting the life of plasma-sprayed thermal barrier coating system considering oxidation-induced damage. Journal of Materials Science and Technology, 2022, 105, 45-56.	5.6	13
22	Studies on the correlation between mechanical properties and ultrasonic parameters of aging 1Cr-1Mo-0.25V steel. Journal of Mechanical Science and Technology, 2005, 19, 487-495.	0.7	12
23	Thermo-mechanical fatigue characteristics of CMSX-4 applied to the high-pressure turbine first-stage single-crystal rotor blade. Journal of Mechanical Science and Technology, 2020, 34, 1855-1862.	0.7	12
24	Evaluation of Bond Strength of Isothermally Aged Plasma Sprayed Thermal Barrier Coating. Transactions of the Korean Society of Mechanical Engineers, A, 2008, 32, 569-575.	0.1	12
25	Design Technique for Improving the Durability of Top Coating for Thermal Barrier of Gas Turbine. Journal of the Korean Society for Precision Engineering, 2014, 31, 15-20.	0.1	12
26	Correction methods of an apparent negative crack growth phenomenon. International Journal of Fracture, 2000, 102, 259-269.	1.1	11
27	Evaluation of the Degradation of Plasma Sprayed Thermal Barrier Coatings Using Nano-Indentation. Journal of Nanoscience and Nanotechnology, 2009, 9, 7271-7.	0.9	11
28	Evaluation on the Delamination Life of Isothermally Aged Plasma Sprayed Thermal Barrier Coating. Transactions of the Korean Society of Mechanical Engineers, A, 2009, 33, 162-168.	0.1	11
29	Fatigue safety evaluation of newly developed contact wire for eco-friendly high speed electric railway system considering wear. International Journal of Precision Engineering and Manufacturing - Green Technology, 2016, 3, 353-358.	2.7	11
30	Life prediction of thermal barrier coating considering degradation and thermal fatigue. International Journal of Precision Engineering and Manufacturing, 2016, 17, 241-245.	1.1	10
31	TBC delamination life prediction by stress-based delamination map. International Journal of Precision Engineering and Manufacturing - Green Technology, 2017, 4, 67-72.	2.7	10
32	Evaluation of material degradation of 1Cr-1Mo-0.25V steel by ball indentation and resistivity. Journal of Materials Science, 2006, 41, 1081-1087.	1.7	9
33	A study on the differential gearing device with the faculty of a limited slip differential. International Journal of Precision Engineering and Manufacturing, 2009, 10, 91-96.	1.1	9
34	Prediction of residual strength after impact of CFRP composite structures. International Journal of Precision Engineering and Manufacturing, 2014, 15, 1323-1329.	1.1	9
35	Fatigue life prediction method for contact wire using maximum local stress. Journal of Mechanical Science and Technology, 2015, 29, 67-70.	0.7	9
36	Fatigue life estimation of cold drawn contact wire. International Journal of Precision Engineering and Manufacturing, 2014, 15, 2291-2299.	1.1	8

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37	Prediction of thermo-mechanical fatigue life of IN738 LC using the finite element analysis. International Journal of Precision Engineering and Manufacturing, 2014, 15, 1733-1737.	1.1	8
38	Evaluation of thermal gradient mechanical fatigue characteristics of thermal barrier coating, considering the effects of thermally grown oxide. International Journal of Precision Engineering and Manufacturing, 2015, 16, 1675-1679.	1.1	8
39	Thermo mechanical fatigue life prediction of Ni-based superalloy IN738LC. International Journal of Precision Engineering and Manufacturing, 2017, 18, 561-566.	1.1	8
40	Oxide Layer Rumpling Control Technology for High Efficiency of Eco-Friendly Combined-Cycle Power Generation System. International Journal of Precision Engineering and Manufacturing - Green Technology, 2020, 7, 185-193.	2.7	8
41	Prediction of growth behavior of thermally grown oxide considering the microstructure characteristics of the top coating. Ceramics International, 2021, 47, 14160-14167.	2.3	8
42	A method for predicting the delamination life of thermal barrier coatings under thermal gradient mechanical fatigue condition considering degradation characteristics. International Journal of Fatigue, 2021, 151, 106402.	2.8	8
43	Bending Fatigue Life Evaluation of Pure Copper and Copper Alloy Contact Wire. Journal of the Korean Society for Precision Engineering, 2012, 29, 1346-1350.	0.1	8
44	Effect of temperature on the fracture toughness of A516 Gr70 steel. Journal of Mechanical Science and Technology, 2000, 14, 11-18.	0.4	7
45	DC potential drop method for evaluating material degradation. Journal of Mechanical Science and Technology, 2004, 18, 1368-1374.	0.4	7
46	Microstructural investigation of GTD 111DS materials in the heat treatment conditions. Journal of Mechanical Science and Technology, 2012, 26, 2019-2022.	0.7	7
47	Evaluation for fracture resistance curves of nuclear real pipes using curved equivalent stress gradient (curved ESG) specimens. Engineering Fracture Mechanics, 2017, 169, 89-98.	2.0	7
48	Mechanical property evaluation according to alumina content of aged porcelain insulator. Journal of Materials Research and Technology, 2020, 9, 9777-9783.	2.6	7
49	Replacement Strategy of Insulators Established by Probability of Failure. Energies, 2020, 13, 2043.	1.6	7
50	A study on the characteristics of fracture resistance curve of ferritic steels. Journal of Mechanical Science and Technology, 1999, 13, 827-835.	0.4	6
51	Rejuvenation of IN738LC gas-turbine blades using hot isostatic pressing and a series of heat treatments. Journal of Mechanical Science and Technology, 2020, 34, 4605-4611.	0.7	6
52	Method for Predicting Thermal Fatigue Life of Thermal Barrier Coatings Using TGO Interface Stress. International Journal of Precision Engineering and Manufacturing, 2020, 21, 1677-1685.	1.1	6
53	FATIGUE CHARACTERISTICS OF SM490A WELDED JOINTS. International Journal of Modern Physics B, 2006, 20, 4141-4146.	1.0	5
54	A Study on Fatigue Life Prediction of Ni-base Superalloy. Procedia Engineering, 2013, 55, 631-635.	1.2	5

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55	Effect of welding parameters on fracture resistance characteristics of nuclear piping. International Journal of Precision Engineering and Manufacturing, 2015, 16, 65-71.	1.1	5
56	Investigation of welding residual stress of high tensile steel by finite element method and experiment. Journal of Mechanical Science and Technology, 1999, 13, 879-885.	0.4	4
57	A study of the LCF characteristics of the Ni-based superalloy IN738LC. International Journal of Precision Engineering and Manufacturing, 2015, 16, 775-780.	1.1	4
58	Transformation of fracture resistance curves by using bending modified Q (Q <sub>m</sub> ) factor. International Journal of Precision Engineering and Manufacturing, 2017, 18, 85-91.	1.1	4
59	An Effective Electrical Resonance-Based Method to Detect Delamination in Thermal Barrier Coating. Journal of Thermal Spray Technology, 2018, 27, 336-343.	1.6	4
60	Development of Laboratory Fatigue Testing Apparatus for Automotive Vehicle Engine Valve Simulating Actual Operating Conditions. International Journal of Precision Engineering and Manufacturing, 2019, 20, 1241-1253.	1.1	4
61	A Study on the Tensile Property of Ring Specimen Having Gauge Length. Transactions of the Korean Society of Mechanical Engineers, A, 2005, 29, 555-562.	0.1	4
62	Top Coating Design Technique for Thermal Barrier of Gas Turbine. Journal of the Korean Society for Precision Engineering, 2013, 30, 802-808.	0.1	4
63	Evaluation of Effect on Thermal Fatigue Life Considering TGO Growth. Journal of the Korean Society for Precision Engineering, 2014, 31, 1155-1159.	0.1	4
64	Methodology for Predicting the Durability of Aged Tire Sidewall Under Actual Driving Conditions. International Journal of Precision Engineering and Manufacturing, 2022, 23, 881-893.	1.1	4
65	THE MICROSTRUCTURAL ANALYSIS OF THE EFFECT OF FIC ON GAS TURBINE BLADES. International Journal of Modern Physics B, 2006, 20, 4135-4140.	1.0	3
66	FATIGUE CRACK PROPAGATION BEHAVIOR ACCORDING TO FIBER ARRAYING DIRECTION FOR LOAD DIRECTION IN WOVEN CFRP COMPOSITE. International Journal of Modern Physics B, 2010, 24, 2615-2620.	1.0	3
67	Development of thermal gradient prediction method for thermal barrier coating. International Journal of Precision Engineering and Manufacturing, 2014, 15, 1029-1033.	1.1	3
68	Validation of fracture toughness characteristics of nuclear plant piping and safety margin analysis by using CP specimen. Engineering Fracture Mechanics, 2017, 186, 39-46.	2.0	3
69	Life Prediction Method for Thermal Barrier Coating of High-Efficiency Eco-Friendly Combined Cycle Power Plant. International Journal of Precision Engineering and Manufacturing - Green Technology, 2019, 6, 329-337.	2.7	3
70	A further study on fracture resistance evaluation of nuclear pipes using CP specimens. Engineering Fracture Mechanics, 2020, 235, 107167.	2.0	3
71	A cumulative oxide growth model considering the deterioration history of thermal barrier coatings. Corrosion Science, 2021, 182, 109273.	3.0	3
72	Study of Failure Criterion of Hole-Notched Plain-Weave Carbon Fiber Reinforced Plastic (CFRP) Composites. Transactions of the Korean Society of Mechanical Engineers, A, 2010, 34, 481-486.	0.1	3

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73	Durability Evaluation of Thermal Barrier Coating (TBC) According to Growth of Thermally Grown Oxide (TGO). Transactions of the Korean Society of Mechanical Engineers, A, 2014, 38, 1431-1434.	0.1	3
74	Low Cycle Fatigue Characteristics of a Ni-Based Single Crystal Superalloy CMSX-4 at Elevated Temperature. Journal of the Korean Society for Precision Engineering, 2019, 36, 271-279.	0.1	3
75	FATIGUE LIFE CHARACTERISTICS OF WATERWORKS PIPE WELDS. International Journal of Modern Physics B, 2006, 20, 3969-3974.	1.0	2
76	Design of overlay coated region with hardfacing, transition and damage diminution layers for the reduction of damages of hot forging tools. Journal of Mechanical Science and Technology, 2017, 31, 5639-5647.	0.7	2
77	Prediction of thermal fatigue life based on the microstructure of thermal barrier coating applied to single-crystal CMSX-4 considering stress ratio. Ceramics International, 2021, 47, 21950-21958.	2.3	2
78	Influence of corundum content on integrity of porcelain after long-term exposure to thermo-mechanical fatigue environments. Ceramics International, 2021, 47, 28479-28486.	2.3	2
79	A Study on the Evaluation of the Pipe Fracture Characteristic. Transactions of the Korean Society of Mechanical Engineers, A, 2005, 29, 107-114.	0.1	2
80	The impact of cap orientation on mechanical strength of high voltage devices and a novel design for improvement. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2022, 44, 1.	0.8	2
81	Methodology for evaluating the tightening torque-clamping force relationship and friction coefficients in bolted joints. Journal of Mechanical Science and Technology, 2022, 36, 1913-1919.	0.7	2
82	Method for Evaluating the Fatigue Life of Stem End Considering the Structural Characteristics of Engine Valve for Automobiles. International Journal of Automotive Technology, 2022, 23, 303-313.	0.7	2
83	Evaluation on fracture toughness of low activation ferritic steel (JLF-1). International Journal of Applied Electromagnetics and Mechanics, 2002, 13, 359-364.	0.3	1
84	FATIGUE STRENGTH ASSESSMENT OF THE FILLET WELDED CRUCIFORM JOINTS. International Journal of Modern Physics B, 2006, 20, 4225-4230.	1.0	1
85	Primary stability evaluation of a hip-joint implant systems according to different surgical methods and bone densities under cyclic loading condition. International Journal of Precision Engineering and Manufacturing, 2015, 16, 1095-1100.	1.1	1
86	The study on delamination life of TBC through burner-rig test. International Journal of Precision Engineering and Manufacturing, 2017, 18, 555-560.	1.1	1
87	Design of Microstructure by Evaluating the Effect of Thermal Barrier Coating's Microstructure on TGO Interface Stress. Journal of the Korea Institute of Military Science and Technology, 2020, 23, 435-443.	0.1	1
88	Evaluation of Critical Crack Length of Tension Bar for Continuous Ship Uploader. Journal of the Korean Society for Precision Engineering, 2018, 35, 1169-1177.	0.1	1
89	Creep performance evaluation considering the operating environment of gas turbine blades with rejuvenation maintenance. Journal of Mechanical Science and Technology, 2022, 36, 127.	0.7	1
90	Evaluation of material degradation of lcr-lmo-0.25v steel using ball indentation method. Journal of Mechanical Science and Technology, 2004, 18, 1730-1737.	0.4	0

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91	EVALUATION OF RESIDUAL STRESS OF COPPER PIPE BY USING RAMAN SPECTROSCOPY. Modern Physics Letters B, 2008, 22, 1007-1012.	1.0	0
92	Analytical and experimental stiffness estimation of heat pipe supporter for nuclear power plant through a homogenization process. Advances in Mechanical Engineering, 2015, 7, 168781401559386.	0.8	0
93	Comparison of safety margin in LBB design of nuclear pipes based on various types of fracture resistance test specimens. Journal of Mechanical Science and Technology, 2021, 35, 2097-2105.	0.7	0
94	Performance Evaluation and Analysis on Protective Coating Applied to HPT Heat Shield of GT24 Gas Turbine. Journal of the Korean Society for Precision Engineering, 2019, 36, 53-57.	0.1	0