Heungsoo Kim

List of Publications by Year in Descending Order

118 papers	6,483 citations	38 h-index	79 g-index
130 ext. papers	6,963 ext. citations	3.4 avg, IF	5.4 L-index

#	Paper	IF	Citations
118	Laser Processing of Energy Storage Materials **2021**, 59-73		
117	Tunable permittivity of La-doped BaSnO3 thin films for near- and mid-infrared plasmonics. *Journal Physics D: Applied Physics*, **2020**, 53, 365103	3	4
116	Light tunable plasmonic metasurfaces. *Optics Express*, **2020**, 28, 22891-22898	3.3	1
115	ZnO Nanoparticle/Graphene Hybrid Photodetectors via Laser Fragmentation in Liquid. *Nanomaterials*, **2020**, 10,	5.4	7
114	Superconducting properties of tin-based ENZ and hyperbolic metamaterials. *Physica C: Superconductivity and Its Applications*, **2019**, 565, 1353511	1.3	1
113	Control of metal-insulator transition temperature in VO2 thin films grown on RuO2/TiO2 templates by strain modification. *AIP Advances*, **2019**, 9, 015302	1.5	7
112	VO-based switchable radiator for spacecraft thermal control. *Scientific Reports*, **2019**, 9, 11329	4.9	26
111	Hierarchical laser patterning of indium tin oxide thin films. *Optical Materials Express*, **2019**, 9, 3035	2.6	8
110	Thermally Induced Magnetic Anisotropy in Nickel Films on Surface Acoustic Wave Devices. *IEEE Transactions on Magnetics*, **2019**, 55, 1-4	2	10
109	Laser Transfer of Entire Structures and Functional Devices **2018**, 427-443		
108	Congruent LIFT with High-Viscosity Nanopastes **2018**, 227-250		
107	Observation of the out-of-plane magnetization in a mesoscopic ferromagnetic structure superjacent to a superconductor. *Applied Physics Letters*, **2018**, 113, 162601	3.4	2
106	Strain Effects in Epitaxial VO Thin Films on Columnar Buffer-Layer TiO/AlO Virtual Substrates. *ACS Applied Materials & Interfaces*, **2017**, 9, 1577-1584	9.5	37
105	Laser processing of VO2 thin films for THz devices and metamaterials **2017**,		1
104	Ultrafast Phase Transition Dynamics in Strained Vanadium Dioxide Films. *Advanced Materials Interfaces*, **2017**, 4, 1700810	4.6	9
103	Strain effect in epitaxial VO2 thin films grown on sapphire substrates using SnO2 buffer layers. *AIP Advances*, **2017**, 7, 105116	1.5	12
102	Laser-processing of VO2 thin films synthesized by polymer-assisted-deposition. *Applied Surface Science*, **2017**, 397, 152-158	6.7	13

101	Laser additive manufacturing of embedded electronics **2017**, 319-350		3
100	Enhanced superconductivity in aluminum-based hyperbolic metamaterials. *Scientific Reports*, **2016**, 6, 34140	4.9	19
99	Laser-induced Forward Transfer of Ag Nanopaste. *Journal of Visualized Experiments*, **2016**, e53728	1.6	8
98	Laser-induced forward transfer (LIFT) of congruent voxels. *Applied Surface Science*, **2016**, 374, 42-48	6.7	21
97	Laser 3D micro-manufacturing. *Journal Physics D: Applied Physics*, **2016**, 49, 223001	3	68
96	Polycrystalline VO2 thin films via femtosecond laser processing of amorphous VO x. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	7
95	Laser printing and femtosecond laser structuring of electrode materials for the manufacturing of 3D lithium-ion micro-batteries **2016**,		2
94	All-optical short pulse translation through cross-phase modulation in a VO□thin film. *Optics Letters*, **2016**, 41, 238-41	3	1
93	Broadband terahertz generation using the semiconductor-metal transition in VO2. *AIP Advances*, **2016**, 6, 015113	1.5	15
92	Active terahertz metamaterials based on the phase transition of VO2 thin films. *Thin Solid Films*, **2015**, 596, 45-50	2.2	34
91	Laser forward transfer using structured light. *Optics Express*, **2015**, 23, 422-30	3.3	28
90	Spatially modulated laser pulses for printing electronics. *Applied Optics*, **2015**, 54, F70-7	0.2	16
89	Laser forward transfer of solder paste for microelectronics fabrication **2015**,		4
88	Laser-induced forward transfer of silver nanopaste for microwave interconnects. *Applied Surface Science*, **2015**, 331, 254-261	6.7	30
87	Optimization of the semiconductor-metal transition in VO2 epitaxial thin films as a function of oxygen growth pressure. *Applied Physics Letters*, **2014**, 104, 081913	3.4	53
86	Laser-printing and femtosecond-laser structuring of LiMn2O4 composite cathodes for Li-ion microbatteries. *Journal of Power Sources*, **2014**, 255, 116-124	8.9	62
85	Experimental demonstration of superconducting critical temperature increase in electromagnetic metamaterials. *Scientific Reports*, **2014**, 4, 7321	4.9	25
84	Laser embedding electronics on 3D printed objects **2014**,		5

83	Fs-laser microstructuring of laser-printed LiMn2O4electrodes for manufacturing of 3D microbatteries **2014**,		1
82	Laser-printed/structured thick-film electrodes for Li-ion microbatteries **2014**,		2
81	Laser materials processing for micropower source applications: a review. *Journal of Photonics for Energy*, **2014**, 4, 040992	1.2	11
80	Generation of transparent conductive electrodes by laser consolidation of LIFT printed ITO nanoparticle layers. *Applied Physics A: Materials Science and Processing*, **2013**, 111, 799-805	2.6	18
79	Laser printing of conformal and multi-level 3D interconnects. *Applied Physics A: Materials Science and Processing*, **2013**, 113, 5-8	2.6	28
78	Impact of reduced dimensionality on the magnetic and magnetocaloric response of La0.7Ca0.3MnO3. *Applied Physics Letters*, **2013**, 102, 062414	3.4	110
77	Laser processing of 2D and 3D metamaterial structures **2013**,		2
76	Optimization of Al-doped ZnO films for low loss plasmonic materials at telecommunication wavelengths. *Applied Physics Letters*, **2013**, 102, 171103	3.4	70
75	Laser transfer of reconfigurable patterns with a spatial light modulator **2013**,		7
74	High-speed video study of laser-induced forward transfer of silver nano-suspensions. *Journal of Applied Physics*, **2013**, 114, 064910	2.5	46
73	Laser Forward Transfer of Functional Materials for Digital Fabrication of Microelectronics. *Journal of Imaging Science and Technology*, **2013**, 57, 1-8	1.2	21
72	Optimization of laser printing of nanoparticle suspensions for microelectronic applications. *Applied Physics A: Materials Science and Processing*, **2012**, 106, 471-478	2.6	50
71	Enhancement of carrier-mediated ferromagnetism in Zr/Fe-codoped In2O3 films. *Applied Physics Letters*, **2012**, 100, 142403	3.4	8
70	Room temperature ferromagnetism in transparent Fe-doped In2O3 films. *Applied Physics Letters*, **2012**, 100, 032404	3.4	30
69	Realization of metamaterial structures by non-lithographic processes **2012**,		2
68	Laser-Printed and Processed LiCoO2 CathodeThick Films for Li-Ion Microbatteries. *Journal of Laser Micro Nanoengineering*, **2012**, 7, 320-325	1	30
67	F-doped SnO2 thin films grown on flexible substrates at low temperatures by pulsed laser deposition. *Thin Solid Films*, **2011**, 520, 497-500	2.2	16
66	Laser forward transfer based on a spatial light modulator. *Applied Physics A: Materials Science and Processing*, **2011**, 102, 21-26	2.6	36

65	Thermal expansion studies of indium tin oxide. *Physica Status Solidi (B): Basic Research*, **2011**, 248, 928-930	1.9	3
64	Laser-printed interdigitated Ag electrodes for organic thin film transistors. *Journal Physics D: Applied Physics*, **2010**, 43, 085101	3	26
63	Fabrication of terahertz metamaterials by laser printing. *Optics Letters*, **2010**, 35, 4039-41	3	42
62	Laser printing of multi-layered polymer/metal heterostructures for electronic and MEMS devices. *Applied Physics A: Materials Science and Processing*, **2010**, 99, 711-716	2.6	35
61	Three-dimensional printing of interconnects by laser direct-write of silver nanopastes. *Advanced Materials*, **2010**, 22, 4462-6	24	118
60	Laser forward transfer of silver electrodes for organic thin-film transistors. *Applied Physics A: Materials Science and Processing*, **2009**, 96, 441-445	2.6	35
59	Laser decal transfer of freestanding microcantilevers and microbridges. *Applied Physics A: Materials Science and Processing*, **2009**, 97, 513-519	2.6	40
58	Laser decal transfer of electronic materials with thin film characteristics **2008**,		18
57	Transparent conducting F-doped SnO2 thin films grown by pulsed laser deposition. *Thin Solid Films*, **2008**, 516, 5052-5056	2.2	169
56	Pulsed laser deposition of Zr□N codoped p-type ZnO thin films. *Applied Physics A: Materials Science and Processing*, **2008**, 93, 593-598	2.6	13
55	Optimization of F-doped SnO2 electrodes for organic photovoltaic devices. *Applied Physics A: Materials Science and Processing*, **2008**, 93, 521-526	2.6	40
54	Laser Forward Transfer of Electronic and Power Generating Materials **2007**, 339-373		9
53	Laser-printed thick-film electrodes for solid-state rechargeable Li-ion microbatteries. *Journal of Power Sources*, **2007**, 165, 413-419	8.9	81
52	Applications of laser direct-write for embedding microelectronics **2007**,		5
51	Assembly and integration of thin bare die using laser direct-write **2007**,		8
50	Fabrication of Zr□N codoped p-type ZnO thin films by pulsed laser deposition. *Applied Physics Letters*, **2007**, 90, 203508	3.4	37
49	Functionalization of indium tin oxide. *Langmuir*, **2006**, 22, 11113-25	4	56
48	Transparent Conducting Oxide Films **2006**, 239-260		3

47	Laser Transferable Polymer-Ionic Liquid Separator/Electrolytes for Solid-State Rechargeable Lithium-Ion Microbatteries. *Electrochemical and Solid-State Letters*, **2006**, 9, A69-A71		28
46	Laser printing of nanocomposite solid-state electrolyte membranes for Li micro-batteries. *Applied Surface Science*, **2006**, 252, 8212-8216	6.7	31
45	Laser-sintered mesoporous TiO2 electrodes for dye-sensitized solar cells. *Applied Physics A: Materials Science and Processing*, **2006**, 83, 73-76	2.6	86
44	Laser direct-write of embedded electronic components and circuits **2005**,		13
43	Transparent conducting Sb-doped SnO2 thin films grown by pulsed-laser deposition. *Applied Physics Letters*, **2004**, 84, 218-220	3.4	140
42	Polymer Electrodes for Flexible Organic Light-Emitting Devices. *Materials Research Society Symposia Proceedings*, **2004**, 814, 108		1
41	Dye-sensitized solar cells using laser processing techniques **2004**,		2
40	Application of laser printing to mammalian cells. *Thin Solid Films*, **2004**, 453-454, 383-387	2.2	171
39	Rapid prototyping of micropower sources by laser direct-write. *Applied Physics A: Materials Science and Processing*, **2004**, 79, 783-786	2.6	33
38	Laser direct write of planar alkaline microbatteries. *Applied Physics A: Materials Science and Processing*, **2004**, 79, 417-420	2.6	15
37	Laser processing of nanocrystalline TiO2 films for dye-sensitized solar cells. *Applied Physics Letters*, **2004**, 85, 464-466	3.4	79
36	Laser printing of pluripotent embryonal carcinoma cells. *Tissue Engineering*, **2004**, 10, 483-91		243
35	Application of laser direct-write techniques for embedding electronic and micropower components **2004**,		7
34	Manufacture of mesoscale energy storage systems by laser-direct write **2004**,		1
33	High Quality Sn-Doped In2O3 Films Grown by Pulsed Laser Deposition for Organic Light-Emitting Diodes. *Materials Research Society Symposia Proceedings*, **2003**, 780, 161		
32	Anisotropic in-plane strain in W-doped (Ba, Sr)TiO3 thin films deposited by pulsed-laser deposition on (001)MgO. *Applied Physics A: Materials Science and Processing*, **2003**, 76, 841-846	2.6	17
31	Synthesis of In2O3□c2O3 transparent conducting oxide films. *Applied Surface Science*, **2003**, 208-209, 611-614	6.7	9
30	Effect of annealing on the electrical properties and morphology of a conducting polymer used as an anode in organic light-emitting devices. *Journal of Polymer Science, Part B: Polymer Physics*, **2003**, 41, 2522-2528	2.6	59

29	Anode material based on Zr-doped ZnO thin films for organic light-emitting diodes. *Applied Physics Letters*, **2003**, 83, 3809-3811	3.4	75
28	Epitaxial growth of Al-doped ZnO thin films grown by pulsed laser deposition. *Thin Solid Films*, **2002**, 420-421, 107-111	2.2	160
27	Doped ZnO thin films as anode materials for organic light-emitting diodes. *Thin Solid Films*, **2002**, 420-421, 539-543	2.2	192
26	Picoliter-scale protein microarrays by laser direct write. *Biotechnology Progress*, **2002**, 18, 1126-9	2.8	75
25	Highly oriented indium tin oxide films for high efficiency organic light-emitting diodes. *Journal of Applied Physics*, **2002**, 91, 5371-5376	2.5	49
24	Enhanced superconductivity in metallic oxides near the metal-insulator transition. *Physical Review B*, **2002**, 66,	3.3	12
23	Synthesis of bulk In2O3Sc2O3 and their transparent conducting oxide films. *Journal of Applied Physics*, **2002**, 92, 227-229	2.5	10
22	Cell-by-cell construction of living tissue **2002**,		3
21	Highly oriented indium tin oxide thin films for organic light-emitting diodes **2002**,		1
20	Molecular organic light-emitting diodes using highly conducting polymers as anodes. *Applied Physics Letters*, **2002**, 80, 3844-3846	3.4	299
19	Transparent conducting indium tin oxide thin film grown on flexible substrate by pulsed-laser deposition for organic light-emitting devices **2001**,		1
18	Presence of a pseudo-gap feature in the density of states of disordered W/Si alloys. *Physica C: Superconductivity and Its Applications*, **2001**, 364-365, 427-429	1.3	1
17	Coulomb interaction in disordered metals and HTSC. *Physica C: Superconductivity and Its Applications*, **2001**, 364-365, 471-474	1.3	7
16	Transparent conducting Zr-doped In2O3 thin films for organic light-emitting diodes. *Applied Physics Letters*, **2001**, 78, 1050-1052	3.4	108
15	New insight into enhanced superconductivity in metals near the metal-insulator transition. *Physical Review Letters*, **2001**, 87, 197004	7.4	46
14	Novel Laser-Based Deposition of Active Protein Thin Films. *Langmuir*, **2001**, 17, 3472-3479	4	118
13	Indium tin oxide thin films grown on flexible plastic substrates by pulsed-laser deposition for organic light-emitting diodes. *Applied Physics Letters*, **2001**, 79, 284-286	3.4	221
12	Effect of film thickness on the properties of indium tin oxide thin film grown by pulsed-laser deposition for organic light-emitting diodes **2000**, 3933, 140		1

11	Effect of aluminum doping on zinc oxide thin films grown by pulsed laser deposition for organic light-emitting devices. *Thin Solid Films*, **2000**, 377-378, 798-802	2.2	277
10	Growth of epitaxial doped strontium sulfide thin films by pulsed laser deposition. *Thin Solid Films*, **2000**, 377-378, 803-808	2.2	15
9	Transparent conducting films of In2O3–ZrO2, SnO2–ZrO2 and ZnO–ZrO2. *Thin Solid Films*, **2000**, 377-378, 750-754	2.2	39
8	Optical and electrical properties of transparent conducting In2O3–ZrO2 films. *Journal of Materials Research*, **2000**, 15, 21-24	2.5	20
7	Transparent conducting films of ZnO–ZrO2: Structure and properties. *Journal of Applied Physics*, **2000**, 88, 6564-6566	2.5	50
6	Effect of film thickness on the properties of indium tin oxide thin films. *Journal of Applied Physics*, **2000**, 88, 6021-6025	2.5	260
5	Transparent conducting aluminum-doped zinc oxide thin films for organic light-emitting devices. *Applied Physics Letters*, **2000**, 76, 259-261	3.4	394
4	Epitaxial growth of Zn2Y ferrite films by pulsed laser deposition. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1999**, 17, 3111-3114	2.9	5
3	Electrical and optical properties of indium tin oxide thin films grown by pulsed laser deposition. *Applied Physics A: Materials Science and Processing*, **1999**, 69, S447-S450	2.6	49
2	Electrical, optical, and structural properties of indium tin oxide thin films for organic light-emitting devices. *Journal of Applied Physics*, **1999**, 86, 6451-6461	2.5	990
1	Indium tin oxide thin films for organic light-emitting devices. *Applied Physics Letters*, **1999**, 74, 3444-3446	3.4	304