

# Soowhan Kim

## List of Publications by Year in descending order

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28  
papers

3,891  
citations

304743

22  
h-index

501196

28  
g-index

28  
all docs

28  
docs citations

28  
times ranked

2899  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Stable Vanadium Redox Flow Battery with High Energy Density for Large Scale Energy Storage. <i>Advanced Energy Materials</i> , 2011, 1, 394-400.	19.5	688
2	Membrane Development for Vanadium Redox Flow Batteries. <i>ChemSusChem</i> , 2011, 4, 1388-1406.	6.8	450
3	A review of vanadium electrolytes for vanadium redox flow batteries. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 69, 263-274.	16.4	336
4	Cost and performance model for redox flow batteries. <i>Journal of Power Sources</i> , 2014, 247, 1040-1051.	7.8	329
5	Cycling performance and efficiency of sulfonated poly(sulfone) membranes in vanadium redox flow batteries. <i>Electrochemistry Communications</i> , 2010, 12, 1650-1653.	4.7	221
6	A new redox flow battery using Fe/V redox couples in chloride supporting electrolyte. <i>Energy and Environmental Science</i> , 2011, 4, 4068.	30.8	181
7	1 kWh/1 kWh advanced vanadium redox flow battery utilizing mixed acid electrolytes. <i>Journal of Power Sources</i> , 2013, 237, 300-309.	7.8	160
8	Chemical and mechanical degradation of sulfonated poly(sulfone) membranes in vanadium redox flow batteries. <i>Journal of Applied Electrochemistry</i> , 2011, 41, 1201-1213.	2.9	150
9	Impact of channel wall hydrophobicity on through-plane water distribution and flooding behavior in a polymer electrolyte fuel cell. <i>Electrochimica Acta</i> , 2010, 55, 2734-2745.	5.2	142
10	Physical degradation of membrane electrode assemblies undergoing freeze/thaw cycling: Diffusion media effects. <i>Journal of Power Sources</i> , 2008, 179, 140-146.	7.8	129
11	Chloride supporting electrolytes for all-vanadium redox flow batteries. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 18186.	2.8	126
12	Investigation of temperature-driven water transport in polymer electrolyte fuel cell: Thermo-osmosis in membranes. <i>Journal of Membrane Science</i> , 2009, 328, 113-120.	8.2	121
13	Effects of additives on the stability of electrolytes for all-vanadium redox flow batteries. <i>Journal of Applied Electrochemistry</i> , 2011, 41, 1215-1221.	2.9	118
14	Investigation of Temperature-Driven Water Transport in Polymer Electrolyte Fuel Cell: Phase-Change-Induced Flow. <i>Journal of the Electrochemical Society</i> , 2009, 156, B353.	2.9	112
15	Vanadium redox flow battery efficiency and durability studies of sulfonated Diels Alder poly(phenylene)s. <i>Electrochemistry Communications</i> , 2012, 20, 48-51.	4.7	110
16	Spectroscopic investigations of the fouling process on Nafion membranes in vanadium redox flow batteries. <i>Journal of Membrane Science</i> , 2011, 366, 325-334.	8.2	107
17	Correlation of structural differences between Nafion/polyaniline and Nafion/polypyrrole composite membranes and observed transport properties. <i>Journal of Membrane Science</i> , 2011, 372, 11-19.	8.2	79
18	Stable fluorinated sulfonated poly(arylene ether) membranes for vanadium redox flow batteries. <i>RSC Advances</i> , 2012, 2, 8087.	3.6	68

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19	Investigation of local environments in Nafion <sup>®</sup> /SiO <sub>2</sub> composite membranes used in vanadium redox flow batteries. <i>Solid State Nuclear Magnetic Resonance</i> , 2012, 42, 71-80.	2.3	61
20	Characteristic Behavior of Polymer Electrolyte Fuel Cell Resistance during Cold Start. <i>Journal of the Electrochemical Society</i> , 2008, 155, B1145.	2.9	49
21	Composite blend polymer membranes with increased proton selectivity and lifetime for vanadium redox flow batteries. <i>Journal of Power Sources</i> , 2013, 231, 301-306.	7.8	36
22	Multiple parameter identification using genetic algorithm in vanadium redox flow batteries. <i>Journal of Power Sources</i> , 2020, 450, 227684.	7.8	33
23	Electrochemical Model of the Fe/V Redox Flow Battery. <i>Journal of the Electrochemical Society</i> , 2012, 159, A1993-A2000.	2.9	23
24	A two-dimensional analytical unit cell model for redox flow battery evaluation and optimization. <i>Journal of Power Sources</i> , 2021, 506, 230192.	7.8	15
25	Resistor Design for the Use of Dynamic Hydrogen Electrode in Vanadium Redox Flow Batteries. <i>Electrochimica Acta</i> , 2016, 213, 490-495.	5.2	14
26	Computational study of effects of contact resistance on a large-scale vanadium redox flow battery stack. <i>International Journal of Energy Research</i> , 2019, 43, 2343-2360.	4.5	12
27	Freeze-Induced Damage and Purge Based Mitigation in Polymer Electrolyte Fuel Cells. <i>ECS Transactions</i> , 2007, 11, 577-586.	0.5	11
28	Flexible graphite bipolar plates for vanadium redox flow batteries. <i>International Journal of Energy Research</i> , 2021, 45, 11098-11108.	4.5	10