

### **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 LiBH<sub>4</sub>-MgH<sub>2</sub> 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<sub>2</sub> solid state 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 Pb<sub>1-x</sub>Sn<sub>x</sub>F<sub>2</sub> 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](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<sup>+</sup> 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**

**Witter, Raiker**; Möllhoff, Margit; Koch, Frank-Thomas; **Sternberg, Ulrich** Journal of chemistry 2015 / p. 1-14 : ill <https://doi.org/10.1155/2015/908204> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **<sup>1</sup>H 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/acsam.8b02166> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Li<sup>+</sup> intercalation in isostructural Li<sub>2</sub>VO<sub>3</sub> and Li<sub>2</sub>VO<sub>2</sub>F with O<sup>2-</sup> and mixed O<sup>2-</sup>/F<sup>-</sup> 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 VO<sub>2</sub>F into disordered rock-salt Li<sub>x</sub>VO<sub>2</sub>F**

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<sub>1-x</sub>Ca<sub>x</sub>F<sub>3-x</sub> 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- $\beta$ 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>

### **Molecular dynamics simulations on PGLa using NMR orientational constraints**

**Sternberg, Ulrich; Witter, Raiker** Journal of biomolecular NMR 2015 / p. 265-274 : ill <https://doi.org/10.1007/s10858-015-9983-y> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **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](#)

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**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](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>

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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 Na<sub>2±x</sub>V<sub>3</sub>P<sub>2</sub>O<sub>13</sub> (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)Sm<sub>x</sub>F(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  $Ba_{1-x}Sb_xF_{2+x}$  ( $0.1 \leq x \leq 0.4$ ) : a potential solid electrolyte for fluoride-ion batteries**

**Mohammad, Irshad**; Chable, Johann; **Witter, Raiker**; Fichtner, Maximilian; Reddy, M. Anji ACS applied materials and interfaces ACS applied materials & interfaces 2018 / p. 17249–17256 : ill <https://doi.org/10.1021/acsami.8b04108> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Testing Mg as an anode against BiF<sub>3</sub> and SnF<sub>2</sub> 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](#)