

# Suk-Won Hwang

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	A physically transient form of silicon electronics. <i>Science</i> , <b>2012</b> , 337, 1640-4	33.3	862
51	Flexible, foldable, actively multiplexed, high-density electrode array for mapping brain activity in vivo. <i>Nature Neuroscience</i> , <b>2011</b> , 14, 1599-605	25.5	807
50	Bioresorbable silicon electronic sensors for the brain. <i>Nature</i> , <b>2016</b> , 530, 71-6	50.4	582
49	Materials for multifunctional balloon catheters with capabilities in cardiac electrophysiological mapping and ablation therapy. <i>Nature Materials</i> , <b>2011</b> , 10, 316-23	27	580
48	Bioresorbable silicon electronics for transient spatiotemporal mapping of electrical activity from the cerebral cortex. <i>Nature Materials</i> , <b>2016</b> , 15, 782-791	27	296
47	Dissolvable Metals for Transient Electronics. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 645-658	15.6	290
46	High-performance biodegradable/transient electronics on biodegradable polymers. <i>Advanced Materials</i> , <b>2014</b> , 26, 3905-11	24	283
45	Transient, biocompatible electronics and energy harvesters based on ZnO. <i>Small</i> , <b>2013</b> , 9, 3398-404	11	280
44	Biodegradable elastomers and silicon nanomembranes/nanoribbons for stretchable, transient electronics, and biosensors. <i>Nano Letters</i> , <b>2015</b> , 15, 2801-8	11.5	226
43	Silk-based resorbable electronic devices for remotely controlled therapy and in vivo infection abatement. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 17385-9	11.5	223
42	Materials and Fabrication Processes for Transient and Bioresorbable High-Performance Electronics. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 4087-4093	15.6	191
41	Dissolution Behaviors and Applications of Silicon Oxides and Nitrides in Transient Electronics. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 4427-4434	15.6	170
40	Materials for bioresorbable radio frequency electronics. <i>Advanced Materials</i> , <b>2013</b> , 25, 3526-31	24	154
39	Dissolution chemistry and biocompatibility of single-crystalline silicon nanomembranes and associated materials for transient electronics. <i>ACS Nano</i> , <b>2014</b> , 8, 5843-51	16.7	145
38	Triggered transience of metastable poly(phthalaldehyde) for transient electronics. <i>Advanced Materials</i> , <b>2014</b> , 26, 7637-42	24	139
37	25th anniversary article: materials for high-performance biodegradable semiconductor devices. <i>Advanced Materials</i> , <b>2014</b> , 26, 1992-2000	24	130
36	Dissolution chemistry and biocompatibility of silicon- and germanium-based semiconductors for transient electronics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 9297-305	9.5	113

35	Biodegradable materials for multilayer transient printed circuit boards. <i>Advanced Materials</i> , <b>2014</b> , 26, 7371-7	24	109
34	Biodegradable Thin Metal Foils and Spin-On Glass Materials for Transient Electronics. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 1789-1797	15.6	101
33	Materials for programmed, functional transformation in transient electronic systems. <i>Advanced Materials</i> , <b>2015</b> , 27, 47-52	24	66
32	An Analytical Model of Reactive Diffusion for Transient Electronics. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 3106-3114	15.6	63
31	Modulated Degradation of Transient Electronic Devices through Multilayer Silk Fibroin Pockets. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 19870-5	9.5	57
30	Nafion-stabilized two-dimensional transition metal carbide (Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene) as a high-performance electrochemical sensor for neurotransmitter. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2019</b> , 79, 338-344	6.3	55
29	Binder-less chemical grafting of SiO <sub>2</sub> nanoparticles onto polyethylene separators for lithium-ion batteries. <i>Journal of Membrane Science</i> , <b>2019</b> , 573, 621-627	9.6	49
28	Heterochiral Assembly of Amphiphilic Peptides Inside the Mitochondria for Supramolecular Cancer Therapeutics. <i>ACS Nano</i> , <b>2019</b> , 13, 11022-11033	16.7	44
27	Advanced Materials and Systems for Biodegradable, Transient Electronics. <i>Advanced Materials</i> , <b>2020</b> , 32, e2002211	24	38
26	Flexible Conductive Composite Integrated with Personal Earphone for Wireless, Real-Time Monitoring of Electrophysiological Signs. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 21184-21190	9.5	37
25	Diffraction phase microscopy: monitoring nanoscale dynamics in materials science [invited]. <i>Applied Optics</i> , <b>2014</b> , 53, G33-43	1.7	28
24	Dry Transient Electronic Systems by Use of Materials that Sublime. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1606008	15.6	27
23	Bioresorbable Silicon Nanomembranes and Iron Catalyst Nanoparticles for Flexible, Transient Electrochemical Dopamine Monitors. <i>Advanced Healthcare Materials</i> , <b>2018</b> , 7, e1801071	10.1	26
22	Biosafe, Eco-Friendly Levan Polysaccharide toward Transient Electronics. <i>Small</i> , <b>2018</b> , 14, e1801332	11	24
21	3D Printed, Customizable, and Multifunctional Smart Electronic Eyeglasses for Wearable Healthcare Systems and Human-Machine Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 21424-21432	9.5	23
20	Single wall carbon nanotube electrode system capable of quantitative detection of CD4 T cells. <i>Biosensors and Bioelectronics</i> , <b>2017</b> , 90, 238-244	11.8	20
19	Expandable and implantable bioelectronic complex for analyzing and regulating real-time activity of the urinary bladder. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	10
18	Materials, Devices, and Applications for Wearable and Implantable Electronics. <i>ACS Applied Electronic Materials</i> , <b>2021</b> , 3, 485-503	4	10

17	Intra-mitochondrial self-assembly to overcome the intracellular enzymatic degradation of l-peptides. <i>Chemical Communications</i> , <b>2020</b> , 56, 6265-6268	5.8	7
16	Biodegradable, flexible silicon nanomembrane-based NOx gas sensor system with record-high performance for transient environmental monitors and medical implants. <i>NPG Asia Materials</i> , <b>2020</b> , 12,	10.3	7
15	Styrenic block copolymer/sulfonated graphene oxide composite membranes for highly bendable ionic polymer actuators with large ion concentration gradient. <i>Composites Science and Technology</i> , <b>2018</b> , 163, 63-70	8.6	6
14	Advanced manufacturing for transient electronics. <i>MRS Bulletin</i> , <b>2020</b> , 45, 113-120	3.2	5
13	Biologically Safe, Degradable Self-Destruction System for On-Demand, Programmable Transient Electronics. <i>ACS Nano</i> , <b>2021</b> ,	16.7	5
12	Transient Electronics: Dissolvable Metals for Transient Electronics (Adv. Funct. Mater. 5/2014). <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 644-644	15.6	3
11	Crystallization and structural relaxation of Co <sub>48</sub> Mn <sub>20</sub> Ge <sub>10</sub> B <sub>10</sub> Si <sub>12</sub> amorphous alloy. <i>Journal of Alloys and Compounds</i> , <b>2006</b> , 413, 206-210	5.7	3
10	Transient Electronics: Materials for Programmed, Functional Transformation in Transient Electronic Systems (Adv. Mater. 1/2015). <i>Advanced Materials</i> , <b>2015</b> , 27, 187-187	24	2
9	Crystallization and structural relaxation of Fe <sub>78</sub> Pt <sub>5</sub> B <sub>10</sub> Si <sub>12</sub> metallic glasses. <i>Physica Status Solidi A</i> , <b>2004</b> , 201, 1875-1878		2
8	Structure and magnetic properties of thermally annealed Fe <sub>73</sub> Pt <sub>5</sub> B <sub>10</sub> Si <sub>12</sub> amorphous metallic alloy. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2004</b> , 108, 266-270	3.1	2
7	Materials and Fabrication Strategies for Biocompatible and Biodegradable Conductive Polymer Composites toward Bio-Integrated Electronic Systems. <i>Advanced Sustainable Systems</i> , 2100075	5.9	2
6	Flexible/Stretchable Devices for Medical Applications <b>2018</b> , 351-380		1
5	Crystallization of Amorphous Co <sub>78</sub> Mn <sub>x</sub> B <sub>10</sub> Si <sub>12</sub> Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2007</b> , 38, 379-384	2.3	1
4	Eco- and Human-Friendly Transient Electronics: Advanced Materials and Systems for Biodegradable, Transient Electronics (Adv. Mater. 51/2020). <i>Advanced Materials</i> , <b>2020</b> , 32, 2070387	24	1
3	Biocompatible Materials for Transient Electronics <b>2017</b> , 145-162		
2	Transient Eletronics: Biodegradable Thin Metal Foils and Spin-On Glass Materials for Transient Electronics (Adv. Funct. Mater. 12/2015). <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 1904-1904	15.6	
1	Structure and magnetic properties of exchange-coupled Co/Pt nanocomposite thin films. <i>Physica Status Solidi A</i> , <b>2004</b> , 201, 1862-1865		