

as of March 31, 2026

Battery-related articles in peer-reviewed journals

- L. Hennerici, D. Bröse, M. Schamel, S. Lang, P. Ficht, D. Kramer, R. Mönig, M.A. Danzer, R. Moos:
Progress in the Cycling Performance of Oxidic Solid-State Batteries Fabricated at Room Temperature by Powder Aerosol Deposition
open access - free *Journal of The Electrochemical Society*, **173**, 040517 (2026), doi: [10.1149/1945-7111/ae4543](https://doi.org/10.1149/1945-7111/ae4543)
- M. Sozak, S. Knies, M. Bianchini, R. Moos:
Room Temperature Fabrication of Binder-Free Na₃V₂(PO₄)₃/C High-Loading Electrode Films via the Powder Aerosol Deposition Method
open access - free *Batteries & Supercaps*, **9**, e202500902 (2026), doi: [10.1002/batt.202500902](https://doi.org/10.1002/batt.202500902)
- S. Lang, L. Hennerici, D. Kramer, D. Avadanii, S. Mück, M. Linz, J. Kita, R. Moos, R. Mönig:
Formation, Growth, and Shrinkage of Voids in Lithium Metal in Contact With an LLZO Electrolyte
open access - free *ACS Applied Materials & Interfaces*, **17**, 56980-56990 (2025), doi: [10.1021/acsami.5c09594](https://doi.org/10.1021/acsami.5c09594)
- J. Günther, D. Wycisk, R. Siva Dev, A. Fill, K.P. Birke, R. Moos, J.P. Schmidt, M. Oldenburger:
Determination of the Solid State Diffusion Coefficient of Li-ion Battery Single-Phase Materials Using Thin Model Electrodes
Journal of The Electrochemical Society, **172**, 030525 (2025), doi: [10.1149/1945-7111/adbfc5](https://doi.org/10.1149/1945-7111/adbfc5)
- L. Hennerici, P. Ficht, M. Schamel, U. Mansfeld, M. Linz, D. Paulus, J. Kita, M.A. Danzer, R. Moos:
Lithium All-Solid-State Batteries Fabricated at Room Temperature by the Powder Aerosol Deposition Method with Garnet-Type Electrolyte and Graded Composite Cathode
open access - free *Advanced Materials Technologies*, **10**, 2400745 (2025), doi: [10.1002/admt.202400745](https://doi.org/10.1002/admt.202400745)
- M. Linz, F. Bühner, D. Paulus, L. Hennerici, Y. Guo, V. Mereacre, U. Mansfeld, M. Seipenbusch, J. Kita, R. Moos:
Revealing the Deposition Mechanism of the Powder Aerosol Deposition Method Using Ceramic Oxide Core-Shell Particles
open access - free *Advanced Materials*, **36**, 2308294 (2024), doi: [10.1002/adma.202308294](https://doi.org/10.1002/adma.202308294)
- T. Nazarenus, J. Schneider, L. Hennerici, R. Moos, J. Kita:
Energy estimation of the post-treatment process for powder aerosol deposited solid electrolyte films
Functional Materials Letters, **16**, 2350014 (2023), doi: [10.1142/S1793604723500145](https://doi.org/10.1142/S1793604723500145)
- M. Sozak, T. Nazarenus, J. Exner, J. Kita, R. Moos:
Room temperature manufacture of dense NaSICON solid electrolyte films for all-solid-state-sodium batteries
open access - free *Journal of Materials Science*, **58**, 10108-10119 (2023), doi: [10.1007/s10853-023-08642-w](https://doi.org/10.1007/s10853-023-08642-w)
- S. Müllner, T. Michlik, M. Reichel, T. Held, R. Moos, C. Roth:
Effect of Water-Soluble CMC/SBR Binder Ratios on Si-rGO Composites Using µm- and nm-Sized Silicon as Anode Materials for Lithium-Ion Batteries
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Microstrain release decouples electronic and thermal conductivity in powder aerosol deposited films
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- T. Nazarenus, Y. Sun, J. Exner, J. Kita, R. Moos:
Powder Aerosol Deposition as a Method to Produce Garnet-Type Solid Ceramic Electrolytes: A Study on Electrochemical Film Properties and Industrial Application
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- M. Hahn, D. Rosenbach, A. Krimalowski, T. Nazarenus, R. Moos, M. Thelakkat, M.A. Danzer:
Investigating solid polymer and ceramic electrolytes for lithium-ion batteries by means of an extended Distribution of Relaxation Times analysis
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A Glass Platelet Coating on Battery Electrodes and Its Use as a Separator for Lithium-Ion Batteries
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- U. Schadeck, M. Hahn, T. Gerdes, W. Krenkel, M.A. Danzer, R. Moos:
Sodium Borosilicate Glass Separators as an Electrolyte Additive Donor for Improving the Electrochemical Performance of Lithium-Ion Batteries
Journal of the Electrochemical Society, **166**, A3416-A3424 (2019), doi: [10.1149/2.1011914jes](https://doi.org/10.1149/2.1011914jes)
- T. Michlik, A. Rosin, T. Gerdes, R. Moos:
Improved Discharge Capacity of Zinc Particles by Applying Bismuth-Doped Silica Coating for Zinc-Based Batteries
open access - free *Batteries*, **5**, 32 (2019), doi: [10.3390/batteries5010032](https://doi.org/10.3390/batteries5010032)
- O. Isakin, S. Hiltl, O. Struck, M. Willert-Porada, R. Moos:
High-Yield Preparation of ZnO Nanoparticles on Exfoliated Graphite as Anode Material for Lithium Ion Batteries and the Effect of Particle Size as well as of Conductivity on the Electrochemical Performance of Such Composites

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U. Schadeck, K. Kyrgyzbaev, H. Zettl, T. Gerdes, R. Moos:
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U. Schadeck, K. Kyrgyzbaev, T. Gerdes, M. Willert-Porada, R. Moos:
Porous and non-porous micrometer-sized glass platelets as separators for lithium-ion batteries
Journal of Membrane Science, **550**, 518-525 (2018), doi: [10.1016/j.memsci.2017.10.061](https://doi.org/10.1016/j.memsci.2017.10.061)

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Surface and Coatings Technology, **325**, 445-453 (2017), doi: [10.1016/j.surfcoat.2017.07.002](https://doi.org/10.1016/j.surfcoat.2017.07.002)

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Journal of Power Sources, **361**, 61-69 (2017), doi: [10.1016/j.jpowsour.2017.06.061](https://doi.org/10.1016/j.jpowsour.2017.06.061)