

# Hongseok Choi

## List of Publications by Year in descending order

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71  
papers

2,694  
citations

293460

24  
h-index

214428

50  
g-index

77  
all docs

77  
docs citations

77  
times ranked

2455  
citing authors

#	ARTICLE	IF	CITATIONS
1	Failure modes and bonding strength of ultrasonically-soldered glass joints. Journal of Materials Processing Technology, 2022, 299, 117385.	3.1	3
2	Study of segmented chip formation in cutting of high-strength lightweight alloys. International Journal of Advanced Manufacturing Technology, 2021, 112, 2683-2703.	1.5	15
3	Enhanced wettability in ultrasonic-assisted soldering to glass substrates. Journal of Manufacturing Processes, 2021, 64, 276-284.	2.8	6
4	Study of the Effect of the A206/1.0 wt. % $\text{Al}_2\text{O}_3$ Nanocomposites Content on the Portevin-Le Chatelier Phenomenon in Al/0.5 wt. % Mg Alloys. Journal of Composites Science, 2021, 5, 163.	1.4	1
5	Acoustic analysis of ultrasonic assisted soldering for enhanced adhesion. Ultrasonics, 2020, 101, 106003.	2.1	11
6	Study about the Effect of Addition of Carbon Nanofibers on the Strain-Rate Sensitivity of Thermoplastic Polymer Matrix Nanocomposites Manufactured by Ultrasonic Processing. Procedia Manufacturing, 2020, 48, 400-406.	1.9	1
7	Development of an open-sourced automated ultrasonic-assisted soldering system. Journal of Manufacturing Processes, 2019, 47, 284-290.	2.8	6
8	Study of the Geometrical Effects of Impeller on the Flow Field in Hybrid Mixing Process for Manufacturing Nanocomposites. Procedia Manufacturing, 2019, 34, 177-185.	1.9	0
9	Temperature measurement in friction element welding process with micro thin film thermocouples. Procedia Manufacturing, 2018, 26, 485-494.	1.9	11
10	Thermal-Mechanical Numerical Modeling of the Friction Element Welding Process. , 2018, , .		4
11	Investigation of simultaneous ultrasonic processing of polymer-nanoparticle solutions for electrospinning of nanocomposite nanofibers. Journal of Manufacturing Processes, 2018, 34, 776-784.	2.8	9
12	Strengthening of Aluminum Wires Treated with A206/Alumina Nanocomposites. Materials, 2018, 11, 413.	1.3	8
13	Reinforced thermoplastic composites with interfacial microarchitectural anchoring: Computational study. International Journal of Solids and Structures, 2017, 112, 54-64.	1.3	5
14	Investigation of the Cleaning and Welding Steps From the Friction Element Welding Process. , 2017, , .		2
15	Comparative Study of Polymer Dissolution Techniques for Electrospinning. Procedia Manufacturing, 2017, 10, 652-661.	1.9	12
16	Numerical and experimental studies about the effect of acoustic streaming on ultrasonic processing of metal matrix nanocomposites (MMNCs). Journal of Manufacturing Processes, 2017, 28, 515-522.	2.8	19
17	The effect of geometrical parameters on the characteristics of ultrasonic processing for metal matrix nanocomposites (MMNCs). Journal of Manufacturing Processes, 2016, 24, 382-390.	2.8	11
18	Strengthening Al $\text{TiO}_2$ nanocomposites by Cu addition and grain refinement. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 651, 332-335.	2.6	17

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19	Fabrication of Hierarchical Metallic Nanocomposite Core/Metal Shell Nanostructures by Self-Assembly. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 5479-5483.	0.9	0
20	Processing and properties of magnesium containing a dense uniform dispersion of nanoparticles. <i>Nature</i> , 2015, 528, 539-543.	13.7	582
21	Shape effects on nanoparticle engulfment for metal matrix nanocomposites. <i>Journal of Crystal Growth</i> , 2015, 422, 62-68.	0.7	21
22	Rapid control of phase growth by nanoparticles. <i>Nature Communications</i> , 2014, 5, 3879.	5.8	116
23	Urchin-like AlOOH nanostructures on Al microspheres grown via in-situ oxide template. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2014, 188, 89-93.	1.7	5
24	Achieving Uniform Distribution and Dispersion of a High Percentage Nanoparticles in Mg18Sn Matrix by Solidification Processing. , 2014, , 467-470.		0
25	Nanoparticle-Induced Superior Hot Tearing Resistance of A206 Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 1897-1907.	1.1	46
26	Achieving uniform distribution and dispersion of a high percentage of nanoparticles in metal matrix nanocomposites by solidification processing. <i>Scripta Materialia</i> , 2013, 69, 634-637.	2.6	106
27	Ultrasonic-Assisted Synthesis of Surface-Clean TiB <sub>2</sub> Nanoparticles and Their Improved Dispersion and Capture in Al-Matrix Nanocomposites. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 8813-8819.	4.0	48
28	Assembly of metals and nanoparticles into novel nanocomposite superstructures. <i>Scientific Reports</i> , 2013, 3, .	1.6	38
29	Insertable thin film thermocouples for in situ transient temperature monitoring in ultrasonic metal welding of battery tabs. <i>Journal of Manufacturing Processes</i> , 2013, 15, 136-140.	2.8	68
30	Transient Temperature and Heat Flux Measurement in Ultrasonic Joining of Battery Tabs Using Thin-Film Microsensors. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2013, 135, .	1.3	45
31	Nanoparticle effects in cast Mg-1wt% SiC nano-composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 558, 39-43.	2.6	73
32	Theoretical study and pathways for nanoparticle capture during solidification of metal melt. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 255304.	0.7	112
33	AZ91D/TiB <sub>2</sub> Nanocomposites Fabricated by Solidification Nanoprocessing. <i>Advanced Engineering Materials</i> , 2012, 14, 291-295.	1.6	17
34	Novel nanoprocessing route for bulk graphene nanoplatelets reinforced metal matrix nanocomposites. <i>Scripta Materialia</i> , 2012, 67, 29-32.	2.6	299
35	Al <sub>2</sub> O <sub>3</sub> nanoparticles induced simultaneous refinement and modification of primary and eutectic Si particles in hypereutectic Al-Cu-Si alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 541, 159-165.	2.6	106
36	Effect of core-shelled nanoparticles of carbon-coated nickel on magnesium. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 546, 284-290.	2.6	12

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37	Effect of Combined Addition of Cu and Aluminum Oxide Nanoparticles on Mechanical Properties and Microstructure of Al-7Si-0.3Mg Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 738-746.	1.1	54
38	Refinement of primary Si and modification of eutectic Si for enhanced ductility of hypereutectic Al-20Si-4.5Cu alloy with addition of Al <sub>2</sub> O <sub>3</sub> nanoparticles. Journal of Materials Science, 2012, 47, 3096-3102.	1.7	55
39	Characterization of hot extruded Mg/SiC nanocomposites fabricated by casting. Journal of Materials Science, 2011, 46, 2991-2997.	1.7	36
40	Characterization of Hot Extruded Mg/SiC Nanocomposites Fabricated by Casting. , 2011, , 443-446.		0
41	Effects of Silicon Carbide Nanoparticles on Mechanical Properties and Microstructure of As-Cast Mg-12wt.% Al-0.2wt.% Mn Nanocomposites. , 2011, , 447-452.		0
42	Grain refining mechanisms in Mg-Al alloys with Al <sub>4</sub> C <sub>3</sub> microparticles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 2104-2111.	2.6	61
43	Strong, Ductile Magnesium-Zinc Nanocomposites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 3038-3045.	1.1	93
44	Mg-6Zn/1.5%SiC nanocomposites fabricated by ultrasonic cavitation-based solidification processing. Journal of Materials Science, 2008, 43, 5521-5526.	1.7	85
45	Study on tensile properties and microstructure of cast AZ91D/AlN nanocomposites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 494, 127-131.	2.6	105
46	Experimental Investigations of Laser Micromachining of Nickel Using Thin Film Micro Thermocouples. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, .	1.3	13
47	Embedded micro/nano sensors for harsh engineering environments. , 2008, , .		4
48	Embedding of micro thin film strain sensors in sapphire by diffusion bonding. Journal of Micromechanics and Microengineering, 2007, 17, 2248-2252.	1.5	18
49	Study on Embedding and Integration of Microsensors Into Metal Structures for Manufacturing Applications. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2007, 129, 416-424.	1.3	36
50	Applications of Micro Sensors for Fundamental Study of Manufacturing Processes. , 2007, , 281.		0
51	Fabrication and application of micro thin film thermocouples for transient temperature measurement in nanosecond pulsed laser micromachining of nickel. Sensors and Actuators A: Physical, 2007, 136, 118-124.	2.0	69
52	Experimental Investigations of Laser Micromachining of Metal Using Micro Thin Film Thermocouples. , 2007, , .		0
53	Microfabrication and Characterization of Metal-Embedded Thin-Film Thermomechanical Microsensors for Applications in Hostile Manufacturing Environments. Journal of Microelectromechanical Systems, 2006, 15, 322-329.	1.7	24
54	Design, fabrication and characterization of metal embedded thin film thermocouples with various film thicknesses and junction sizes. Journal of Micromechanics and Microengineering, 2006, 16, 900-905.	1.5	86

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55	Batch Fabrication and Characterization of Micro-Thin-Film Thermocouples Embedded in Metal. Journal of the Electrochemical Society, 2006, 153, H89.	1.3	21
56	Transient Surface Temperature Measurement With Micro Sensors for Nanosecond Pulsed Laser Micromachining of Nickel. , 2006, , 983.		0
57	Experimental study of laser-€cheese interaction for making of thin cheese slices with complex shapes. Journal of Food Engineering, 2006, 75, 90-95.	2.7	6
58	Metal Embedded Micro Sensors for Manufacturing Applications. , 2006, , .		3
59	Experimental study on integration of laser-based additive/subtractive processes for meso/micro solid freeform fabrication. International Journal of Advanced Manufacturing Technology, 2005, 26, 335-341.	1.5	8
60	Batch Microfabrication of Metal-Embedded Micro Thin Film Sensors for Applications in Hostile Environments. Electrochemical and Solid-State Letters, 2005, 8, H94.	2.2	4
61	Transient Temperature Measurement in Nanosecond Pulsed Laser Micro Drilling by Using Micro Thin Film Thermocouples. , 2005, , 499.		1
62	A Novel Batch Production Technique of Metal Embedded Thin Film Microsensors for Applications in Manufacturing. , 2005, , .		0
63	Studies on Thin Films (Dielectric and Metallic) Constituting Micro Thermo-Mechanical Sensors Embedded in Metal Structures. , 2004, , 357.		0
64	Micro Thin Film Temperature Sensors Embedded in Metal Structures. , 2004, , 21.		0
65	Micro Thin Film Sensor Embedding in Metals by Ultrasonic Welding for Production of Miniature Smart Tooling. , 2004, , 541.		0
66	UV laser machining of biomaterial composite. , 2003, , .		1
67	Micro rapid prototyping system for micro components. Thin Solid Films, 2002, 420-421, 515-523.	0.8	31
68	Laser-based micro-manufacturing of complex micro structures. , 2002, , .		1
69	Muscle forces and spinal loads at C4/5 level during isometric voluntary efforts. Medicine and Science in Sports and Exercise, 2000, 32, 830-838.	0.2	26
70	Parameter Sensitivity and Process Time Reduction for Friction Element Welding of 6061-T6 Aluminum to 1500 MPa Press-Hardened Steel. SAE International Journal of Materials and Manufacturing, 0, 12, 41-56.	0.3	11
71	Strain rate effects on thermoplastic composites with mechanical interlocking. Polymer Composites, 0, , .	2.3	3