

# Hyun Deog Yoo

## List of Publications by Year in descending order

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32  
papers

3,264  
citations

471509

17  
h-index

434195

31  
g-index

33  
all docs

33  
docs citations

33  
times ranked

4441  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mg rechargeable batteries: an on-going challenge. <i>Energy and Environmental Science</i> , 2013, 6, 2265.	30.8	1,188
2	On the challenge of developing advanced technologies for electrochemical energy storage and conversion. <i>Materials Today</i> , 2014, 17, 110-121.	14.2	501
3	Electrochemical and Spectroscopic Analysis of Mg <sup>2+</sup> Intercalation into Thin Film Electrodes of Layered Oxides: V <sub>2</sub> O <sub>5</sub> and MoO <sub>3</sub> . <i>Langmuir</i> , 2013, 29, 10964-10972.	3.5	346
4	Mechanism of Zn Insertion into Nanostructured $\gamma$ -MnO <sub>2</sub> : A Nonaqueous Rechargeable Zn Metal Battery. <i>Chemistry of Materials</i> , 2017, 29, 4874-4884.	6.7	225
5	Graphene decorated vanadium oxide nanowire aerogel for long-cycle-life magnesium battery cathodes. <i>Nano Energy</i> , 2015, 18, 265-272.	16.0	170
6	Impedance analysis of porous carbon electrodes to predict rate capability of electric double-layer capacitors. <i>Journal of Power Sources</i> , 2014, 267, 411-420.	7.8	164
7	Reversible Mg-Ion Insertion in a Metastable One-Dimensional Polymorph of V <sub>2</sub> O <sub>5</sub> . <i>CheM</i> , 2018, 4, 564-585.	11.7	126
8	“Rocking-Chair” Type Metal Hybrid Supercapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 30853-30862.	8.0	86
9	Intercalation of Magnesium into a Layered Vanadium Oxide with High Capacity. <i>ACS Energy Letters</i> , 2019, 4, 1528-1534.	17.4	75
10	Degradation Mechanisms of Magnesium Metal Anodes in Electrolytes Based on (CF <sub>3</sub> SO <sub>2</sub> ) <sub>2</sub> N <sup>+</sup> at High Current Densities. <i>Langmuir</i> , 2017, 33, 9398-9406.	3.5	70
11	A Magnesium-Activated Carbon Hybrid Capacitor. <i>Journal of the Electrochemical Society</i> , 2014, 161, A410-A415.	2.9	59
12	Intercalation Pseudocapacitance of Exfoliated Molybdenum Disulfide for Ultrafast Energy Storage. <i>ChemNanoMat</i> , 2016, 2, 688-691.	2.8	38
13	Electrochemical Reduction of a Spinel-Type Manganese Oxide Cathode in Aqueous Electrolytes with Ca <sup>2+</sup> or Zn <sup>2+</sup> . <i>Journal of Physical Chemistry C</i> , 2018, 122, 4182-4188.	3.1	33
14	Tailoring the electrochemical activity of magnesium chromium oxide towards Mg batteries through control of size and crystal structure. <i>Nanoscale</i> , 2019, 11, 639-646.	5.6	27
15	Multivalent Electrochemistry of Spinel Mg <sub>x</sub> Mn <sub>3</sub> O <sub>4</sub> Nanocrystals. <i>Chemistry of Materials</i> , 2018, 30, 1496-1504.	6.7	23
16	A Chronocoulometric Method to Measure the Corrosion Rate on Zinc Metal Electrodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 42612-42621.	8.0	22
17	Potential Sweep Method to Evaluate Rate Capability in Capacitive Deionization. <i>Electrochimica Acta</i> , 2014, 139, 374-380.	5.2	20
18	Enhanced charge storage of nanometric $\gamma$ -V <sub>2</sub> O <sub>5</sub> in Mg electrolytes. <i>Nanoscale</i> , 2020, 12, 22150-22160.	5.6	15

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19	Does Water Enhance Mg Intercalation in Oxides? The Case of a Tunnel Framework. ACS Energy Letters, 2020, 5, 3357-3361.	17.4	13
20	Effects of Interlayer Distance and van der Waals Energy on Electrochemical Activation of Partially Reduced Graphite Oxide. Electrochimica Acta, 2015, 173, 827-833.	5.2	12
21	Superior high voltage LiNi <sub>0.6</sub> Co <sub>0.2</sub> Mn <sub>0.2</sub> O <sub>2</sub> cathode using Li <sub>3</sub> PO <sub>4</sub> coating for lithium-ion batteries. Korean Journal of Chemical Engineering, 2021, 38, 1059-1065.	2.7	8
22	Probing Mg Intercalation in the Tetragonal Tungsten Bronze Framework V <sub>4</sub> Nb <sub>18</sub> O <sub>55</sub> . Inorganic Chemistry, 2020, 59, 9783-9797.	4.0	7
23	Control of crystal size tailors the electrochemical performance of $\text{V}_2\text{O}_5$ as a Mg <sup>2+</sup> intercalation host. Nanoscale, 2021, 13, 10081-10091.	5.6	7
24	Factors Defining the Intercalation Electrochemistry of CaFe <sub>2</sub> O <sub>4</sub> -Type Manganese Oxides. Chemistry of Materials, 2020, 32, 8203-8215.	6.7	6
25	A simple engineering strategy with side chain liquid crystal polymers in perovskite absorbers for high efficiency and stability. Organic Electronics, 2021, 88, 105987.	2.6	5
26	Electrochemical Generation of Mesopores and Residual Oxygen for the Enhanced Activity of Silver Electrocatalysts. Journal of Physical Chemistry Letters, 2021, 12, 5748-5757.	4.6	5
27	Potential-Dependent Passivation of Zinc Metal in a Sulfate-Based Aqueous Electrolyte. Langmuir, 2021, 37, 13218-13224.	3.5	5
28	Intercalation of Mg into a Few-Layer Phyllosulfate in Nonaqueous Electrolytes at Room Temperature. Chemistry of Materials, 2020, 32, 6014-6025.	6.7	3
29	Modeling ionic intercalation and solid-state diffusion using typical descriptors of batteries. Journal of Applied Electrochemistry, 2021, 51, 703-713.	2.9	3
30	Hanging meniscus configuration for characterizing oxygen-reduction electrocatalysts in highly concentrated electrolytes. Journal of Electroanalytical Chemistry, 2022, 913, 116288.	3.8	1
31	Cobalt doping stabilizes the expanded structure of layered double hydroxide cathodes for application in fast charging Ni-Zn batteries. Journal of Applied Electrochemistry, 2022, 52, 1449-1458.	2.9	1
32	Low Dose Electron Microscopy of Interlayer Expanded Molybdenum Disulfide Nanocomposites. Microscopy and Microanalysis, 2015, 21, 1057-1058.	0.4	0