Hanjun Ryu

List of Publications by Citations

36 papers	2,182 citations	21 h-index	41 g-index
41 ext. papers	2,797 ext. citations	18.7 avg, IF	5.52 L-index

#	Paper	IF	Citations
36	Transcutaneous ultrasound energy harvesting using capacitive triboelectric technology. *Science*, **2019**, 365, 491-494	33.3	347
35	Micropatterned P(VDF-TrFE) Film-Based Piezoelectric Nanogenerators for Highly Sensitive Self-Powered Pressure Sensors. *Advanced Functional Materials*, **2015**, 25, 3203-3209	15.6	253
34	Graphene Tribotronics for Electronic Skin and Touch Screen Applications. *Advanced Materials*, **2017**, 29, 1603544	24	160
33	Boosting Power-Generating Performance of Triboelectric Nanogenerators via Artificial Control of Ferroelectric Polarization and Dielectric Properties. *Advanced Energy Materials*, **2017**, 7, 1600988	21.8	153
32	Hybrid Energy Harvesters: Toward Sustainable Energy Harvesting. *Advanced Materials*, **2019**, 31, e1802898	24	114
31	Reliable Piezoelectricity in Bilayer WSe for Piezoelectric Nanogenerators. *Advanced Materials*, **2017**, 29, 1606667	24	114
30	Triboelectrification-Induced Large Electric Power Generation from a Single Moving Droplet on Graphene/Polytetrafluoroethylene. *ACS Nano*, **2016**, 10, 7297-302	16.7	112
29	High-Performance Piezoelectric, Pyroelectric, and Triboelectric Nanogenerators Based on P(VDF-TrFE) with Controlled Crystallinity and Dipole Alignment. *Advanced Functional Materials*, **2017**, 27, 1700702	15.6	106
28	Sustainable direct current powering a triboelectric nanogenerator via a novel asymmetrical design. *Energy and Environmental Science*, **2018**, 11, 2057-2063	35.4	102
27	High-Performance Triboelectric Nanogenerators Based on Solid Polymer Electrolytes with Asymmetric Pairing of Ions. *Advanced Energy Materials*, **2017**, 7, 1700289	21.8	95
26	Butylated melamine formaldehyde as a durable and highly positive friction layer for stable, high output triboelectric nanogenerators. *Energy and Environmental Science*, **2019**, 12, 3156-3163	35.4	78
25	Sustainable powering triboelectric nanogenerators: Approaches and the path towards efficient use. *Nano Energy*, **2018**, 51, 270-285	17.1	77
24	Control of Skin Potential by Triboelectrification with Ferroelectric Polymers. *Advanced Materials*, **2015**, 27, 5553-8	24	75
23	High Permittivity CaCu3Ti4O12 Particle-Induced Internal Polarization Amplification for High Performance Triboelectric Nanogenerators. *Advanced Energy Materials*, **2020**, 10, 1903524	21.8	44
22	Emerging Pyroelectric Nanogenerators to Convert Thermal Energy into Electrical Energy. *Small*, **2021**, 17, e1903469	11	41
21	Thermally Induced Strain-Coupled Highly Stretchable and Sensitive Pyroelectric Nanogenerators. *Advanced Energy Materials*, **2015**, 5, 1500704	21.8	39
20	Three-dimensional, multifunctional neural interfaces for cortical spheroids and engineered assembloids. *Science Advances*, **2021**, 7,	14.3	38

19	Self-rechargeable cardiac pacemaker system with triboelectric nanogenerators. *Nature Communications*, **2021**, 12, 4374	17.4	35
18	Self-powered transparent flexible graphene microheaters. *Nano Energy*, **2015**, 17, 356-365	17.1	33
17	Research Update: Nanogenerators for self-powered autonomous wireless sensors. *APL Materials*, **2017**, 5, 073803	5.7	31
16	Wireless, skin-interfaced sensors for compression therapy. *Science Advances*, **2020**, 6,	14.3	26
15	Battery-free, wireless soft sensors for continuous multi-site measurements of pressure and temperature from patients at risk for pressure injuries. *Nature Communications*, **2021**, 12, 5008	17.4	21
14	A Skin-Interfaced, Miniaturized Microfluidic Analysis and Delivery System for Colorimetric Measurements of Nutrients in Sweat and Supply of Vitamins Through the Skin. *Advanced Science*, **2021**, e2103331	13.6	13
13	Differential cardiopulmonary monitoring system for artifact-canceled physiological tracking of athletes, workers, and COVID-19 patients. *Science Advances*, **2021**, 7,	14.3	11
12	Piezoionic-powered graphene strain sensor based on solid polymer electrolyte. *Nano Energy*, **2021**, 81, 105610	17.1	9
11	Triboelectric Nanogenerators: High Permittivity CaCu3Ti4O12 Particle-Induced Internal Polarization Amplification for High Performance Triboelectric Nanogenerators (Adv. Energy Mater. 9/2020). *Advanced Energy Materials*, **2020**, 10, 2070040	21.8	8
10	Transparent, Compliant 3D Mesostructures for Precise Evaluation of Mechanical Characteristics of Organoids. *Advanced Materials*, **2021**, 33, e2100026	24	8
9	Bioresorbable Metals for Biomedical Applications: From Mechanical Components to Electronic Devices. *Advanced Healthcare Materials*, **2021**, 10, e2002236	10.1	8
8	Skin-Integrated Devices with Soft, Holey Architectures for Wireless Physiological Monitoring, With Applications in the Neonatal Intensive Care Unit. *Advanced Materials*, **2021**, 33, e2103974	24	5
7	Graphene Tribotronics: Graphene Tribotronics for Electronic Skin and Touch Screen Applications (Adv. Mater. 1/2017). *Advanced Materials*, **2017**, 29,	24	3
6	Energy Harvesters: Hybrid Energy Harvesters: Toward Sustainable Energy Harvesting (Adv. Mater. 34/2019). *Advanced Materials*, **2019**, 31, 1970244	24	2
5	Recent development of the triboelectric properties of the polymer: A review. *Advanced Materials Letters*, **2018**, 9, 462-470	2.4	2
4	Bioresorbable Multilayer Photonic Cavities as Temporary Implants for Tether-Free Measurements of Regional Tissue Temperatures. *BME Frontiers*, **2021**, 2021, 1-14	4.4	2
3	Energy Harvesting: High-Performance Piezoelectric, Pyroelectric, and Triboelectric Nanogenerators Based on P(VDF-TrFE) with Controlled Crystallinity and Dipole Alignment (Adv. Funct. Mater. 22/2017). *Advanced Functional Materials*, **2017**, 27,	15.6	1
2	Simultaneous enhancement of specific capacitance and potential window of graphene-based electric double-layer capacitors using ferroelectric polymers. *Journal of Power Sources*, **2021**, 507, 230268	8.9	1

3D Microstructures: Transparent, Compliant 3D Mesostructures for Precise Evaluation of Mechanical Characteristics of Organoids (Adv. Mater. 25/2021). *Advanced Materials*, **2021**, 33, 2170196