

Publication list Christine Alewell

As of Feb2026, I published 224 peer reviewed international papers, ISI Web of Science statistics: H-Index = 55, sum of citations = 15.138; average citation per item: 70.41. Google Scholar Statistics: H-Index = 71, sum of citations = 25.234; i10-index = 205

Peer reviewed journals

- 224 Xu-Yang, Y., Evrard, O., Foucher, A., Chaboche, P.-A., Lefèvre, I., Taraconat, N., Kobler, J., Alewell, C., Merchel, S., Steier, P., Michel, E., Thiebault, T., Chapron, E., Chassiot, L. and Ayrault, S., 2026. Temporal Evolution and Origin of Radionuclide Fallout and Contaminants Recorded in Sediment from the Kerguelen Archipelago Fjord System. *Environmental Science & Technology*.
- 223 Guillevic, F., Sabatier, P., Dicen, G., Aggarwal, P., Foucher, A., Evrard, O. and Alewell, C., 2026. Assessing the artificial radionuclide Cesium-137 spatial distribution in the Southern Hemisphere from lake sediment records. *Journal of Environmental Radioactivity*, 293: 107906.
- 222 Gupta, S., Scheper, S. and Alewell, C., 2026. Mapping Swiss soil bulk density at 30 m Resolution: Insights from Machine Learning, environmental Covariates, and national data. *International Journal of Applied Earth Observation and Geoinformation*, 146: 105112.
- 221 Gupta, S., Scheper, S., Borrelli, P., Panagos, P. and Alewell, C., 2025. Soil Erosion as a Driver of Eutrophication: An Analysis of European Lakes Using Sentinel-2 Satellite Data. *Global Change Biology*, 31(9): e70494.
- 220 Bardelle, A., Gastineau, R., Guillevic, F., Foucher, A., Chaboche, P.-A., Corcho-Alvarado, J.A., Röllin, S., Chalar, G., Sabatier, P., Tassano, M., Cottin, N., Vandromme, R., Cerdan, O., Alewell, C. and Evrard, O., 2025. The hidden consequences of agricultural development: Soil degradation and pesticide contamination in the South American Pampa. *Science of The Total Environment*, 1002: 180584.
- 219 Shokri, N., Robinson, D.A., Afshar, M., Alewell, C., Aminzadeh, M., Arthur, E., Broothaerts, N., Campbell, G.A., Eklund, L., Gupta, S., Harper, R., Hassani, A., Hohenegger, C., Keller, T., Kiener, M., Lebron, I., Madani, K., Marwala, T., Matthews, F., Moldrup, P., Nemes, A., Panagos, P., Právělie, R., Rillig, M.C., Saggau, P., Shokri-Kuehni, S.M.S., Smith, P., Thomas, A., Wollesen de Jonge, L. and Or, D., 2025. Rethinking Global Soil Degradation: Drivers, Impacts, and Solutions. *Reviews of Geophysics*, 63(4): e2025RG000883.
- 218 Alewell, C., Gupta, S., Poulencard, J., Niquille, N., Kaiser, A., Shokri, N., Scheper, S., Gross-Schmölders, M., Robinson, D.A., Campbell, G., Kabala, C., Lang, F., Dise, N., Panagos, P. and Borrelli, P., 2026. A First Quantitative Assessment of Soil Health at European Scale Considering Soil Genesis. *Journal of Plant Nutrition and Soil Science*, 189(1): 6–16.
- 217 Borrelli, P., Matthews, F., Saggau, P., Manzaneda, A.J., Panagos, P., Kaffas, K. and Alewell, C., 2025. Unsustainably losing ground. *Nature Sustainability*, 8(9): 986–989.
- 216 Campbell, G.A., Smith, P., Broothaerts, N., Panagos, P., Jones, A., Ballabio, C., De Rosa, D., de Jonge, L.W., Arthur, E., Gomes, L., Shokri, N., Afshar, M., Tóth, G., Lehmann, P., Borrelli, P., Alewell, C., Minarik, R., Hengl, T., Wheeler, I., Maskell, L., Nussbaum, M., Jones, L., Feeney, C.J. and Robinson, D.A., 2025. Continental Scale Soil Monitoring: A Proposed Multi-Scale Framing of Soil Quality. *European Journal of Soil Science*, 76(4): e70174.

- 215 da Costa, L., Zopfi, J., Alewell, C., Lehmann, M.F. and Lenz, M., 2025. Antimony mobility in soils: current understanding and future research directions. *ENVIRONMENTAL SCIENCE-PROCESSES & IMPACTS*, 27(4): 833-848.
- 214 Cox, T., Gupta, S., Birkholz, A. and Alewell, C., 2025. Using iso-scapes to address within-source variability in compound specific stable isotope sediment source apportionments. *Journal of Soils and Sediments*.
- 213 Gupta, S., Zweifel, L., Birkholz, A., Meusburger, K., Leitinger, G. and Alewell, C., 2025. Mapping snow gliding distances: Bridging modelled and field observations. *Cold Regions Science and Technology*, 231: 104402.
- 212 Borrelli, P., Matthews, F., Alewell, C., Kaffas, K., Poesen, J., Saggau, P., Prävãlie, R., Vanmaercke, M. and Panagos, P., 2025. A hybrid in situ and on-screen survey to monitor gully erosion across the European Union. *Scientific Data*, 12(1): 755.
- 211 Yoon, J.-H., Jung, S.S., Kim, H.S., Park, Y., Kim, H., Mishra, U., Gautam, S., Alewell, C., Panagos, P., Kirkham, M.B., Borrelli, P. and Yang, J.E., 2025. Chapter Seven - Impact of soil erosion on soil organic carbon loss and its implications for carbon neutrality. In: D.L. Sparks (Editor), *Advances in Agronomy*. Academic Press, pp. 363-414.
- 210 Dicen, G., Guillevic, F., Gupta, S., Chaboche, P.A., Meusburger, K., Sabatier, P., Evrard, O. and Alewell, C., 2025. Distribution and sources of fallout ^{137}Cs and $^{239+240}\text{Pu}$ in equatorial and Southern Hemisphere reference soils. *Earth Syst. Sci. Data*, 17(4): 1529-1549..
- 209 Paul, S., Ammann, C., Wang, Y., Alewell, C. and Leifeld, J., 2024. Can mineral soil coverage be a suitable option to mitigate greenhouse gas emissions from agriculturally managed peatlands? *Agriculture, Ecosystems & Environment*, 375: 109197.
- 208 Cox, T., Wieland, A., Greule, M., Keppler, F., Einbock, A. and Alewell, C., 2024. Isotopic analysis ($\delta^{13}\text{C}$ and $\delta^2\text{H}$) of lignin methoxy groups in forest soils to identify and quantify lignin sources. *Science of The Total Environment*, 949: 175025.
- 207 Khodadadi, M., Meusburger, K., Mirzaei, M., Strauss, P., Black, W.H., Moghaseh, E. and Alewell, C., 2024. Spatial cross-correlation of surface soil physicochemical properties with soil erosion estimated by fallout radionuclides in croplands in a semi-humid region of Iran. *Catena*, 237.
- 206 Cox, T., Laceby, J.P., Greule, M., Keppler, F. and Alewell, C., 2024. Using stable carbon isotopes of lignin-derived methoxy to improve historical apportionments of particulate organic matter and sediment sources incorporating multiple Suess corrections. *Journal of Soils and Sediments*, 24(5): 2159-2179.
- 205 Osterwalder, S.; Schibler, R.; Hügli, C.; Schwarzenbach, B.; Stuppel, G.; MacSween, K.; Bishop, K.; Alewell, C.; Buchmann, N. Spatial and Seasonal Dynamics of Gaseous Elemental Mercury Concentrations over Switzerland Observed by a Passive Air Sampler Network. *Environ. Sci.: Atmos.* **2024**, 4 (8), 848–860. <https://doi.org/10.1039/D4EA00052H>.
- 204 Gupta, Surya, Julia Kim Hasler, Christine Alewell, 2024. Mining soil data of Switzerland: New maps for soil texture, soil organic carbon, nitrogen, and phosphorus, *Geoderma Regional* 36, e00747, <https://doi.org/10.1016/j.geodrs.2023.e00747>.
- 203 Song, X., Alewell, C., Borrelli, P., Panagos, P., Huang, Y., Wang, Y., Wu, H., Yang, F., Yang, S., Sui, Y., Wang, L., Liu, S., & Zhang, G. (2024). Pervasive soil phosphorus losses in terrestrial ecosystems in China. *Global Change Biology*, 30, e17108. <https://doi.org/10.1111/gcb.17108>
- 202 Gupta, S., Borrelli, P., Panagos, P. and Alewell, C., 2024. An advanced global soil erodibility (K) assessment including the effects of saturated hydraulic conductivity. *Science of The Total Environment*, 908: 168249.
- 201 Scheper, S., Liu, C.Y., Xin, Z.B., Ran, L.S. and Alewell, C., 2024. Soil loss and sedimentation rates in a subcatchment of the Yellow river Basin in China. *International Soil and Water Conservation Research*, 12(3): 534-547.
- 200 Borrelli, P., Alewell, C., Yang, J.E., Bezak, N., Chen, Y., Fenta, A.A., Fendrich, A.N., Gupta, S., Matthews, F., Modugno, S., Haregeweyn, N., Robinson, D.A., Tan, F., Vanmaercke, M., Verstraeten, G., Vieira, D.C.S. and Panagos, P., 2023. Towards a better understanding of pathways of multiple co-occurring erosion processes on global cropland. *International Soil and Water Conservation Research*, 11(4): 713-725.
- 199 Cox, T., Laceby, J.P., Roth, T. et al. Less is more? A novel method for identifying and evaluating non-informative tracers in sediment source mixing models. *J Soils Sediments* (2023). <https://doi.org/10.1007/s11368-023-03573-0>

- 198 Meusburger, K., Porto, P., Kobler Waldis, J., and Alewell, C.: Validating plutonium-239+240 as a novel soil redistribution tracer – a comparison to measured sediment yield, *SOIL*, 9, 399–409, <https://doi.org/10.5194/soil-9-399-2023>, 2023
- 197 Huang, J.-H., Berg, B., Chen, C., Thimonier, A., Schmitt, M., Osterwalder, S., Alewell, C., Rinklebe, J. and Feng, X., 2023. Predominant contributions through lichen and fine litter to litterfall mercury deposition in a subalpine forest. *Environmental Research*, 229: 116005.
- 196 Hirave, P., Nelson, D.B., Glendell, M. and Alewell, C., 2023. Land-use-based freshwater sediment source fingerprinting using hydrogen isotope compositions of long-chain fatty acids. *Science of The Total Environment*, 875: 162638. <https://doi.org/10.1016/j.scitotenv.2023.162638>
- 195 Scheper, S., Meusburger, K., Borrelli, P., Panagos, P., & Alewell, C. (2022). Occurrence and erosion susceptibility of German Pelosols and international equivalents. *Journal of Plant Nutrition and Soil Science*, 185, 821– 835. <https://doi.org/10.1002/jpln.202200024>
- 194 Wang, Y., Paul, S.M., Alewell, C. et al. Reduced nitrogen losses from drained temperate agricultural peatland after mineral soil coverage. *Biol Fertil Soils* (2022). <https://doi.org/10.1007/s00374-022-01689-y>
- 193 Serk H, Nilsson MB, Figueira J, Krüger JP, Leifeld J, Alewell C, Schleucher J. Organochemical Characterization of Peat Reveals Decomposition of Specific Hemicellulose Structures as the Main Cause of Organic Matter Loss in the Acrotelm. *Environ Sci Technol*. 2022 Dec 6;56(23):17410-17419. doi: 10.1021/acs.est.2c03513. Epub 2022 Nov 18. PMID: 36399683; PMCID: PMC9730845.
- 192 Baccolo, G., El Khair, D.A., Nastasi, M., Sisti, M., Ferrè, C., Alewell, C. et al. (2022) 210Pbxs. is a viable alternative to 137Cs for tracing soil redistribution in mountain pastures affected by heterogeneous Chernobyl fallout. *Earth Surface Processes and Landforms*, 1– 13. Available from: <https://doi.org/10.1002/esp.5512>
- 191 Khodadadi, M., Alewell, C., Mirzaei, M., Ehsan-Malahat, E., Asadzadeh, F., Strauss, P. and Meusburger, K., 2023. Understanding deforestation impacts on soil erosion rates using 137Cs, 239+240Pu, and 210Pbex and soil physicochemical properties in western Iran. *Journal of Environmental Radioactivity*, 257: 107078.
- 190 Borrelli, P., Panagos, P., Alewell, C., Ballabio, C., de Oliveira Fagundes, H., Haregeweyn, N., Lugato, E., Maerker, M., Poesen, J., Vanmaercke, M. and Robinson, D.A., 2022. Policy implications of multiple concurrent soil erosion processes in European farmland. *Nature Sustainability*. DOI 10.1038/s41893-022-00988-4
- 189 Batista, P.V.G., Fiener, P., Scheper, S. and Alewell, C., 2022. A conceptual-model-based sediment connectivity assessment for patchy agricultural catchments. *Hydrol. Earth Syst. Sci.*, 26(14): 3753-3770.
- 188 Groß-Schmölders, M., Klein, K., Emsens, W.-J., van Diggelen, R., Aggenbach, C.J.S., Liczner, Y., Frouz, J., Leifeld, J. and Alewell, C., 2022. Stable isotopes ($\delta^{13}C$, $\delta^{15}N$) and biomarkers as indicators of the hydrological regime of fens in a European east–west transect. *Science of The Total Environment*, 838: 156603.
- 187 Chen, C., Huang, J.-H., Meusburger, K., Li, K., Fu, X., Rinklebe, J., Alewell, C. and Feng, X., 2022. The interplay between atmospheric deposition and soil dynamics of mercury in Swiss and Chinese boreal forests: A comparison study. *Environmental Pollution*, 307: 119483.
- 186 Wohlgenuth, L., Rautio, P., Ahrends, B., Russ, A., Vesterdal, L., Waldner, P., Timmermann, V., Eickenscheidt, N., Fürst, A., Greve, M., Roskams, P., Thimonier, A., Nicolas, M., Kowalska, A., Ingerslev, M., Merilä, P., Benham, S., Iacoban, C., Hoch, G., Alewell, C. and Jiskra, M., 2022. Physiological and climate controls on foliar mercury uptake by European tree species. *Biogeosciences*, 19(5): 1335-1353.
- 185 Wang, Y., Paul, S.M., Jocher, M., Alewell, C. and Leifeld, J., 2022. Reduced Nitrous Oxide Emissions From Drained Temperate Agricultural Peatland After Coverage With Mineral Soil. *Frontiers in Environmental Science*, 10.

- 184 Mignani, C., Wieder, J., Sprenger, M. A., Kanji, Z. A., Henneberger, J., Alewell, C., and Conen, F. 2021. Towards parameterising atmospheric concentrations of ice-nucleating particles active at moderate supercooling, *Atmos. Chem. Phys.*, 21, 657–664, <https://doi.org/10.5194/acp-21-657-2021>, 2021.
- 183 Klein, K., Schellekens, J., Groß-Schmolders, M., von Sengbusch, P., Alewell, C., Leifeld, J., Characterizing ecosystem-driven chemical composition differences in natural and drained Finnish bogs using Pyrolysis-GC/MS, *Organic Geochemistry* (2021), doi: <https://doi.org/10.1016/j.orggeochem.2021.104351>
- 182 Klein, K., Gross-Schmolders, M., Alewell, C. and Leifeld, J., 2021. Chapter Three - Heating up a cold case: Applications of analytical pyrolysis GC/MS to assess molecular biomarkers in peat. In: D.L. Sparks (Editor), *Advances in Agronomy*. Academic Press, pp. 115-159.
- 181 Zweifel, L., Samarin, M., Meusburger, K., and Alewell, C.: Investigating causal factors of shallow landslides in grassland regions of Switzerland, *Nat. Hazards Earth Syst. Sci.*, 21, 3421–3437, <https://doi.org/10.5194/nhess-21-3421-2021>, 2021.
- 180 Groß-Schmolders, M., Klein, K., Birkholz, A., Leifeld, J. and Alewell, C., 2021. Rewetting and Drainage of Nutrient-Poor Peatlands Indicated by Specific Bacterial Membrane Fatty Acids and a Repeated Sampling of Stable Isotopes ($\delta^{15}\text{N}$, $\delta^{13}\text{C}$). *Frontiers in Environmental Science*, 9(378).
- 179 Wang, Y., Paul, S.M., Jocher, M., Espic, C., Alewell, C., Szidat, S. and Leifeld, J., 2021. Soil carbon loss from drained agricultural peatland after coverage with mineral soil. *Science of The Total Environment*, 800: 149498
- 178 Leifeld, J., Alewell, C., & Paul, S. M. (2021). Accumulation of C4-carbon from *Miscanthus* in organic-matter-rich soils. *GCB Bioenergy*. 2021;13:1319–1328. <https://doi.org/10.1111/gcbb.12861>
- 177 Bezak, N., Mikoš, M., Borrelli, P., Alewell, C., Alvarez, P., Anache, J.A.A., Baartman, J., Ballabio, C., Biddoccu, M., Cerdà, A., Chalise, D., Chen, S., Chen, W., De Girolamo, A.M., Gessesse, G.D., Deumlich, D., Diodato, N., Efthimiou, N., Erpul, G., Fiener, P., Freppaz, M., Gentile, F., Gericke, A., Haregeweyn, N., Hu, B., Jeanneau, A., Kaffas, K., Kiani-Harchegani, M., Villuendas, I.L., Li, C., Lombardo, L., López-Vicente, M., Lucas-Borja, M.E., Maerker, M., Miao, C., Modugno, S., Möller, M., Naipal, V., Nearing, M., Owusu, S., Panday, D., Patault, E., Patriche, C.V., Poggio, L., Portes, R., Quijano, L., Rahdari, M.R., Renima, M., Ricci, G.F., Rodrigo-Comino, J., Saia, S., Samani, A.N., Schillaci, C., Syrris, V., Kim, H.S., Spinola, D.N., Oliveira, P.T., Teng, H., Thapa, R., Vantas, K., Vieira, D., Yang, J.E., Yin, S., Zema, D.A., Zhao, G. and Panagos, P., 2021. Soil erosion modelling: A bibliometric analysis. *Environmental Research*, 197: 111087.
- 176 Borrelli, P., Alewell, C., Alvarez, P., Anache, J.A.A., Baartman, J., Ballabio, C., Bezak, N., Biddoccu, M., Cerdà, A., Chalise, D., Chen, S., Chen, W., De Girolamo, A.M., Gessesse, G.D., Deumlich, D., Diodato, N., Efthimiou, N., Erpul, G., Fiener, P., Freppaz, M., Gentile, F., Gericke, A., Haregeweyn, N., Hu, B., Jeanneau, A., Kaffas, K., Kiani-Harchegani, M., Villuendas, I.L., Li, C., Lombardo, L., López-Vicente, M., Lucas-Borja, M.E., Märker, M., Matthews, F., Miao, C., Mikoš, M., Modugno, S., Möller, M., Naipal, V., Nearing, M., Owusu, S., Panday, D., Patault, E., Patriche, C.V., Poggio, L., Portes, R., Quijano, L., Rahdari, M.R., Renima, M., Ricci, G.F., Rodrigo-Comino, J., Saia, S., Samani, A.N., Schillaci, C., Syrris, V., Kim, H.S., Spinola, D.N., Oliveira, P.T., Teng, H., Thapa, R., Vantas, K., Vieira, D., Yang, J.E., Yin, S., Zema, D.A., Zhao, G. and Panagos, P., 2021. Soil erosion modelling: A global review and statistical analysis. *Science of The Total Environment*, 780: 146494.
- 175 Paul, S.M., Ammann, C., Alewell, C., Leifeld, J. 2021, Carbon budget response of an agriculturally used fen to different soil moisture conditions. *Agricultural and Forest Meteorology* 300, 108319. <https://doi.org/10.1016/j.agrformet.2021.108319>
- 174 Alewell, C., Huang, J.H., McLaren, T.I., Huber, L., Bünemann, E.K., 2021. Phosphorus retention in constructed wetlands enhanced by zeolite- and clinopyroxene-dominated lava sand. *Hydrological Processes*, <https://doi.org/10.1002/hyp.14040>

- 173 Hirave, Pranav; Glendell, Miriam; Birkholz, Axel; Alewell, Christine. 2021. Compound-specific isotope analysis with nested sampling approach detects spatial and temporal variability in the sources of suspended sediments in a Scottish mesoscale catchment. *Science of the Total Environment*. 755: p142916
- 172 Wohlgenuth, L.; Osterwalder, S.; Joseph, C.; Kahmen, A.; Hoch, G.; Alewell, C.; Jiskra, M.. 2020. A bottom-up quantification of foliar mercury uptake fluxes across Europe. *Biogeosciences*. 17: p 6441-6456
- 171 Samarin, M.; Zweifel, L.; Roth, V.; Alewell, C. Identifying Soil Erosion Processes in Alpine Grasslands on Aerial Imagery with a U-Net Convolutional Neural Network. *Remote Sens.* 2020, 12, 4149. <https://doi.org/10.3390/rs12244149>
- 170 Kristy Klein , Miriam Gross-Schmölders , José María De la Rosa , Christine Alewell & Jens Leifeld (2020) Investigating the influence of instrumental parameters and chemical composition on pyrolysis efficiency of peat, *Communications in Soil Science and Plant Analysis*, 51:12, 1572-1581, DOI: 10.1080/00103624.2020.1784916
- 169 Alewell, C., Ringeval, B., Ballabio, C., Robinson, D.A., Panagos, P., Borrelli, P. 2020. Global phosphorus shortage will be aggravated by soil erosion. *Nature Communications* 11, 4546 (2020): <https://doi.org/10.1038/s41467-020-18326-7>
- 168 Borrelli P, Robinson DA, Panagos P, Lugato E, Yang JE, Alewell C, Wuepper D, Montanarella L, Ballabio C. Land use and climate change impacts on global soil erosion by water (2015-2070). *Proc Natl Acad Sci U S A*. 2020 Sep 8;117(36):21994-22001. doi: 10.1073/pnas.2001403117. Epub 2020 Aug 24. PMID: 32839306; PMCID: PMC7486701.
- 167 Groß-Schmölders, M., von Sengbusch, P., Krüger, J.P., Klein, K., Birkholz, A., Leifeld, J. and Alewell, C., 2020. Switch of fungal to bacterial degradation in natural, drained and rewetted oligotrophic peatlands reflected in $\delta^{15}\text{N}$ and fatty acid composition. *SOIL*, 6(2): 299-313
- 166 Meusburger, K., Evrard, O., Alewell, C., Borrelli, P., Cinelli, G., Ketterer, M., Mabit, L., Panagos, P., van Oost, K. and Ballabio, C., 2020. Plutonium aided reconstruction of caesium atmospheric fallout in European topsoils. *Scientific Reports*, 10(1): 11858. <https://doi.org/10.1038/s41598-020-68736-2>
- 165 Hirave, P., Wiesenberg, G. L. B., Birkholz, A., and Alewell, C.: Understanding the effects of early degradation on isotopic tracers: implications for sediment source attribution using compound-specific isotope analysis (CSIA), *Biogeosciences*, 17, 2169–2180, <https://doi.org/10.5194/bg-17-2169-2020>, 2020.
- 164 Zweifel, L., Meusburger, K. und Alewell, C. (2019) «Spatio-temporal pattern of soil degradation in a Swiss Alpine grassland catchment», *Remote sensing of environment*. Elsevier, 235, S. 111441. doi: 10.1016/j.rse.2019.111441.
- 163 Alewell, C., Borrelli, P., Meusburger, K. and Panagos, P., 2019. Using the USLE: Chances, challenges and limitations of soil erosion modelling. *International Soil and Water Conservation Research*, 7(3): 203-225. <https://doi.org/10.1016/j.iswcr.2019.05.004>
- 162 Lavrieux, M., Birkholz, A., Meusburger, K., Wiesenberg, G.L.B., Gilli, A., Stamm, C. and Alewell, C., 2019. Plants or bacteria? 130 years of mixed imprints in Lake Baldegg sediments (Switzerland), as revealed by compound-specific isotope analysis (CSIA) and biomarker analysis. *Biogeosciences*, 16(10): 2131-2146.
- 161 Osterwalder, S., Huang, J.-H., Shetaya, W.H., Agnan, Y., Frossard, A., Frey, B., Alewell, C., Kretzschmar, R., Biester, H. and Obrist, D., 2019. Mercury emission from industrially contaminated soils in relation to chemical, microbial, and meteorological factors. *Environmental Pollution*, 250: 944-952.
- 160 Schmidt, S., Alewell, C. and Meusburger, K., 2019. Monthly RUSLE soil erosion risk of Swiss grasslands. *Journal of Maps*: 1-10.
- 159 Mignani, C., Creamean, J. M., Zimmermann, L., Alewell, C., and Conen, F.: New type of evidence for secondary ice formation at around $-15\text{ }^\circ\text{C}$ in mixed-phase clouds, *Atmos. Chem. Phys.*, 19, 877-886, <https://doi.org/10.5194/acp-19-877-2019>, 2019.

- 158 Shetaya, W.H., Huang, J.-H., Osterwalder, S., Mestrot, A., Bigalke, M. and Alewell, C., 2019. Sorption kinetics of isotopically labelled divalent mercury ($^{196}\text{Hg}^{2+}$) in soil. *Chemosphere*, 221: 193-202. <https://doi.org/10.1016/j.chemosphere.2019.01.034>
- 157 Schmidt, S., Alewell, C. and Meusburger, K., 2018. Change of permanent grasslands extent (1996-2015) and national grassland dataset of Switzerland. *Data in Brief*, 20: 1992-1998.
- 156 Osterwalder, S.; Sommar, J.; Akerblom, S.; Jocher, G.; Fritsche, J.; Nilsson, M. B.; Bishop, K.; Alewell, C. 2018. Comparative study of elemental mercury flux measurement techniques over a Fennoscandian boreal peatland. *Atmospheric Environment* 171, 16-25
- 155 Schmidt, S. , Ballabio, C. , Alewell, C. , Panagos, P. and Meusburger, K. (2018), Filling the European blank spot—Swiss soil erodibility assessment with topsoil samples . *J. Plant Nutr. Soil Sci.* . doi:[10.1002/jpln.201800128](https://doi.org/10.1002/jpln.201800128)
- 154 Borrelli, P., Panagos, P., Lugato, E., Alewell, C., Ballabio, C., Montanarella, L. and Robinson, D.A., 2018. Lateral carbon transfer from erosion in noncroplands matters. *Global Change Biology*, 24(8): 3283-3284.
- 153 Meusburger, K; Porto, P; Mabit, L; La Spada, C; Arata, L; Alewell, C.; 2018: Excess Lead-210 and Plutonium-239+240: Two suitable radiogenic soil erosion tracers for mountain grassland sites, *ENVIRONMENTAL RESEARCH* 160: 195-202; DOI: [10.1016/j.envres.2017.09.020](https://doi.org/10.1016/j.envres.2017.09.020)
- 152 Schmidt, S., Alewell, C. and Meusburger, K., 2018. Mapping spatio-temporal dynamics of the cover and management factor (C-factor) for grasslands in Switzerland. *Remote Sensing of Environment*, 211: 89-104. doi:[10.1016/j.rse.2018.04.008](https://doi.org/10.1016/j.rse.2018.04.008)
- 151 Borrelli P, Meusburger K, Ballabio C, Panagos P, Alewell C. Object-oriented soil erosion modelling: A possible paradigm shift from potential to actual risk assessments in agricultural environments. *Land Degrad Dev.* 2018;29:1270–1281. <https://doi.org/10.1002/ldr.2898>
- 150 Tobias S, Conen F, Duss A, Wenzel LM, Buser C, Alewell C. Soil sealing and unsealing: State of the art and examples. *Land Degrad Dev.* 2018;2015-2024. <https://doi.org/10.1002/ldr.2919>
- 149 Mabit, L., Gibbs, M., Mbaye, M., Meusburger, K., Toloza, A., Resch, C., Klik, A., Swales, A., Alewell, C. (2018). Novel application of Compound Specific Stable Isotope (CSSI) techniques to investigate on-site sediment origins across arable fields. *Geoderma*, 316, 19–26. DOI: [10.1016/j.geoderma.2017.12.008](https://doi.org/10.1016/j.geoderma.2017.12.008)
- 148 Shetaya, W.H., Osterwalder, S., Bigalke, M., Mestrot, A., Huang, J.-H., Alewell, C., 2017. An Isotopic Dilution Approach for Quantifying Mercury Lability in Soils. *Environ. Sci. Technol. Lett.* 4, 556–561. <https://doi.org/10.1021/acs.estlett.7b00510>
- 147 Huang, J.-H., Paul, S., Mayer, S., Moradpour, E., Hasselbach, R., Gieré, R. and Alewell, C., 2017. Metal biogeochemistry in constructed wetlands based on fluvial sand and zeolite- and clinopyroxene-dominated lava sand. *Scientific Reports*, 7(1): 2981.
- 146 Stopelli, Emiliano; Conen, Franz; Guilbaud, Caroline; Zopfi, Jakob; Alewell, Christine; Morris, Cindy E. 2017, Ice nucleators, bacterial cells and *Pseudomonas syringae* in precipitation at Jungfraujoch. *Biogeosciences* 14 (5) 1189-1196
- 145 Larsen, J.A., Conen, F. and Alewell, C., 2017. Export of ice nucleating particles from a watershed. *Royal Society Open Science*, 4(8): 170213.
- 144 Shetaya, W.H., Osterwalder, S., Bigalke, M., Mestrot, A., Huang, J.-H. and Alewell, C., 2017. An Isotopic Dilution Approach for Quantifying Mercury Lability in Soils. *Environmental Science & Technology Letters* DOI: [10.1021/acs.estlett.7b00510](https://doi.org/10.1021/acs.estlett.7b00510)
- 143 Borrelli, P., Van Oost, K., Meusburger, K., Alewell, C., Lugato, E. and Panagos, P., 2018. A step towards a holistic assessment of soil degradation in Europe: Coupling on-site erosion with sediment transfer and carbon fluxes. *Environmental Research*, 161(Supplement C): 291-298.
- 142 Borrelli, P., Robinson, D.A., Fleischer, L.R., Lugato, E., Ballabio, C., Alewell, C., Meusburger, K., Modugno, S., Schütt, B., Ferro, V., Bagarello, V., Oost, K.V., Montanarella, L. and Panagos, P., 2017. An assessment of the global impact of 21st century land use change on soil erosion. *Nature Communications*, 8: 1-13. DOI: [10.1038/s41467-017-02142-7](https://doi.org/10.1038/s41467-017-02142-7)

- 141 Osterwalder, S., Bishop, K., Alewell, C., Fritsche, J., Laudon, H., Åkerblom, S., Nilsson, M.B., 2017. Mercury evasion from a boreal peatland shortens the timeline for recovery from legacy pollution. *Scientific Reports* 7, 16022. <https://doi.org/10.1038/s41598-017-16141-7>
- 140 Osterwalder, S., Sommar, J., Åkerblom, S., Jocher, G., Fritsche, J., Nilsson, M.B., Bishop, K., Alewell, C., 2018. Comparative study of elemental mercury flux measurement techniques over a Fennoscandian boreal peatland. *Atmospheric Environment* 172, 16–25. <https://doi.org/10.1016/j.atmosenv.2017.10.025>
- 139 Leifeld, J., Alewell, C., Bader, C., Krüger, J. P., Mueller, C. W., Sommer, M., Steffens, M., and Szidat, S. (2018) Pyrogenic Carbon Contributes Substantially to Carbon Storage in Intact and Degraded Northern Peatlands. *Land Degrad. Develop.*, 29: 2082–2091. <https://doi.org/10.1002/ldr.2812>.
- 138 Alewell, C., Pitois, A., Meusburger, K., Ketterer, M. and Mabit, L., 2017. ²³⁹⁺²⁴⁰ Pu from “contaminant” to soil erosion tracer: Where do we stand? *Earth-Science Reviews*, 172: 107-123. <https://doi.org/10.1016/j.earscirev.2017.07.009>
- 137 Arata, L., Meusburger, K., Bürge, A., Zehringer, M., Ketterer, M. E., Mabit, L., and Alewell, C.: Decision support for the selection of reference sites using ¹³⁷Cs as a soil erosion tracer, *SOIL*, 3, 113-122, <https://doi.org/10.5194/soil-3-113-2017>, 2017.
- 136 Yao, S.Q., Groffman, P.M., Alewell, C. and Ballantine, K., Soil amendments promote denitrification in restored wetlands. *Restoration Ecology*: n/a-n/a
- 135 Panagos, P., Ballabio, C., Meusburger, K., Spinoni, J., Alewell, C., Borrelli, P., Towards estimates of future rainfall erosivity in Europe based on REDES and WorldClim datasets, *Journal of Hydrology* (2017), doi: <http://dx.doi.org/10.1016/j.jhydrol.2017.03.006>
- 134 Krüger, J. P., Conen, F., Leifeld, J., and Alewell, C. (2017) Palsa Uplift Identified by Stable Isotope Depth Profiles and Relation of $\delta^{15} \text{N}$ to C/N Ratio. *Permafrost and Periglac. Process.*, 28: 485–492. doi: 10.1002/ppp.1936 <http://dx.doi.org/10.1002/ppp.1936>
- 133 Ballabio, C., Borrelli, P., Spinoni, J., Meusburger, K., Michaelides, S., Beguería, S., Klik, A., Petan, S., Janeček, M., Olsen, P., Aalto, J., Lakatos, M., Rymaszewicz, A., Dumitrescu, A., Tadić, M.P., Diodato, N., Kostalova, J., Rousseva, S., Banasik, K., Alewell, C. and Panagos, P., 2017. Mapping monthly rainfall erosivity in Europe. *Science of The Total Environment*, 579: 1298-1315.
- 132 Schmidt, S., Meusburger, K., de Figueiredo, T., and Alewell, C. (2016) Modelling hot spots of soil loss by wind erosion (solowind) in Western Saxony, Germany. *Land Degrad. Develop.*, doi: 10.1002/ldr.2652
131. Schmidt, S., Alewell, C., Panagos, P., and Meusburger, K.: Regionalization of monthly rainfall erosivity patterns in Switzerland, *Hydrol. Earth Syst. Sci.*, 20, 4359-4373, doi:10.5194/hess-20-4359-2016, 2016.
130. Krüger, J. P.; Alewell, C.; Minkkinen, K.; Szidat, S.; Leifeld J.: Calculating carbon changes in peat soils drained for forestry with four different profile-based methods. *Forest Ecology and Management* 381 (2016) 29–36
129. Zollinger, B.; Alewell, C.; Kneisel C.; Brandova, D.; Petrillo, M., Plötze, M.; Christl, M.; Egli, M.: Soil formation and weathering in a permafrost environment of the Swiss Alps: a multi-parameter and non-steady-state approach. *Earth Surface Processes and Landforms*, DOI: 10.1002/esp.4040, 2016
128. Stopelli, E., Conen, F., Morris, C. E., Herrmann, E., Henne, S., Steinbacher, M., and Alewell, C.: Predicting abundance and variability of ice nucleating particles in precipitation at the high-altitude observatory Jungfrauoch, *Atmos. Chem. Phys.*, 16, 8341-8351, doi:10.5194/acp-16-8341-2016, 2016.
127. Meusburger, K., Mabit, L., E., K. M., Park, J. H., Sandor, T., Porto, P., and Alewell, C. 2016: A multi-radionuclide approach to evaluate the suitability of ^{239 + 240}Pu as soil erosion tracer, *Science of the Total Environment*, 566-567, 1489-1499. <https://doi.org/10.1016/j.scitotenv.2016.06.035>
126. Panagos, P., Imeson, A., Meusburger, K., Borrelli, P., Poesen, J., Alewell, C.: Soil Conservation in Europe: Wish or Reality. *Land Degradation & Development* 27, 1547–1551, 2016

125. Arata, L.; Alewell, C.; Frenkel, E.; A'Campo-Neuen, A.; Iurian, A.-R.; Ketterer, M. E.; Mabit, L.; Meusburger, K.: Modelling Deposition and Erosion rates with RadioNuclides (MODERN) – Part 2: A comparison of different models to convert ²³⁹⁺²⁴⁰Pu inventories into soil redistribution rates at unploughed sites, *Journal of Environmental Radioactivity*, 162–163, 97-106, 2016.
124. Arata, L.; Meusburger, K.; Frenkel, E.; A'Campo-Neuen A.; Iurian, A.-R.; Ketterer, M. E.; Mabit, L.; Alewell, C.: Modelling Deposition and Erosion rates with RadioNuclides (MODERN) – Part 1: A new conversion model to derive soil redistribution rates from inventories of fallout radionuclides, *Journal of Environmental Radioactivity*, 162–163, 45-55, 2016. <https://doi.org/10.1016/j.jenvrad.2016.05.008>
123. Panagos, P.; Borrelli, P.; Spinoni, J.; Ballabio, C.; Meusburger, K.; Beguería, S.; Klik, A.; Michaelides, S.; Petan, S.; Hrabalíková, M.; Olsen, P.; Aalto, J.; Lakatos, M.; Rymaszewicz, A.; Dumitrescu, A.; Perčec Tadić, M.; Diodato, N.; Kostalova, J.; Rousseva, S.; Banasik, K.; Alewell, C. Monthly Rainfall Erosivity: Conversion Factors for Different Time Resolutions and Regional Assessments. *Water* 2016, 8, 119.
122. Panagos, P., Pasquale Borrelli, Jean Poesen, Katrin Meusburger, Cristiano Ballabio, Emanuele Lugato, Luca Montanarella, Christine Alewell. 2016. Reply to “The new assessment of soil loss by water erosion in Europe. Panagos P. et al., 2015 *Environ. Sci. Policy* 54, 438–447— A response” by Evans and Boardman [*Environ. Sci. Policy* 58, 11–15]. *Environmental Science & Policy* 59 (2016) 53–57.
121. Alewell, C., Birkholz, A., Meusburger, K., Schindler Wildhaber, Y., and Mabit, L.: Quantitative sediment source attribution with compound-specific isotope analysis in a C3 plant-dominated catchment (central Switzerland), *Biogeosciences*, 13, 1587-1596, doi:10.5194/bg-13-1587-2016, 2016.
120. Osterwalder, S., Fritsche, J., Alewell, C., Schmutz, M., Nilsson, M. B., Jocher, G., Sommar, J., Rinne, J., and Bishop, K.: A dual-inlet, single detector relaxed eddy accumulation system for long-term measurement of mercury flux, *Atmos. Meas. Tech.*, 9, 509-524, doi:10.5194/amt-9-509-2016, 2016.
119. Jia, B.Y., Tang, Y., Tian, L.Y., Franz, L., Alewell, C. and Huang, J.H., 2015. Impact of Fish Farming on Phosphorus in Reservoir Sediments. *Scientific Reports*, 5.
118. Huang, J.-H., Hu, K.-N., Ilgen, J., Ilgen, G. and Alewell, C. (2015) “Arsenic in beers and wines from European markets : alert of arsenic species in response to processing”, in. Amsterdam: Elsevier (Processing and impact on active components in food), pp. 509-515.
117. Stopelli, E., Conen, F., Morris, C., Herrmann, E., Bukowiecki, N., Alewell, C. 2015. Ice nucleation active particles are efficiently removed by precipitating clouds. *Scientific Reports* 5, 16433. DOI:10.1038/srep16433
116. Conen, F., Rodriguez, S., Hueglin, C., Henne, S., Herrmann, E., Bukowiecki, N., Alewell, C. 2015. Atmospheric ice nuclei at the high-altitude observatory Jungfraujoch, Switzerland. *Tellus. Series B, Chemical and physical meteorology* 67: 25014. DOI: 10.3402/tellusb.v67.25014
115. Panagos, P., Meusburger K., Ballabio C., Borrelli P., Begueria S., Klik A., Rymaszewicz A., (...), Alewell C. 2015f. Reply to the comment on "Rainfall erosivity in Europe" by Auerswald et al. *Science of the Total Environment*, 532: 853-857. DOI:10.1016/j.scitotenv.2015.05.020
114. Mueller, M.H., Alaoui, A., Alewell, C.. 2015. Water and solutes dynamics during rainfall events in headwater catchments in the Central Swiss Alps under the influence of green alder shrubs and wetland soils, *Ecohydrology* doi: 10.1002/eco.1692
113. Panagos, P., Borrelli, P., Poesen, J., Ballabio, C., Lugato, E., Meusburger, K., Montanarella, L., Alewell, .C. 2015. The new assessment of soil loss by water erosion in Europe. *Environmental Science & Policy*. 54: 438-447. DOI: 10.1016/j.envsci.2015.08.012
112. Panos Panagos, Pasquale Borrelli, Katrin Meusburger, Christine Alewell, Emanuele Lugato, Luca Montanarella. 2015. Estimating the soil erosion cover-management factor at the Europeanscale. *Land Use Policy* 48 (2015) 38–50.

111. Krüger, J. P., Leifeld, J., Glatzel, S., Szidat, S., and Alewell, C. 2015: Biogeochemical indicators of peatland degradation – a case study of a temperate bog in northern Germany, *Biogeosciences*, 12, 2861-2871.
110. Panagos, P., Borrelli, P., Meusburger, K., van der Zanden, E.H., Poesen, J., Alewell, C. 2015. Modelling the effect of support practices (P-factor) on the reduction of soil erosion by water at European Scale. *Environmental Science & Policy* Volume 51, 2015, (82).
109. Fritsche, Johannes; Osterwalder, Stefan; Nilsson, Mats B.; Sagerfors, Jörgen; Åkerblom, Staffan; Bishop, Kevin; Alewell, Christine. Evasion of Elemental Mercury from a Boreal Peatland Suppressed by Long-Term Sulfate Addition. *Environ. Sci. Technol. Lett.*, 2014, 1 (10), 421–425
108. Meusburger K., G. Leitinger, L. Mabit, M. H. Mueller, A. Walter and C. Alewell. Soil Erosion by Snow gliding – a first quantification attempt in a subalpine area in Switzerland. *Hydrol. Earth Syst. Sci.*, 18, 3763-3775, 2014
107. Panagos, P., Ballabio, C., Borrelli, P., Meusburger, K., Klik, A., Rouseva, S., Tadić, M.P., Michaelides, S., Hrabalíková, M., Olsen, P., Aalto, J., Lakatos, M., Rymaszewicz, A., Dumitrescu, A., Beguería, S., Alewell, C., 2015a. Rainfall erosivity in Europe. *Sci Total Environ.* 511 (2015), (160).
106. Porto, P.; Walling, D. E.; Alewell, C.; Callegari, G.; Mabit, L.; Mallimo, N.; Meusburger, K.; Zehringer, M., Use of a ¹³⁷Cs re-sampling technique to investigate temporal changes in soil erosion and sediment mobilisation for a small forested catchment in southern Italy. *Journal of Environmental Radioactivity* 2014, 138, 137-148.
105. Fritsche, Johannes, Osterwalder, Stefan; Nilsson, Mats; Sagerfors, Jörgen; Åkerblom, Staffan; Bishop, Kevin; Alewell, Christine. 2014. Elemental mercury evasion from a boreal peatland suppressed by long-term sulfate addition. *Environmental Science & Technology Letters* , 2014, 1 (10), pp 421–425
104. Jung Byung-Joon, Laurent Jeanneau, Christine Alewell, Bomchul Kim, Ji-Hyung Park. 2014. Downstream alteration of the composition and biodegradability of particulate organic carbon in a mountainous, mixed land-use watershed. *Biogeochemistry* 122, 79-99
103. Stanchi, S., M. Freppaz, E. Ceaglio, M. Maggioni, K. Meusburger, C. Alewell, and E. Zanini. 2014. Soil erosion in an avalanche release site (Valle d'Aosta: Italy): towards a winter factor for RUSLE in the Alps. *Nat. Hazards Earth Syst. Sci.*, 14, 1761-1771.
102. Mueller, M. H., Alaoui, A., Kuells, C., Leistert, H., Meusburger, K., Stump, C., Weiler, M., and Alewell, C. 2014. Tracking water pathways in steep hillslopes by $\delta^{18}\text{O}$ soil depth profiles, *Journal of Hydrology* 519, 340-352.
101. Alewell, C.*, Egli, M.*, Meusburger K. 2014. An attempt to estimate tolerable soil erosion rates by matching soil formation with denudation in Alpine grasslands. *shared first authorship. *Journal of Soils and Sediments: Volume 15, Issue 6 (2015), Page 1383-1399*
100. Krüger, JP, Leifeld J, Alewell C. 2014. Degradation changes stable carbon isotope depth profiles in peatlands. *Biogeosciences* 11, 3369–3380.
99. Mabit, L., Benmansour, M., Abril, J.M., Walling, D.E., Meusburger, K., Iurian, A.R., Bernard, C., Tarján, S., Owens, P.N., Blake, W.H., Alewell, C. (2013). Fallout Pb-210 as soil and sediment tracer in catchment sediment budget investigations: A review. *Earth-Science Reviews*. 138; 335–351 (86)
98. Tian, L., Yang, J., Alewell, C., Huang, J.-H., 2014. Speciation of vanadium in Chinese cabbage (*Brassica rapa* L.) and soils in response to different levels of vanadium in soils and cabbage growth. *Chemosphere* 111, 89-95.
97. Bruch, I., Alewell, U., Hahn, A., Hasselbach, R., Alewell, C., 2014. Influence of soil physical parameters on removal efficiency and hydraulic conductivity of vertical flow constructed wetlands. *Ecological Engineering* 68, 124-132.
96. Zollinger, B., Christine Alewell, Christof Kneisel, Katrin Meusburger, Dagmar Brandová, Peter Kubik, Mirjam Schaller, Michael Ketterer, Markus Egli. 2014 The effect of permafrost on time-split soil erosion using radionuclides (¹³⁷Cs, ²³⁹⁺²⁴⁰Pu, meteoric ¹⁰Be) and stable isotopes ($\delta^{13}\text{C}$) in the eastern Swiss Alps. *Journal of Soils and Sediments* 15, 1400-1419

95. Panagos, P., Meusburger, K., Ballabio, C., Borrelli, P., Alewell, C. 2014. Soil erodibility in Europe: A high-resolution dataset based on LUCAS. *Science of Total Environment*, 479; 189–200 (144)
94. Stopelli, E., F. Conen, L. Zimmermann, C. Alewell, and C. E. Morris. 2014. Freezing nucleation apparatus puts new slant on study of biological ice nucleators in precipitation. *Atmos. Meas. Tech.*, 7, 129–134.
93. Alewell, C., Meusburger K., Juretzko, G., Mabit L., Ketterer. M.E., 2014. Suitability of ²³⁹⁺²⁴⁰Pu and ¹³⁷Cs as tracers for soil erosion assessment in mountain grasslands. *Chemosphere* 103, 274-280 (42).
92. Schindler Wildhaber, Y., C. Michel, J. Epting, P. Huggenberger, P. Burkhardt-Holm, C. Alewell. 2014. Effects of river morphology, hydraulic gradients, and sediment deposition on water exchange and oxygen dynamics in salmonid redds. *Journal: Science of the Total Environment* 471, 488–500.
91. Michel, C., Y. Schindler Wildhaber, J. Epting, K. L. Thorpe, P. Huggenberger, C. Alewell P. Burkhardt-Holm. 2014. Artificial steps mitigate the effect of fine sediment on the survival of brown trout embryos in a heavily modified river. *Freshwater Biology* 59, 544–556
90. Park, Ji-Hyung, Katrin Meusburger, Inyoung Jang, Hojeong Kang, Christine Alewell. 2014. Erosion-induced changes in soil biogeochemical and microbiological properties in Swiss Alpine grasslands. *Soil Biology and Biogeochemistry* 69, 382-392.
89. Meusburger, K., Mabit, L., Park, J.-H., Sandor, T., and Alewell, C. 2013. Combined use of stable isotopes and fallout radionuclides as soil erosion indicators in a forested mountain site, South Korea, *Biogeosciences*, 10, 5627-5638, doi:10.5194/bg-10-5627-2013, 2013.
88. Mabit, L., Meusburger, K., Iurian, A.R., Owens, P.N., Toloza, A., Alewell, C. (2014). Sampling soil and sediment depth profiles at a fine-resolution with a new device for determining physical, chemical and biological properties: the Fine Increment Soil Collector (FISC) *Journal of Soils and Sediments*, 14(3), 630-636.
87. Zollinger, B, Alewell, C., Kneisel, C., Meusburger, K., Gärtner, H., Brandová, D., Ivy-Ochs, S., Schmidt, M.I., Egli, M. 2013. Effect of permafrost on the formation of soil organic carbon pools and their physical–chemical properties in the Eastern Swiss Alps. *Catena* 110 (2013) 70–85
86. Panagos, P., Meusburger, K., Van Liedekerke, M., Alewell, C., Hiederer, R., and Montanarella, L. 2014. Assessing soil erosion in Europe based on data collected through a European Network, *Soil Science and Plant Nutrition, SOIL SCIENCE AND PLANT NUTRITION* 60, 15-29
85. Conen. F., Mikhail V. Yakutin, Nina Carle and Christine Alewell. 2013. $\delta^{15}\text{N}$ natural abundance may directly disclose perturbed soil when related to C:N ratio. *Rapid Commun. Mass Spectrom.* 2013, 27, 1101–1104
84. Mabit, L., Meusburger, K., Fulajtar, E., Alewell, C. 2013 The usefulness of ¹³⁷Cs as a tracer for soil erosion assessment: A critical reply to Parsons and Foster (2011). *Earth-Science Reviews* 127, 300-307. **(68)**
83. Mueller, M. H., Weingartner, R., and Alewell, C. 2013. Importance of vegetation, topography and flow paths for water transit times of base flow in alpine headwater catchments, *Hydrol. Earth Syst. Sci.*, 17, 1661-1679, doi:10.5194/hess-17-1661-2013.
82. Xia, Y.; Conen, F. and C. Alewell 2012. Total bacterial number concentration in free tropospheric air above the Alps. *Aerobiologia* (2013) 29:153–159
81. Schaffner U, Alewell C, Eschen R, Matthies D, Spiegelberger T, Hegg, O (2012) Calcium Induces Long-Term Legacy Effects in a Subalpine Ecosystem. *PLoS ONE* 7(12): e51818. doi:10.1371/journal.pone.0051818
80. Ceaglio, E., Freppaz, M., Zanini, E., Meusburger, K., Alewell, C., 2012. Erosione e deposizione del suolo per movimenti del manto nevoso. *Neve e Valanghe (ISSN 1120-0642), AINEVA*, 75, 24-35.
79. Schindler Wildhaber Y., R. Liechti, and C. Alewell. 2012. Organic matter dynamics and stable isotope signature as tracers of the sources of suspended sediment. *Biogeosciences*, 9, 1985–1996, 2012

78. Jung, B.-J., Lee, H.-J., Jeong, J.-J., Owen, J., Kim, B., Meusburger, K., Alewell, C., Gebauer, G., Shope, C., and Park, J.-H. 2012. Storm pulses and varying sources of hydrologic carbon export from a mountainous watershed, *Journal of Hydrology*, 440–441, 90-101, 10.1016/j.jhydrol.2012.03.030, 2012.
77. Meusburger, K., Steel, A., Panagos, P., Montanarella, L., and Alewell, C.: Spatial and temporal variability of rainfall erosivity factor for Switzerland, *Hydrol. Earth Syst. Sci.*, 16, 167–177, 2012 (107)
76. Schindler Wildhaber Y, Michel C, Burkhardt-Holm P, Bänninger D, Alewell C. Measurement of spatial and temporal fine sediment dynamics in a small river. *Hydrol. Earth Syst. Sci.* 2012; 16: 1501-1515.
75. Ceaglio, E., K. Meusburger, M. Freppaz, E. Zanini, and C. Alewell. 2012. Estimation of soil redistribution rates due to snow cover related processes in a mountainous area (Valle d'Aosta, NW Italy). *Hydrol. Earth Syst. Sci.*, 16, 517–528, 2012
74. Panagos, P., K. Meusburger, C. Alewell, L. Montanarella. 2012. Soil erodibility estimation using LUCAS point survey data of Europe, *Environmental Modelling & Software* 30, 143-145
73. Konz, N., Prasuhn, V., Alewell, C. 2012. On the measurement of Alpine Soil Erosion on Plot scale. *Catena* 91, 63–71.
72. Schindler Wildhaber, Y., Burri, K., Alewell, C. and Bänninger, D. 2012. Evaluation and application of a portable rainfall simulator on subalpine grassland. *Catena*, 91; 56–62
71. Conen, F., S. Henne, C. E. Morris, and C. Alewell. Atmospheric ice nucleators active $\geq -12^{\circ}\text{C}$ may be quantified on PM₁₀ filters. *Atmos. Meas. Tech.*, 5, 321–327, 2012
70. Conen, F., Cindy E. Morris, Jens Leifeld, Mikhail V. Yakutin, Christine Alewell. 2011. Biological residues define the ice nucleation properties of soil dust. *Atmos. Chem. Phys.*, 11, 9643–9648.
69. Alewell, C., R. Giesler, J. Klaminder, J. Leifeld, and M. Rollog. 2011. Stable carbon isotopes as indicators for micro-geomorphic changes in peatlands. *Biogeosciences*, 8, 1769-1778.
68. Bruch, I., Fritsche, J., Baenninger, D., Alewell, U., Sendelov, M., Huerlimann, H., Hasselbach, R., Alewell, C. 2011. Improving the treatment efficiency of constructed wetlands with zeolite-containing filter sands. *BIORESOURCE TECHNOLOGY* 102, 937-941.
67. Conen, F., Yakutin M.V., Puchnin A.N., Leifeld J. and Alewell, C. 2011. $\delta^{15}\text{N}$ natural abundance in permafrost soil indicates impact of fire on nitrogen cycle. *Rapid Commun. Mass Spectrom.* 2011, 25, 661–664
66. Martin, C., Pohl, M., Alewell, C., Körner, C., Rixen, C. 2010 Interrill erosion at disturbed alpine sites: Effects of plant functional diversity and vegetation cover. *Basic and Applied Ecology* 11, 619–626
65. Schaub, M., Konz, N., Meusburger, K., Alewell, C., 2010 Application of in-situ measurement to determine ^{137}Cs in the Swiss Alps. *Journal of Environmental Radioactivity*, 101, 369-376
64. Konz, N., Bänninger, D., Konz, M., Nearing, M., Alewell, C., 2010. Process identification of soil erosion in steep mountain regions. *Hydrology and Earth System Science*, 14, 675-686
63. Meusburger, K., Alewell, C. and Bänninger, D. 2010. Estimating vegetation parameter for soil erosion assessment in an alpine region by means of QuickBird data. *International Journal of Applied Earth Observation and Geoinformation*, 12, 201-207
62. Meusburger, K., Konz, N., Schaub, M. and Alewell, C. 2010. Soil erosion modelled with USLE and PESERA using QuickBird derived vegetation parameters in an alpine catchment. *International Journal of Applied Earth Observation and Geoinformation*, 12, 208-215 (55)
61. Alewell, C., Schaub, M. and Conen, F. 2009. A method to detect soil carbon degradation during soil erosion. *Biogeosciences*, 6, 2541–2547
60. Meusburger, K. and Alewell, C., 2009. On the influence of temporal change on the validity of landslide susceptibility maps. *Nat Hazards Earth Syst Sci*, 9, 1495-1507
59. Vieten, B., F. Conen, A. Neftel and C. Alewell, 2009. Respiration of nitrous oxide in suboxic soil, *European Journal of Soil Science*, 60, 332–337
58. Konz, N., Bänninger, D., Nearing, M., Alewell, C.. Does WEPP meet the specificity of soil erosion in steep mountain regions? *Hydrol. Earth Syst. Sci. Discuss.*, 6, 2153-2188, 2009

57. Schaub, M. & Alewell, C. 2009: Stable carbon isotopes as an indicator for soil degradation in an alpine environment (Urseren Valley, Switzerland). *Rapid communications of Mass Spectrometry* 23, 1499-1507.
56. Merz, A., Alewell, C., Hiltbrunner, E. and Bänninger, D. Plant compositional effects on surface runoff and sediment yield in subalpine grassland. *J. Plant Nutr. Soil Sci.* 2009, 000, 1–12
55. Müller, M., Alewell, C. and Hagedorn, F. 2009. Effective retention of litter-derived dissolved organic carbon in organic layers. *Soil Biol Biochem* 41, 1066 – 1074.
54. Konz, N., Brodbeck, M., Prasuhn, V., Alewell, C. 2009. Cesium-137-based erosion-rate determination of a steep mountainous region. *Journal of Plant Nutrition and Soil Science* 172(5): 615-622.
53. Schaub, M., Seth B. and Alewell, C. 2009. Determination of $\delta^{18}\text{O}$ in soils: measuring conditions and a potential application. *Rapid Communications in Mass Spectrometry* 23 (2) 313-318.
52. Fritsche, J., Obrist, D., Zeeman, M.J., Conen, F., Eugster, W., and Alewell, C. (2008). Elemental mercury fluxes over a sub-alpine grassland determined with two micrometeorological methods. *Atmospheric Environment* 42, 2922-2933.
51. Fritsche, J., Wohlfahrt, G., Ammann, C., Zeeman, M., Hammerle, A., Obrist, D., and Alewell, C. (2008). Summertime elemental mercury exchange of temperate grasslands on an ecosystem-scale. *Atmospheric Chemistry and Physics* 8, 7709-7722.
50. Scheurer, K., Alewell, C., Bänninger, D., Burkhardt-Holm, P. 2009. Climate and land-use changes affecting river sediment and brown trout in alpine countries—a review *Environmental Science and Pollution Research* 16: 232-242 ((DOI10.1007/s11356-008-0075-3)).
49. Alewell, C., Meusburger, K., Brodbeck, M., Bänninger, D. 2008. Methods to describe and predict soil erosion in mountain regions. *Landscape and Urban Planning* 88, 46–53.
48. Conen, F., Karhu K., Leifeld J., Seth B., Vanhala P., Liski J., Alewell, C. 2008. Temperature sensitivity of young and old soil carbon – Same soil, slight differences in ^{13}C natural abundance method, inconsistent results. *Soil Biology & Biochemistry* 40, 2703–2705
47. Meusburger, K., Alewell, C., 2008, Impacts of anthropogenic and environmental factors on the occurrence of shallow landslides in an alpine catchment (Urseren Valley, Switzerland). *Nat. Hazards Earth. Sys.* 8:509-520. (64)
46. Alewell, C., Paul, S., G. Lischeid, Storck, F. 2008. Co-Regulation of redox processes in freshwater wetlands as a function of organic matter availability? *Science of the Total Environment* 404, 2-3, 115-122.
45. Fritsche, J., Obrist, D., Alewell, C. 2008. Evidence of microbial control of Hg^0 emissions from uncontaminated terrestrial soils. *Journal of Plant Nutrition and Soil Science* 200- 209
44. Conen, F., Zimmermann, M., Leifeld, J., Seth, B., Alewell, C. 2008. Relative stability of soil carbon revealed by shifts in $\delta^{15}\text{N}$ and C:N ratio. *Biogeosciences*, 5, 123-128.
43. Vieten, B., Conen, F., Seth, B., and Alewell, C. 2007. The fate of N_2O consumed in soils, *Biogeosciences*, 5, 129-132.
42. Vieten B., Blunier T., Neftel A., Alewell C., Conen F., 2007 Fractionation factors for stable isotopes of N and O during N_2O reduction in soil depend on reaction rate constant. *Rapid Communication of Mass Spectrometry* 21, 846 – 850.
41. Koptsik, G., Alewell, C. 2007. Sulphur behaviour in forest soils near the largest SO_2 emitter in northern Europe. *Applied Geochemistry* 22, 1095-1104
40. Lischeid, G; Alewell, C; Paul, S; Kolb, A. 2007: Impact of redox and transport processes in a riparian wetland on stream water quality. *Hydrological Processes*, 21, 123-132.
39. Alewell C. and Bredemeier M. 2006. Forest change under a changing climate: introducing the problem. *Contributions to Forest Science* 28, 20-28.
38. Conen, F., J. Leifeld, B. Seth, C. Alewell. 2006 Warming mobilises young and old soil carbon equally. *Biogeosciences* 3, 515-519 (81)
37. Alewell, C., Paul, S., Lischeid, G., Küsel, K., Gehre, M. 2006. Characterizing the redox status in three different forested wetlands with geochemical data. *Environmental Science and Technology* 40,(24) 7609-7615

36. Paul, S., Küsel, K., Alewell, C. 2006. Reduction processes in temperate forests: tracking down heterogeneity with a combination of methods. *Soil Biology and Biogeochemistry* 38, 1028 – 1039.
35. Obrist D, Conen F, Vogt R., Siegwolf R. and Alewell C, 2006. Estimation of Hg⁰ exchange between ecosystems and the atmosphere using ²²²Rn and Hg⁰ concentration changes in the stable nocturnal boundary layer. *Atmospheric Environment*, 40, 856-866.
34. Watsmough, S.A., Aherne, J., Alewell, C., Arp, P., Bailey, S., Clair, T., Dillon, P., Duchesne, L., Eimers, C., Feranandez, I., Foster, N., Larssen, T., Miller, E., Mitchell, M., Page, S. 2005. Sulphate, nitrogen and base cation budgets at 21 forested catchments in Canada, The United States and Europe. *Environmental Monitoring and Assessment* 109, 1-36.
33. Koptsik GN, Alewell C. 2004 Behavior of sulfur in soils of forests ecosystems under intense air pollution *EURASIAN SOIL SCIENCE* 37 (11): 1182-1195
32. Koptsik G.N., Alewell C. Behaviour of sulphur in soils of forests ecosystems under intense air pollution. *Pochvovedenie*. 2004. No 11. P. 1335-1349.
31. Jandl, R., Alewell, C., Prietzel, J. 2004. Ca loss in Central European forest soils. *Soil Science Society American Journal* 68, 588-595
30. Alewell, C., Lischeid, G., Hell, U. and Manderscheid, B. 2004. High temporal resolution of ion fluxes in semi natural ecosystems- Gain of information or waste of resources? *Biogeochemistry* 69: 19-35.
29. Lischeid, G., Kolb, A., Alewell, C. 2002. Apparent translatory flow in groundwater recharge and runoff generation. *Journal of Hydrology* 265. 195-211
28. Likens, G.E., C.T. Driscoll, D.C. Buso, M.J. Mitchell, G.M. Lovett, S.W. Bailey, T.G. Siccoma, W.A. Reiners, and C. Alewell. 2002. The biogeochemistry of sulfur at Hubbard Brook. *Biogeochemistry* 60, 235-316.
27. Prechtel, A., Alewell, C., Armbruster, M., Bittersohl, J., Cullen, J., Evans, C.D., Helliwell, R., Kopacek, J., Marchetto, A., Matzner, E., Meesenburg, H., Moldan, F., Moritz, K., Vesely, J., and Wright. R.F. 2001. Response of sulphur dynamics in European catchments to decreasing sulphate deposition. *Hydrology and Earth System Sciences* 5, 311-326.
26. Wright, R.F., Alewell, C., Cullen, J., Evans, C.D., Marchetto, A., Moldan, F., Prechtel, A., and Rogora, M. 2001. Trends in nitrogen deposition and leaching in acid-sensitive streams in Europe. *Hydrology and Earth System Sciences* 5, 299-310.
25. Evans, C.D., Cullen, J.M., Alewell, C., Marchetto, A., Moldan, F., Kopáček, J., Prechtel, A., Rogora, M., Vesely, J., and Wright, R. 2001. Recovery from acidification in European surface waters. *Hydrology and Earth System Sciences* 5, 283-298.
24. Alewell, C., Armbruster, M., Bittersohl, J., Evans, C.D., Meesenburg, H., Moritz, K., and Prechtel, A. 2001. Are there signs of acidification reversal after two decades of reduced acid input in the low mountain ranges of Germany? *Hydrology and Earth System Sciences* 5, 367-378.
23. Mitchell, M.J., B. Mayer, S.W. Bailey, J. Hornbeck, C. Alewell, C.T. Driscoll, and G.E. Likens. 2001. Use of Stable Isotope Ratios for Evaluating Sulfur Sources and Losses at the Hubbard Brook Experimental Forest. *Water Air Soil Pollut.* 130, 75-86.
22. Alewell, C. 2001. Predicting reversibility of acidification: The European Sulfur Story. *Water Air Soil Pollut.* 130, 1271-1276.
21. Alewell, C. and Novak, M. 2001. Spotting zones of dissimilatory sulfate reduction in a forested catchment: The ³⁴S - ³⁵S approach. *Environ. Pollut.* 112, 369-377.
20. Lischeid, G., Moritz, K., Bittersohl, J., Alewell, C. and Matzner, E. 2000. Sinks of anthropogenic nitrogen and sulphate in the Lehstenbach catchment (Fichtelgebirge): lessons learned concerning reversibility. *Silva Gabreta* 4, 41-50.
19. Manderscheid, B., Jungnickel, C. and Alewell, C. 2000. Spatial variability of sulfate isotherms in forest soils at different scales and its implications for the modeling of soil sulfate fluxes. *Soil Science* 165, 848-857.
18. Prechtel, A., Alewell, C., Michalzik, B. and Matzner, E. 2000. Different effect of drying on the fluxes of dissolved organic carbon and nitrogen from a Norway spruce forest floor. *J. Plant Nutr. Soil Sci.* 163, 517-521.

17. Alewell, C., Manderscheid, B., Gerstberger P. and Matzner, E. 2000c. Effects of reduced atmospheric deposition on soil solution chemistry and elemental contents of spruce needles in NE-Bavaria, Germany. *J. Plant Nutr. Soil Sci.* 163, 509-516. (52)
16. Alewell, C., Manderscheid, B., Meesenburg, H. and Bittersohl, J. 2000b. Is acidification still an ecological threat? *Nature* 407, 856-857 (62)
15. Manderscheid, B., Schweisser, T., Lischeid, G., Alewell, C. and Matzner, E. 2000. Sulfate pools in the weathered substrata of a forested catchment. *Soil Sci. Soc. Am. J.* 64, 1078-1082.
14. Alewell, C., Mitchell, M., Likens, G.E. and Krouse, R.H. 2000a. Assessing the origin of sulfate deposition at the Hubbard Brook Experimental Forest. *J. Environ. Qual.* 29, 759-767.
13. Groscheova, H., Novak, M. and Alewell, C. 2000. Changes in the $\delta^{34}\text{S}$ ratio of pore-water sulfate in incubated *SPHAGNUM* peat. *Wetlands* 20, 62-69.
12. Alewell, C. and Gehre, M. 1999. Patterns of stable S isotopes in a forested catchment as indicators for biological S turnover. *Biogeochemistry* 47, 319-333
11. Alewell, C., Mitchell, M., Likens, G.E. and Krouse, R.H. 1999. Sources of stream sulfate at the Hubbard Brook Experimental Forest: Long-term analyses using stable isotopes. *Biogeochemistry* 44, 281-299 (78).
10. Lischeid, G., Alewell, C., Bittersohl, J., Göttlein, A., Jungnickel, C., Lange, H., Manderscheid, B., Mortiz, K., Ostendorf, B. and Sager, H. 1998. Investigating soil and groundwater quality at different scales in a forested catchment: the Waldstein case study. *Nutrient Cycling in Agroecosystems* 50, 109-118.
9. Alewell, C. and B. Manderscheid. 1998. Use of objective criteria for the assessment of biogeochemical ecosystem models. *Ecol. Modell.* 107, 213-224.
8. Alewell, C. 1998. Investigating sulfate sorption and desorption of acid forest soils with special consideration of soil structure. *J. Plant Nutr. Soil Sci.* 161, 73-80.
7. Alewell, C., Bredemeier, M., Matzner, E. and Blanck, K. 1997. Soil solution response to experimentally reduced acid deposition in a forest ecosystem. *J. Environ. Qual.* 26, 658-665.
6. Alewell, C. and Giesemann, A. 1996. Sulfate reduction in a forested catchment as indicated by $\delta^{34}\text{S}$ values of sulfate in soil solutions and runoff. *Isotopes Environ. Health Stud.* 32, 203-210.
5. Alewell, C. and E. Matzner. 1996. Water, NaHCO_3^- , $\text{NaH}_2\text{PO}_4^-$ and NaCl -extractable SO_4^{2-} in acid forest soils. *J. Plant Nutr. Soil Sci.* 159, 235-240.
4. Lükewille, A., Malessa, V. and Alewell, C. 1995. Measured and modelled retention of inorganic sulfur in soils and subsoils (Harz Mountains, Germany). *Water Air Soil Pollut.* 85, 683-688.
3. Alewell, C., Manderscheid, B., Lükewille, A., Koeppe, P. and Prenzel, J. 1995. Describing Soil SO_4^{2-} Dynamics in the Solling Roof Project with two different Modelling Approaches. *Water Air Soil Pollut.* 85, 1801-1806.
2. Alewell, C. and E. Matzner. 1993. Reversibility of soil solution acidity and of sulfate retention in acid forest soils. *Water Air Soil Pollut.* 71, 155-165.
1. Alewell, C. 1993. Effects of organic sulfur compounds on extraction and determination of inorganic sulfate. *Plant Soil* 149, 141-144.

Reviewed book chapters

- II.17 Alewell, C., L. Zweifel & K. Meusburger (2020): Einfluss des globalen Wandels auf die Bodenstabilität des alpinen Graslandes. In: Lozán J. L., S.-W. Breckle, H. Graßl et al. (Hrsg.). Warnsignal Klima: Hochgebirge im Wandel. S. 194-198. Online: www.warnsignal-klima.de. doi:10.2312/warnsignal-klima.hochgebirge-im-wandel.29.
- II.16 Tobias, S.; Jung, C.; Conen, F.; Alewell, C. 2016. Kreislaufwirtschaft im Bodenverbrauch: in: Perspektiven der Ethik. Anselm, R.; Gutmann, T.; Mieth, C.; Mohr Siebeck Verlag, Tübingen.
- II.15 Krüger, Jan Paul; Alewell, Christine. 2015. Stable isotopes as indicators of environmental change. INTERACT Stories of Arctic Science, Aarhus University, Denmark, 60-61.
- II.14 Meusburger, Katrin; Alewell, Christine 2014. Soil Erosion in the Alps. Experience gained from case studies (2006-2013), Environmental studies no. 1408, Federal Office for the Environment. Bern, 1-116.
- II.13 Huang, Jen-How; Hu, K-N; Ilgen, J; Ilgen, G; Alewell, Christine. 2014, Arsenic species in beers and wines from European markets- alert of arsenic species in response to processing. Academic Press
- II.12 Meusburger, K., Schaub, M., Konz, N., Alewell, C., Mabit, L. 2014, The combined use of ¹³⁷Cs and stable isotopes to evaluate soil redistribution in mountainous grasslands, Switzerland. In: "Use of fallout radionuclides to assess erosion and effectiveness of soil conservation strategies. ¹³⁷Cs, ⁷Be and ²¹⁰Pb based methods and case studies". Chapter 8. IAEA Training Course Series. IAEA publication, Vienna, Austria, 1-226.
- II.11 Sjögersten-Turner, S., Alewell, C., Cécillon, L., Hagedorn, F., Jandl, R., Leifeld, J., Martinsen, V., Schindbacher, A., Teresa Sebastià, M. and van Miegot, H. 2011. Mountain Soils in a changing climate – vulnerability of carbon stocks and ecosystem feedbacks. In: Jandl, R., Rodeghiero, M. and Olsson M. (eds.). Soil Carbon in Sensitive European Ecosystems. From Science to Land Management. Wiley-Blackwell, Singapore, 118-148.
- II.10 Alewell, C. and Bebi, P. 2010. Forest development in the European Alps and potential consequences on hydrological regime. In: Bredemeier, M, Cohen, S, Godbold, DL, Lode, E, Pichler, V, Schleppei, P (eds.). Forest Management and the Water Cycle: An Ecosystem-Based. Approach, Ecological Studies 212, 111-126
- II. 9 Mitchell, M. and Alewell, C. 2008. Sulfur transformations and fluxes. In: W. Chesworth (Editor) The Encyclopedia of Soil Science. Springer Dordrecht, 757-764
- II. 8 Lükewille, A. and Alewell, C. 2008. Acidification processes. In: S. E. Jorgensen Encyclopedia of Ecology. Chapter XX. Elsevier.
- II. 7 Bänninger, D., Brodbeck, M., Hohwieler, N., Meusburger, K., & Alewell, C. (2006). Soil Degradation in the Swiss Alps. In Bierlin B., & J. Pasotti (Eds.), Deserts and Desertification in High Altitude Areas (pp. 6–8)
- II. 6 Matzner, E., Alewell, C., Zuber, T., Bittersohl, J. and Moritz, K. 2004. Trends in Deposition as Indicated by Throughfall Measurements and Canopy Leaching of Mineral Elements. In: Matzner E. "Temperate Forest Ecosystems Response to Changing Environment: Watershed Studies in Germany" Springer Verlag. Berlin.
- II. 5 Lischeid, G; Alewell, C; Moritz, K; Bittersohl, J. 2004. Trends in the input-output relations: The catchment budgets. In: Matzner E. "Temperate Forest Ecosystems Response to Changing Environment: Watershed Studies in Germany" Springer Verlag. Berlin.
- II. 4 Küsel, K. and Alewell, C. 2004. Riparian zones in a forested catchment: hot spots for microbial reductive processes. In: Matzner E. "Temperate Forest Ecosystems Response to Changing Environment: Watershed Studies in Germany" Springer Verlag. Berlin. 377-398.
- II. 3 Alewell, C. 2002. Acid input into the soils by acid rain. In: Zed Rengel (ed.) Handbook of Soil Acidity. Marcel Dekker, INC. New York. Pp. 83- 115.

- II. 2 Matzner, E., Alewell, C., Bittersohl, J., Lischeid, G., Kammerer, G., Manderscheid, B., Matschonat, G., Moritz, K., Tenhunen, J.D., Totsche, K.U. 2001. Biogeochemistry of a spruce forest catchment of the Fichtelgebirge in response to changing atmospheric deposition. In: Tenhunen, J.D.; Lenz, R; Hantschel, R. (eds.): Ecosystem Approaches to Landscape Management in Central Europe, Ecological Studies 147. Springer-Verlag, Heidelberg, 463-504.
- II. 1 Alewell, C., E. Matzner and A. Lükewille. 1992. Reversibility of Soil Acidification by Reduction of Acid Input: An Experiment with undisturbed Soil Columns. In: A. Teller, P. Mathy and J.N.R. Jeffers (eds.). Responses of Forest Ecosystems to Environmental Changes. Elsevier Applied Science, Amsterdam, 789-790.

Other publications:

- III.50 Vahlensieck, Y. Und C. Alewell. 2022. Gefährdung unserer Lebensgrundlage durch Bodendegradation – von der Methodenentwicklung zur Quantifizierung. *Regio Basiliensis* 63/1, 15-25.
- III.49 Alewell, C. und Conen, F. Löst Bodenaustaub Schnee und Regen aus? In: Füglistner, K.N., Hicklin, M., Mäser, P. (Hrsgs.). *NaturaObscura*, Naturforschende Gesellschaft in Basel, Schwabe Verlag, Muttenz, Seite 10
- III.48 Schmidt, S., Alewell, C., Ballabio, C., Panagos, P., and Meusburger, K.: Soil Erosion on grassland – the Swiss soil erosion risk map of grasslands as prototype for European mountain areas, 10. Marktredwitzer Bodenschutztag 2018, Marktredwitz (DE), 10.10.2018.
- III.47 Schmidt, S., Alewell, C., and Meusburger, K.: A new national grassland map and its relevance for soil erosion risk modeling in Switzerland, SSSS Annual Meeting/BGS Jahrestagung 2018, Grangeneuve (CH), 20.04.2018.
- III.46 Schmidt, S., Alewell, C., and Meusburger, K.: Die Erweiterung der Schweizer Erosionsrisikokarte für alpines Grasland, DKG Deutscher Kongress für Geographie 2017, Tübingen (DE), 29.09.-02.10.2017.
- III.45 Schmidt, S., Meusburger, K., and Alewell, C.: Die Erosionsrisikokarte ERK-Berg für das Schweizer Berggebiet | Carte du risque d'érosion ERK-Berg pour les régions de montagne suisses, Aussprache zum Bodenschutz in der Schweiz 2017, Bern (CH), 01.06.2017.
- III.44 Schmidt, S., Meusburger, K., de Figueiredo, T., and Alewell, C.: Soil Erosion Risk Modeling in the Alps - Modeling Approach and Importance for a Soil Erosion Risk Assessment in Swiss Alpine Grassland, Mountains 2016 - I International Conference on Research for Sustainable Development in Mountain Regions, Braganca (PT), 3.10.-7.10.2016.
- III.43 Meusburger, K., Mabit, L., Ketterer, M., Park, J.H., Tarjan, S., Porto, P., Alewell, C. (2017). ²³⁹⁺²⁴⁰Pu to ¹³⁷Cs activity ratio: a proxy for comparing vertical and lateral radionuclide mobility. In: *IAEA-Soils Newsletter*, Vol. 40(1), p. 9.
- III.42 Arata, L., Meusburger, K., Frenkel, E., A'Campo-Neuen, A., Iurian, A.R., Ketterer, M.E., Mabit, L., Alewell, C. (2017). Unique Conversion Model for Assessing Soil Redistribution Magnitudes from Fallout Radionuclides Inventories: MODERN. In: *IAEA-Soils Newsletter*, Vol. 39(2), pp. 6–7.
- III.41 Pichler, B.; Bradová, D.; Ivy-Ochs, S.; Schaller, M.; Alewell, C.; Kneisel, C.; Egli, M., 2013. Estimation of erosion rates using meteoric ¹⁰Be: a comparison of soils under permafrost and non-permafrost conditions. *Laboratory of Ion Beam Physics Annual Report 2012*, 44.
- III.40 Zollinger, B.; Alewell, C.; Meusburger, K.; Brandová, D.; Kubik, P.W.; Ketterer, M.; Egli, M., 2014. Erosion rates using meteoric ¹⁰Be and ²³⁹⁺²⁴⁰Pu: Alpine soils under permafrost and non-permafrost conditions. *Laboratory of Ion Beam Physics Annual Report 2013*, 49.
- III.39 Mabit, L.; Resch, C.; Toloza, A.; Meusburger, K.; Gibbs, M.; Klik, A.; Alewell, C. (2016). Latest development in using CSSI - Carbon-13 natural abundance signatures of long-chain fatty acids - case study of Mistelbach. In: *IAEA-Soils Newsletter*, Vol. 39(1), pp. 31–32.

- III.38 Mabit, L., Toloza, A., Meusburger, K., Iurian, A.R., Owens, P.N., Alewell, C., Nirschl, A. (2016). How to perform precise soil and sediment sampling? One solution: The Fine Increment Soil Collector (FISC). In: Supporting Sampling and Sample Preparation Tools for Isotope and Nuclear Analysis. pp. 36-42. IAEA-TECDOC-1783, IAEA publication.
- III.37 Mabit, L., Chen, X., Resch, C., Toloza, A., Meusburger, K., Gibbs, M., Klik, A., Eder, A., Strauss, P., Alewell, C. (2016). Sediment Origin Determination in the Sub-Catchment of Mistelbach (Austria) using Fatty Acids Biomarkers and Compound-Specific Stable Isotope Techniques. In: *IAEA-Soils Newsletter*, Vol. 38(2), pp. 30–32.
- III.36 Osterwalder, S.; Fritsche, J.; Åkerblom, S.; Nilsson, M.; Bishop, K.; Alewell, C. (2016): Mercury evasion from a boreal peatland determined with advanced REA and chamber methods. In: BGS Bulletin 36, pp. 51-56.
- III.35 Krüger, J.P., J. Leifeld, S. Glatzel and C. Alewell (2015): Soil carbon loss from managed peatlands along a land use gradient – a comparison of three different methods. BGS Bulletin 36: 45-50.
- III.34 Alewell, C.; K. Meusburger, D. Kandl, I. Fetai, V. Roth, V. Rugolo, H. Schuldt und T. Vetter COSA 2015 – AlpErosion: Monitoring the degradation of Alpine soils with COSA, a Citizens’ Observatory Smartphone App. BGS Bulletin 36, 19-22.
- III.33 Meusburger, K., Leitinger, G., Mabit, L., Mueller, M.H., Walter, A., Alewell, C. (2015). Is Snow Gliding a Major Soil Erosion Agent in Steep Alpine Areas? In: *IAEA-Soils Newsletter*, Vol. 38(1), Feature Articles, pp. 6–7.
- III.32 Mabit, L.; Gibbs, M.; Chen, X.; Meusburger, K.; Toloza, A.; Resch, C.; Klik, A.; Eder, A.; Strauss, P.; Alewell, C. (2015) Preliminary use of compound-specific stable isotope (CSSI) technique to identify and apportion sediment origin in a small Austrian catchment. In: European Geosciences Union – General Assembly, Wien.
- III.31 Alewell, C., Meusburger, K., Juretzko, G., Mabit, L., Ketterer, M.E. (2015). Is $^{239+240}\text{Pu}$ the new tracer for soil erosion assessment in mountain grasslands? In: *IAEA-Soils Newsletter*, Vol. 37(2), Feature Articles, pp. 6–7.
- III.30 Mueller, Matthias Heidulf; Alewell, Christine (2013). Versickerung und Speicherung von Niederschlag in subalpinen Einzugsgebieten im Urserntal, Schweiz. Fachgemeinschaft Hydrologische Wissenschaften in der DWA Geschäftsstelle, pp. 57-63
- III.29 Mueller, Matthias Heidulf; Alewell, Christine (2012). Verweilzeit und Hydrochemie in vier alpinen Einzugsgebieten (Urserntal, Schweiz). DWA Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall e.V., Bundesgeschäftsstelle, pp. 326-327
- III.28 Storck, F.R., Schütz, K., Wülser, R., Nagel, P. und Alewell, C. 2014. Künstliche Grundwasseranreicherung für die Trinkwassergewinnung: Untersuchung zur Nachhaltigkeit der Reinigungsleistung bei der Bodenpassage am Standort „Lange Erlen (Basel) Regio Basiliensis 55/3, 115-125
- III.27 Mabit, L., Meusburger, K., Iurian, A.R., Owens, P.N., Toloza, A., Alewell, C. (2014). How to perform precise soil and sediment sampling? One solution: The Fine Increment Soil Collector (FISC). In: *IAEA-Soils Newsletter*, Vol. 37(1), pp. 9–10.
- III.26 Meusburger, K., Schaub, M., Konz, N., Mabit, L., and C., Alewell: Combined use of ^{137}Cs and stable isotopes to assess soil degradation in mountainous grasslands of Switzerland, in: *IAEA-Soils Newsletter*, 14-16, 2011.
- III.25 Meusburger, M. and Alewell, C. 2013. Regen ist nicht immer ein Segen – Zunahme der Niederschlagserosivität in der Schweiz. *Geoscience Actuel* 1, 14-16.
- III.24 Alewell, C. and Imhof, A. 2008. Bodenerosion. Einfluss der Landnutzung und des Klimas am Beispiel des Urserentals in Uri. *Umweltperspektiven* 1:40-41.
- III.23 Alewell, C. and Fritsche, J. 2008. Böden als Filter für Quecksilber. Universität Basel, UNI NOVA 108/2008. S.30-31.
- III.22 Spehn, E. and Alewell C.. 2007. Soil system services in mountain environments Forum Alpinum, Workshop 2/5: Global Mountain Biodiversity Assessment of DIVERSITAS
- III.21 D. Bänninger, M. Brodbeck, N. Hohwieler, K. Meusburger, C. Alewell. Soil degradation in the Swiss Alps, (2006) *Mountain Forum Bulletin*; 6(2):6-8; <http://www.mtnforum.org/rs/pub/bul.cfm>

- III.20 Alewell C. and Bredemeier, M. Forest change and climate change, an attempt to introduce the problem. 2006 Manuscript at the International E-conference "Forward Forest" (<http://forwardforests.czu.cz/>)
- III.19 Storck, F.R. & Alewell, C. Investigation of organic matter decomposition in a groundwater enrichment site; Abstr. 3rd Swiss Geoscience Meeting, Zürich 18th-19th November 2005, <http://www.geoscience-meeting.scnatweb.ch>
- III.18 Storck, F.R. & Alewell, C. Investigation of organic matter decomposition in a groundwater enrichment site; International Symposium Floodplains: Hydrology, Soils, Fauna. 11-16th September 2005, State Museum of Natural History, Görlitz, Germany
- III.17 Obrist D, Conen F, Vogt R, Siegwolf R, Alewell C (2005). Quantification of net Hg₀ exchange in a subalpine grassland using micrometeorological methods. 3rd Swiss Geoscience Meeting, November 2005, Zürich, Switzerland.
- III.16 Brodbeck M. und Alewell C. Stable isotopes as a tracer to track down soil degradation in the Swiss Alps. 3rd Swiss Geoscience Meeting. Zürich, November 2005.
- III.15 Fritsche J, Obrist D, Alewell C (2005). Effects of microbiological activity on Hg₀ emission in uncontaminated terrestrial soils. Proceedings of the 3rd Swiss Geoscience Meeting, "4-D Earth"., 19. November 2005, Zürich, Switzerland.
- III.14 Alewell C. Reduction processes in temperate forests: Evidence against the sequential reduction chain? Proceedings of the 3rd Swiss Geoscience meeting "4-D Earth". Zürich, 18th - 19th November, 2005.
- III.13 Koptsik, G., Alewell, C. 2005. Sulphur behaviour in forest soils near a largest SO₂ emitter in northern Europe. Acid Rain 2005. 7th International conference on Acid Deposition. Prague, Czech Republic, June 12-17, 2005. Conference Abstracts. P. 513
- III.12 Küsel K, Trenz S, Alewell C, Drake HL (2002) Effect of biogeochemical parameters on the reduction of sulfate and Fe(III) in slightly acidic bogs. Abstr. Ann. Meet. Am. Soc. for Microbiol. Abstract, N-125, Salt Lake City, pp 327.
- III.11 Alewell, C. and Matzner, E. 2000. Dynamik des Stoffhaushaltes von Waldökosystemen auf unterschiedlichen Raum- und Zeitskalen. Bayreuther Forum Ökologie 78, 193-210.
- III.10 Matzner, E., Alewell, C., Bittersohl, J., Huwe, B., Gehre, M., Gerstberger, P., Ilgen, G., Jungnickel, C., Lischeid, G., Kammerer, G., Manderscheid, B., Matschonat, G., Moritz, K., Schweisser, T., Tenhunen, J.D. and Totsche, K. 1998. Biogeochemistry of a coniferous catchment in response to changing atmospheric deposition. Bayreuther Forum Ökologie 56, 129-160
- III.9 Alewell, C., Matzner E., Schweisser, T. and Jungnickel, C. 1997. The role of SO₄²⁻ - Reduction and spatial heterogeneity of soil SO₄²⁻ pools for the reversibility of soil and water acidification. Bayreuther Forum Ökologie 41, 163-166.
- III.8 Alewell, C. und Matzner E., 1996. The role of SO₄²⁻ - Reduction and spatial heterogeneity of soil SO₄²⁻ pools for the reversibility of soil and water acidification. Bayreuther Forum Ökologie 28, 135-138.
- III.7 Alewell, C. 1995. Sulfat-Dynamik in sauren Waldböden - Sorptionsverhalten und Prognose bei nachlassenden Depositionen. Bayreuther Forum Ökologie 19, 1-185.
- III.6 Matzner, E. und Alewell, C. 1995. Zur Abschätzung der zukünftigen Entwicklung der Grundwasserversauerung. Informationsberichte des Bayerischen Landesamtes für Wasserwirtschaft 3, 271-280.
- III.5 Alewell, C., Matzner, E. and Bredemeier, M. 1995. Reversibility of Sulfate Sorption in Acid Forest Soils: a transfer of laboratory studies to the field with MAGIC. Informationsberichte des Bayerischen Landesamtes für Wasserwirtschaft 3, 171-173.
- III.4 Alewell, C. 1995. Sulfat-Dynamik in sauren Waldböden - Sorptionsverhalten und Prognose bei nachlassenden Depositionen. Bayreuther Forum Ökologie 15, 131-133.
- III.3 Grosholz, C., Alewell, C. and Matzner, E. 1994. Reversibility of Sulfate Sorption in Acid Forest Soils: Comparative soil Analysis under Young and Mature Stands of Norway Spruce. Tern-Tagung, 21.-23.3.1994, München und BITÖK-Forschungsbericht an das BMFT 1993.
- III.2 Alewell, C. and Matzner, E. 1994. Reversibility of Sulfate Sorption in Acid Forest Soils: Using sulfate desorption isothermes to predict sulfate dynamics. Tern-Tagung, 21.-23.3.1994, München und BITÖK-Forschungsbericht an das BMFT 1993.

- III.1 Alewell, C. and Matzner, E. 1993. Reversibility of Sulfate Sorption in Acid Forest Soils. Bayreuther Forum Ökologie, BMFT Vorhaben Nr. PT BEO 51-0339476A: 113-116.