Deok-Hwang Kwon

List of Publications by Citations

32 papers	3,206 citations	16 h-index	33 g-index
33 ext. papers	3,727 ext. citations	13.8 avg, IF	4.91 L-index

#	Paper	IF	Citations
32	Atomic structure of conducting nanofilaments in TiO2 resistive switching memory. *Nature Nanotechnology*, **2010**, 5, 148-53	28.7	1672
31	Reversible Mn/Mn double redox in lithium-excess cathode materials. *Nature*, **2018**, 556, 185-190	50.4	376
30	K-Ion Batteries Based on a P2-Type K0.6CoO2 Cathode. *Advanced Energy Materials*, **2017**, 7, 1700098	21.8	208
29	Mitigating oxygen loss to improve the cycling performance of high capacity cation-disordered cathode materials. *Nature Communications*, **2017**, 8, 981	17.4	136
28	Ultrahigh power and energy density in partially ordered lithium-ion cathode materials. *Nature Energy*, **2020**, 5, 213-221	62.3	91
27	Cation-disordered rocksalt-type high-entropy cathodes for Li-ion batteries. *Nature Materials*, **2021**, 20, 214-221	27	90
26	Hidden structural and chemical order controls lithium transport in cation-disordered oxides for rechargeable batteries. *Nature Communications*, **2019**, 10, 592	17.4	87
25	Design principles for high transition metal capacity in disordered rocksalt Li-ion cathodes. *Energy and Environmental Science*, **2018**, 11, 2159-2171	35.4	81
24	Stoichiometric Layered Potassium Transition Metal Oxide for Rechargeable Potassium Batteries. *Chemistry of Materials*, **2018**, 30, 6532-6539	9.6	73
23	Design Principles for High-Capacity Mn-Based Cation-Disordered Rocksalt Cathodes. *CheM*, **2020**, 6, 153-168	16.2	54
22	Epitaxial Brownmillerite Oxide Thin Films for Reliable Switching Memory. *ACS Applied Materials & Interfaces*, **2016**, 8, 7902-11	9.5	48
21	Electrochemical properties and structural evolution of O3-type layered sodium mixed transition metal oxides with trivalent nickel. *Journal of Materials Chemistry A*, **2017**, 5, 4596-4606	13	46
20	Role of oxygen vacancies in resistive switching in Pt/Nb-doped SrTiO3. *Applied Physics Letters*, **2014**, 105, 183103	3.4	42
19	Synaptic devices based on two-dimensional layered single-crystal chromium thiophosphate (CrPS4). *NPG Asia Materials*, **2018**, 10, 23-30	10.3	35
18	Computational Investigation and Experimental Realization of Disordered High-Capacity Li-Ion Cathodes Based on Ni Redox. *Chemistry of Materials*, **2019**, 31, 2431-2442	9.6	30
17	Unraveling the Origin and Mechanism of Nanofilament Formation in Polycrystalline SrTiO Resistive Switching Memories. *Advanced Materials*, **2019**, 31, e1901322	24	25
16	Direct Observation of Alternating Octahedral and Prismatic Sodium Layers in O3-Type Transition Metal Oxides. *Advanced Energy Materials*, **2020**, 10, 2001151	21.8	16

15	Investigation of Interface Formed between Top Electrodes and Epitaxial NiO Films for Bipolar Resistance Switching. *Japanese Journal of Applied Physics*, **2010**, 49, 031102	1.4	16
14	Variation of switching mechanism in TiO2 thin film resistive random access memory with Ag and graphene electrodes. *Microelectronic Engineering*, **2013**, 104, 42-47	2.5	15
13	Shear-Assisted Formation of Cation-Disordered Rocksalt NaMO2 (M = Fe or Mn). *Chemistry of Materials*, **2018**, 30, 8811-8821	9.6	12
12	Na+ Redistribution by Electrochemical Na+/K+ Exchange in Layered NaxNi2SbO6. *Chemistry of Materials*, **2020**, 32, 4312-4323	9.6	10
11	The Impact of Surface Structure Transformations on the Performance of Li-Excess Cation-Disordered Rocksalt Cathodes. *Cell Reports Physical Science*, **2020**, 1, 100187	6.1	8
10	Direct Observation of Conducting Paths in TiO2 Thin Film by Transmission Electron Microscopy. *Microscopy and Microanalysis*, **2009**, 15, 996-997	0.5	7
9	Observation of the Ni2O3 phase in a NiO thin-film resistive switching system. *Physica Status Solidi - Rapid Research Letters*, **2017**, 11, 1700048	2.5	6
8	Realizing continuous cation order-to-disorder tuning in a class of high-energy spinel-type Li-ion cathodes. *Matter*, **2021**,	12.7	6
7	Avoiding fatal damage to the top electrodes when forming unipolar resistance switching in nano-thick material systems. *Journal Physics D: Applied Physics*, **2012**, 45, 255101	3	5
6	In situ observations of topotactic phase transitions in a ferrite memristor. *Journal of Applied Physics* , **2020**, 128, 074501	2.5	5
5	Spontaneous formation of Ge nanocrystals with the capping layer of Si3N4 by N2+ implantation and rapid thermal annealing. *Thin Solid Films*, **2010**, 518, 6010-6014	2.2	3
4	Electrically Driven Diffraction Grating Designed for Visible-Wavelength Region. *IEEE Electron Device Letters*, **2013**, 34, 84-86	4.4	2
3	Resistive Switching: Unraveling the Origin and Mechanism of Nanofilament Formation in Polycrystalline SrTiO3 Resistive Switching Memories (Adv. Mater. 28/2019). *Advanced Materials*, **2019**, 31, 1970205	24	1
2	(Invited) Identity of the Conducting Nanofilaments in TiO2 and the Resistance Switching Mechanism of TiO2/NiO Stacked Layers. *ECS Transactions*, **2010**, 33, 291-298	1	
1	Understanding the Behavior of Oxygen Vacancies in an SrFeOx/Nb:SrTiO3 Memristor. *Electronic Materials Letters*, **2022**, 18, 168	2.9	