

Deok-Hwang Kwon

List of Publications by Year in descending order

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33
papers

4,312
citations

394421

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33
all docs

33
docs citations

33
times ranked

5767
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomic structure of conducting nanofilaments in TiO ₂ resistive switching memory. Nature Nanotechnology, 2010, 5, 148-153.	31.5	1,866
2	Reversible Mn ²⁺ /Mn ⁴⁺ double redox in lithium-excess cathode materials. Nature, 2018, 556, 185-190.	27.8	525
3	Cation-disordered rocksalt-type high-entropy cathodes for Li-ion batteries. Nature Materials, 2021, 20, 214-221.	27.5	290
4	K-ion Batteries Based on a P2-type K _{0.6} CoO ₂ Cathode. Advanced Energy Materials, 2017, 7, 1700098.	19.5	250
5	Mitigating oxygen loss to improve the cycling performance of high capacity cation-disordered cathode materials. Nature Communications, 2017, 8, 981.	12.8	197
6	Hidden structural and chemical order controls lithium transport in cation-disordered oxides for rechargeable batteries. Nature Communications, 2019, 10, 592.	12.8	162
7	Ultrahigh power and energy density in partially ordered lithium-ion cathode materials. Nature Energy, 2020, 5, 213-221.	39.5	158
8	Design principles for high transition metal capacity in disordered rocksalt Li-ion cathodes. Energy and Environmental Science, 2018, 11, 2159-2171.	30.8	123
9	Stoichiometric Layered Potassium Transition Metal Oxide for Rechargeable Potassium Batteries. Chemistry of Materials, 2018, 30, 6532-6539.	6.7	108
10	Design Principles for High-Capacity Mn-Based Cation-Disordered Rocksalt Cathodes. Chem, 2020, 6, 153-168.	11.7	103
11	Epitaxial Brownmillerite Oxide Thin Films for Reliable Switching Memory. ACS Applied Materials & Interfaces, 2016, 8, 7902-7911.	8.0	72
12	Electrochemical properties and structural evolution of O ₃ -type layered sodium mixed transition metal oxides with trivalent nickel. Journal of Materials Chemistry A, 2017, 5, 4596-4606.	10.3	63
13	Computational Investigation and Experimental Realization of Disordered High-Capacity Li-Ion Cathodes Based on Ni Redox. Chemistry of Materials, 2019, 31, 2431-2442.	6.7	50
14	Role of oxygen vacancies in resistive switching in Pt/Nb-doped SrTiO ₃ . Applied Physics Letters, 2014, 105, .	3.3	49
15	Synaptic devices based on two-dimensional layered single-crystal chromium thiophosphate (CrPS ₄). NPG Asia Materials, 2018, 10, 23-30.	7.9	48
16	Direct Observation of Alternating Octahedral and Prismatic Sodium Layers in O ₃ -type Transition Metal Oxides. Advanced Energy Materials, 2020, 10, 2001151.	19.5	39
17	Unraveling the Origin and Mechanism of Nanofilament Formation in Polycrystalline SrTiO ₃ Resistive Switching Memories. Advanced Materials, 2019, 31, e1901322.	21.0	38
18	Realizing continuous cation order-to-disorder tuning in a class of high-energy spinel-type Li-ion cathodes. Matter, 2021, 4, 3897-3916.	10.0	32

#	ARTICLE	IF	CITATIONS
19	Variation of switching mechanism in TiO ₂ thin film resistive random access memory with Ag and graphene electrodes. <i>Microelectronic Engineering</i> , 2013, 104, 42-47.	2.4	20
20	The Impact of Surface Structure Transformations on the Performance of Li-Excess Cation-Disordered Rocksalt Cathodes. <i>Cell Reports Physical Science</i> , 2020, 1, 100187.	5.6	20
21	Investigation of Interface Formed between Top Electrodes and Epitaxial NiO Films for Bipolar Resistance Switching. <i>Japanese Journal of Applied Physics</i> , 2010, 49, 031102.	1.5	19
22	Shear-Assisted Formation of Cation-Disordered Rocksalt NaMO ₂ (M = Fe or Mn). <i>Chemistry of Materials</i> , 2018, 30, 8811-8821.	6.7	17
23	In situ observations of topotactic phase transitions in a ferrite memristor. <i>Journal of Applied Physics</i> , 2020, 128, 074501.	2.5	14
24	Na ⁺ Redistribution by Electrochemical Na ⁺ /K ⁺ Exchange in Layered Na _x Ni ₂ SbO ₆ . <i>Chemistry of Materials</i> , 2020, 32, 4312-4323.	6.7	14
25	Observation of the Ni ₂ O ₃ phase in a NiO thin-film resistive switching system. <i>Physica Status Solidi - Rapid Research Letters</i> , 2017, 11, 1700048.	2.4	9
26	Direct Observation of Conducting Paths in TiO ₂ Thin Film by Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2009, 15, 996-997.	0.4	7
27	Avoiding fatal damage to the top electrodes when forming unipolar resistance switching in nano-thick material systems. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 255101.	2.8	7
28	Spontaneous formation of Ge nanocrystals with the capping layer of Si ₃ N ₄ by N ₂ ⁺ implantation and rapid thermal annealing. <i>Thin Solid Films</i> , 2010, 518, 6010-6014.	1.8	3
29	Electrically Driven Diffraction Grating Designed for Visible-Wavelength Region. <i>IEEE Electron Device Letters</i> , 2013, 34, 84-86.	3.9	3
30	Resistive Switching: Unraveling the Origin and Mechanism of Nanofilament Formation in Polycrystalline SrTiO ₃ Resistive Switching Memories (Adv. Mater. 28/2019). <i>Advanced Materials</i> , 2019, 31, 1970205.	21.0	2
31	Understanding the Behavior of Oxygen Vacancies in an SrFeO _x /Nb:SrTiO ₃ Memristor. <i>Electronic Materials Letters</i> , 2022, 18, 168-175.	2.2	2
32	Improved strontium segregation suppression of lanthanum strontium cobalt oxide cathode via chemical etching and atomic layer deposition. <i>International Journal of Energy Research</i> , 2022, 46, 12467-12475.	4.5	2
33	(Invited) Identity of the Conducting Nanofilaments in TiO ₂ and the Resistance Switching Mechanism of TiO ₂ /NiO Stacked Layers. <i>ECS Transactions</i> , 2010, 33, 291-298.	0.5	0