

IVM/OMK peer-reviewed publications 2016

1. **Ahrens, L., Daneshvar, A., Lau, A. E., Kreuger, J.** 2016. Characterization and application of passive samplers for monitoring of pesticides in water. *Journal of Visualized Experiments* 114, e54053. <http://www.jove.com/video/54053>.
2. **Ahrens, L., Gashaw, H., Sjöholm, M., Gebrehiwot, S.G., Getahun, A., Derbe, E., Bishop, K., Åkerblom, S.** 2016. Poly- and perfluoroalkylated substances (PFASs) in water, sediment and fish muscle tissue from Lake Tana, Ethiopia and implications for human exposure. *Chemosphere* 2016, 352-357.
3. Alam, B., Philippe, A., Rosenfeldt, R.R., Seitz, F., Dey S., **Bundschuh, M., Schaumann, G.E., Brenner, S.A.** 2016. Synthesis, characterization, and ecotoxicity of CeO₂ nanoparticles with differing properties. *Journal of Nanoparticle Research* 18, 303.
4. Bodin, H., **Daneshvar, A., Gros, M., Hultberg, M.** 2016. Effects of biopellets composed of microalgae and fungi on pharmaceuticals present at environmentally relevant levels in water. *Ecological Engineering* 91, 169-172.
5. Booij, K., Robinson, C.D., Burgess, R.M., Mayer, P., Roberts, C.A., **Ahrens, L., Allan, I.J., Brant, J., Jones, L., Kraus, U.R., Larsen, M.M., Lepom, P., Petersen, J., Pröfrock, D., Roose, P., Schäfer, S., Smedes, F., Tixier, C., Vorkamp, K., Whitehouse, P.** 2016. Passive Sampling in Regulatory Chemical Monitoring of Nonpolar Organic Compounds in the Aquatic Environment. *Environmental Science & Technology* 50, 3–17.
6. **Bundschuh, M., Elsaesser, D., Stang, C., Schultz, R.** 2016. Mitigation of fungicide pollution in detention ponds and vegetated ditches within a vine-growing area in Germany. *Ecological Engineering* 89, 121-130.
7. **Bundschuh, M., Hahn, T., Ehrlich, B., Höltge, S., Kreuzig, R., Schultz, R.** 2016. Acute toxicity and environmental risks of five veterinary pharmaceuticals for aquatic macroinvertebrates. *Bulletin of Environmental Contamination and Toxicology* 96, 139-143.
8. **Bundschuh, M., Mckie, B.G.** 2016. An ecological and ecotoxicological perspective on fine particulate organic matter in streams. *Freshwater Biology* 61, 2063-2074.
9. **Bundschuh, M., Seitz, F., Rosenfeldt, R.R., Schultz, R.** 2016. Effects of nanoparticles in freshwaters - risks, mechanisms and interactions. *Freshwater Biology* 61, 2185-2196.
10. **Bundschuh, M., Schletz, M., Goedkoop, W.** 2016. The mode of bioturbation triggers pesticide remobilization from aquatic sediments. *Ecotoxicology and Environmental Safety* 130,171-176.
11. **Bundschuh, M., Vogt, R., Seitz, F., Rosenfeldt, R.R., Schulz, R.** 2016. Do titanium dioxide nanoparticles induce food depletion for filter feeding organisms? A case study with *Daphnia magna*. *Environmental Pollution* 214, 840-846.
12. **Bundschuh, M., Weyers, A., Ebeling, M., Elsaesser, D., Schulz, R.** 2016. Narrow pH range of surface water bodies receiving pesticide input in Europe. *Bulletin of Environmental Contamination and Toxicology* 96, 3-8.
13. Bundschuh, R., Kuhn, U., **Bundschuh, M., Naegele, C., Elsaesser, D., Schlechtriemen, U., Oehen, B., Hilbeck, A., Otto, M., Schultz, R., Hofmann, F.** 2016. Prioritizing stream types according to their potential risk to receive crop plant material – A GIS-based

procedure to assist in the risk assessment of genetically modified crops and systemic insecticide residues. *Science of the Total Environment* 547, 226-233.

14. Cai, M., Hong, Q., Sunc, J., Sundqvist, K., **Wiberg**, K., Chen, K., Wang, Y., Qiu, C., Huang, S. 2016. Concentrations, distribution and sources of polychlorinated dibenzo-*p*-dioxins and dibenzofurans and dioxin-like polychlorinated biphenyls in coastal sediments from Xiamen, China. *Marine Chemistry* 185, 74-81.
15. Enell, A., Lundstedt, S., Arp, H.P.H., **Josefsson**, S., Cornelissen, G, Wik, O., Berggren Kleja, D. 2016. Combining leaching and passive sampling to measure the mobility and distribution between porewater, DOC and colloids of native oxy-PAHs, N-PACs and PAHs in historically contaminated soil. *Environmental Science & Technology* 50, 11797-11805.
16. **Feckler**, A., Goedkoop, W., Zubrod, J.P., Schulz, R., **Bundschuh**, M. 2016. Exposure pathway-dependent effects of the fungicide epoxiconazole on a decomposer-detritivore system. *Science of the Total Environment* 571, 992-1000.
17. Furtado, L.M., **Bundschuh**, M., Metcalfe, C.D. 2016. Monitoring the fate and transformation of silver nanoparticles in natural waters. *Bulletin of Environmental Contamination and Toxicology* 97, 449-455.
18. Hellsing, M.S., **Josefsson**, S., Hughes, A.V., **Ahrens**, L. 2016. Sorption of perfluoroalkyl substances to two types of minerals. *Chemosphere* 159, 385–391.
19. Holt, E., Kočan, A., Klánová, J., Assefa, A.T., **Wiberg**, K. 2016. Polychlorinated dibenzo-*p*-dioxins/furans (PCDD/Fs) and metals in Scots pine (*Pinus sylvestris*) needles from Eastern and Northern Europe: spatiotemporal patterns, and potential sources, *Chemosphere* 156, 30–36.
20. Holt, E., Kočan, A., Klánová, J., Assefa, A., **Wiberg**, K. 2016. Spatiotemporal patterns and potential sources of polychlorinated biphenyl (PCB) contamination in Scots pine (*Pinus sylvestris*) needles from Europe. *Environmental Science & Pollution Research* 23, 19602-19612.
21. **Josefsson**, S., Bergknut, M., Futter, M.N., Jansson, S., Laudon, H., Lundin, L., **Wiberg**, K. 2016. Persistent organic pollutants in stream water – influence of hydrological conditions and landscape type. *Environmental Science & Technology* 50, 7416-7424.
22. Knäbel, A., **Bundschuh**, M., Kreuzig, R., Schultz, R. 2016. Runoff of veterinary pharmaceuticals from arable and grassland – A comparison between predictions from model simulations and experimental studies. *Agriculture, Ecosystems and Environment* 218, 33-39.
23. Lalander, C., Senecal, J., **Gros**, M., **Ahrens**, L., **Josefsson**, S., **Wiberg**, K., Vinnerås B. 2016. Fate of pharmaceuticals and pesticides in fly larvae composting, *Science of the Total Environment* 565, 279-286.
24. Larsbo, M., Sandin, M., Jarvis, N., Etana, A., **Kreuger**, J. 2016. Surface runoff of pesticides from a clay loam field in Sweden. *Journal of Environmental Quality* 45, 1367-1374.
25. Lüderwald, S., Seitz, F., Seisenbaeva, G.A., Kessler, V.G., Schulz, R., **Bundschuh**, M. 2016. Palladium nanoparticles: Is there a risk for aquatic ecosystems? *Bulletin of Environmental Contamination and Toxicology* 97, 153-158.
26. Metrevelli, G., Frombold, B., Seitz, F., Grün, A., Phillippe, A., Rosenfeldt, R.R., **Bundschuh**, M., Schulz, R., Manz, W., Schaumann, G.E. 2016. Impact of chemical

composition of ecotoxicological test media on the stability and aggregation status of silver nanoparticles. *Environmental Science: Nano*, 3, 418-433.

27. Rosenfeldt, R.R., Seitz, F., Haigis, A.-C., Höger, J., Zubrod, J.P., Schulz, R., **Bundschuh**, M. 2016. Nanosized titanium dioxide influences copper induced toxicity during aging as a function of environmental conditions. *Environmental Toxicology and Chemistry*, 35, 1766-1774.
28. Sauer, F.G., **Bundschuh**, M., Zubrod, J.P., Schäfer, R.B., Thompson, K., Kefford, B.J. 2016. Effects of salinity on leaf breakdown: Dryland salinity versus salinity from a coalmine. *Aquatic Toxicology* 177, 425-432.
29. Seitz, F., Rosenfeldt, R.R., Müller, M., Lüderwald, S., Schulz, R., **Bundschuh**, M. 2016. Quantity and quality of natural organic matter influence the ecotoxicology of titanium dioxide nanoparticles. *Nanotoxicology* 10, 1415-1421.
30. Schirmel, J., **Bundschuh**, M., Entling, M., Kowarik, I., Buchholz, S. 2016. Impacts of invasive plants on resident animals across ecosystems, taxa, and feeding types: A global assessment. *Global Change Biology* 22, 594-603.
31. Skov Pristed, M.J., **Bundschuh**, M., Rasmussen, J.J. 2016. Multiple exposure routes of a pesticide exacerbate effects on a grazing mayfly. *Aquatic Toxicology* 178, 190-196.
32. Sturve, J., Scarlet, P., Halling, M., **Kreuger**, J., Macia, A. 2016. Environmental monitoring of pesticide exposure and effects on mangrove aquatic organisms of Mosambique. *Marine Environmental Research* 121, 9-19.
33. Weil, M., Meissner, T., Springer, A., **Bundschuh**, M., Hübler, L., Schulz, R., Duis, K. 2016. Oxidized Carbo-Iron causes reduced reproduction and lower tolerance of juveniles in the amphipod *Hyalella azteca*. *Aquatic Toxicology* 181, 94-103.

IVM/OMK REPORTS and POPULAR SCIENCE PUBLICATIONS 2016

1. **Ahrens, L.**, Hedlund, J., **Dürig, W.**, **Tröger, R.**, **Wiberg, K.** 2016. Screening of PFASs in groundwater and surface water. Rapport 2016:2, Institutionen för vatten och miljö, Sveriges lantbruksuniversitet. ISBN 978-91-576-9386-0.
2. Back, P.-E., Enell, A., Fransson, M., Hermansson, S., Rosén, L., Volchko, Y., **Wiberg, K.**, Åberg, A. 2016. Markmiljöns skyddsvärde - En härledning med utgångspunkt i miljöetik och lagstiftning, Statens geotekniska institut, SGI rapport 27. 46 pp.
3. **Boström, G.**, **Lindström, B.**, **Gönczi, M.**, **Kreuger, J.** 2016. Nationell screening av bekämpningsmedel i yt- och grundvatten 2015. CKB rapport 2016:1. 64 pp + bilagor. CKB, Sveriges lantbruksuniversitet, Uppsala. ISBN 978-91-576-9378-5.
4. **Boström, G.**, **Gönczi, M.**, **Kreuger, J.** 2016. Analyser av växtskyddsmedel i rå- och dricksvatten. Utvärdering av kvalitet och relevans för de analyspaket som erbjuds av svenska laboratorier. CKB Rapport 2016:2. 77 pp + bilagor. CKB, Sveriges lantbruksuniversitet, Uppsala. ISBN:978-91-576-9447-8.
5. Fischer, S., Lilja, K., **Ahrens, L.**, **Wiberg, K.** 2016. Poly- and perfluoroalkyl substances on the market and in the Swedish environment. *Norman Bulletin* 5:6-9.
6. **Glimstedt, L.**, **Ahrens, L.**, **Wiberg, K.** 2016. Antropogena föroreningar i svenska vattentäkter. IVM rapport 2016:4. 41 pp + bilagor. Sveriges lantbruksuniversitet, Uppsala. ISBN 978-91-576-9431-7.
7. **Gustavsson, J.**, Ribéli, E., **Wiberg, K.** **Nguyen, M.A.**, **Josefsson, S.**, **Ahrens, L.** 2016. Re-analysis of organic flame retardants in Swedish rivers. Report to Swedish EPA. Contract 2213-15-018.
8. Levén, L., Eveborn, D., Ljung, E., **Gros Calvo, M.**, Dalahmeh S., Jönsson H., **Ahrens, L.**, **Wiberg, K.**, Lundin, G. 2016. Pharmaceuticals in blackwater and fecal sludge – treatment and risks. Report 54, Recycling & Organic Waste. JTI – Swedish Institute of Agricultural and Environmental Engineering. Uppsala, Sweden.
9. **SafeDrink – det livsviktiga dricksvattnet**, artikel om SafeDrink i Resurs 2016-01-14 <http://resurs.slu.se/safedrink-det-livsviktiga-dricksvattnet/>
10. Sjöberg, K., Brorström-Lundén, E., Danielsson, H., Fredricsson, M., Hansson, K., Pihl Karlsson, G., Potter, A., Wängberg, I., **Kreuger, J.**, **Nanos, T.**, **Paulsson, E.**, Areskoug, H., Alpfjord, H., Andersson, C., Josefsson, W. 2016. Nationell luftövervakning - Sakrapport med data från övervakning inom Programområde Luft t.o.m. 2015. IVL Rapport C 224. 126 pp + bilagor.