

Advances in room temperature fluoride-ion batteries

Molaiyan, Palanivel; Mohammad, Irshad; Witter, Raiker 20th International Conference on Advanced Energy Materials and Research, August 13-14, 2018, Dublin, Ireland : posters 2018 / p. 94 : ill <https://doi.org/10.4172/2576-1463-C1-003>

Beneficial effects of stoichiometry and nanostructure for a $\text{LiBH}_4\text{-MgH}_2$ hydrogen storage system

Hu, Jianjiang; **Witter, Raiker**; Shao, Huaiyu; Felderhoff, Michael; Fichtner, Maximilian Journal of materials chemistry A 2014 / p. 66-72 : ill <https://doi.org/10.1039/C3TA13775A> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

CaF_2 solidstate electrolytes prepared by vapor pressure exposure and solid synthesis for defect and ionic conductivity tuning

Molaiyan, Palanivel; Witter, Raiker Material design & processing communications 2020 / art. e76, 6 p. : ill <https://onlinelibrary.wiley.com/doi/epdf/10.1002/mdp2.76> <https://doi.org/10.1002/mdp2.76> [Journal metrics at Scopus](#) [Article at Scopus](#)

Compound's pre-screening of withania somnifera, Baccopa monnieri and centella asiatica extracts

Witter, Steffi; Arju, Georg; Junusova, Marina; **Kuhtinskaja, Maria; Samoson, Ago**; Witter, Raiker; **Vilu, Raivo** Journal of biosciences and medicines 2020 / p. 80-98 <https://doi.org/10.4236/jbm.2020.89007>

Crystal phase and surface defect driven synthesis of $\text{Pb}_{1-x}\text{Sn}_x\text{F}_2$ solid solution electrolyte for fluoride ion batteries

Molaiyan, Palanivel; Witter, Raiker Journal of electroanalytical chemistry 2019 / p. 154-159 <https://doi.org/10.1016/j.jelechem.2019.04.063> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of a signal processing algorithm for automatic identification of the cardiac events in the seismocardiogram

Rahman, Mohammed Owahidur; Witter, Raiker; Samoson, Ago Cardiology 2015 / p. 44 <https://www.karger.com/Article/Abstract/431110>

Development of in situ high resolution NMR: Proof-of-principle for a new (spinning) cylindrical mini-pellet approach applied to a Lithium ion battery

Mohammad, Irshad; Cambaz, Musa Ali; **Samoson, Ago**; Fichtner, Maximilian; Witter, Raiker Solid state nuclear magnetic resonance 2024 / art. 101914 <https://doi.org/10.1016/j.ssnmr.2023.101914> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of room temperature secondary fluoride ion batteries = Toatemperatuursete fluoriidioon akude väljaarendamine

Mohammad, Irshad 2019 <https://digi.lib.ttu.ee/i/?12305> https://www.ester.ee/record=b5227792*est Tehnikaülikooli doktorant ehitas uudse energiasalvesti

Developments and investigations on battery materials

Witter, Raiker; Irshad, Mohammad; Molaiyan, Palanivel; Oss, A.; Anupöld, T.; Rongeat, C.; Reddy, M. Anji; Fichtner, M.; **Samoson, Ago** 56th Rocky Mountain Conference on Magnetic Resonance : July 13-17, 2014, Copper Conference Center, Copper Mountain, Colorado, USA 2014 / p. 336

Disordered lithium-rich oxyfluoride as a stable host for enhanced Li^+ intercalation storage

Chen, Ruiyong; Ren, Shuhua; Knapp, Michael; Wang, Di; **Witter, Raiker**; Fichtner, Maximilian; Hahn, Horst Advanced energy materials 2015 / p. 1-7 : ill <https://doi.org/10.1002/aenm.201401814> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fast atomic charge calculation for implementation into a polarizable force field and application to an ion channel protein

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^1H line width dependence on MAS speed in solid state NMR - comparison of experiment and simulation

Sternberg, Ulrich; Witter, Raiker; Kuprov, Ilya; Lamley, Jonathan M.; **Oss, Andres**; Lewandowski, Jozef R.; **Samoson, Ago** Journal of magnetic resonance 2018 / p. 32-39 : ill <https://doi.org/10.1016/j.jmr.2018.04.003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Introducing interlayer electrolytes : toward room-temperature high-potential solid-state rechargeable fluoride ion batteries

Mohammad, Irshad; Witter, Raiker; Fichtner, Maximilian; Reddy, M. Anji ACS Applied Energy Materials 2019 / p. 1553–1562 : ill <https://doi.org/10.1021/acsae.8b02166> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Li^+ intercalation in isostructural Li_2VO_3 and $\text{Li}_2\text{VO}_2\text{F}$ with O^{2-} and mixed O^{2-}/F^- anions

Chen, Ruiyong; Ren, Shuhua; Yavuz, Murat; Guda, Alexander A.; Shapovalov, Viktor; **Witter, Raiker**; Fichtner, Maximilian; Hahn, Forst Physical chemistry chemical physics 2015 / p. 17288-17295 : ill <https://doi.org/10.1039/c5cp02505b> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Lithiation-driven structural transition of VO₂F into disordered rock-salt Li_xVO₂F

Chen, Ruiyong; Maawad, Emad; Knapp, Michael; Ren, Shuhua; Beran, Premysl; **Witter, Raiker**; Hempelmann, Rolf RSC advances 2016 / p. 65112-65118 : ill <https://doi.org/10.1039/c6ra14276a> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mechanochemical synthesis of solid-state electrolyte Sm_{1-x}CaxF_{3-x} for batteries and other electrochemical devices

Molaiyan, Palanivel; **Witter, Raiker** Materials letters 2019 / p. 22-26 <https://doi.org/10.1016/j.matlet.2019.02.034> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Medical plants and nutraceuticals for amyloid- β fibrillation inhibition

Witter, Steffi; **Witter, Raiker**; Vilu, Raivo; Samoson, Ago Journal of Alzheimer's Disease Reports 2018 / p. 239-252 : ill <http://doi.org/10.3233/ADR-180066>

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Multilayered core-shell structure of polyol-stabilized calcium fluoride nanoparticles characterized by NMR

Witter, Raiker; Roming, Marcus; Feldmann, Claus; Ulrich, Anne S. Journal of Colloid and Interface Science 2013 / p. 250 - 257 <https://doi.org/10.1016/j.jcis.2012.09.001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Multiscale investigation of sodium-ion battery anodes: analytical techniques and applications

Schäfer, David; Hankins, Kie; Allion, Michelle; Krewer, Ulrike; Karcher, Franziska; Derr, Laurin; Schuster, Rolf; Maibach, Julia; Mück, Stefan; Kramer, Dominik; **Samoson, Ago**; **Witter, Raiker** Advanced energy materials 2024 / 37 p <https://doi.org/10.1002/aenm.202302830>

Nanostructured fluorite-type fluorides as electrolytes for fluoride ion batteries

Rongeat, Carine; Reddy, M. Anji; **Witter, Raiker**; Fichtner, Maximilian Journal of Physical Chemistry C 2013 / p. 4943 - 4950 <https://doi.org/10.1021/jp3117825> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Screening of Nutraceuticals and Plant Extracts for Inhibition of Amyloid- β Fibrillation

Witter, Steffi; **Samoson, Ago**; Vilu, Raivo; Witter, Raiker Journal of Alzheimer's disease 2020 / p. 1003-1012 : ill <https://doi.org/10.3233/JAD-190758> https://www.etis.ee/File/DownloadPublic/bf09dd82-f7d2-45eb-8e71-aac7816291c9?name=JAD_73_2020_1003.pdf&type=application%2Fpdf [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Simulation of oriented NMR spectra : combining molecular dynamics and chemical shift tensor calculations

Sternberg, Ulrich; **Witter, Raiker** Magnetic resonance in chemistry 2024 / p. 125-144 <https://doi.org/10.1002/mrc.5403>

Solid electrolytes for fluoride ion batteries : ionic conductivity in polycrystalline tysonite-type fluorides

Rongeat, Carine; Reddy, M. Anji; **Witter, Raiker**; Fichtner, Maximilian ACS applied materials and interfaces ACS applied materials & interfaces 2014 / p. 2103-2110 : ill <https://doi.org/10.1021/am4052188> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Solid-State Electrolytes for Fluoride-ion Batteries = Tahked elektrolüüdid fluoriidioon akudele

Molaiyan, Palanivel 2020 <https://digikogu.taltech.ee/et/Item/17026f91-1ab4-4794-862b-a326f5d4c460>

A structurally flexible halide solid electrolyte with high ionic conductivity and air processability

Karkera, Guruprakash; Soans, Mervyn; Akbaş, Ayça; **Witter, Raiker**; Euchner, Holger; Diemant, Thomas; Cambaz, Musa Ali; Meng, Zhen; Dasari, Bosubabu; Chandrappa, Shivaraju Guddehalli; Menezes, Prashanth W.; Fichtner, Maximilian Advanced energy materials 2023 / art. 2300982 <https://doi.org/10.1002/aenm.202300982> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Structure and electrochemical properties of Na₂±xV₃P₂O₁₃ (x = 0 and 1): a promising cathode material for sodium-ion batteries

Reddy, M. Anji; Euchner, Holger; **Witter, Raiker**; Clemens, Oliver Journal of materials chemistry A 2018 / p. 6947-6958 : ill <https://doi.org/10.1039/C8TA00588E> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Surface defect-enhanced conductivity of calcium fluoride for electrochemical applications

Molaiyan, Palanivel; **Witter, Raiker** Material design & processing communications 2019 / art. e44, 10 p. : ill <https://doi.org/10.1002/mdp2.44>

Synthesis and characterization of Ca(1-x)SmxF(2+x) (0 ≤ x ≤ 0.15) solid electrolytes for fluoride-ion batteries

Molaiyan, Palanivel; **Witter, Raiker** Material design and processing communications 2021 / art. e226, 6 p. : ill <https://doi.org/10.1002/mdp2.226> [Journal metrics at Scopus](#) [Article at Scopus](#)

Synthesis of fast fluoride-ion-conductive fluorite-type $\text{Ba}_{1-x}\text{Sb}_x\text{F}_{2+x}$ ($0.1 \leq x \leq 0.4$) : a potential solid electrolyte for fluoride-ion batteries

Mohammad, Irshad; Chable, Johann; **Witter, Raiker**; Fichtner, Maximilian; Reddy, M. Anji ACS applied materials and interfaces
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Testing Mg as an anode against BiF₃ and SnF₂ cathodes for room temperature rechargeable fluoride ion batteries

Mohammad, Irshad; **Witter, Raiker** Materials Letters 2019 / p. 159 - 162 <https://doi.org/10.1016/j.matlet.2019.02.052> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)