Seung-Kyun Kang

List of Publications by Year in Descending Order

Source: https://exaly.com/author-pdf/2288939/seung-kyun-kang-publications-by-year.pdf
Version: 2024-04-20

65	4,807	34	69
papers	citations	h-index	g-index
70	5,668	14.7	5.21
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
65	Ultrasensitive crack-based strain sensors: mechanism, performance, and biomedical applications. *Journal of Mechanical Science and Technology*, **2022**, 36, 1059-1077	1.6	
64	Biodegradable Organic Materials for Bioelectronics **2022**, 481-533		
63	Principles for Controlling the Shape Recovery and Degradation Behavior of Biodegradable Shape-Memory Polymers in Biomedical Applications. *Micromachines*, **2021**, 12,	3.3	7
62	Fully implantable and bioresorbable cardiac pacemakers without leads or batteries. *Nature Biotechnology*, **2021**, 39, 1228-1238	44.5	38
61	Physically transient electronic materials and devices. *Materials Science and Engineering Reports*, **2021**, 145, 100624	30.9	11
60	Biodegradable Metallic Glass for Stretchable Transient Electronics. *Advanced Science*, **2021**, 8, 2004029	13.6	3
59	Transparent Electronics: Integration of Ultrathin Silicon and Metal Nanowires for High-Performance Transparent Electronics (Adv. Mater. Technol. 4/2020). *Advanced Materials Technologies*, **2020**, 5, 2070021	6.8	
58	Biodegradable Polyanhydrides as Encapsulation Layers for Transient Electronics. *Advanced Functional Materials*, **2020**, 30, 2000941	15.6	32
57	Materials, Mechanics Designs, and Bioresorbable Multisensor Platforms for Pressure Monitoring in the Intracranial Space. *Advanced Functional Materials*, **2020**, 30, 1910718	15.6	29
56	The emergence of transient electronic devices. *MRS Bulletin*, **2020**, 45, 87-95	3.2	16
55	Integration of Ultrathin Silicon and Metal Nanowires for High-Performance Transparent Electronics. *Advanced Materials Technologies*, **2020**, 5, 1900962	6.8	1
54	Wirelessly controlled, bioresorbable drug delivery device with active valves that exploit electrochemically triggered crevice corrosion. *Science Advances*, **2020**, 6, eabb1093	14.3	35
53	The light triggered dissolution of gold wires using potassium ferrocyanide solutions enables cumulative illumination sensing. *Sensors and Actuators B: Chemical*, **2019**, 282, 52-59	8.5	10
52	Bioresorbable pressure sensors protected with thermally grown silicon dioxide for the monitoring of chronic diseases and healing processes. *Nature Biomedical Engineering*, **2019**, 3, 37-46	19	115
51	Advanced Materials and Devices for Bioresorbable Electronics. *Accounts of Chemical Research*, **2018** , 51, 988-998	24.3	109
50	Metal microparticle Polymer composites as printable, bio/ecoresorbable conductive inks. *Materials Today*, **2018**, 21, 207-215	21.8	44
49	CVD-grown monolayer MoS in bioabsorbable electronics and biosensors. *Nature Communications*, **2018**, 9, 1690	17.4	108

48	Optical Waveguides: Flexible Transient Optical Waveguides and Surface-Wave Biosensors Constructed from Monocrystalline Silicon (Adv. Mater. 32/2018). *Advanced Materials*, **2018**, 30, 1870239	24	1
47	Electrochemical Fabrication of Flat, Polymer-Embedded Porous Silicon 1D Gradient Refractive Index Microlens Arrays. *Physica Status Solidi (A) Applications and Materials Science*, **2018**, 215, 1800088	1.6	1
46	Wireless bioresorbable electronic system enables sustained nonpharmacological neuroregenerative therapy. *Nature Medicine*, **2018**, 24, 1830-1836	50.5	190
45	Relation between blood pressure and pulse wave velocity for human arteries. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 11144-11149	11.5	109
44	Flexible Transient Optical Waveguides and Surface-Wave Biosensors Constructed from Monocrystalline Silicon. *Advanced Materials*, **2018**, 30, e1801584	24	36
43	Fully Biodegradable Microsupercapacitor for Power Storage in Transient Electronics. *Advanced Energy Materials*, **2017**, 7, 1700157	21.8	145
42	Porous Silicon Gradient Refractive Index Micro-Optics. *Nano Letters*, **2016**, 16, 7402-7407	11.5	21
41	Ultrathin Injectable Sensors of Temperature, Thermal Conductivity, and Heat Capacity for Cardiac Ablation Monitoring. *Advanced Healthcare Materials*, **2016**, 5, 373-81	10.1	36
40	Bioresorbable silicon electronic sensors for the brain. *Nature*, **2016**, 530, 71-6	50.4	582
39	Evaluation of high-temperature Vickers hardness using instrumented indentation system. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 650, 15-19	5.3	10
38	Stretchable multichannel antennas in soft wireless optoelectronic implants for optogenetics. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E8169-E8177	11.5	84
37	Bioresorbable silicon electronics for transient spatiotemporal mapping of electrical activity from the cerebral cortex. *Nature Materials*, **2016**, 15, 782-791	27	296
36	Ultrathin Injectable Sensors: Ultrathin Injectable Sensors of Temperature, Thermal Conductivity, and Heat Capacity for Cardiac Ablation Monitoring (Adv. Healthcare Mater. 3/2016). *Advanced Healthcare Materials*, **2016**, 5, 394-394	10.1	
35	Water-soluble thin film transistors and circuits based on amorphous indium-gallium-zinc oxide. *ACS Applied Materials & Interfaces*, **2015**, 7, 8268-74	9.5	98
34	Biodegradable Thin Metal Foils and Spin-On Glass Materials for Transient Electronics. *Advanced Functional Materials*, **2015**, 25, 1789-1797	15.6	101
33	Biodegradable elastomers and silicon nanomembranes/nanoribbons for stretchable, transient electronics, and biosensors. *Nano Letters*, **2015**, 15, 2801-8	11.5	226
32	Transient Electronics: Materials for Programmed, Functional Transformation in Transient Electronic Systems (Adv. Mater. 1/2015). *Advanced Materials*, **2015**, 27, 187-187	24	2
31	Dissolution chemistry and biocompatibility of silicon- and germanium-based semiconductors for transient electronics. *ACS Applied Materials & Interfaces*, **2015**, 7, 9297-305	9.5	113

30	Biological lipid membranes for on-demand, wireless drug delivery from thin, bioresorbable electronic implants. *NPG Asia Materials*, **2015**, 7,	10.3	61
29	Materials and Wireless Microfluidic Systems for Electronics Capable of Chemical Dissolution on Demand. *Advanced Functional Materials*, **2015**, 25, 1338-1343	15.6	34
28	Materials for programmed, functional transformation in transient electronic systems. *Advanced Materials*, **2015**, 27, 47-52	24	66
27	Transient Electronics: Thermally Triggered Degradation of Transient Electronic Devices (Adv. Mater. 25/2015). *Advanced Materials*, **2015**, 27, 3782-3782	24	
26	Transient Eletronics: Biodegradable Thin Metal Foils and Spin-On Glass Materials for Transient Electronics (Adv. Funct. Mater. 12/2015). *Advanced Functional Materials*, **2015**, 25, 1904-1904	15.6	
25	Wireless Microfluidic Systems for Programmed, Functional Transformation of Transient Electronic Devices. *Advanced Functional Materials*, **2015**, 25, 5100-5106	15.6	32
24	Thermally triggered degradation of transient electronic devices. *Advanced Materials*, **2015**, 27, 3783-8	24	122
23	High-resolution patterns of quantum dots formed by electrohydrodynamic jet printing for light-emitting diodes. *Nano Letters*, **2015**, 15, 969-73	11.5	278
22	High-performance biodegradable/transient electronics on biodegradable polymers. *Advanced Materials*, **2014**, 26, 3905-11	24	283
21	Transient Electronics: Dissolvable Metals for Transient Electronics (Adv. Funct. Mater. 5/2014). *Advanced Functional Materials*, **2014**, 24, 644-644	15.6	3
20	Biodegradable materials for multilayer transient printed circuit boards. *Advanced Materials*, **2014**, 26, 7371-7	24	109
19	Triggered transience of metastable poly(phthalaldehyde) for transient electronics. *Advanced Materials*, **2014**, 26, 7637-42	24	139
18	Dissolution chemistry and biocompatibility of single-crystalline silicon nanomembranes and associated materials for transient electronics. *ACS Nano*, **2014**, 8, 5843-51	16.7	145
17	Dissolvable Metals for Transient Electronics. *Advanced Functional Materials*, **2014**, 24, 645-658	15.6	290
16	Constitutive equations optimized for determining strengths of metallic alloys. *Mechanics of Materials*, **2014**, 73, 51-57	3.3	8
15	25th anniversary article: materials for high-performance biodegradable semiconductor devices. *Advanced Materials*, **2014**, 26, 1992-2000	24	130
14	Effect of contact angle on contact morphology and Vickers hardness measurement in instrumented indentation testing. *International Journal of Mechanical Sciences*, **2014**, 85, 104-109	5.5	6
13	Dissolution Behaviors and Applications of Silicon Oxides and Nitrides in Transient Electronics. *Advanced Functional Materials*, **2014**, 24, 4427-4434	15.6	170

12	Extended expanding cavity model for measurement of flow properties using instrumented spherical indentation. *International Journal of Plasticity*, **2013**, 49, 1-15	7.6	60
11	Contact morphology and constitutive equation in evaluating tensile properties of austenitic stainless steels through instrumented spherical indentation. *Journal of Materials Science*, **2013**, 48, 232-239	4.3	11
10	Correlation between the plastic strain and the plastic pileup of the instrumented indentation by utilizing the interrupted tensile test. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 535, 197-201	5.3	3
9	Determining effective radius and frame compliance in spherical nanoindentation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 538, 58-62	5.3	7
8	Evaluation of nonequibiaxial residual stress using Knoop indenter. *Journal of Materials Research*, **2012**, 27, 121-125	2.5	11
7	Conventional Vickers and true instrumented indentation hardness determined by instrumented indentation tests. *Journal of Materials Research*, **2010**, 25, 337-343	2.5	36
6	Effective indenter radius and frame compliance in instrumented indentation testing using a spherical indenter. *Journal of Materials Research*, **2009**, 24, 2965-2973	2.5	16
5	Mechanical Characterization of Interfacial Adhesion in Elastomeric Material for Microelectronic Device through JKR Model Combined with Micro-to-Nano IIT. *Materials Research Society Symposia Proceedings*, **2009**, 1159, 6051		
4	Characterization of elastic modulus and work of adhesion in elastomeric polymers using microinstrumented indentation technique. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 496, 494-500	5.3	8
3	Evaluating plastic flow properties by characterizing indentation size effect using a sharp indenter. *Acta Materialia*, **2008**, 56, 3338-3343	8.4	41
2	Influence of surface-roughness on indentation size effect. *Acta Materialia*, **2007**, 55, 3555-3562	8.4	114
1	Biodegradable Molybdenum/Polybutylene Adipate Terephthalate Conductive Paste for Flexible and Stretchable Transient Electronics. *Advanced Materials Technologies*,2001297	6.8	3