

Journal and book publications

- Verhoeff, K., Leeman, M., Van Peer, R., **Posthuma, L.**, Schot, N., & Van Eijck, G.W. (1988) Changes of pH and the introduction of organic acids during colonization of tomato petioles by *Botrytis cinerea*. *Journal of Phytopathology* 122: 327-336
- Posthuma, L.** (1990) Genetic differentiation between populations of *Orchesella cincta* (L.) (Collembola) from heavy metal contaminated sites. *Journal of Applied Ecology*, 27(2): 609-622
- Van Wensem, J., & **Posthuma, L.** (1991) Resistentie tegen metaalbelasting bij ongewervelde dieren. In: Leerboek Oecotoxicologie. Van Straalen N.M. & Verkleij J.A.C. (Eds). VU Uitgeverij, Amsterdam, pp. 225-234.
- Posthuma, L.**, Hogervorst, R.F., & Van Straalen, N.M. (1992) Adaptation to soil pollution by cadmium excretion in natural populations of *Orchesella cincta* (L.). (Collembola). *Archives of Environmental Contamination and Toxicology*, 22: 146-156
- Posthuma, L.** (1992) Genetic ecology of metal tolerance in Collembola. Ph. D. Thesis, Vrije Universiteit Amsterdam.
- Frati, F., Fanciulli, P.P., & **Posthuma, L.** (1992) Allozyme variation in reference and metal-adapted natural populations of *Orchesella cincta* (L.) (Collembola). *Biochemical Systematics and Ecology* 20: 297-310.
- Posthuma, L.** & Van Straalen, N.M. (1993) Heavy-metal adaptation in terrestrial invertebrates: a review of occurrence, genetics, physiology and consequences. *Comparative Physiology and Biochemistry*, 106(1): 11-38.
- Posthuma, L.**, Hogervorst R.F., Joosse, E.N.G. & Van Straalen, N.M. (1993) Genetic variation and covariation for characteristics associated with cadmium tolerance in the springtail, *Orchesella cincta* (L.). *Evolution*, 47: 619-631.
- Posthuma, L.**, Widanarko, B. Zonneveld, C. & Verweij R.A. (1993) Life-history patterns in metal-adapted Collembola. *Oikos*, 67(2): 235-249.
- Posthuma, L.**, & Janssen, G.M. (1995) Genetic variation for life-history characteristics in reference populations of *Orchesella cincta* (L.) in relation to evolutionary responses to metals in soils. *Acta Zoologica Fennica* 196: 301-306
- Posthuma, L.** (1997) Effects of toxicants on population and community parameters in field conditions, and their potential use in the validation of risk assessment methods. In: Løkke, H. and Van Straalen, N.M. (eds.) *Ecological principles for risk assessment of contaminants in soil*. Chapman and Hall, London, UK, pp. 85-117
- Janssen R.P.T., Peijnenburg W.J.G.M., **Posthuma L.** & Van Den Hoop M.A.G.T. (1997) Equilibrium partitioning of heavy metals in Dutch field soils. I. Relationships between metal partition coefficients and soil characteristics. *Environ. Toxicol. Chem.* 16(12): 2470-2478
- Janssen R.P.T., **Posthuma L.**, Baerselman R., Den Hollander H.A., Van Veen R.P.M. & Peijnenburg W.J.G.M. (1997) Equilibrium partitioning of heavy metals in Dutch field soils. II. Prediction of metal accumulation in earthworms. *Environ. Toxicol. Chem.* 16: 2479-2488
- Peijnenburg, W. J. G. M., **Posthuma, L.**, Ejsackers H. J. P. and H. E. Allen. (1997) A conceptual framework for implementation of bioavailability of metals for environmental management purposes. *Ecotoxicol. Environ. Saf.* 37:163-172
- Posthuma, L.**, Baerselman R., Van Veen R., Dirven-Van Breemen E.M. (1997) Single and joint toxic effects of copper and zinc on reproduction of *Enchytraeus crypticus* in relation to sorption of metals in soils. *Ecotoxicol. Environ. Saf.* 38: 108-121
- Rutgers, M., Van 't Verlaat, I.M., Wind, B., **Posthuma, L.**, and Breure, A. M. (1998) Rapid method to assess pollution-induced community tolerance in contaminated soil. *Environ. Toxicol. Chem.* 17:2210-2213.
- Sheppards S., Bembridge J.J.D., Holmstrup, M., **Posthuma, L.** (eds.) (1998) *Advances in earthworm ecotoxicology*. SETAC-special publications, Boca Raton, FL, U.S.A.
- Posthuma, L.**, Notenboom, J., De Groot, A. C. and Peijnenburg, W. J. G. M.. (1998) Soil acidity as major determinant of zinc partitioning and zinc uptake in two oligochaete worms (*Eisenia andrei* and *Enchytraeus crypticus*) exposed in contaminated field soils. In S. C. Sheppard, J. D. Bembridge, M. Holmstrup, and **Posthuma, L.**, Eds., *Advances in earthworm ecotoxicology*. SETAC Press, Pensacola, FL, USA. Pp. 111-127
- Rutgers, M., Sweegers, B.M.C., Wind, B.S., Van Veen, R.P.M., Folkerts, A.J., **Posthuma, L.**, and Breure A.M. (1998) Pollution-induced community tolerance in terrestrial microbial communities. Pp. 337-43 In Contaminated soil. Proc. 6th Int. FZK/TNO Conference on Contaminated Soil (Edinburgh, May, 17 1998-May, 21 1998). London: Thomas Telford Publishing
- Peijnenburg, W. J. G. M., Baerselman, R., De Groot, A.C., Jager, D.T., **Posthuma, L.** and Van Veen, R.P.M. (1999) Relating environmental availability to bioavailability: Soil type dependent metal accumulation in the oligochaete *Eisenia andrei*. *Ecotoxicol. Environ. Saf.* 44:294-310
- Peijnenburg, W.J.G.M., **Posthuma, L.**, P. Zweers, G.P.C., Baerselman, R., De Groot, A.C., Van Veen R.P.M. and Jager, D.T. (1999) Prediction of metal bioavailability in Dutch field soils for the oligochaete *Enchytraeus crypticus*. *Ecotoxicol. Environ. Saf.* 43:170-186
- Jager, D.T.; Antón-Sánchez, F.A.; Muijs, B.; Van Der Velde, E.G., and **Posthuma, L.** (2000) Toxicokinetics of polycyclic aromatic hydrocarbons in *Eisenia andrei* (Oligochaeta) using spiked soil. *Environ. Toxicol. Chem.* 2000; 19(4):953-961.
- Schouten, A., J. Bloem, W. Didden, M. Rutgers, H. Siepel, **Posthuma, L.**, and A. Breure. 2000. Development of a biological indicator for soil quality. *SETAC Globe* 1:30-32.
- Franken, R.O.G., Van Dijk, S., Peijnenburg W.G.J.M., **Posthuma, L.** 2000. Verspreiding van baggerspecie op land. *H2O* 14/15: 24-6
- Peijnenburg, W.J.G.M. , Baerselman, R., De Groot, A., Jager, D.T., Leenders, D., **Posthuma, L.**, and Van Veen, R. (2000) Quantification of metal availability for Lettuce (*Lactuca sativa* L.) in field soils. *Arch. Environ. Contam. Toxicol.* 39: 420-430
- Posthuma, L.**, Schouten, A. J., Van Beelen, P., and Rutgers, M. (2001) Forecasting effects of toxicants at the community level. Four case studies comparing observed community effects of zinc with forecasts from a generic ecotoxicological risk assessment method. In P. S. Rainbow, S. P. Hopkin, and M. Crane, *Forecasting the environmental fate and effects of chemicals*. John Wiley, Chichester, UK. Pp151-175
- Vijver, M., Jager, D.T., **Posthuma, L.**, and Peijnenburg, W.J.G.M. (2001). Impact of metal pools and soil properties on metal accumulation in *Folsomia candida* (Collembola). *Environmental Toxicology and Chemistry* 20 (4):712-720
- Boivin, M.E.Y., Breure, A.M., **Posthuma, L.**, and Rutgers, M. (2002). Determination of field effects of contaminants - Significance of pollution-induced community tolerance. *Human and Ecological Risk Assessment* 8 (5):1035-1055
- Posthuma, L.**, Suter G.W. II, Traas T.P. (2002). Species Sensitivity Distributions in Ecotoxicology. Boca Raton, FL, U.S.A.: CRC Press, 2003: 587 pp. (Michael C. Newman Series Editor; CRC-Series on Environmental and Ecological Risk Assessment).

- Posthuma, L.**, Traas TP, Suter G.W. II. (2002) General introduction to Species Sensitivity Distributions. In: **Posthuma L**, Suter G.W. II, Traas TP, Eds. Species Sensitivity Distributions in Ecotoxicology. 1st edition. Boca Raton, FL, U.S.A.: CRC Press, 2003: 3-10 (Chapter 1)
- Van den Brink PJ, Brock TCM, **Posthuma L**. (2002) The value of the Species Sensitivity Distribution concept for predicting field effects: (non-)confirmation of the concept using semi-field experiments. In: **Posthuma L**, Suter G.W. II, Traas TP, Eds. Species Sensitivity Distributions in Ecotoxicology. 1st edition. Boca Raton, FL, U.S.A.: CRC Press, 2003: 155-98 (Chapter 9).
- Traas, T.P., Van de Meent, D., **Posthuma, L.** (2002) The Potentially Affected Fraction as a measure of ecological risk. In: **Posthuma L**, Suter G.W. II, Traas TP, Eds. Species Sensitivity Distributions in Ecotoxicology. 1st edition. Boca Raton, FL, U.S.A.: CRC Press, 2003: 315-44 (Chapter 16)
- Suter GW II, Traas TP, **Posthuma L**. (2002) Issues and practices in the derivation and use of Species Sensitivity Distributions. In: **Posthuma L**, Suter G.W. II, Traas TP, Eds. Species Sensitivity Distributions in Ecotoxicology. 1st edition. Boca Raton, FL, U.S.A.: CRC Press, 2003: 437-74 (Chapter 21)
- Posthuma, L.**, Traas TP, Suter G.W. II. (2002) Conceptual and technical outlook on Species Sensitivity Distributions. In: **Posthuma L**, Suter G.W. II, Traas TP, Eds. Species Sensitivity Distributions in Ecotoxicology. 1st edition. Boca Raton, FL, U.S.A.: CRC Press, 2003: 475-510 (Chapter 22).
- Hamers, T.H.M., Traas, T.P., **Posthuma L**. (2002) The Interactive Poster Session 'Use of Species Sensitivity Distributions in Ecotoxicology'. In: Posthuma L, Suter G.W. II, Traas TP, Eds. Species Sensitivity Distributions in Ecotoxicology. 1st edition. Boca Raton, FL, U.S.A.: CRC Press, 2003: 511-24 (Appendix A)
- Breure, A. M., D. T. Jager, D. Van De Meent, C. Mulder, W. J. G. M. Peijnenburg, **L. Posthuma**, M. Rutgers, A. J. Schouten, A. Sterkenburg, J. Struijs, P. Van Beelen, M. Vonk, and D. De Zwart. 2002. Ecological risk assessment of environmental stress.in A. Bodini and S. Klotz, editors. UNESCO-EOLSS, Encyclopedia of Life-Support Systems.
- Römbke, J., J. Notenboom, and **L. Posthuma**. 2002. The effects of zinc on enchytraeids: The Budel case study. Natura Jutlandica, Occasional Papers 2:54-67.
- Eijsackers, H. J. P., **L. Posthuma**, and M. Vijver. 2006. Gebiedsbeleid helpt diffuse verontreiniging oplossen. Milieu 7:38-39.
- Posthuma, L.**, A. Wintersen, D. De Zwart, J. Lijzen, J. Harmsen, B. J. Groenenberg, L. A. Oste, and P. Van Noort. 2006. Beslissen over bagger op bodem. Waarom moeilijk doen als het makkelijk kan. Bodem 4:142-146.
- L Posthuma**, MG Vijver (2006) Normoverschrijding beoordelen via locatiespecifieke risicoanalyses. De grauwsluier ontsluierd. Bodem 26(4): 142-146
- Posthuma L**, Eijsackers HJP, Vijver MG. 2006. Toxische stoffen, normen en ecologische risico's – hoe zit dat? Milieu 2006-7:19-23
- Jager DT, **Posthuma L**, De Zwart D, Van de Meent D. 2007. Novel view on predicting acute toxicity: decomposing toxicity data in species vulnerability and chemical potency. Ecotoxicology and Environmental Safety, 67: 311-322
- Van Zelm R, Huijbregts MAJ, Harbers JV, Wintersen A, Struijs J, **Posthuma L**, Van de Meent D. 2007. Uncertainty in msPAF-based ecotoxicological effect factors for freshwater ecosystems in life cycle impact assessment. Integrated Environmental Assessment and Management 3(2):203-210
- Mulder C, Hendriks J, Baerselman R, **Posthuma L**. 2007. Age structure and senescence in long-term cohorts of *Eisenia andrei* (Oligochaeta, Lumbricidae) Journal of Gerontology 62(12):1361-1363
- Posthuma L**, Wintersen A. 2007. Bodembeheer afstemmen op risico's. De risicotoolbox is er voor u! Bodem 17(3):120-122
- Wintersen A, **Posthuma L**, H. VZ, Honders T. 2007. Bodembeheer op maat met de risicotoolbox. Land + Water 10:48-49
- Henning-De Jong I, Van Zelm R, Huijbregts MAJ, De Zwart D, Van der Linden AMA, Wintersen A, **Posthuma L**, Van de Meent D. 2008. Ranking of agricultural pesticides in the Rhine-Meuse-Scheldt basin based on Toxic Pressure in marine ecosystems Environmental Toxicology Chemistry 27(3):737-745
- Solomon KR, Brock T, De Zwart D, Dyer SD, **Posthuma L**, Richards S, Sanderson H, Sibley P, Van den Brink PJ, editors. 2008. Extrapolation practice for ecotoxicological effect characterization of chemicals. Boca Raton, FL, USA: CRC-Press
- Solomon KR, Brock T, De Zwart D, Dyer SD, **Posthuma L**, Richards S, Sanderson H, Sibley P, Van den Brink PJ. 2008. Introduction. In: Solomon KR, Brock T, De Zwart D, Dyer SD, **Posthuma L**, Richards S, Sanderson H, Sibley P, Van den Brink PJ, editors. Extrapolation practice for ecotoxicological effect characterization of chemicals. Boca Raton, FL, USA: CRC-Press. p 1-33
- Solomon KR, Brock T, De Zwart D, Dyer SD, **Posthuma L**, Richards S, Sanderson H, Sibley P, Van den Brink PJ. 2008. Extrapolation for criteria setting and risk assessment. In: Solomon KR, Brock T, De Zwart D, Dyer SD, **Posthuma L**, Richards S, Sanderson H, Sibley P, Van den Brink PJ, editors. Extrapolation practice for ecotoxicological effect characterization of chemicals. Boca Raton, FL, USA: CRC-Press
- De Zwart D, Warne A, Forbes VE, **Posthuma L**, Peijnenburg W, Van de Meent D. 2008. Matrix and media extrapolation. In: Solomon KR, Brock T, De Zwart D, Dyer SD, **Posthuma L**, Richards S, Sanderson H, Sibley P, Van den Brink PJ, editors. Extrapolation practice for ecotoxicological effect characterization of chemicals. Boca Raton, FL, USA: CRC-Press. p 33-74.
- Posthuma L**, Richards S, De Zwart D, Dyer SD, Sibley P, Hickey C, Altenburger R. 2008. Mixture extrapolation approaches. In: Solomon KR, Brock T, De Zwart D, Dyer SD, **Posthuma L**, Richards S, Sanderson H, Sibley P, Van den Brink PJ, editors. Extrapolation practice for ecotoxicological effect characterization of chemicals. Boca Raton, FL, USA: CRC-Press. p 135-186
- Solomon KR, Brock T, De Zwart D, Dyer SD, **Posthuma L**, Richards S, Sibley P, Van den Brink PJ. 2008. Conclusions. In: Solomon KR, Brock T, De Zwart D, Dyer SD, **Posthuma L**, Richards S, Sanderson H, Sibley P, Van den Brink PJ, editors. Extrapolation practice for ecotoxicological effect characterization of chemicals. Boca Raton, FL, USA: CRC-Press. p 223-256
- Posthuma L**, De Zwart D, Solomon KR, Brock T. 2008. Guidance on the application of extrapolation methods in ecological exposure and effects characterization of chemicals. In: Solomon KR, Brock T, De Zwart D, Dyer SD, **Posthuma L**, Richards S, Sanderson H, Sibley P, Van den Brink PJ, editors. Extrapolation practice for ecotoxicological effect characterization of chemicals. Boca Raton, FL, USA: CRC-Press. p 281-322
- Van Zelm R, Huijbregts MAJ, **Posthuma L**, Wintersen A, Van de Meent D. 2009. Pesticide ecotoxicological effect factors and their uncertainties for freshwater ecosystems. Int. J. LCA 14(1):43-51
- Hein M, De Deckere E, De Zwart D, Fockema EM, Marcomini A, Muñoz I, **Posthuma L**, Rotter S, Sabater S, Schmitt C et al. 2010. MODELKEY. Key findings and recommendations for reaching the EU Water Framework Directive's quality objectives. Umweltwiss Schadst Forsch 22:217-228
- Ragas AMJ, Teuschler LK, **Posthuma L**, Cowan C. 2010. Human and ecological risk assessment of chemical mixtures. In Van Gestel CAM, Jonker M, Kammenga J, Laskowski R, Svendsen C, eds, Mixture Toxicity: Linking approaches from Ecological and Human Toxicology. CRC-Press, New York, pp 157-215
- Spijker J, Mol G, **Posthuma L**. 2011. Regional ecotoxicological hazards associated with anthropogenic enrichment of heavy metals. Environmental Geochemistry and Health 33(4):409-426

- Struijs J, De Zwart D, **Posthuma L**, Leuven RSEW, Huijbregts MAJ. 2010. Field sensitivity distribution of macroinvertebrates for phosphorus in inland waters. *Integr Environ Assess Manag*. 7(2):280-286
- Posthuma L**, Suter GW. 2011. Ecological Risk Assessment of diffuse and local soil contamination using Species Sensitivity Distributions. In: Swartjes FA, editor. *Dealing with Contaminated Sites*: Springer Netherlands. p 625-691
- Burton GA, De Zwart D, Diamond J, Dyer SD, Kapo KE, Liess M, **Posthuma L**. 2012. Making Ecosystem Reality Checks the status quo. *Environ Toxicol Chem* 31:459-468
- Mol, G, **Posthuma, L.**, Spijker J (2012) Ecotoxicologische risico's van metalen in de bodem. *Geochemische atlas van Nederland*
- Posthuma L**, De Zwart D. 2012. Predicted mixture toxic pressure relates to observed fraction of benthic macrofauna species impacted by contaminant mixtures. *Environ Toxicol Chem* 31:2175-2188
- Swartjes, F. A., M. Rutgers, J. P. A. Lijzen, P. J. C. M. Janssen, P. F. Otte, A. Wintersen, E. Brand, and **L. Posthuma**. 2012. State of the art of contaminated site management in The Netherlands: Policy framework and risk assessment tools. *Science of the Total Environment* 427-428:1-10.
- De Zwart, D., and **L. Postbuma**. 2013. Handling fish mixture exposures in risk assessment Pages 381-524 in K. B. Tierney, A. P. Farrell, and C. J. Brauner, editors. *Fish Physiology: Organic Chemical Toxicology of Fishes*: . Academic Press.
- UNEP (2013) Environmental Risks and Challenges of Anthropogenic Metals Flows and Cycles, A. Report of the Working Group on the Global Metal Flows to the International Resource Panel. van der Voet, E.; Salminen, R.; Eckelman, M.; Mudd, G.; Norgate, T.; Hischier, R
- Pilière, A., A. M. Schipper, A. M. Breure, **L. Posthuma**, D. de Zwart, S. D. Dyer, and M. A. J. Huijbregts. 2014. Comparing responses of freshwater fish and invertebrate community integrity along multiple environmental gradients. *Ecological Indicators* 43:215-226.
- Von der Ohe, P., D. de Zwart, E. Semenzin, S. Apitz, S. Gottardo, B. Harris, M. Hein, A. Marcomini, **L. Posthuma**, R. Schäfer, H. Segner, and W. Brack. 2014. Monitoring Programmes, Multiple Stress Analysis and Decision Support for River Basin Management. Pages 151-182 in J. Brils, W. Brack, D. Müller-Grabher, P. Négré, and J. E. Vermaat, editors. *Risk-Informed Management of European River Basins*. Springer Berlin Heidelberg.
- Posthuma, L.**, E. Wahlstrom, R. Nijenhuis, C. Dijkens, D. de Zwart, D. van de Meent, A. Hollander, E. Brand, H. A. den Hollander, J. van Middelaar, S. van Dijk, E. F. Hall, and S. Hoffer. 2014. The Flash Environmental Assessment Tool: Worldwide first aid for chemical accidents response, pre action, prevention and preparedness. *Environment International* 72:140-156.
- Posthuma L**, De Zwart D. (2014). Species Sensitivity Distributions. *Encyclopedia of Toxicology*, 3rd Edition
- Zijp, M. C., **L. Posthuma**, and D. Van de Meent. 2014. Chemische voetafdruk: snel naar oplossingen voor watervervuiling. *H2O* dec. 2014:34-35.
- Kapo, K. E., C. M. Holmes, S. D. Dyer, D. De Zwart, and **L. Posthuma**. 2014. Developing a foundation for eco-epidemiological assessment of aquatic ecological status over large geographic regions utilizing existing data resources and models. *Environmental Toxicology and Chemistry* 33:1665-1677.
- Zijp, M. C., **L. Posthuma**, and D. Van de Meent. 2014. Definition and applications of a versatile chemical pollution footprint methodology. *Environmental Science and Technology* 48:10588-10597.
- Pilière, A., A. M. Schipper, T. M. Breure, **L. Posthuma**, D. d. Zwart, S. D. Dyer, and M. A. J. Huijbregts. 2014. Unraveling the Relationships between Freshwater Invertebrate Assemblages and Interacting Environmental Factors. *Freshwater Science* 33:1148-1158.
- Posthuma, L.**, A. Bjørn, M. C. Zijp, M. Birkved, M. L. Diamond, M. Z. Hauschild, M. A. J. Huijbregts, C. Mulder, and D. Van De Meent. 2014. Beyond safe operating space: Finding chemical footprinting feasible. *Environmental Science and Technology* 48:6057-6059.
- Schipper, A. M., L. Posthuma, D. De Zwart, and M. A. J. Huijbregts. 2014. Deriving field-based species sensitivity distributions (f-SSDs) from stacked species distribution models (S-SDMs). *Environmental Science and Technology* 48:14464-14471.
- Posthuma, L.**, A. Bjørn, M. C. Zijp, M. Birkved, M. L. Diamond, M. Z. Hauschild, M. A. J. Huijbregts, C. Mulder, and D. Van De Meent. 2014. Chemical footprints - Thin boundaries support environmental quality management. *Environmental Science and Technology* 48, 13025-13026:13025-13026.
- Pilière, A., A. M. Schipper, A. M. Breure, **L. Posthuma**, D. de Zwart, S. D. Dyer, and M. A. J. Huijbregts. 2014. Comparing responses of freshwater fish and invertebrate community integrity along multiple environmental gradients. *Ecological Indicators* 43:215-226.
- Jolliet, O., R. Frischknecht, J. Bare, A. M. Boulay, C. Bulle, P. Fantek, S. Gheewala, M. Hauschild, N. Itsuno, M. Margni, T. E. McKone, L. Mila y Canals, **L. Posthuma**, V. Prado-Lopez, B. Ridoutt, G. Sonnemann, R. K. Rosenbaum, T. Seager, J. Struijs, R. van Zelm, B. Vigon, and A. Weisbrod. 2014. Global guidance on environmental life cycle impact assessment indicators: findings of the scoping phase. *Int. J. Life Cycle Assess.* 19:962-967.
- Pilière, A., A. M. Schipper, A. M. Breure, **L. Posthuma**, D. d. Zwart, S. D. Dyer, and M. A. J. Huijbregts. 2014. Unraveling the relationships between freshwater invertebrate assemblages and interacting environmental factors. *Freshwater Science* 33:1148-1158.
- Sabater, S., H. Segner, **L. Posthuma**, and D. Barceló. 2015. In response: The evidence—What actions are needed to effectively transfer from science to policy? An academic perspective. *Environmental Toxicology and Chemistry* 34:1208-1210.
- Brack, W., R. Altenburger, G. Schüürmann, M. Krauss, D. López Herráez, J. van Gils, J. Slobodnik, J. Munthe, B. M. Gawlik, A. van Wezel, M. Schriks, J. Hollender, K. E. Tollesfson, O. Mekenyan, S. Dimitrov, D. Bunke, I. Cousins, **L. Posthuma**, P. J. van den Brink, M. López de Alda, D. Barceló, M. Faust, A. Kortenkamp, M. Scrimshaw, S. Ignatova, G. Engelen, G. Massmann, G. Lemkine, I. Teodorovic, K. H. Walz, V. Dulio, M. T. O. Jonker, F. Jäger, K. Chipman, F. Falciani, I. Liska, D. Rooke, X. Zhang, H. Hollert, B. Vrana, K. Hilscherova, K. Kramer, S. Neumann, R. Hammerbacher, T. Backhaus, J. Mack, H. Segner, B. Escher, and G. de Aragão Umbuzeiro. 2015. The SOLUTIONS project: Challenges and responses for present and future emerging pollutants in land and water resources management. *Science of the Total Environment* 503-504:22-31.
- Brack W, Altenburger R, Busch W, Engelen G, Escher B, Gawlik BM, et al. SOLUTIONS for present and future emerging pollutants in land and water resources management - a European Collaborative Project. The 2nd International Conference on Emerging Contaminants (emcon forum 2015), October 4-7, 2015, Kaohsiung, Taiwan, 2015.
- Zijp, M. C., R. Heijungs, E. van der Voet, D. van de Meent, M. A. J. Huijbregts, A. Hollander, and **L. Posthuma**. 2015. An identification key for selecting methods for sustainability assessments. *Sustainability (Switzerland)* 7:2490-2512.
- Bruinen de Bruin Y, Peijnenburg W, Vermeire T, **Posthuma L**, Hogendoorn E, Verhoeven J. A tiered approach for environmental impact assessment of chemicals and their alternatives within the context of socio-economic analyses. *Journal of Cleaner Production* 2015.
- Belanger S, Barron M, Craig P, Dyer SD, Galay-Burgos M, Hamer M, et al. Future needs and recommendations in the development of Species Sensitivity Distributions: Estimating toxicity thresholds for aquatic ecological communities and assessing impacts of chemical exposures. *Integr Environ Assess Manag* 2016; (in press).
- Posthuma L, Dyer SD, De Zwart D, Kapo K, Holmes CM, Burton GA. Eco-epidemiology of aquatic ecosystems: Separating chemicals from multiple stressors. *Science*

- of the Total Environment 2016; In press.
- Posthuma L, Lijzen J, Sonnen M. Naar één Europees markt vol groene producten. Milieu (Dossier) 2016; March: 32-36.
- Pilière AFH, Verberk WCEP, Gräwe M, Breure AM, Dyer SD, Posthuma L, et al. On the importance of trait interrelationships for understanding environmental responses of stream macroinvertebrates. Freshwater Biology 2016; 61: 181-194.
- Zijp MC, Posthuma L, Wintersen A, Devilee J, Swartjes FA. Definition and use of Solution-focused Sustainability Assessment: A novel approach to generate, explore and decide on sustainable solutions for wicked problems. Environment International 2016; 91: 319-331.

Reports

- Notenboom, J., and L. Posthuma.** 1994. Validatie toxiciteitsgegevens en risicogrenzen bodem: voortgangsrapportage 1993. RIVM reportno. 719102029, Bilthoven, The Netherlands.
- Weltje, L., and L. Posthuma.** 1994. Ecotoxicity of heavy metals applied jointly to terrestrial invertebrates. Proceedings: Third European Conference on Ecotoxicology 3:16.
- Posthuma, L., H. Boonman, F. C. Mogo, and R. Baarselman.** 1994. Heavy metal toxicity in *Eisenia andrei* exposed in soils from a gradient around a zinc smelter (Budel), and comparison with toxic effects in OECD-artificial soil. RIVM-report no. 719102033, RIVM, Bilthoven, The Netherlands.
- Weltje, L., L. Posthuma, F. C. Mogo, E. M. Dirven-van Breemen, and R. P. M. Van Veen.** 1995. Toxische effecten van combinaties van cadmium, zink en koper op terrestrische oligochaeten in relatie tot bodem-chemische interacties. RIVM Rapport 719102043, RIVM, Bilthoven, the Netherlands.
- Notenboom, J., and L. Posthuma.** 1995. Validatie Toxiciteitsgegevens en Risicogrenzen Bodem: Voortgangsrapportage 1994. RIVM-report no. 719102045, RIVM.
- Posthuma, L., L. Weltje, and J. Notenboom.** 1995. Mixtures of toxicants and their effects on soil animals. Pages 137-138 RIVM Annual Scientific 1994, Bilthoven, The Netherlands.
- Posthuma, L., and J. Notenboom.** 1996. Toxic effects of heavy metals in three worm species exposed in artificially contaminated soil substrates and contaminated field soils. RIVM Report No. 719102048.
- Posthuma, L., L. Weltje, and F. A. Antón-Sánchez.** 1996. Joint Toxic Effects of Cadmium and Pyrene on Reproduction and Growth of the Earthworm *Eisenia Andrei*. RIVM-report no. 607506001.
- Janssen, R. P. T., L. Posthuma, R. Baarselman, H. A. Den Hollander, R. P. M. Van Veen, and W. J. G. M. Peijnenburg. 1996. Equilibrium partitioning of heavy metals in Dutch soils: prediction of metal accumulation in earthworms. RIVM-no. 719101028, Bilthoven, The Netherlands.
- Peijnenburg, W. J. G. M., L. Posthuma, H. J. P. Eijssackers, and H. E. Allen. 1997. Implementation of bioavailability for policy and environmental purposes. Pages 35-54. Fraunhofer IRB Verlag, Stuttgart.
- Bakker, J., L. Posthuma, and R. Baarselman. 1997. Toxische effecten van zink op de worm *Eisenia andrei*: resultaten van proefveldexperimenten Amsterdam 1995 en 1996. RIVM-no. 607505003, National Institute for Public Health and the Environment-National Institute for Public Health and the Environment, Bilthoven, the Netherlands.
- Traas, T. P., L. Posthuma, J. Notenboom, D. De Zwart, O. Klepper, and T. Aldenberg. 1997. Programmersstudie voor de ecologische consequenties van normoverschrijding (ECN). RIVM report no. 607506002, Bilthoven, The Netherlands.
- Posthuma, L., C. A. M. Van Gestel, C. E. Smit, D. J. Bakker, and J. W. Vonk.** 1998. Validation of toxicity data and risk limits for soils: final report. RIVM report no. 607505004, National Institute for Public Health and the Environment, Bilthoven, The Netherlands.
- Dirven-Van Breemen, E. M., and L. Posthuma. 1999. Joint effects of cadmium and zinc on survival and body weight of the springtail *Orchesella cincta* (L.). RIVM-no. 711701010, National Institute for Public Health and the Environment - National Institute for Public Health and the Environment, Bilthoven, The Netherlands.
- Posthuma, L., A. C. De Groot, D. T. Jager, W. J. G. M. Peijnenburg, R. Baarselman, R. Ritsema, E. G. Van der Velde, A. De Jong, and R. O. G. Franken.** 1999. Beoordeling van de ecotoxicodeologische risico's van de verspreiding van baggerspecie op land. Pilot-toetsing van de invloed van bodemeigenschappen op biobeschikbaarheid van metalen en PAKs in veldböden. RIVM-report no. 733007006, STOWA-report no. 99-19, Rijksinstituut voor Volksgezondheid en Milieu RIVM and STOWA, Bilthoven, the Netherlands.
- Van Dijk, S., P. R. G. Kramer, and L. Posthuma. 1999. Vergelijking van de voorspelde metaalgehalten in standaardböden met (ecotoxicodeologische) risiconiveaus. RIVM-report no. 733007005, National Institute for Public Health and the Environment-National Institute for Public Health and the Environment, Bilthoven, The Netherlands.
- Peijnenburg, W., R. Franken, A. de Groot, E. Hogendoorn, D. Jager, L. Posthuma, and R. Ritsema. 2000. Ecotoxicodeologische risico's van de verspreiding van baggerspecie uit regionale wateren op land: Vervolgonderzoek naar de ecologische betekenis van normoverschrijding. RIVM-report no. 733007007, Rijksinstituut voor Volksgezondheid en Milieu RIVM.
- Peijnenburg, W. J. G. M., D. T. Jager, L. Posthuma, and D. T. H. M. Sijm. 2001. Huidige mogelijkheden en inzichten voor implementatie van metaalbiobeschikbaarheid in de risicobeoordeling van landböden. RIVM-no. 607220004, National Institute for Public Health and the Environment, RIVM, Bilthoven.
- Rutgers, M., T. Aldenberg, R. O. G. Franken, D. T. Jager, J. P. A. Lijzen, W. J. G. M. Peijnenburg, A. J. Schouten, T. P. Traas, D. De Zwart, and L. Posthuma. 2001. Ecologische risicobeoordeling van verontreinigde (water)bodem - voorstellen ter verbetering van de urgenciesystematiek. RIVM-report no 711701018, Rijksinstituut voor Volksgezondheid en Milieu RIVM.
- Dirven, E. M., P. L. A. Van Vlaardingen, W. J. G. M. Peijnenburg, T. H. M. Sijm, and L. Posthuma. 2002. Pilot studie naar toetsing van ecologische relevantie van soorten voor normstelling. 607220007, National Institute for Public Health and the Environment, Bilthoven.
- Mesman, M., and L. Posthuma. 2003. Ecotoxicity of toxicant mixtures in soils. Recommendations for application in the Dutch regulatory context, as derived from a scientific review on approaches, models and data. RIVM report no. 711701035, Rijksinstituut voor Volksgezondheid en Milieu RIVM.
- Mesman, M., and L. Posthuma. 2003. Ecotoxicity of toxicant mixtures in soils. Recommendations for application in the Dutch regulatory context, as derived from a scientific review on approaches, models and data. RIVM-no. 711701035, National Institute for Public Health and the Environment, Bilthoven, The Netherlands.
- Mesman, M., M. Rutgers, W. J. G. M. Peijnenburg, J. J. Bogte, M. E. Dirven - Van Breemen, D. De Zwart, L. Posthuma, and A. J. Schouten. 2003. Site-specific ecological risk assessment: the Triad approach in practice. Conference proceedings: ConSoil. 8th International FZK/TNO conference on contaminated soil:649-656.
- Posthuma, L., T. P. Traas, W. Roelofs, D. De Zwart, and D. Van de Meent.** 2003. Species sensitivity distributions in a context of practical application for risk-based decisions. Pages 276-286. FZK/TNO, Ghent, Belgium.

- Wintersen, A., **L. Posthuma**, and D. De Zwart. 2004. The RIVM e-toxBase. A database for storage, retrieval and export of ecotoxicity data. RIVM - Dutch National Institute for Public Health and the Environment, Bilthoven, The Netherlands.
- Janssen, R., **L. Posthuma**, R. Baerselman, H. Den Hollander, R. Van Veen, and A. Kabata-Pendias. 2005. Agricultural problems related to extensive trace metal contents of soil. Heavy metals, problems and solutions:3-18.
- Posthuma, L.**, M. E. Dirven - Van Breemen, M. Mesman, M. Rutgers, F. A. Swartjes, and D. De Zwart. 2005. Site-specific ecological risk assessment: tiers, targets and tools. ConSoil Proceedings (CD).
- Posthuma, L.**, C. Klok, M. G. Vijver, P. J. Van den Brink, F. Van den Ende, T. P. Traas, and A. J. Hendriks. 2005. Ecotoxicological models for Dutch environmental policy. RIVM report no. 860706001, National Institute for Public Health and the Environment, Bilthoven, The Netherlands.
- Swartjes, F., **L. Posthuma**, and M. Rutgers. 2005. Ecotoxicological Risk Assessment: The European Way. . Report of the NICOLE Workshop State of the Art of (Ecological) Risk Assessment, 15-16-17 June 2005, Stockholm.
- Rutgers, M., J. Spijker, A. Wintersen, and **L. Posthuma**. 2006. Ecological effects of soil contamination. Cost benefit analysis of soil remediation. RIVM-report no. 607021001, RIVM, Bilthoven, The Netherlands.
- Rutgers, M., J. Spijker, A. Wintersen, and **L. Posthuma**. 2006. Ecologische effecten van bodemverontreiniging. Maatschappelijke kosten en batenanalyse bodemsanering. IVM-report no. 607021001, Rijksinstituut voor Volksgezondheid en Milieu RIVM.
- Posthuma, L.**, and M. Vijver. 2007. Exposure and ecological effects of toxic mixtures at field-relevant concentrations. Model validation and integration of the SSEO programme. RIVM Report no. 860706002, RIVM.
- De Zwart, D., **L. Posthuma**, M. Gevrey, and E. De Deckere. 2007. New diagnostic and predictive modelling tools for an advanced and integrated evaluation of chemical, ecological, and ecotoxicological monitoring data. In: "European Rivers at Risk", ModelKey workshop report. . UFZ, Leipzig.
- Posthuma, L., and A. Wintersen. 2007. De Risicotoolbox: het portal om risico's te beoordelen, te begrijpen en te beheersen. Page 2 in Nationale Bodem Conferentie 2007, Nieuwegein.
- Wezenbeek, J., H. H. J. Walther, M. Pruijn, L. Oste, P. D. De Boer, R. J. De Graaf, J. P. A. Lijzen , **L. Posthuma**, A. Wintersen, and G. G. Van Eijnsden. 2007. Ken uw (water)bodemkwaliteit, de risico's inzichtelijk. Grontmij, Bilthoven, the Netherlands.
- De Zwart, D., **L. Posthuma**, and E. Pemberton. 2008. Understanding ecological impacts in rivers in England and Wales and identifying their possible causes. Part 1 - the Effect and Probable Cause (EPC) method. Science Report – SC030189/SR5, Environment Agency.
- Osté, L. A., A. Wintersen, E. Ten Kate, and **L. Posthuma**. 2008. Nieuwe normen waterbodems. Normen voor verspreiden en toepassen op bodem onder oppervlaktewater. RIZA-report no. 2007.003, RIVM-rapport 711701064, RIZA, Lelystad.
- Posthuma, L.**, R. Westerhof, A. Wintersen, P. F. Otte, and S. Lukacs. 2008. Kijk op de Risicotoolbox Bodem : Beoordelen van de actuele bodemkwaliteit en kiezen van Lokale Maximale Waarden. RIVM-report no. 711701082, RIVM, Bilthoven, the Netherlands.
- Rutgers, M., J. Tuinstra, J. Spijker, M. Mesman, A. Wintersen, and **L. Posthuma**. 2008. Risico's voor het ecosysteem in stap twee van het Saneringscriterium. RIVM-report no. 711701072, RIVM.
- Huibregts, M. A. J., R. Van Zelm, L. Rombouts, A. M. J. Ragas, J. Struijs, M. Goedkoop, R. Heijungs, J. V. Harbers, A. Wintersen, **L. Posthuma**, A. J. Hendriks, and D. Van de Meent. 2008. Toxicity. The Hague, The Netherlands.
- Wintersen, A., and L. Posthuma. 2008. The risk toolbox - an instrument to support site-specific management of soil quality and soil use. ConSoil 2008 - Proceedings of the 10th International UFZ-Deltares/TNO Conference on Soil-Water Systems.
- Van Dijk, S., E. Brand, D. De Zwart, **L. Posthuma**, and J. Van Middelaar. 2009. FEAT - Flash Environmental Assessment Tool to identify acute environmental risks following disasters. The tool, the explanation and a case study. . RIVM report no. 60900001 RIVM - Dutch National Institute for Public Health and the Environment, Bilthoven, the Netherlands.
- Posthuma, L.**, D. De Zwart, J. Postma, and B. Reeze. 2011. KRW-maatlaat macrofauna voor zoet getijdenwater (R8) nadere analyses. (WFD-metric tidal surface waters reanalyzed) (In Dutch). RIVM report 607080001 National Institute for Public Health and the Environment, Bilthoven.
- Vonk, J., C. Mulder, M. Vervoort, K. Broelsma, **L. Posthuma**, and R. de Goede. 2012. Assessment of a GM-crop impact on soil systems using the DNA barcode-based tool for nematode community analysis. RIVM-report no: 607019001, Rijksinstituut voor Volksgezondheid en Milieu RIVM, Wageningen University, Bilthoven, the Netherlands.
- Posthuma, L.**, D. De Zwart, E. Brand, D. Van de Meent, H. Van Wijnen, and H. A. Den Hollander. 2012. Beoordeling risico's gevaarlijke stoffen voor natuurgebieden. Grondslagen en randvoorwaarden. (Risk assessment of hazardous chemicals for nature areas. Principles and conditions.). RIVM, Bilthoven, the Netherlands.
- Posthuma, L., A. Hollander, J. Struijs, D. De Zwart, and D. Van de Meent. 2012. Towards assessing chemical pollution impacts on biodiversity under the planetary boundaries approach. Planet under Pressure, London, March 26-29, 2012.
- Rutgers, M., H. van Wijnen, A. Schouten, D. de Zwart, **L. Posthuma**, J. Bloem, N. van Eekeren, and R. de Goede. 2012. Bodembiodiversiteit op de kaart van Noord-Brabant. RIVM-report no. 607063001, Rijksinstituut voor Volksgezondheid en Milieu RIVM
- Verhoeven, J. K., J. Bakker, Y. Bruinen de Bruin, E. A. Hogendoorn, J. A. De Knecht, W. J. G. M. Peijnenburg, **L. Posthuma**, J. Struijs, T. G. Vermeire, H. J. Van Wijnen, and D. De Zwart. 2012. From risk assessment to environmental impact assessment of chemical substances. Methodology development to be used in socio-economic analysis for REACH. RIVM report no. 601353002, RIVM, Bilthoven, The Netherlands.
- Ehlert, P. A. I., **L. Posthuma**, P. F. A. M. Römkens, R. P. J. J. Rietra, A. M. Wintersen, H. Van Wijnen, T. A. Van Dijk, L. Van Schöll, and J. E. Groenenberg. 2013. Appraising Fertilisers: Origins of current regulations and standards for contaminants in fertilisers. Alterra WOt-werkdocument 336, Alterra, Wageningen, the Netherlands.
- Ehlert, P. A. I., J. Struijs, **L. Posthuma**, T. Van der Linden, L. De Poorter, and T. Van Dijk. 2013. Protocol beoordeling stoffen Meststoffenwet. Versie 3.1. Commissie Deskundigen Meststoffenwet, Wageningen, the Netherlands.
- Van der Voet, E., R. Salminen, M. Eckelman, T. Norgate, G. Gavin Mudd, R. Hischier, J. Job Spijker, M. Vijver, O. Selinus, **L. Posthuma**, D. De Zwart, D. Van de Meent, M. Reuter, L. Tikana, S. Valdivia, P. Wäger, M. Hauschild, and A. De Koning. 2013. Introduction. In: UNEP (2013) Environmental Risks and Challenges of Anthropogenic Metals Flows and

- Cycles, A Report of the Working Group on the Global Metal Flows to the International Resource Panel. van der Voet, E.; Salminen, R.; Eckelman, M.; Mudd, G.; Norgate, T.; Hischier, R.
- Salminen, R., J. Spijker, M. Vijver, M. Eckelman, O. Selinus, **L. Posthuma**, D. De Zwart, and D. Van de Meent. 2013. Metals in the environment. Chapter 2. In: UNEP (2013) Environmental Risks and Challenges of Anthropogenic Metals Flows and Cycles, A Report of the Working Group on the Global Metal Flows to the International Resource Panel. van der Voet, E.; Salminen, R.; Eckelman, M.; Mudd, G.; Norgate, T.; Hischier, R.
- Van der Voet, E., R. Salminen, M. Eckelman, T. Norgate, G. Mudd, R. Hischier, J. Spijker, M. Vijver, O. Selinus, **L. Posthuma**, D. De Zwart, D. Van de Meent, M. Reuter, L. Tikana, S. Valdivia, P. Wäger, M. Hauschild, and A. De Koning. 2013. Conclusions and Recommendations. Chapter 7. In: UNEP (2013) Environmental Risks and Challenges of Anthropogenic Metals Flows and Cycles, A Report of the Working Group on the Global Metal Flows to the International Resource Panel. van der Voet, E.; Salminen, R.; Eckelman, M.; Mudd, G.; Norgate, T.; Hischier, R.
- Joint UNEP/OCHA Environment Unit (editor; advisor: **Posthuma**). 2014. Инструмент быстрой экологической оценки. Версия 2.0 (FEAT-version 2 in Russian Language). United Nations Office for the Coordination of Humanitarian Affairs (OCHA), UN Environment Programme (UNEP), Joint Environment Unit (JEU), Geneva, Switzerland.
- Joint UNEP/OCHA Environment Unit (editor; advisor: **Posthuma**). Outil d'Evaluation environnementale rapide (FEAT). Pour identifier les risques graves pour l'environnement immédiatement après une catastrophe naturelle. Version 1.1. United Nations Office for the Coordination of Humanitarian Affairs (OCHA), UN Environment Programme (UNEP), Joint Environment Unit (JEU), Geneva, Switzerland, 2014.
- Posthuma**, L. 2014. Sense, simplicity and successes of SSDs in environmental protection, assessment and management. ECETOC and Environment Agency, Brussels, Belgium.
- Rydberg T, Sala S, Björn A, Molander S, Payet J, **Posthuma L**, et al. Towards a common conceptual framework for chemical footprint bridging Risk Assessment and Life Cycle Assessment: Short review and way forward. In: Institute) ISER, editor, Basel, 2014.
- Heezen, P. A. M., M. Schaik, **L. Posthuma**, and A. M. Wintersen. 2015. Feitenrelas rond de aspecten 'Gezondheid en Veiligheid' van biovergisting.. RIVM briefrapport 2014-0162, RIVM, Bilthoven, the Netherlands.
- NEN. 2015. Nederlandse Technische Afspraak 8080 - 1: 2015. Duurzaam geproduceerde biomassa voor bio-energie en biobased producten - Deel 1: Duurzaamheidseisen., NEN.
- NEN. 2015. Nederlandse Technische Afspraak 8080 - 1: 2015. Sustainably produced biomass for bioenergy and biobased products. Part 1: Sustainability requirements., NEN.
- NEN. 2015. Nederlandse Technische Afspraak 8080 - 2: 2015. Duurzaam geproduceerde biomassa voor bio-energie en biobased producten - Deel 1: Eisen aan ketenbeheer. NEN.
- NEN. 2015. Nederlandse Technische Afspraak 8080 - 2: 2015. Duurzaam geproduceerde biomassa voor bio-energie en biobased producten - Deel 1: Eisen aan ketenbeheer. NEN.
- Heezen PAM, Schaik M, **Posthuma L**, Wintersen AM. Feitenrelas rond de aspecten 'Gezondheid en Veiligheid' van biovergisting.. RIVM, Bilthoven, the Netherlands, 2015.
- Posthuma L**, Van de Meent D, De Zwart D, Mulder C, Van Gils J, Lindim C, et al. Internal Deliverable ID M1.2. Report describing substance information flows, Leipzig, Germany (www.solutions-project.eu), 2015.
- Posthuma L, De Zwart D, Osté L, Van der Oost R, Postma J. Ecologische Sleutelfactor Toxiciteit. Deel 1: Methode voor het in beeld brengen van de effecten van giftige stoffen in oppervlaktewater. STOWA, Amersfoort, the Netherlands, 2016.
- Posthuma L, De Zwart D, Keijzers R, Postma J. Ecologische Sleutelfactor Toxiciteit. Deel 2: Kalibratie: toxische druk en ecologische effecten op macrofauna. STOWA, Amersfoort, the Netherlands, 2016.
- Posthuma L, De Zwart D, Osté L, Postma J. Ecologische Sleutelfactor Toxiciteit. Deel 3: Technische handleiding en tips ESF-toxiciteit Chemie tool. STOWA, Amersfoort, the Netherlands, 2016.
- Posthuma L, Van de Meent D, De Zwart D, Kramer K. SOLUTIONS Internal deliverable: ID M5.2 Progress report on multi-species ERA via SSD. The SOLUTIONS-project (www.solutions-project.eu), Leipzig, Germany, 2016.