Philipp Mayer - DTU Orbit (24/09/2019)

Philipp Mayer
Department of Environmental Engineering - Professor
Environmental Fate & Effect of Chemicals
Person: VIP

Research outputs:

Atmospheric carbonation reduces bioaccessibility of PAHs in industrially contaminated soil
Research output: Contribution to journal › Journal article – Annual report year: 2020 › Research › peer-review

Biodegradation testing of volatile hydrophobic chemicals in water-sediment systems – Experimental developments and challenges
Research output: Contribution to journal › Review – Annual report year: 2020 › Research › peer-review

Accelerated equilibrium sampling of hydrophobic organic chemicals in solid matrices: A proof of concept on how to reach equilibrium for PCBs within 1 day
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Automated SPME with reduced equilibration time for measuring freely dissolved concentration of hydrophobic organic chemicals in solid matrices
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2019 › Research › peer-review

Baseline Toxicity and Volatility Cutoff in Reporter Gene Assays Used for High-Throughput Screening
Escher, B. I., Glauch, L., König, M., Mayer, P. & Schlichting, R., 2019, In : Chemical Research in Toxicology. 32, 8, p. 1646-1655
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Bioaccumulation in Functionally Different Species: Ongoing Input of PCBs with Sediment Deposition to Activated Carbon Remediated Bed Sediments
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Biodegradation of volatile chemicals in soil – Separating volatilization and degradation in improved test setup (OECD 307)
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Biodegradation testing of volatile chemicals in water-sediment systems (OECD 308)
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2019 › Research › peer-review
Investigating the effect of test concentration on biodegradation kinetics of two hydrophobic UVCBs
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2019 › Research › peer-review

Mixture Effects on Biodegradation Kinetics of Hydrocarbons in Surface Water: Increasing Concentrations Inhibited Degradation whereas Multiple Substrates Did Not
Hammershøj, R. H., Birch, H., Redman, A. D. & Mayer, P., 2019, In: Environmental Science and Technology. 53, 6, p. 3087-3094
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Partitioning based determinations of water solubility for highly hydrophobic liquid chemicals
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2019 › Research › peer-review

Partitioning based determinations of water solubility for volatile hydrophobic liquid chemicals
Research output: Contribution to conference › Poster – Annual report year: 2019 › Research › peer-review

Mixture Effects on Biodegradation Kinetics of Hydrocarbons in Surface Water: Increasing Concentrations Inhibited Degradation whereas Multiple Substrates Did Not
Hammershøj, R. H., Birch, H., Redman, A. D. & Mayer, P., 2019, In: Environmental Science and Technology. 53, 6, p. 3087-3094
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Partitioning based determinations of water solubility for highly hydrophobic liquid chemicals
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2019 › Research › peer-review

Partitioning based determinations of water solubility for volatile hydrophobic liquid chemicals
Research output: Contribution to conference › Poster – Annual report year: 2019 › Research › peer-review

Passive dosing and aquatic toxicity testing of complex organic mixtures - Linking toxicity to concentrations in the silicone and lipid donors
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2019 › Research › peer-review

Temperature dependency of biodegradation kinetics in environmental surface waters
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2019 › Research › peer-review

Thermodynamic assessment of (semi-)volatile hydrophobic organic chemicals in WWTP sludge - combining Solid Phase Microextraction with non-target GC/MS
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2019 › Research › peer-review

Time-Resolved Freely Dissolved Concentrations of Semivolatile and Hydrophobic Test Chemicals in In Vitro Assays- Measuring High Losses and Crossover by Headspace Solid-Phase Microextraction
Birch, H., Kramer, N. I. & Mayer, P., 2019, In : Chemical Research in Toxicology. 32, 9, p. 1780-1790
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

UVCB fate-directed toxicity testing and risk assessment (UVCB-FATETOX)
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2019 › Research › peer-review
Equilibrium sampling reveals increasing thermodynamic potential of polycyclic aromatic hydrocarbons during sewage sludge digestion

Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Genotoxicity of three biofuel candidates compared to reference fuels
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Headspace passive dosing for dose-response testing of volatile hydrophobic organic chemicals
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2018 › Research › peer-review

Headspace passive dosing of volatile hydrophobic chemicals – Aquatic toxicity testing exactly at the saturation level
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

In situ activated carbon (AC) amendment to limit bio-uptake from PCB contaminated sediment – A mesocosm study with three organisms
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2018 › Research › peer-review

In situ passive sampling methods to measure freely dissolved concentration of PAHs in contaminated soil: comparison with ex situ measurements and evaluation over one year
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2018 › Research › peer-review

Linking algal growth inhibition to chemical activity: Excess toxicity below 0.1% of saturation
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Meta-Analysis of Fish Early Life Stage Tests - Association of Toxic Ratios and Acute-To-Chronic Ratios with Modes of Action
Research output: Contribution to journal › Review – Annual report year: 2018 › Research › peer-review

New approaches for determining solubility of organic chemicals
Research output: Contribution to conference › Poster – Annual report year: 2018 › Research › peer-review

New approaches for determining solubility of volatile liquid chemicals
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2018 › Research › peer-review
Passive dosing for constant concentration and defined composition of hydrophobic organic mixtures
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2018 › Research › peer-review

Substance mapping: A first step towards developing a better assessment strategy for UVCBs
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2018 › Research › peer-review

Thermodynamic assessment of (semi-)volatile hydrophobic organic chemicals in WWTP sludge – combining Solid Phase Microextraction with non-target GC/MS
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Aquatic toxicity testing of liquid hydrophobic chemicals – Passive dosing exactly at the saturation limit
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Bioavailability and bioaccessibility of polycyclic aromatic hydrocarbons from (post-pyrolytically treated) biochars
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Biodegradation of hydrocarbon mixtures in surface waters at environmentally relevant levels - Effect of inoculum origin on kinetics and sequence of degradation
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Biodegradation testing of chemicals with high Henry's constants – separating mass and effective concentration reveals higher rate constants
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2017 › Research › peer-review

Biodegradation testing of chemicals with high Henry's constants – Separating mass and effective concentration reveals higher rate constants
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Biodegradation testing of hydrophobic chemicals in mixtures at low concentrations – covering the chemical space of petroleum hydrocarbons
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2017 › Research › peer-review

Comment on "Assessing Aromatic-Hydrocarbon Toxicity to Fish Early Life Stages Using Passive-Dosing Methods and Target-Lipid and Chemical-Activity Models"
Research output: Contribution to journal › Comment/debate – Annual report year: 2017 › Research › peer-review
Cross validation of two partitioning-based sampling approaches in mesocosms containing PCB contaminated field sediment, biota, and activated carbon amendment
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Determining lower threshold concentrations for synergistic effects
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Enhanced Accessibility of Polycyclic Aromatic Hydrocarbons (PAHs) and Heterocyclic PAHs in Industrially Contaminated Soil after Passive Dosing of a Competitive Sorbate
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Passive dosing of triclosan in multi-generation tests with copepods - Stable exposure concentrations and effects at the low μg L⁻¹ range
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Biodegradation of volatile hydrocarbons in five surface waters tested as composed mixtures in the μg/L range
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2016 › Research › peer-review

Biodegradation of volatile hydrocarbons in five surface waters tested as composed mixtures in the μg/L range
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2016 › Research › peer-review

Combining Equilibrium Sampling with Non-Target Analysis of Hydrophobic Complex Mixtures in a Complex Matrix
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2017 › Research › peer-review

Cross-validation of equilibrium sampling and non-equilibrium passive sampling methods in PCB contaminated sediments
Equilibrium sampling in a semi in situ pot experiment to measure freely dissolved concentrations of hydrophobic organic compounds
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2016 › Research › peer-review

How to Determine the Environmental Exposure of PAHs Originating from Biochar
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Including Bioconcentration Kinetics for the Prioritization and Interpretation of Regulatory Aquatic Toxicity Tests of Highly Hydrophobic Chemicals
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Limited recovery of soil microbial activity after transient exposure to gasoline vapors
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Linking algal growth inhibition to chemical activity: A tool for identifying excess toxicity
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2016 › Research › peer-review

Microscale In Vitro Assays for the Investigation of Neutral Red Retention and Ethoxyresorufin-O-Deethylase of Biofuels and Fossil Fuels
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Multiple coating thicknesses for sampling of organic pollutants – linear regressions confirm equilibrium even in challenging environmental media
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2017 › Research › peer-review

Passive Sampling in Regulatory Chemical Monitoring of Nonpolar Organic Compounds in the Aquatic Environment
Research output: Contribution to journal › Review – Annual report year: 2016 › Research › peer-review

Polymers as reference partitioning phase: polymer calibration for an analytically operational approach to quantify multimedia phase partitioning
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review
Equilibrium sampling for a thermodynamic assessment of contaminated sediments
Research output: Contribution to conference » Conference abstract for conference – Annual report year: 2015 » Research » peer-review

Equilibrium sampling for a thermodynamic assessment of contaminated sediments
Research output: Non-textual form » 2D/3D (physical products) – Annual report year: 2015 » Research

Equilibrium sampling of hydrophobic organic chemicals in sediments: challenges and new approaches
Research output: Chapter in Book/Report/Conference proceeding » Conference abstract in proceedings – Annual report year: 2015 » Research » peer-review

Equilibrium sampling of polychlorinated biphenyls in River Elbe sediments – Linking bioaccumulation in fish to sediment contamination
Research output: Contribution to journal » Journal article – Annual report year: 2015 » Research » peer-review

Erratum to: Bioaccumulation in aquatic systems: methodological approaches, monitoring and assessment
Research output: Contribution to journal » Comment/debate – Annual report year: 2015 » Research » peer-review

Fate of polychlorinated biphenyls in a contaminated lake ecosystem: Combining equilibrium passive sampling of sediment and water with total concentration measurements of biota: Chemical equilibrium status of an aquatic ecosystem
Research output: Contribution to journal » Journal article – Annual report year: 2015 » Research » peer-review

Foundational aspects of the concept of chemical activity
Research output: Chapter in Book/Report/Conference proceeding » Conference abstract in proceedings – Annual report year: 2015 » Research » peer-review

How do non-specific mechanisms of toxicity fit into the AOP framework? The example of narcosis
Research output: Chapter in Book/Report/Conference proceeding » Conference abstract in proceedings – Annual report year: 2015 » Research » peer-review

Linking algal growth inhibition to chemical activity
Research output: Contribution to conference » Conference abstract for conference – Annual report year: 2015 » Research » peer-review

Linking algal growth inhibition to chemical activity - Baseline toxicity required 1% of saturation
Research output: Contribution to journal » Journal article – Annual report year: 2015 » Research » peer-review
On the challenge to assess the exposure of organic contaminants in matrices with high partition coefficients
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2015 › Research › peer-review

Passive dosing of pyrethroid insecticides to Daphnia magna: Expressing excess toxicity by chemical activity
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2015 › Research › peer-review

Passive Dosing of Pyrethroid Insecticides to Daphnia magna: Expressing Excess Toxicity by Chemical Activity
Research output: Contribution to conference › Poster – Annual report year: 2015 › Research › peer-review

Passive dosing to characterize the sorptive capacities of biota lipids from various trophic levels
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2015 › Research › peer-review

Relating Bioavailability Parameters to the Sorbent Characteristics of PAH Polluted Soils
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2015 › Research › peer-review

Sorptive capacities of lipids determined by passive dosing of non-polar organic chemicals
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2015 › Research › peer-review

Transfer and effects of 1,2,3,5,7-pentachloronaphthalene in an experimental food chain
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Using equilibrium passive dosing to maintain stable exposure concentrations of triclosan in a 6-week toxicity test
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2015 › Research › peer-review

Advancing passive sampling of contaminants in Environmental Science
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

A novel passive dosing-based PICT detection method reveals no increased tolerance to benzene, toluene, ethylbenzene and xylenes (BTEX) in soil bacterial communities exposed to gasoline vapours
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review
Concerned about the T in PBT? Ask what fugacity and activity can do for you!
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review

Co-Transport of Polycyclic Aromatic Hydrocarbons by Motile Microorganisms Leads to Enhanced Mass Transfer under Diffusive Conditions.
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Equilibrium Sampling to Determine the Thermodynamic Potential for Bioaccumulation of Persistent Organic Pollutants from Sediment
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Impact of soil amendments and the plant rhizosphere on PAH behaviour in soil
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Is equilibrium sampling applicable in routine sediment monitoring?
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review

Juvenile swine evaluation of the ability of silicone rod in vitro digestors to predict PAH uptake across 20 different soils
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review

PAH toxicity at aqueous solubility in the fish embryo test with Danio rerio using passive dosing
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Partitioning of hydrophobic organic chemicals between silicone polymers and LDPE
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review

Passive dosing as a tool to derive fugacity capacities of a variety of leaves for semi-volatile persistent organic contaminants
Silicone-Based Equilibrium Sampling of Sediment to Assess the Thermodynamic Potential of Trace-Level Hydrophobic Organic Contaminants to Bioaccumulate


Silicone passive equilibrium samplers as 'chemometers' in eels and sediments of a Swedish lake.


Simultaneous Control of Phenanthrene and Drought by Dual Exposure System: The Degree of Synergistic Interactions in Springtails was Exposure Dependent


The effect of humic acids on biodegradation of polycyclic aromatic hydrocarbons depends on the exposure regime


Baseline Toxic Mixtures of Non-Toxic Chemicals: "Solubility Addition" Increases Exposure for Solid Hydrophobic Chemicals


Changes in Lumbriculus variegatus metabolites under hypoxic exposure to benzo(a)pyrene, chlorpyrifos and pentachlorophenol: Consequences on biotransformation


Impact of soil amendments on the freely dissolved concentrations, chemical activities, and diffusive mass fluxes of PAHs in soil


Is there sufficient 'sink' in current bioaccessibility determinations of organic pollutants in soils?


Limited exposure originating from desorption resistant PAHs in soot


Loss of artemisinin produced by Artemisia annua L. to the soil environment

Methods to assess bioavailability of hydrophobic organic contaminants: Principles, operations, and limitations
Cui, X., Mayer, P. & Gan, J., 2013, In : Environmental Pollution. 172, p. 223-234

Passive dosing of polycyclic aromatic hydrocarbon (PAH) mixtures to terrestrial springtails: Linking mixture toxicity to chemical activities, equilibrium lipid concentrations, and toxic units

Passive Equilibrium Sampler for in Situ Measurements of Freely Dissolved Concentrations of Hydrophobic Organic Chemicals In Sediments

Sorptive Bioaccessibility Extraction (SBE) of soils - combining mobilisation medium with absorption sink

Sorptive Physiologically Based Extraction of Contaminated Solid Matrices: Incorporating Silicone Rod As Absorption Sink for Hydrophobic Organic Contaminants

The dosing determines mutagenicity of hydrophobic compounds in the Ames II assay with metabolic transformation: Passive dosing versus solvent spiking

Uptake and toxicity of polycyclic aromatic hydrocarbons in terrestrial springtails-studying bioconcentration kinetics and linking toxicity to chemical activity

A flow-through passive dosing system for continuously supplying aqueous solutions of hydrophobic chemicals to bioconcentration and aquatic toxicity tests

Contaminant trap - Isolating and measuring the desorption resistant pool of soil pollutants

Dynamic Passive Dosing for Studying the Biotransformation of Hydrophobic Organic Chemicals: Microbial Degradation as an Example
Equilibrium sampling of organic soil pollutants
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2013 › Research › peer-review

Long-Term Effects of Legacy Copper Contamination on Microbial Activity and Soil Physical Properties
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2012 › Research

Measuring binding and speciation of hydrophobic organic chemicals at controlled freely dissolved concentrations and without phase separation
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Partitioning of fluoranthene between free and bound forms in stormwater runoff and other urban discharges using passive dosing
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Pulmonary Surfactant Suppressed Phenanthrene Adsorption on Carbon Nanotubes through Solubilization and Competition As Examined by Passive Dosing Technique
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Recreating the seawater mixture composition of HOCs in toxicity tests with Artemia franciscana by passive dosing
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Sensitive Equilibrium Sampling To Study Polychlorinated Biphenyl Disposition in Baltic Sea Sediment
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Soil microbial and physical properties and their relations along a steep copper gradient
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Sorptive Bioaccessibility Extraction (SBE) of Soils: Combining a Mobilization Medium with an Absorption Sink
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Speciation of PAHs in stormwater
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2012 › Research › peer-review

Time-Weighted Average SPME Analysis for in Planta Determination of cVOCs
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review
Towards a renewed research agenda in ecotoxicology
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Application of passive dosing to study the biotransformation and biodegradation of hydrophobic compounds
Research output: Contribution to conference › Paper – Annual report year: 2011 › Research

Calibrating passive sampling and passive dosing techniques to lipid based concentrations
Research output: Contribution to conference › Paper – Annual report year: 2011 › Research

Unified model for sorption, sequestration and degradation in soils and sediments
Research output: Contribution to conference › Paper – Annual report year: 2011 › Research

A Contaminant Trap as a Tool for Isolating and Measuring the Desorption Resistant Fraction of Soil Pollutants
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Application of passive dosing to study the biotransformation and biodegradation of hydrophobic compounds
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2011 › Research › peer-review

Aquatic toxicity of PAHs and PAH mixtures at saturation to benthic amphipods: Linking toxic effects to chemical activity
Engraff, M., Solere, C., Smith, K. E. C., Mayer, P. & Dahllöf, I., 2011, In : Aquatic Toxicology. 102, 3-4, p. 142-149
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Crucial Role of Mechanisms and Modes of Toxic Action for Understanding Tissue Residue Toxicity and Internal Effect Concentrations of Organic Chemicals
Research output: Contribution to journal › Literature review – Annual report year: 2011 › Research › peer-review

Equilibrium sampling of environmental pollutants in fish: Comparison with lipid-normalized concentrations and homogenization effects on chemical activity
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Equilibrium Sampling of Persistent and Bioaccumulative Compounds in Soil and Sediment: Comparison of Two Approaches To Determine Equilibrium Partitioning Concentrations in Lipids
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Occurrence of organochlorine pesticides in indoor dust
Sorption of phenanthrene in agricultural soils
Research output: Contribution to conference › Poster – Annual report year: 2011 › Research › peer-review

Bioavailability of organochlorine compounds in aqueous suspensions of fullerene: Evaluated with medaka (Oryzias latipes) and negligible depletion solid-phase microextraction
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Controlling and maintaining exposure of hydrophobic organic compounds in aquatic toxicity tests by passive dosing
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Low accessibility and chemical activity of PAHs restrict bioremediation and risk of exposure in a manufactured gas plant soil
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

More of EPA's SPARC Online Calculator: The Need for High-Quality Predictions of Chemical Properties
Research output: Contribution to journal › Editorial – Annual report year: 2010 › Research › peer-review

Passive Dosing for Producing Defined and Constant Exposure of Hydrophobic Organic Compounds during in Vitro Toxicity Tests
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Passive Dosing to Determine the Speciation of Hydrophobic Organic Chemicals in Aqueous Samples
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Response to Comment on "More of EPA's SPARC Online Calculator - The Need for High Quality Predictions of Chemical Properties"
Research output: Contribution to journal › Letter – Annual report year: 2010 › Research › peer-review

Combined chemical (fluoranthene) and drought effects on lumbricus rubellus demonstrate the applicability of the independent action model for multiple stressor assessment
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Development of a dynamic delivery method for in vitro bioassays
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review
Effect of vegetable oil addition on bioaccessibility and biodegradation of polycyclic aromatic hydrocarbons in historically contaminated soils
Scherr, K. E., Hasinger, M., Mayer, P. & Loibner, A. P., 2009, In : Journal of Chemical Technology and Biotechnology. 84, 6, p. 827-835
Research output: Contribution to journal › Conference article – Annual report year: 2009 › Research › peer-review

Equilibrium sampling through membranes (ESTM) of acidic organic pollutants using hollow fibre modules in continuous steady-state mode
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

In Situ Silicone Tube Microextraction: A New Method for Undisturbed Sampling of Root-exuded Thiophenes from Marigold (Tagetes erecta L.) in Soil
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Matrix solid-phase microextraction for measuring freely dissolved concentrations and chemical activities of PAHs in sediment cores from the western Baltic Sea
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Measuring Pyrethroids in Sediment Pore Water using Matrix-solid Phase Microextraction
Hunter, W., Yang, Y., Reichenberg, F., Mayer, P. & Gan, J., 2009, In : Environmental Toxicology and Chemistry. 28, 1, p. 36-43
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Possibilities and limitations of equilibrium sampling using polydimethylsiloxane in fish tissue
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Silicone Membrane Equilibrator: Measuring Chemical Activity of Nonpolar Chemicals with Poly(dimethylsiloxane) Microtubes Immersed Directly in Tissue and Lipids
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Sundhedsmæssig vurdering af PCB-holdige bygningsfuger
Research output: Book/Report › Report – Annual report year: 2009 › Research › peer-review

Determining the chemical activity of hydrophobic organic compounds in soil using polymer coated vials
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Device and Method for Isolation, Concentration and/or Identification of Compounds

Equilibrium sampling: Partitioning of organochlorine compounds from lipids into polydimethylsiloxane
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review
Field Testing of Equilibrium Passive Samplers to Determine Freely Dissolved Native Polycyclic Aromatic Hydrocarbon Concentrations
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Immersed solid phase microextraction to measure chemical activity of lipophilic organic contaminants in fatty tissue samples
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Impacts of some Environmentally Relevant Parameters on the Sorption of Polycyclic Aromatic Hydrocarbons to Aqueous Suspensions of Fullerene
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Isomer-Specific Biodegradation of Methylphenanthrenes by Soil Bacteria
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Multivariate Analysis of Selected Metal Ion Transport through a Hollow-Fiber Supported Liquid Membrane Device used for Passive Sampling Monitoring
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Passive Dosing of Soil Invertebrates with Polycyclic Aromatic Hydrocarbons: Limited Chemical Activity Explains Toxicity Cutoff
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Using tree core samples to monitor natural attenuation and plume distribution
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2008 › Research › peer-review

Degradation of PCB congeners by bacterial strains
Research output: Contribution to journal › Journal article – Annual report year: 2007 › Research › peer-review

Determining Chemical Activity of (Semi)volatile Compounds by Headspace Solid-Phase Microextraction
Research output: Contribution to journal › Journal article – Annual report year: 2007 › Research › peer-review

Diffusion of PAH in potato and carrot slices and application for a potato model
Research output: Contribution to journal › Journal article – Annual report year: 2007 › Research › peer-review

Dynamic Permeation Method To Determine Partition Coefficients of Highly Hydrophobic Chemicals between Poly(dimethylsiloxane) and Water
Effects of dilution on the exposure in sediment toxicity tests: Buffering of freely dissolved concentrations and changes in mixture composition


Enhanced diffusion of polycyclic aromatic hydrocarbons in artificial and natural aqueous solutions


Equilibrium Sampling Through Membranes (ESTM) in hollow fibers combined with direct absorbance measurements


Jämviksprovtagning


Ligevægtsopsamling gennem membraner


Using solid phase microextraction to measure freely dissolved concentrations and chemical activities of PAHs in sediment cores of the western Baltic Sea


Can Highly Hydrophobic Organic Substances Cause Aquatic Baseline Toxicity and can they Contribute to Mixture Toxicity?

Mayer, P. & Reichenberg, F., 2006, In : Environmental Toxicology and Chemistry. 25, 10, p. 2639-2644

Continuous sampling of polar organic pollutants using commercially available hollow fibre cartridges - ESTM technique


Equilibrium Sampling of Freely Dissolved Alkylphenols into a Thin Film of 1-Octanol Supported on a Hollow Fiber Membrane


Equilibrium Sampling Through Membrans (ESTM) in hollow fibers combined with direct absorbance measurements

Measurement of accessibility and chemical activity of PAHs in polluted soil
Research output: Contribution to conference › Poster – Annual report year: 2006 › Research

Measuring the chemical activity of hydrophobic compounds by equilibrium sampling into silicone hollow fibers
Research output: Contribution to conference › Poster – Annual report year: 2006 › Research

Tjærestoffer. Danmarks Miljøundersøgelser
Research output: Book/Report › Report – Annual report year: 2006 › Research

Two Complementary Sides of Bioavailability: Accessibility and Chemical Activity of Organic Contaminants in Sediments and Soils
Research output: Contribution to journal › Journal article – Annual report year: 2006 › Research › peer-review

Effective chemical activity (EA50) used as a measure of exposure for baseline toxicity
Research output: Contribution to conference › Poster – Annual report year: 2005 › Research

Equilibrium Sampling through Membranes of Freely Dissolved Chlorophenols in Water Samples with Hollow Fiber Supported Liquid Membrane
Research output: Contribution to journal › Journal article – Annual report year: 2005 › Research › peer-review

Equilibrium Sampling through Membranes of Freely Dissolved Copper Concentrations with Selective Hollow Fiber Membranes and the Spectrophotometric Detection of a Metal Stripping Agent
Research output: Contribution to journal › Journal article – Annual report year: 2005 › Research › peer-review

Measuring the internal exposure of organic pollutants with equilibrium sampling devices
Research output: Contribution to conference › Poster – Annual report year: 2005 › Research

Quantifying the effect of medium composition on the diffusive mass transfer of hydrophobic organic chemicals through unstirred boundary layers
Research output: Contribution to journal › Journal article – Annual report year: 2005 › Research › peer-review

Sediment Dilution Method to Determine Sorption Coefficients of Hydrophobic Organic Chemicals
Research output: Contribution to journal › Journal article – Annual report year: 2005 › Research › peer-review

A micro-scale technique to determine diffusive mass transfer of hydrophobic organics through diffusive boundary layers (DBLs)
Research output: Contribution to conference › Poster – Annual report year: 2004 › Research

A new technique to determine the diffusive mass transfer of hydrophobic organic substances through diffusive boundary layers (DBLs)
Research output: Contribution to conference › Poster – Annual report year: 2004 › Research
Distinguishing Between The Availability And The Activity Of Organic Chemicals
Research output: Contribution to conference › Poster – Annual report year: 2004 › Research

Equilibrium Sampling through Membrane: Hollow Fiber Supported Liquid Membrane for Static Sampling of Freely Dissolved Chlorophenols in Water
Research output: Contribution to conference › Poster – Annual report year: 2004 › Research

Equilibrium Sampling through Membranes: Oprensning og opkoncentrering af polære stoffer med hollow fibers
Research output: Contribution to conference › Poster – Annual report year: 2004 › Research

Towards continuous exposure measurements of polar organic priority pollutants
Research output: Contribution to conference › Poster – Annual report year: 2004 › Research

Equilibrium Sampling Devices
Research output: Contribution to journal › Journal article – Annual report year: 2003 › Research › peer-review

Marin recipientundersøgelse ved Thule Air Base 2002
Research output: Book/Report › Report – Annual report year: 2003 › Research › peer-review

Measured Pore-Water Concentrations Make Equilibrium Partitioning Work: A Data Analysis
Research output: Contribution to journal › Journal article – Annual report year: 2003 › Research › peer-review

SPME-Measurements of Freely Dissolved Concentration of Hydrophobic Organic Compounds in the Microtox Solid Phase Test
Research output: Contribution to conference › Poster – Annual report year: 2002 › Research

Algal growth inhibition test in filled, closed bottles for volatile and sorptive materials
Research output: Contribution to journal › Journal article – Annual report year: 2000 › Research › peer-review

Accumulation and toxicity of lipophilic organic chemicals in phytoplankton algae and Daphnia, and partitioning of such compounds between water, particulates, and third phases of colloid and dissolved organic material
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 1998 › Research

Influence of growth conditions on the results obtained in algal toxicity testing
Research output: Contribution to journal › Journal article – Annual report year: 1998 › Research › peer-review

Toxic cell concentrations of three polychlorinated biphenyl congeners in the green alga Selenastrum Capricornutum
A simple in vitro fluorescence method for biomass measurements in algal growth inhibition tests
Research output: Contribution to journal › Journal article – Annual report year: 1998 › Research › peer-review

Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 1997 › Research › peer-review

Growth inhibition of green alga S. capricornutum related to critical body burdens of PAHs and PCBs. (Abstract No. PWA124)
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 1997 › Research › peer-review

Influence of growth conditions on the results obtained in algal toxicity tests. (Abstract No. PHA105)
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 1997 › Research › peer-review

Projects:

Mixture Effects in Biodegradation Testing of Aromatic and Aliphatic Hydrocarbons
Hammershøj, R. H., Mayer, P., Andersen, H. R., Birch, H. & Sjøholm, K. K.
Samfinansieret - Andet
15/06/2016 → 13/12/2019
Project: PhD

Linking the exposure and effects of organic chemical mixtures to their equilibrium partitioning concentrations in lipids
Trac, N. L., Mayer, P. & Nærgaard Schmidt, S.
Technical University of Denmark
01/09/2015 → 13/09/2019
Project: PhD

The effect of sorption and dosing on the degradation of poorly water soluble substances in different environmental matrices using standard OECD guidelines
Stipendie fra udlandet
01/01/2016 → 30/06/2019
Project: PhD

Micropollutants removal for hospital wastewater
Tang, K., Andersen, H. R., Mayer, P., McArdell, C. S., Stasinakis, A. & Bester, K.
Privatist
01/01/2015 → 18/04/2018
Project: PhD

Aquatic toxicity testing for hazard identification of engineered nanoparticles
Sørensen, S. N., Baun, A., Hansen, S. F., Lützhøft, H. H., Mayer, P., Kühnel, D. & Palmqvist, A.
Technical University of Denmark
01/04/2012 → 30/06/2016
Investigatin the feasibility of phytoremediation and phytoscreening
Technical University of Denmark
01/06/2011 → 01/07/2015
Project: PhD

Improving the exposure basis of toxicological research on persistent organic pollutants and their mixtures
Gilbert, D., Mayer, P., Vinggaard, A. M., Trapp, S., Scheringer, M. & Wania, F.
Ansat eksternt
15/01/2012 → 15/12/2015
Project: PhD

Bioaccumulation and toxicity of lipophilic chemical in algae, crustaceans and fish
Nyholm, N., Halling-Sørensen, B., Kusk, K. O., Mayer, P., Qualmann, S., Kieft, L., Mayer, P. & Simjs, D. J.
Ukendt
01/08/1994 → 01/01/1998
Project: Research

Activities:

Invited Lecture: The Partitioning Based Laboratory
Philipp Mayer (Invited speaker)
28 Feb 2018
Activity: Talks and presentations › Conference presentations

7th SETAC World Congress
Philipp Mayer (Participant)
6 Nov 2016 → 10 Nov 2016
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

Developing a strategy to improve the environmental risk assessment of difficult to test multi-component substances
Philipp Mayer (Invited speaker)
2 Nov 2016 → 4 Nov 2016
Activity: Talks and presentations › Guest lectures, external teaching and course activities at other universities
International Society of Exposure Science
Philipp Mayer (Invited speaker)
Activity: Talks and presentations › Conference presentations

International Society of Exposure Science 26th Annual Meeting - ISES2016
Philipp Mayer (Invited speaker)
Activity: Talks and presentations › Conference presentations

Congressi Stefano Franscini
Philipp Mayer (Participant)
29 May 2016 → 3 Jun 2016
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

SETAC Europe 26th Annual Meeting
Philipp Mayer (Participant)
22 May 2016 → 26 May 2016
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

SETAC Europe 26th Annual Meeting
Philipp Mayer (Participant)
22 May 2016 → 26 May 2016
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

SETAC
Philipp Mayer (Participant)
1 Nov 2015 → 5 Nov 2015
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

SETAC
Philipp Mayer (Participant)
1 Nov 2015 → 5 Nov 2015
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

SETAC
Philipp Mayer (Participant)
1 Nov 2015 → 5 Nov 2015
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

SETAC
Philipp Mayer (Participant)
1 Nov 2015 → 5 Nov 2015
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

SETAC
Philipp Mayer (Participant)
1 Nov 2015 → 5 Nov 2015
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

SETAC
Philipp Mayer (Participant)
1 Nov 2015 → 5 Nov 2015
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.
Foundational aspects of the concept of chemical activity
Philipp Mayer (Lecturer)
29 Oct 2015 → 30 Oct 2015
Activity: Talks and presentations › Conference presentations

Equilibrium Sampling of Hydrophobic Organic Contaminants in Sediment
Philipp Mayer (Lecturer)
16 Aug 2015 → 20 Aug 2015
Activity: Talks and presentations › Conference presentations

ICCA-LRI and JRC Workshop 2014
Philipp Mayer (Invited speaker)
17 Jun 2014
Activity: Talks and presentations › Conference presentations