

# Yongseon Kim

## List of Publications by Year in descending order

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Version: 2024-02-01

40  
papers

809  
citations

566801

15  
h-index

500791

28  
g-index

40  
all docs

40  
docs citations

40  
times ranked

1158  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Experimental and First-Principles Thermodynamic Study of the Formation and Effects of Vacancies in Layered Lithium Nickel Cobalt Oxides. <i>Chemistry of Materials</i> , 2011, 23, 5388-5397.  | 3.2 | 89        |
| 2  | Synthesis of High-Density Nickel Cobalt Aluminum Hydroxide by Continuous Coprecipitation Method. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 586-589.   | 4.0 | 81        |
| 3  | First-principles and experimental investigation of the morphology of layer-structured LiNiO <sub>2</sub> and LiCoO <sub>2</sub> . <i>Journal of Materials Chemistry</i> , 2012, 22, 12874.   | 6.7 | 74        |
| 4  | Mechanism of gas evolution from the cathode of lithium-ion batteries at the initial stage of high-temperature storage. <i>Journal of Materials Science</i> , 2013, 48, 8547-8551.  | 1.7 | 64        |
| 5  | Encapsulation of LiNi <sub>0.5</sub> Co <sub>0.2</sub> Mn <sub>0.3</sub> O <sub>2</sub> with a thin inorganic electrolyte film to reduce gas evolution in the application of lithium ion batteries. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 6400.             | 1.3 | 58        |
| 6  | Investigation of the gas evolution in lithium ion batteries: effect of free lithium compounds in cathode materials. <i>Journal of Solid State Electrochemistry</i> , 2013, 17, 1961-1965.  | 1.2 | 46        |
| 7  | Dual spectra band emissive Eu <sup>2+</sup> /Mn <sup>2+</sup> -co-activated alkaline earth phosphates for indoor plant growth novel phosphor converted-LEDs. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 11111-11119.   | 1.3 | 38        |
| 8  | Self-assembly of core-shell structures driven by low doping limit of Ti in LiCoO <sub>2</sub> : first-principles thermodynamic and experimental investigation. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 4104-4113.   | 1.3 | 36        |
| 9  | First-principles thermodynamic calculations and experimental investigation of Sr <sup>2+</sup> Si <sup>4+</sup> N <sup>3-</sup> O system synthesis of Sr <sub>2</sub> Si <sub>5</sub> N <sub>8</sub> :Eu phosphor. <i>Journal of Materials Chemistry C</i> , 2013, 1, 69-78. | 2.7 | 34        |
| 10 | Calculation of Formation Energy of Oxygen Vacancy in ZnO Based on Photoluminescence Measurements. <i>Journal of Physical Chemistry B</i> , 2010, 114, 7874-7878.   | 1.2 | 33        |
| 11 | Investigation on the dissolution of Mn ions from LiMn <sub>2</sub> O <sub>4</sub> cathode in the application of lithium ion batteries: First principle molecular orbital method. <i>International Journal of Quantum Chemistry</i> , 2013, 113, 148-154.                     | 1.0 | 30        |
| 12 | Effects and distribution of Zr introduced in Ni-based cathode material for Li-ion batteries. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 12505-12517.   | 1.3 | 27        |
| 13 | Point Defects in Layer-Structured Cathode Materials for Lithium-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2016, 120, 4173-4182.  | 1.5 | 24        |
| 14 | Fluorination of free lithium residues on the surface of lithium nickel cobalt aluminum oxide cathode materials for lithium ion batteries. <i>Materials and Design</i> , 2016, 100, 175-179.  | 3.3 | 22        |
| 15 | First principles investigation of the structure and stability of LiNiO <sub>2</sub> doped with Co and Mn. <i>Journal of Materials Science</i> , 2012, 47, 7558-7563.   | 1.7 | 16        |
| 16 | Improvement of the electrochemical properties of LiNi <sub>0.5</sub> Mn <sub>1.5</sub> O <sub>4</sub> by controlling the heating atmosphere during synthesis. <i>Ceramics International</i> , 2017, 43, 15510-15518.   | 2.3 | 16        |
| 17 | Eu <sup>2+</sup> -Activated Phase-Pure Oxonitridosilicate Phosphor in a BaSi <sup>4+</sup> O <sup>2-</sup> N System via Facile Silicate-Assisted Routes Designed by First-Principles Thermodynamic Simulation. <i>Inorganic Chemistry</i> , 2016, 55, 8750-8757.             | 1.9 | 14        |
| 18 | Thermodynamic investigation of Ti doping in MgAl <sub>2</sub> O <sub>4</sub> based on the first-principles method. <i>Journal of Materials Chemistry C</i> , 2015, 3, 8970-8978.   | 2.7 | 12        |

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|----|--|-----|-----------|
| 19 | Enhancement of UV emission in ZnO nanorods by growing additional ZnO layers on the surface. <i>Nanotechnology</i> , 2011, 22, 275707.  | 1.3 | 11        |
| 20 | Surface Photoluminescence Emission of ZnO Nanorod Arrays: Experimental and First-Principles Investigation. <i>Journal of Physical Chemistry C</i> , 2010, 114, 17894-17898.  | 1.5 | 9         |
| 21 | First-principles investigation of the gas evolution from the cathodes of lithium-ion batteries during the storage test. <i>Journal of Materials Science</i> , 2014, 49, 8444-8448.   | 1.7 | 8         |
| 22 | Theoretical investigation of the cation antisite defect in layer-structured cathode materials for Li-ion batteries. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 24139-24146.  | 1.3 | 8         |
| 23 | Effect of metal composition on the structure of layer-structured cathode materials for Li-ion batteries. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.  | 1.1 | 8         |
| 24 | Water adsorption on the surface of Ni- and Co-based layer-structured cathode materials for lithium-ion batteries. <i>International Journal of Quantum Chemistry</i> , 2018, 118, e25591.   | 1.0 | 6         |
| 25 | Multi-functional colored coating of BaMgAl <sub>10</sub> O <sub>17</sub> :Eu phosphors with cobalt-doped Al <sub>2</sub> O <sub>3</sub> thin films. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 98, 245-248.    | 1.1 | 5         |
| 26 | Investigation of the change in the electronic properties of FeF <sub>3</sub> by the introduction of oxygen using a molecular orbital method. <i>International Journal of Quantum Chemistry</i> , 2014, 114, 340-344.                   | 1.0 | 5         |
| 27 | Thermochemical investigation of Zr doping in LiNi <sub>8/12</sub> Co <sub>2/12</sub> Mn <sub>2/12</sub> O <sub>2</sub> based on phase equilibria simulation. <i>International Journal of Quantum Chemistry</i> , 2019, 119, e26028.    | 1.0 | 5         |
| 28 | Component-Selective Passivation of Li Residues of Ni-Based Cathode Materials by Chemical Mimicry of Solid Electrolyte Interphase Formation. <i>ACS Applied Energy Materials</i> , 2019, 2, 217-221.                                    | 2.5 | 5         |
| 29 | Luminescent properties and energy transfer of Eu <sup>2+</sup> /Mn <sup>2+</sup> codoped Na(Sr,Ba)PO <sub>4</sub> and Ba <sub>2</sub> Mg(BO <sub>3</sub> ) <sub>2</sub> phosphors. <i>Journal of Luminescence</i> , 2020, 220, 116958. | 1.5 | 4         |
| 30 | Investigation of growth kinetics of Ni <sub>0.855</sub> Co <sub>0.145</sub> (OH) <sub>2</sub> particles in continuous co-precipitation process. <i>Ceramics International</i> , 2020, 46, 19476-19483.                                 | 2.3 | 4         |
| 31 | Rational design of electrochemically active polymorphic MnOx/rGO composites for Li <sup>+</sup> -rechargeable battery electrodes. <i>Ceramics International</i> , 2019, 45, 9522-9528.   | 2.3 | 3         |
| 32 | Understanding the Chemical Composition with Doping Aliovalent Ions, Followed by the Electrochemical Behavior for Surface-Modified Ni-Rich NMC Cathode Materials. <i>Inorganic Chemistry</i> , 2021, 60, 16294-16302.                   | 1.9 | 3         |
| 33 | Free-Standing, Robust, and Stable Li <sup>+</sup> Conductive Li(Sr,Zr) <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> /PEO Composite Electrolytes for Solid-State Batteries. <i>ACS Applied Energy Materials</i> , 2021, 4, 13974-13982. | 2.5 | 3         |
| 34 | Minimum Co content limit in layer-structured cathode materials for Li-ion batteries. <i>Journal of Power Sources</i> , 2020, 467, 228351.  | 4.0 | 2         |
| 35 | Origin of the different degradation mechanisms of LNCM and LNCA cathodes in Li-ion batteries. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 3429-3439.  | 1.3 | 2         |
| 36 | Defects on the Surface of Ti-Doped MgAl <sub>2</sub> O <sub>4</sub> Nanophosphor. <i>Nanoscale Research Letters</i> , 2017, 12, 536.   | 3.1 | 1         |

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|----|---|-----|-----------|
| 37 | Investigation of the processing conditions for the synthesis of rod-shaped LiCoO <sub>2</sub> . Applied Physics A: Materials Science and Processing, 2018, 124, 1.  | 1.1 | 1         |
| 38 | Synthesis and Surface Coating of LiMn <sub>2</sub> O <sub>4</sub> Nanorods for the Cathode of the Lithium-ion Battery. Journal of Nanoscience and Nanotechnology, 2021, 21, 5289-5295.                          | 0.9 | 1         |
| 39 | Postheating Effect of LiNi <sub>0.925</sub> Co <sub>0.05</sub> Mn <sub>0.025</sub> O <sub>2</sub> in Argon Atmosphere on Lithium Residues and Related Battery Performance. ACS Applied Energy Materials, 0, , . | 2.5 | 1         |
| 40 | First-principles investigation of the effect of Co in stabilizing the structures of layer-structured cathodes in delithiated state. Materials Research Express, 2020, 7, 075507.                                | 0.8 | 0         |