Sunghwan Kim

List of Publications by Year
in descending order

76	2,320	201658 27	214788 47
papers	citations	h-index	g-index

76	76	76	3063
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Architecting Silk Protein and Melanin for Photoresponsive and Selfâ€Healable Optoelectronic Skins. Advanced Materials Technologies, 2022, 7, .	5.8	10
2	Elastic and Skin-Contact Triboelectric Nanogenerators and Their Applicability in Energy Harvesting and Tactile Sensing. ACS Applied Electronic Materials, 2022, 4, 1124-1131.	4.3	17
3	Brush drawing multifunctional electronic textiles for human-machine interfaces. Current Applied Physics, 2022, 41, 131-138.	2.4	3
4	All-polymer silk-fibroin optical planar waveguides. Optical Materials, 2021, 114, 110932.	3.6	9
5	Multifunctional and Ultrathin Electronic Tattoo for Onâ€Skin Diagnostic and Therapeutic Applications. Advanced Materials, 2021, 33, e2008308.	21.0	76
6	Silk Eâ€Tattoos: Multifunctional and Ultrathin Electronic Tattoo for Onâ€Skin Diagnostic and Therapeutic Applications (Adv. Mater. 24/2021). Advanced Materials, 2021, 33, 2170188.	21.0	0
7	Selfâ€Powered and Imperceptible Electronic Tattoos Based on Silk Protein Nanofiber and Carbon Nanotubes for Humanâ€"Machine Interfaces. Advanced Energy Materials, 2021, 11, 2100801.	19.5	55
8	Photothermal, ultra-thin, and biocompatible carbon nanotube/silk nanofiber membrane. Journal of the Korean Physical Society, 2021, 79, 64-69.	0.7	0
9	Selfâ€Powered and Imperceptible Electronic Tattoos Based on Silk Protein Nanofiber and Carbon Nanotubes for Humanâ€"Machine Interfaces (Adv. Energy Mater. 29/2021). Advanced Energy Materials, 2021, 11, 2170115.	19.5	0
10	Fabrication of vertical van der Waals gap array using single-and multi-layer graphene. Nanotechnology, 2020, 31, 035304.	2.6	2
11	Self-powered artificial skin made of engineered silk protein hydrogel. Nano Energy, 2020, 77, 105242.	16.0	72
12	Copper-based etalon filter using antioxidant graphene layer. Nanotechnology, 2020, 31, 445206.	2.6	0
13	Multistimuli-Responsive Optical Hydrogel Nanomembranes to Construct Planar Color Display Boards for Detecting Local Environmental Changes. ACS Applied Materials & Interfaces, 2020, 12, 55231-55242.	8.0	12
14	A Skinâ€Inspired, Interactive, and Flexible Optoelectronic Device with Hydrated Melanin Nanoparticles in a Protein Hydrogelâ€"Elastomer Hybrid. Advanced Materials Technologies, 2020, 5, 1900936.	5.8	24
15	Inkjet-printed lasing silk text on reusable distributed feedback boards. Optical Materials Express, 2020, 10, 818.	3.0	6
16	Skin-contact actuated single-electrode protein triboelectric nanogenerator and strain sensor for biomechanical energy harvesting and motion sensing. Nano Energy, 2019, 62, 674-681.	16.0	140
17	Interacting Metalâ€"Insulatorâ€"Metal Resonator by Nanoporous Silver and Silk Protein Nanomembranes and Its Water-Sensing Application. ACS Omega, 2019, 4, 9010-9016.	3.5	17
18	Advances in hydrogel photonics and their applications. APL Photonics, 2019, 4, 120901.	5.7	26

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19	Random lasing and amplified spontaneous emission from silk inverse opals: Optical gain enhancement via protein scatterers. Scientific Reports, 2019, 9, 16266.	3.3	15
20	High-Contrast Infrared Absorption Spectroscopy via Mass-Produced Coaxial Zero-Mode Resonators with Sub-10 nm Gaps. Nano Letters, 2018, 18, 1930-1936.	9.1	88
21	Anderson localizations and photonic band-tail states observed in compositionally disordered platform. Science Advances, 2018, 4, e1602796.	10.3	18
22	A physically transient and eco-friendly distributed feedback laser chemosensor for detecting acid vapor. Sensors and Actuators B: Chemical, 2018, 255, 3207-3215.	7.8	6
23	Protein-Based Electronic Skin Akin to Biological Tissues. ACS Nano, 2018, 12, 5637-5645.	14.6	112
24	Silk protein nanofibers for highly efficient, eco-friendly, optically translucent, and multifunctional air filters. Scientific Reports, 2018, 8, 9598.	3.3	52
25	The Investigation of the Waveguiding Properties of Silk Fibroin from the Visible to Near-Infrared Spectrum. Materials, 2018, 11, 112.	2.9	22
26	Ultra-thin, conformal, and hydratable color-absorbers using silk protein hydrogel. Optical Materials, 2018, 80, 241-246.	3.6	6
27	Control of optical nanometer gap shapes made via standard lithography using atomic layer deposition. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2018, 17, 1.	0.9	7
28	Humidity sensing using THz metamaterial with silk protein fibroin. Optics Express, 2018, 26, 33575.	3.4	27
29	Silk Inverse Opal as a Biological Light Reflector and Emitter. , 2018, , .		0
30	Single transverse mode eGFP modified silk fibroin laser. , 2018, , .		1
31	A Physically Transient Distributed Feedback Laser for Highly Efficient Chemosensing. , 2018, , .		0
32	Silk protein as a new optically transparent adhesion layer for an ultra-smooth sub-10 nm gold layer. Nanotechnology, 2017, 28, 115201.	2.6	15
33	Singleâ€mode distributed feedback laser operation with no dependence on the morphology of the gain medium. Annalen Der Physik, 2017, 529, 1700034.	2.4	1
34	Deformable and conformal silk hydrogel inverse opal. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6185-6190.	7.1	71
35	Biocompatible, optically transparent, patterned, and flexible electrodes and radio-frequency antennas prepared from silk protein and silver nanowire networks. RSC Advances, 2017, 7, 574-580.	3.6	30
36	Colored and fluorescent nanofibrous silk as a physically transient chemosensor and vitamin deliverer. Scientific Reports, 2017, 7, 5448.	3.3	33

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37	Dye-doped fluorescent silk nanofiber for HCl vapor chemosensing and vitamin delivery. , 2017, , .		0
38	Single transverse mode protein laser. Applied Physics Letters, 2017, 111, 231103.	3.3	14
39	A single mode distributed feedback laser for arbitrary gain morphology. , 2017, , .		0
40	Eco-friendly photolithography using water-developable pure silk fibroin. RSC Advances, 2016, 6, 39330-39334.	3.6	43
41	Physically Transient Distributed Feedback Laser Using Optically Activated Silk Bioâ€Ink. Advanced Optical Materials, 2016, 4, 1738-1743.	7.3	28
42	Natural silk protein as a new broadband nonlinear optical material. Optical Materials Express, 2016, 6, 993.	3.0	15
43	Stimuli responsive plasmonic resonator and its sensing application. , 2015, , .		0
44	Fabrication of Tunable, Highâ€Refractiveâ€Index Titanateâ€"Silk Nanocomposites on the Microâ€and Nanoscale. Advanced Materials, 2015, 27, 6728-6732.	21.0	31
45	A fully biocompatible single-mode distributed feedback laser. Lab on A Chip, 2015, 15, 642-645.	6.0	41
46	Ultrafast broadband third-order optical nonlinearity of silk biopolymer. , 2015, , .		0
47	A fully biocompatible poly(ethylene glycol)â€"gold plasmonic crystal for optical sensing. Optical Materials, 2015, 47, 333-337.	3.6	4
48	A Highly Tunable and Fully Biocompatible Silk Nanoplasmonic Optical Sensor. Nano Letters, 2015, 15, 3358-3363.	9.1	88
49	Chemically Tunable, Biocompatible, and Cost-Effective Metalâ€"Insulatorâ€"Metal Resonators Using Silk Protein and Ultrathin Silver Films. ACS Photonics, 2015, 2, 1675-1680.	6.6	65
50	Novel and simple route to fabricate fully biocompatible plasmonic mushroom arrays adhered on silk biopolymer. Nanoscale, 2015, 7, 426-431.	5.6	31
51	All-water-based electron-beam lithography using silk as a resist. Nature Nanotechnology, 2014, 9, 306-310.	31.5	245
52	Synthesis of Silk Fibroin Microâ€and Submicron Spheres Using a Coâ€Flow Capillary Device. Advanced Materials, 2014, 26, 1105-1110.	21.0	68
53	Nearly Perfect Absorption by Bimetallic Surface Plasmonic Crystal and Its Application as Sensor. IEEE Photonics Technology Letters, 2014, 26, 1259-1262.	2.5	4
54	Proteinâ€Protein Nanoimprinting of Silk Fibroin Films. Advanced Materials, 2013, 25, 2409-2414.	21.0	78

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55	Simultaneous observation of extended and localized modes in compositional disordered photonic crystals. Physical Review A, 2013, 88, .	2.5	3
56	Nanoimprinting: Proteinâ€Protein Nanoimprinting of Silk Fibroin Films (Adv. Mater. 17/2013). Advanced Materials, 2013, 25, 2378-2378.	21.0	1
57	Nano Stepping-Stone Laser. Applied Physics Express, 2013, 6, 042703.	2.4	7
58	Silk protein based hybrid photonic-plasmonic crystal. Optics Express, 2013, 21, 8897.	3.4	31
59	Silk inverse opals. Nature Photonics, 2012, 6, 818-823.	31.4	217
60	Low-threshold blue lasing from silk fibroin thin films. Applied Physics Letters, 2012, 101, 091110.	3.3	77
61	Free-Standing GaN-Based Photonic Crystal Band-Edge Laser. IEEE Photonics Technology Letters, 2011, 23, 1454-1456.	2.5	20
62	Over 1 hour continuous-wave operation of photonic crystal lasers. Optics Express, 2011, 19, 1.	3.4	40
63	Milliwatt-level fiber-coupled laser power from photonic crystal band-edge laser. Optics Express, 2011, 19, 2105.	3.4	12
64	Operation of Photonic Crystal Laser in Continuous-Wave Mode for 18 Hours. Applied Physics Express, 2011, 4, 122101.	2.4	6
65	Band-edge lasers based on randomly mixed photonic crystals. Optics Express, 2010, 18, 7685.	3.4	10
66	Fiber-coupled surface-emitting photonic crystal band edge laser for biochemical sensor applications. Applied Physics Letters, 2009, 94, .	3.3	34
67	Photonic band-edge shift in a randomly mixed photonic crystal system. , 2009, , .		0
68	High-power and large-alignment-tolerance fiber coupling of honeycomb-lattice photonic crystal Î“-point band-edge laser. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 1330.	2.1	10
69	GaN Light-Emitting Diode with Deep-Angled Mesa Sidewalls for Enhanced Light Emission in the Surface-Normal Direction. IEEE Transactions on Electron Devices, 2008, 55, 523-526.	3.0	11
70	Fiber-Coupled Γ-point Photonic Crystal Bandedge Laser. , 2007, , .		0
71	Butt-end fiber coupling to a surface-emitting Î“-point photonic crystal band edge laser. Applied Physics Letters, 2007, 90, 171115.	3.3	17
72	Butt-end fiber coupling to a surface-emitting Γ-point photonic crystal band edge laser. , 2007, , .		0

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73	Fluorescence amplification using colloidal photonic crystal platform in sensing dye-labeled deoxyribonucleic acids. Sensors and Actuators B: Chemical, 2007, 124, 147-152.	7.8	32
74	Fabrication of reflective GaN mesa sidewalls for the application to high extraction efficiency LEDs. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2625-2628.	0.8	21
75	GaN-based light-emitting diode structure with monolithically integrated sidewall deflectors for enhanced surface emission. IEEE Photonics Technology Letters, 2006, 18, 1588-1590.	2.5	28
76	Photonic crystal waveguides with multiple 90Â° bends. Applied Physics Letters, 2003, 83, 231-233.	3.3	15