

# Titus Masese

## List of Publications by Year in descending order

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44  
papers

1,621  
citations

361413

20  
h-index

289244

40  
g-index

64  
all docs

64  
docs citations

64  
times ranked

2227  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | High energy density rechargeable magnesium battery using earth-abundant and non-toxic elements. Scientific Reports, 2014, 4, 5622.  | 3.3  | 286       |
| 2  | Rechargeable potassium-ion batteries with honeycomb-layered tellurates as high voltage cathodes and fast potassium-ion conductors. Nature Communications, 2018, 9, 3823.  | 12.8 | 190       |
| 3  | Ionic Conduction in Lithium Ion Battery Composite Electrode Governs Cross-sectional Reaction Distribution. Scientific Reports, 2016, 6, 26382.  | 3.3  | 123       |
| 4  | MgFePO <sub>4</sub> F as a feasible cathode material for magnesium batteries. Journal of Materials Chemistry A, 2014, 2, 11578-11582.   | 10.3 | 75        |
| 5  | Improved Cyclic Performance of Lithium-Ion Batteries: An Investigation of Cathode/Electrolyte Interface via In Situ Total-Reflection Fluorescence X-ray Absorption Spectroscopy. Journal of Physical Chemistry C, 2014, 118, 9538-9543. | 3.1  | 60        |
| 6  | A high voltage honeycomb layered cathode framework for rechargeable potassium-ion battery: P2-type K <sub>2/3</sub> Ni <sub>1/3</sub> Co <sub>1/3</sub> Te <sub>1/3</sub> O <sub>2</sub> . Chemical Communications, 2019, 55, 985-988.  | 4.1  | 59        |
| 7  | Sulfonylamide-Based Ionic Liquids for High-Voltage Potassium-Ion Batteries with Honeycomb Layered Cathode Oxides. ChemElectroChem, 2019, 6, 3901-3910.  | 3.4  | 57        |
| 8  | Origin of Surface Coating Effect for MgO on LiCoO <sub>2</sub> to Improve the Interfacial Reaction between Electrode and Electrolyte. Advanced Materials Interfaces, 2014, 1, 1400195.  | 3.7  | 56        |
| 9  | Interfacial engineering enables Bi@C-TiO microspheres as superpower and long life anode for lithium-ion batteries. Nano Energy, 2018, 51, 137-145.  | 16.0 | 55        |
| 10 | Vanadium phosphate as a promising high-voltage magnesium ion (de)-intercalation cathode host. RSC Advances, 2015, 5, 8598-8603.   | 3.6  | 54        |
| 11 | Crystal Structural Changes and Charge Compensation Mechanism during Two Lithium Extraction/Insertion between Li <sub>2</sub> FeSiO <sub>4</sub> and FeSiO <sub>4</sub> . Journal of Physical Chemistry C, 2015, 119, 10206-10211.       | 3.1  | 52        |
| 12 | Relationship between Phase Transition Involving Cationic Exchange and Charge-Discharge Rate in Li <sub>2</sub> FeSiO <sub>4</sub> . Chemistry of Materials, 2014, 26, 1380-1384.  | 6.7  | 47        |
| 13 | Honeycomb layered oxides: structure, energy storage, transport, topology and relevant insights. Chemical Society Reviews, 2021, 50, 3990-4030.  | 38.1 | 43        |
| 14 | Grain-boundary-rich mesoporous NiTiO <sub>3</sub> micro-prism as high tap-density, super rate and long life anode for sodium and lithium ion batteries. Energy Storage Materials, 2018, 13, 329-339.                                    | 18.0 | 40        |
| 15 | Anti-site mixing governs the electrochemical performances of olivine-type MgMnSiO <sub>4</sub> cathodes for rechargeable magnesium batteries. Physical Chemistry Chemical Physics, 2016, 18, 13524-13529.                               | 2.8  | 39        |
| 16 | Organic positive-electrode material utilizing both an anion and cation: a benzoquinone-tetrathiafulvalene triad molecule, Q-TTF-Q, for rechargeable Li, Na, and K batteries. New Journal of Chemistry, 2019, 43, 1626-1631.             | 2.8  | 38        |
| 17 | Mitigating the polysulfides "shuttling" with TiO <sub>2</sub> nanowires/nanosheets hybrid modified separators for robust lithium-sulfur batteries. Chemical Engineering Journal, 2020, 387, 124080.                                     | 12.7 | 37        |
| 18 | Binder-free graphene/carbon nanotube/silicon hybrid grid as freestanding anode for high capacity lithium ion batteries. Composites Part A: Applied Science and Manufacturing, 2016, 84, 386-392.  | 7.6  | 32        |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 19 | Bendable Network Built with Ultralong Silica Nanowires as a Stable Separator for High-Safety and High-Power Lithium-Metal Batteries. ACS Applied Materials & Interfaces, 2019, 11, 34895-34903.  | 8.0  | 31        |
| 20 | Mixed alkali-ion transport and storage in atomic-disordered honeycomb layered NaKNi <sub>2</sub> TeO <sub>6</sub> . Nature Communications, 2021, 12, 4660.   | 12.8 | 23        |
| 21 | Stabilization of the Electronic Structure at the Cathode/Electrolyte Interface via MgO Ultra-thin Layer during Lithium-ions Insertion/Extraction. Electrochemistry, 2014, 82, 891-896.   | 1.4  | 21        |
| 22 | Magnetism and ion diffusion in honeycomb layered oxide $\text{K}_2\text{Ni}_2\text{TeO}_6$ . Scientific Reports, 2020, 10, 18305.  | 3.3  | 21        |
| 23 | High rate and thermally stable Mn-rich concentration-gradient layered oxide microsphere cathodes for lithium-ion batteries. Energy Storage Materials, 2016, 5, 205-213.  | 18.0 | 20        |
| 24 | High-voltage honeycomb layered oxide positive electrodes for rechargeable sodium batteries. Chemical Communications, 2020, 56, 9272-9275.  | 4.1  | 18        |
| 25 | An idealised approach of geometry and topology to the diffusion of cations in honeycomb layered oxide frameworks. Scientific Reports, 2020, 10, 13284.   | 3.3  | 17        |
| 26 | Unveiling structural disorders in honeycomb layered oxide: Na <sub>2</sub> Ni <sub>2</sub> TeO <sub>6</sub> . Materialia, 2021, 15, 101003.  | 2.7  | 13        |
| 27 | Topological Defects and Unique Stacking Disorders in Honeycomb Layered Oxide K <sub>2</sub> Ni <sub>2</sub> TeO <sub>6</sub> Nanomaterials: Implications for Rechargeable Batteries. ACS Applied Nano Materials, 2021, 4, 279-287.                               | 5.0  | 12        |
| 28 | Local structural change in Li <sub>2</sub> FeSiO <sub>4</sub> polyanion cathode material during initial cycling. Solid State Ionics, 2014, 262, 110-114.   | 2.7  | 11        |
| 29 | Sulfur in Mesoporous Tungsten Nitride Foam Blocks: A Rational Lithium Polysulfide Confinement Experimental Design Strategy Augmented by Theoretical Predictions. ACS Applied Materials & Interfaces, 2019, 11, 20013-20021.                                      | 8.0  | 9         |
| 30 | Implications of coordination chemistry to cationic interactions in honeycomb layered nickel tellurates. Computational Materials Science, 2022, 207, 111322.  | 3.0  | 9         |
| 31 | A Potential Cathode Material for Rechargeable Potassium-Ion Batteries Inducing Manganese Cation and Oxygen Anion Redox Chemistry: Potassium-Deficient K <sub>0.4</sub> Fe <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub> . Energy Technology, 2020, 8, 2000039. | 3.8  | 8         |
| 32 | Reaction mechanism of electrochemical insertion/extraction of magnesium ions in olivine-type FePO <sub>4</sub> . Solid State Ionics, 2020, 349, 115311.  | 2.7  | 8         |
| 33 | Silica Nanowires Reinforced with Poly(vinylidene fluoride-co-hexafluoropropylene): Separator for High-Performance Lithium Batteries. ChemNanoMat, 2022, 8, .   | 2.8  | 8         |
| 34 | Enhanced Performance Induced by Phase Transition of Li <sub>2</sub> FeSiO <sub>4</sub> upon Cycling at High Temperature. ACS Applied Energy Materials, 2020, 3, 5722-5727.   | 5.1  | 7         |
| 35 | Coronene: a high-voltage anion insertion and de-insertion cathode for potassium-ion batteries. New Journal of Chemistry, 2021, 45, 4921-4924.  | 2.8  | 7         |
| 36 | A novel cationic-ordering fluoro-polyanionic cathode LiV <sub>0.5</sub> Fe <sub>0.5</sub> PO <sub>4</sub> F and its single phase Li+ insertion/extraction behaviour. RSC Advances, 2013, 3, 22935.   | 3.6  | 6         |

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|----|---|-----|-----------|
| 37 | Cation Distributions and Magnetic Properties of Ferrispinel $MgFeMnO_4$ . Inorganic Chemistry, 2020, 59, 17970-17980.   | 4.0 | 6         |
| 38 | Cationic vacancies as defects in honeycomb lattices with modular symmetries. Scientific Reports, 2022, 12, 6465.  | 3.3 | 6         |
| 39 | Relationship between Local Structure and Oxide Ionic Diffusion of $Nd_2NiO_{4+\delta}$ with $K_2NiF_4$ Structure. Electrochemistry, 2014, 82, 875-879.  | 1.4 | 4         |
| 40 | On local conservation of information content in Schwarzschild black holes. Journal of Physics Communications, 2022, 6, 041001.  | 1.2 | 4         |
| 41 | Boosting the lithium-ion storage performance of dense $MnCO_3$ microsphere anodes via Sb-substitution and construction of neural-like carbon nanotube networks. Journal of Applied Electrochemistry, 2018, 48, 1105-1113. | 2.9 | 2         |
| 42 | Electric Double-Layer Capacitors Based on Non-Aqueous Electrolytes: A Comparative Study of Potassium and Quaternary Ammonium Salts. Batteries and Supercaps, 2020, 3, 392-396.  | 4.7 | 2         |
| 43 | The road to potassium-ion batteries. , 2022, , 265-307.   |     | 1         |
| 44 | A Potential Cathode Material for Rechargeable Potassium-Ion Batteries Inducing Manganese Cation and Oxygen Anion Redox Chemistry: Potassium-Deficient $K_{0.4}Fe_{0.5}Mn_{0.5}O_2$ . Energy Technology, 2020, 8, 2070064. | 3.8 | 0         |