

Publications – Niklas Linde

Peer reviewed ISI articles (July 2011)

30. Schneider, P., T. Vogt, M. Schirmer, J. A. Doetsch, **N. Linde**, N. Pasquale, P. Perona, O. A. Cirpka, 2011, Towards improved instrumentation for assessing river-groundwater interactions in a restored river corridor. *Hydrology and Earth System Sciences*. In press.
29. Doetsch, J., **N. Linde**, M. Pessognelli, A. G. Green, and T. Günther, 2011, Constraining 3-D electrical resistivity inversions with GPR data for improved aquifer characterization. *Journal of Applied Geophysics*. doi:10.1016/j.jappgeo.2011.04.008. In press.
28. Dorn, C., **N. Linde**, T. Le Borgne, O. Bour, and L. Baron, 2011, Single-hole GPR reflection imaging of solute transport in a fractured aquifer. *Geophysical Research Letters*, 38, L08401, doi:10.1029/2011GL047152.
27. Dorn, C., **N. Linde**, J. Doetsch, T. Le Borgne, and O. Bour, 2011, Fracture imaging within a granitic rock aquifer using multiple-offset single-hole and cross-hole GPR reflection data. *Journal of Applied Geophysics*, doi: 10.1016/j.jappgeo.2011.01.010. In press.
26. Revil, A., and **N. Linde**, 2011, Comment on "Streaming potential dependence on water-content in Fontainebleau sand" by V. Allègre, L. Jouniaux, F. Lehmann, and P. Sailhac". *Geophysical Journal International*, 186, 113-114, doi: 10.1111/j.1365-246X.2010.04850.x.
25. **Linde**, N., J. Doetsch, D. Jougnot, O. Genoni, Y. Dürst, B. Minsley, T. Vogt, N. Pasquale, and J. Luster, 2011, Self-potential investigations of a gravel bar in a restored river corridor. *Hydrology and Earth System Sciences*, 15, 729-742, doi:10.5194/hess-15-729-2011.
24. Coscia, I., S. Greenhalgh, **N. Linde**, J. Doetsch, L. Marescot, T. Günther, T. Vogt, and A. Green, 2011, 3-D crosshole apparent resistivity monitoring and static inversion of a coupled river-aquifer system. *Geophysics*, 76, G49-G59, doi:10.1190/1.3553003.
23. Doetsch, J., **N. Linde**, and A. Binley, 2010, Structural joint inversion of time-lapse crosshole ERT and GPR traveltimes data. *Geophysical Research Letters*, 37, L24404, doi:10.1029/2010GL045482.
22. Doetsch, J., **N. Linde**, I. Coscia, S. Greenhalgh, and A. G. Green, 2010, Zonation for 3D aquifer characterization based on joint inversion of multi-method crosshole geophysical data. *Geophysics*, 75, G53-G64, doi:10.1190/1.3496476.
21. Klotzche, A., J. van der Kruk, G. Meles, J. Doetsch, H. Maurer, and **N. Linde**, 2010, Full-waveform inversion of crosshole ground penetrating radar data to characterize a gravel aquifer close to the river Thur, Switzerland. *Near Surface Geophysics*, 8, 635-649, doi:10.3997/1873-0604.2010054.
20. Doetsch, J., I. Coscia, S. Greenhalgh, **N. Linde**, A. G. Green, and T. Günther, 2010, The borehole-fluid effect in electrical resistivity imaging. *Geophysics*, 75, F107-F114. doi:10.1190/1.3467824.
19. **Linde**, N., 2009, A comment on "Characterization of multiphase coupling using a bundle of capillary tubes model" by M. D. Jackson [Journal of Geophysical Research, 113, B04201]. *Journal of Geophysical Research*, 114, B06209, doi:10.1029/2008JB005845.
18. **Linde**, N., A. Tryggvason, J. Peterson, and S. Hubbard, 2008, Joint inversion of crosshole radar and seismic traveltimes. *Geophysics*, 73, G29-G37, doi:10.1190/1.2937467.
17. Crespy, A., A. Revil, **N. Linde**, S. Byrdina, A. Jardani, A. Bolève, and P. Henry, 2008, Detection and localization of hydromechanical disturbances in a sandbox using the self-potential method. *Journal of Geophysical Research*, 113, B01205, doi:10.1029/2007JB005042.

16. Castermant, J., C. A. Mendonça, A. Revil, F. Trolard, G. Bourrié, and **N. Linde**, 2008, Redox potential distribution inferred from self-potential measurements during the corrosion of a burden metallic body, *Geophysical Prospecting*, 56, 269-282, doi:10.1111/j.1365-2478.2007.00675.x.
15. **Linde, N.**, and A. Revil, 2007, Inverting self-potential data for redox potentials of contaminant plumes. *Geophysical Research Letters*, 34, L14302, doi: 10.1029/2007GL030084.
14. Revil, A., **N. Linde**, A. Cerepi, D. Jougnot, S. Matthäi, and S. Finsterle, 2007, Electrokinetic coupling in unsaturated porous media. *Journal of Colloid and Interface science*, 313, 315-327, doi:10.1016/j.jcis.2007.03.03.
13. **Linde, N.**, and A. Revil, 2007, A comment on “Electrical tomography of La Soufrière of Guadeloupe Volcano: Field experiments, 1D inversion and qualitative interpretation” by F. Nicollin et al. [Earth Planet. Sci. Lett. 244 (2006) 709-724]. *Earth and Planetary Science Letters*, 258, 619-622, doi:10.1016/j.epsl.2007.04.008.
12. Arora, T., **N. Linde**, A. Revil, and J. Castermant, 2007, Non-intrusive determination of the redox potential of contaminant plumes by using the self-potential method. *Journal of Contaminant Hydrology*, 92(3-4), 274-292, doi:10.1016/j.jconhyd.2007.01.018.
11. **Linde, N.**, D. Jougnot, A. Revil, S. Matthäi, T. Arora, D. Renard, and C. Doussan, 2007, Streaming current generation in two-phase flow conditions. *Geophysical Research Letters*, 34, L03306, doi:10.1029/2006GL028878.
10. **Linde, N.**, A. Revil, A. Bolève, C. Dagès, J. Castermant, B. Suski, and M. Voltz, 2007, Estimation of the water table throughout a catchment using self-potential and piezometric data in a Bayesian framework. *Journal of Hydrology*, 334, 88-98, doi:10.1016/j.jhydro.2006.09.027.
9. **Linde, N.**, A. Binley, A. Tryggvason, L. B. Pedersen, and A. Revil, 2006, Improved hydrogeophysical characterization using joint inversion of crosshole electrical resistance and ground penetrating radar traveltime data. *Water Resources Research*, 42, W12404, doi:10.1029/2006WR005131.
8. Revil, A., and **N. Linde**, 2006, Chemico-electromechanical coupling in microporous media. *Journal of Colloid and Interface Science*, 302, 682-694.
7. **Linde, N.**, S. Finsterle, and S. Hubbard, 2006, Inversion of tracer test data using tomographic constraints. *Water Resources Research*, 42, W04410, doi:10.1029/2004WR003806.
6. Tryggvason, A., and **N. Linde**, 2006, Local earthquake (LE) tomography with joint inversion for P- and S-wave velocities using structural constraints. *Geophysical Research Letters*, 33, L07303, doi:10.1029/2005GL025485.
5. **Linde, N.**, and L. B. Pedersen, 2004, Characterization of a fractured granite using radio magnetotelluric (RMT) data. *Geophysics*, 69, 1155-1165. doi:10.1190/1.1801933.
4. **Linde, N.**, and L. B. Pedersen, 2004, Evidence of electrical anisotropy in limestone formations using the RMT technique. *Geophysics*, 69, 909-916. doi: 10.1190/1.1778234.
3. Beylich, A. A., E. Kolstrup, T. Thyrsted, **N. Linde**, L. B. Pedersen, and L. Dynesius, 2004, Chemical denudation in arctic-alpine Latnjavagge (Swedish Lapland) in relation to regolith as assessed by radio magnetotelluric-geophysical profiles. *Geomorphology*, 57, 303-319. doi:10.1016/S0169-555X(03)00162-4.
2. Beylich, A. A., E. Kolstrup, **N. Linde**, L. B. Pedersen, T. Thyrsted, D. Gintz, and L. Dynesius, 2003, Assessment of chemical denudation rates using hydrological measurements, water chemistry analysis and electromagnetic geophysical data. *Permafrost and Periglacial Processes*, 14, 387-397. doi:10.1002/ppp.470.
1. Eliasson, Å., F. M. Rinaldi, and **N. Linde**, 2003, Multicriteria decision aid in supporting decisions related to groundwater protection. *Environmental Management*, 32, 589-601. Doi: 10.1007/s00267-003-2906-9.

In review

3. Laloy, E., **N. Linde**, J. A. Vrugt, Mass conservative three-dimensional water tracer distribution from parallel MCMC inversion of time-lapse GPR data. *Submitted to Geophysical Research Letters*.
2. Jougnot, D., **N. Linde**, A. Revil, and C. Doussan, Derivation of soil-specific streaming potential electrical parameters from hydrodynamic characteristics of partially saturated soils. *Submitted to Vadose Zone Journal*.
1. Doetsch, J., **N. Linde**, T. Vogt, A. Binley, and A. Green, Imaging and quantifying salt tracer transport in a riparian groundwater system by means of 3-D ERT monitoring. *Submitted to Water Resources Research*.

Peer-reviewed book chapters

3. Hubbard, S. S., and **N. Linde**, 2011, Hydrogeophysics, in *S. Uhlenbrook (Ed.) Treatise on Water, Volume 2 (Hydrology)*, ch. 2.15, 402-434, Elsevier.
2. **Linde, N.**, and J. Doetsch, 2010, Joint inversion of crosshole GPR and seismic traveltime data. in *Miller R.D. et al (Eds.) SEG Reference Publication on Advances in near-surface seismology and ground-penetrating radar*, 1-16.
1. **Linde, N.**, J. Chen, M. B. Kowalsky, and S. Hubbard, 2006, Hydrogeophysical parameter estimation approaches for field scale characterization, in *Vereecken H. et al. (Eds.) Applied Hydrogeophysics*, Springer, 9-44.

Other pertinent publications

3. **Linde, N.**, I. Coscia, J. A. Doetsch, S. A. Greenhalgh, T. Vogt, P. Schneider, and A. G. Green, 2010, Hydrogeophysical studies in unrestored and restored river corridors of the Thur River, Switzerland. *First Break*, 28(8), 69-75.
2. Ferré, T., L. Bentley, A. Binley, **N. Linde**, A. Kemna, K. Singha, K. Holliger, J. A. Huisman, and B. Minsley, 2009, Critical steps for the continuing advancement of hydrogeophysics. *EOS Transactions, American Geophysical Union*, 90, 200.
1. **Linde, N.**, 2005, *Characterization of hydrogeological media using electromagnetic geophysics*. Ph.D. thesis, Uppsala University, Uppsala, Sweden.