Suk-Won Hwang

List of Publications by Year in Descending Order

52 papers	6,309 citations	28 h-index	58 g-index
58 ext. papers	7,240 ext. citations	15 avg, IF	5.17 L-index

#	Paper	IF	Citations
52	Biologically Safe, Degradable Self-Destruction System for On-Demand, Programmable Transient Electronics. *ACS Nano*, **2021**,	16.7	5
51	Materials, Devices, and Applications for Wearable and Implantable Electronics. *ACS Applied Electronic Materials*, **2021**, 3, 485-503	4	10
50	Advanced manufacturing for transient electronics. *MRS Bulletin*, **2020**, 45, 113-120	3.2	5
49	3D Printed, Customizable, and Multifunctional Smart Electronic Eyeglasses for Wearable Healthcare Systems and Human-Machine Interfaces. *ACS Applied Materials & Interfaces*, **2020**, 12, 21424-21432	9.5	23
48	Intra-mitochondrial self-assembly to overcome the intracellular enzymatic degradation of l-peptides. *Chemical Communications*, **2020**, 56, 6265-6268	5.8	7
47	Eco- and Human-Friendly Transient Electronics: Advanced Materials and Systems for Biodegradable, Transient Electronics (Adv. Mater. 51/2020). *Advanced Materials*, **2020**, 32, 2070387	24	1
46	Biodegradable, flexible silicon nanomembrane-based NOx gas sensor system with record-high performance for transient environmental monitors and medical implants. *NPG Asia Materials*, **2020**, 12,	10.3	7
45	Expandable and implantable bioelectronic complex for analyzing and regulating real-time activity of the urinary bladder. *Science Advances*, **2020**, 6,	14.3	10
44	Advanced Materials and Systems for Biodegradable, Transient Electronics. *Advanced Materials*, **2020**, 32, e2002211	24	38
43	Heterochiral Assembly of Amphiphilic Peptides Inside the Mitochondria for Supramolecular Cancer Therapeutics. *ACS Nano*, **2019**, 13, 11022-11033	16.7	44
42	Nafion-stabilized two-dimensional transition metal carbide (Ti3C2Tx MXene) as a high-performance electrochemical sensor for neurotransmitter. *Journal of Industrial and Engineering Chemistry*, **2019**, 79, 338-344	6.3	55
41	Binder-less chemical grafting of SiO2 nanoparticles onto polyethylene separators for lithium-ion batteries. *Journal of Membrane Science*, **2019**, 573, 621-627	9.6	49
40	Flexible/Stretchable Devices for Medical Applications **2018**, 351-380		1
39	Styrenic block copolymer/sulfonated graphene oxide composite membranes for highly bendable ionic polymer actuators with large ion concentration gradient. *Composites Science and Technology*, **2018**, 163, 63-70	8.6	6
38	Flexible Conductive Composite Integrated with Personal Earphone for Wireless, Real-Time Monitoring of Electrophysiological Signs. *ACS Applied Materials & Interfaces*, **2018**, 10, 21184-21190	9.5	37
37	Bioresorbable Silicon Nanomembranes and Iron Catalyst Nanoparticles for Flexible, Transient Electrochemical Dopamine Monitors. *Advanced Healthcare Materials*, **2018**, 7, e1801071	10.1	26
36	Biosafe, Eco-Friendly Levan Polysaccharide toward Transient Electronics. *Small*, **2018**, 14, e1801332	11	24

35	Dry Transient Electronic Systems by Use of Materials that Sublime. *Advanced Functional Materials*, **2017**, 27, 1606008	15.6	27
34	Biocompatible Materials for Transient Electronics **2017**, 145-162		
33	Single wall carbon nanotube electrode system capable of quantitative detection of CD4 T cells. *Biosensors and Bioelectronics*, **2017**, 90, 238-244	11.8	20
32	Bioresorbable silicon electronic sensors for the brain. *Nature*, **2016**, 530, 71-6	50.4	582
31	Bioresorbable silicon electronics for transient spatiotemporal mapping of electrical activity from the cerebral cortex. *Nature Materials*, **2016**, 15, 782-791	27	296
30	Biodegradable Thin Metal Foils and Spin-On Glass Materials for Transient Electronics. *Advanced Functional Materials*, **2015**, 25, 1789-1797	15.6	101
29	Biodegradable elastomers and silicon nanomembranes/nanoribbons for stretchable, transient electronics, and biosensors. *Nano Letters*, **2015**, 15, 2801-8	11.5	226
28	Transient Electronics: Materials for Programmed, Functional Transformation in Transient Electronic Systems (Adv. Mater. 1/2015). *Advanced Materials*, **2015**, 27, 187-187	24	2
27	Dissolution chemistry and biocompatibility of silicon- and germanium-based semiconductors for transient electronics. *ACS Applied Materials & Interfaces*, **2015**, 7, 9297-305	9.5	113
26	Modulated Degradation of Transient Electronic Devices through Multilayer Silk Fibroin Pockets. *ACS Applied Materials & Interfaces*, **2015**, 7, 19870-5	9.5	57
25	Materials for programmed, functional transformation in transient electronic systems. *Advanced Materials*, **2015**, 27, 47-52	24	66
24	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	
23	High-performance biodegradable/transient electronics on biodegradable polymers. *Advanced Materials*, **2014**, 26, 3905-11	24	283
22	Transient Electronics: Dissolvable Metals for Transient Electronics (Adv. Funct. Mater. 5/2014). *Advanced Functional Materials*, **2014**, 24, 644-644	15.6	3
21	Biodegradable materials for multilayer transient printed circuit boards. *Advanced Materials*, **2014**, 26, 7371-7	24	109
20	Triggered transience of metastable poly(phthalaldehyde) for transient electronics. *Advanced Materials*, **2014**, 26, 7637-42	24	139
19	Dissolution chemistry and biocompatibility of single-crystalline silicon nanomembranes and associated materials for transient electronics. *ACS Nano*, **2014**, 8, 5843-51	16.7	145
18	Dissolvable Metals for Transient Electronics. *Advanced Functional Materials*, **2014**, 24, 645-658	15.6	290

17	25th anniversary article: materials for high-performance biodegradable semiconductor devices. *Advanced Materials*, **2014**, 26, 1992-2000	24	130
16	Diffraction phase microscopy: monitoring nanoscale dynamics in materials science [invited]. *Applied Optics*, **2014**, 53, G33-43	1.7	28
15	Dissolution Behaviors and Applications of Silicon Oxides and Nitrides in Transient Electronics. *Advanced Functional Materials*, **2014**, 24, 4427-4434	15.6	170
14	Silk-based resorbable electronic devices for remotely controlled therapy and in vivo infection abatement. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 17385-9	11.5	223
13	An Analytical Model of Reactive Diffusion for Transient Electronics. *Advanced Functional Materials*, **2013**, 23, 3106-3114	15.6	63
12	Materials and Fabrication Processes for Transient and Bioresorbable High-Performance Electronics. *Advanced Functional Materials*, **2013**, 23, 4087-4093	15.6	191
11	Transient, biocompatible electronics and energy harvesters based on ZnO. *Small*, **2013**, 9, 3398-404	11	280
10	Materials for bioresorbable radio frequency electronics. *Advanced Materials*, **2013**, 25, 3526-31	24	154
9	A physically transient form of silicon electronics. *Science*, **2012**, 337, 1640-4	33.3	862
8	Materials for multifunctional balloon catheters with capabilities in cardiac electrophysiological mapping and ablation therapy. *Nature Materials*, **2011**, 10, 316-23	27	580
7	Flexible, foldable, actively multiplexed, high-density electrode array for mapping brain activity in vivo. *Nature Neuroscience*, **2011**, 14, 1599-605	25.5	807
6	Crystallization of Amorphous Co78 Mn x B10Si12 Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 379-384	2.3	1
5	Crystallization and structural relaxation of Co48Mn20Ge10B10Si12 amorphous alloy. *Journal of Alloys and Compounds*, **2006**, 413, 206-210	5.7	3
4	Crystallization and structural relaxation of Fe78PtxB10Si12 metallic glasses. *Physica Status Solidi A*, **2004**, 201, 1875-1878		2
3	Structure and magnetic properties of exchange-coupled CoCoPt nanocomposite thin films. *Physica Status Solidi A*, **2004**, 201, 1862-1865		
2	Structure and magnetic properties of thermally annealed Fe73Pt5B10Si12 amorphous metallic alloy. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2004**, 108, 266-270	3.1	2
1	Materials and Fabrication Strategies for Biocompatible and Biodegradable Conductive Polymer Composites toward Bio-Integrated Electronic Systems. *Advanced Sustainable Systems*,2100075	5.9	2