

# **BADOT Pierre-Marie**

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Pierre-Marie BADOT

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## CURRENT RESEARCH TOPICS

- Transfer and effects of chemical contaminants in terrestrial ecosystems
  - Environmental risk assessment
  - Food contamination
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## RESEARCH MANAGEMENT

- 1996-2003: Head of the Environmental Biology Dep (60 employees), University of Franche-Comte
  - 1998-2002: Vice Chair University of Franche-Comte (2000 empl), Executive Board
  - 2002-2006: Vice Chair Univ F-Comte, Scientific Board, Research Policy & Innovation
  - 2008-2011: Deputy Director - Scientific manager Chrono-environment Laboratory (CNRS-UFC)
  - 2014-2016: Chair of the Research Promotion Department, University of Franche-Comté: socio-economical & industrial research partnerships, European programmes, intellectual property...
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## EXPERTISE & CONSULTING

- *French Agencies*
  - ANSES (French Agency for Food, Environmental and Occupational Health Safety), chairman and member of working groups and expert panels on biocides, contaminants, fertilizers, risk assessment of chemicals in food...
  - HCERES (French Evaluation Agency for Research and Higher Education) member of evaluation panels of government-funded research organizations
  - ANR (French National Research Agency) member of evaluation panel for Project-based funding.
  - ADEME (Agence de la transition écologique)

- Haut Conseil de la Santé Publique
- ...

- *International and Foreign Agencies*

- Fonds National de la Recherche Scientifique (Belgique)
- Research Promotion Foundation (Cyprus)
- National Centre for Research and Development (Poland)
- CAPES/COFECUB France Brazil research cooperation
- ECOSUD France Argentine research cooperation
- Service public de Wallonie DGO Economie Emploi Recherche
- Agència de Gestió d'Ajuts Universitaris i de Recerca  
Departament de Recerca i Universitats, Generalitat de Catalunya
- Slovak Research and Development Agency
- European Commission, FP6, FP7, H2020, HEurope Research Executive Agency
- European Education Audiovisual Culture Executive Agency
- European Science Foundation
- ...

- *Industries*

- GDF SUEZ
- Electrabel
- Bureau Veritas
- Interprofessional Organization of Comté cheese (Poligny, France)
- Solvay
- Inovyn...

- *Scientific Journals*

- Referee for biological journals:  
Plant Cell Reports, Physiologia Plantarum, Environmental Experimental Botany, Annals of Forest Science, Plant Physiology & Biochemistry, Trees-Structure and Function, International Journal of Molecular Sciences, Acta Physiologiae Plantarum...
- Referee for multidisciplinary and environmental journals:  
Aquatic Toxicology, Journal of Environmental Radioactivity, Radioprotection, AECL Nuclear Review, Ecotoxicology & Environmental Safety, Environmental Toxicology & Chemistry, Toxicological & Environmental Chemistry, The Science of Total Environment, Water Research, Environmental Pollution, Environmental Science and Pollution Research, Chemosphere, Environment International, Applied Geochemistry, Applied Organometallic Chemistry, Desalination and Water Treatment, Bioresource Technology, Chemistry & Ecology, Geochemical Journal, Water Science & Technology, Mutation Research, Genetic Toxicology and Environmental Mutagenesis, Food Chemistry, PLOS One, Ecological Engineering, Toxics, Nature, Scientific Reports...

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## INDUSTRIAL PARTNERSHIPS

GDF-SUEZ, Altadis-Imperial Tobacco, Comte cheese organisation (CIGC), APRR, Clairefontaine, OTOR Group, ADIB-FC...

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## RESEARCH WORKS

- Co-author of over 200 peer-review papers in international journals and books
  - Supervision of 27 defended PhD theses
  - Over 200 communications in international scientific meetings & conferences
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## TRAINING

- Chairman of the Master of Water Science at the University of Franche-Comté (1997-2022)
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## Publications since 2006

- (2006) A de Vaufleury, M. Coeurdassier, P. Pandard, R. Scheifler, C. Lovy, N. Crini, P.M. Badot. How terrestrial snails can be used for soil risk assessment. *Environmental Toxicology and Chemistry*, 25, 3, 797-806.
- (2006) H. Folzer, J. Dat, N. Capelli, D. Rieffel, P.M. Badot. The response of sessile oak (*Quercus petraea*) seedlings to flooding: an integrated study. *Tree Physiology*, 26, 759-766.
- (2006) N. Floret, J.F. Viel, E. Lucot, P.M. Dudermel, J.Y. Cahn, P.M. Badot, F. Mauny. Dispersion Modelling as a Dioxin Exposure Indicator in the Vicinity of a Municipal Solid Waste Incinerator: a Validation Study. *Environmental Science and Technology*, 40, 2149-2155.
- (2006) G. Vincent, AR Shahriari, E. Lucot, P.M. Badot, D. Epron. Spatial and seasonal variations in soil respiration in a temperate deciduous forest with fluctuating water table. *Soil biology and biochemistry*, 38, 2527-2535.
- (2006) F. Gimbert, A. de Vaufleury, F. Douay, R. Scheifler, M. Coeurdassier, P.M. Badot. Modelling chronic exposure to contaminated soil. A toxicokinetic approach with terrestrial snail *Helix aspersa*. *Environment International*, 32, 866-875.
- (2006) R. Scheifler, M. Cœurdassier, C. Morilhat, N. Bernard, B. Faivre, P. Flicoteaux, P. Giraudoux, M. Noël, P. Pirotte, D. Rieffel, A. de Vaufleury, P.M. Badot. Lead concentrations in feathers and blood of common blackbirds (*Turdus merula*) and in earthworms inhabiting unpolluted and moderately polluted urban areas. *Science of the Total Environment*, 371, 197-205.
- (2007) H. N'guyen Viet, N. Bernard, E.A.D. Mitchell, J Cortet, P.M. Badot, D. Gilbert. Relationship between testate amoeba (Protist) communities and atmospheric heavy metals accumulated in *Barbula indica* in Vietnam. *Microbial Ecology*, 53, 53-65.
- (2007) M. Coeurdassier, R. Scheifler, A. de Vaufleury, N. Crini, C Saccomani, L. Salomon du Mont, P.M. Badot Do earthworms influence metal transfer from soil to biota? *Applied Soil Ecology*, 35, 302-310.

- (2007) N. Floret, E. Lucot, P.M. Badot, F. Mauny, J.F. Viel. A municipal solid waste incinerator as the unique source of PCDD/Fs in an area of increased non-Hodgkin's lymphoma incidence. *Chemosphere*, 68, 1419-1426.
- (2007) G. Chiapusio, S. Pujol S, M.L. Toussaint, P.M. Badot, P. Binet P. 2007. Phenanthrene toxicity and dissipation in rhizosphere of grassland plants (*Lolium perenne* L. and *Trifolium pratense* L.) in three spiked soils. *Plant and Soil*, 294, 103-112.
- (2007) H. N'guyen Viet, D. Gilbert, E.A.D. Mitchell, P.M. Badot, N. Bernard. Effect of experimental lead pollution on the microbial communities associated with *Sphagnum fallax* (Bryophyta). *Microbial Ecology*, 54, 232-241.
- (2008) C. Parent, A. Berger, H. Folzer, J. Dat, Michèle Crevecoeur, P.M. Badot, N. Capelli. A novel non-symbiotic hemoglobin from oak: gene expression in cell, tissue and during hypoxia. *New Phytologist*, 177, 142-154.
- (2008) H. N'Guyen Viet, N. Bernard, E. Mitchell, P.M. Badot, D. Gilbert. Effect of lead pollution on testate Amoebae communities living in *Sphagnum fallax*: An experimental study. *Ecotoxicology and Environmental Safety*, 69, 130-138.
- (2008) M. Zhiyanski, J. Bech, M. Sokolovska, E. Lucot, J. Bech, P.M. Badot. Cs-137 distribution in forest floor and surface soil layers from two mountainous regions in Bulgaria. *Journal of Geochemical Exploration*, 96, 256-266.
- (2008) F. Hispard, A. de Vaufleury, H. Martin, S. Devaux, R.P. Cosson, R. Scheifler, L. Richert, A. Berthelot, P.M. Badot. Effects of subchronic digestive exposure to organic or inorganic cadmium on biomarkers in rat tissues. *Ecotoxicology and Environmental Safety*, 70, 490-498.
- (2008) F. Gimbert, M. Mench, M. Coeurdassier, P.M. Badot, A. de Vaufleury. Kinetic and dynamic aspects of soil-plant-snail transfer of cadmium in the field. *Environmental Pollution*, 152, 736-745.
- (2008) F. Gimbert, A. de Vaufleury, F. Douay, R. Scheifler, M. Coeurdassier, P.M. Badot, Long-term responses of snails exposed to cadmium-contaminated soils in a partial life-cycle experiment. *Ecotoxicology and Environmental Safety*, 70, 138-146.
- (2008) F. Hispard, A. de Vaufleury, R.P. Cosson, R. Scheifler, M. Coeurdassier, S. Devaux, H. Martin, F. Gimbert, L. Richert, A. Berthelot, P.M. Badot. Comparison of transfer and effects of Cd on rats exposed in a short experimental snail-rat food chain or to CdCl<sub>2</sub> dosed food. *Environment International*, 34, 381-389.
- (2008) G. Crini, F. Gimbert, C. Robert, B. Martel, O. Adam, N. Crini, F. Degiorgi, P.M. Badot. The removal of Basic Blue 3 from aqueous solutions by chitosan-based adsorbent: batch studies. *Journal of Hazardous Materials*, 153, 96-106.
- (2008) G. Crini, P.M. Badot. Application of chitosan, a natural aminopolysaccharide, for dye removal from aqueous solutions by adsorption processes using batch studies: a review of recent literature. *Progress in Polymer Science*, 33, 399-447.
- (2008) F. Gimbert, M. G. Vijver, M. Coeurdassier, R. Scheifler, W. J. G. M. Peijnenburg, P.M. Badot, A. de Vaufleury. How subcellular partitioning can help to understand heavy metal accumulation and elimination kinetics in snails. *Environmental Toxicology and Chemistry*, 27, 1284-1292.
- (2008) C. Fritsch, R. Scheifler, K. Beaugelin-Seiller, P. Hubert, M. Coeurdassier, A. de Vaufleury, PM Badot. Biotic interactions modify the transfer of caesium 137 in a "soil-earthworm-plant-snail" food web. *Environmental Toxicology and Chemistry*, 27, 1698-1707.
- (2008) F. Hispard, D. Schuler, A. de Vaufleury, R. Scheifler, P.M. Badot, R. Dallinger. Metal distribution and metallothionein induction after cadmium exposure in

the terrestrial snail *Helix aspersa* (Gastropoda, Pulmonata). Environmental Toxicology and Chemistry, 27, 1533-1542.

- (2008) F. Renault, N. Morin-Crini, F. Gimbert, P.M. Badot G. Crini. Cationized starch-based material as a new ion-exchanger adsorbent for the removal of C.I. Acid Blue 25 from aqueous solutions. Bioresource Technology, 99, 7573-7586.
- (2008) F. Gimbert, N. Morin-Crini, F. Renault, P.M. Badot, G. Crini, Adsorption isotherm models for dye removal by cationized starch-based material in a single component system: Error analysis. Journal of Hazardous Materials, 157, 34-46.
- (2008) J.R. Bondier, G. Michel, A. Propper, P.M. Badot. Harmful effects of cadmium on olfactory system in mice. Inhalation toxicology, 20, 1169-1177.
- (2009) O. Adam, P.M. Badot, F. Degiorgi, G. Crini. Mixture toxicity assessment of wood preservative pesticides in the freshwater amphipod *Gammarus pulex* (L.). Ecotoxicology and Environmental Safety, 72, 441-449.
- (2009) G. Crini, P.M. Badot, N. Morin-Crini, B. Jolibois, E. Comte, B. Fahys, E. Gravier, G. Torri. Flour of corn for dye removal from pulp and paper effluents , Actualité chimique, 325, 8-13 .
- (2009) B. Gérard, B. Alaoui-Sossé, P.M. Badot. Flooding effects on starch partitioning during early growth of two oak species. Trees - Structure and Function, 23 (2) 373-380.
- (2009) F. Renault, B. Sancey, P.M. Badot, G. Crini. Chitosan for coagulation/flocculation processes. An eco-friendly approach. European Polymer Journal, 45, 1337-1348.
- (2009) C. Boyer, L. Vichot, T. Boissieux, Y. Losset, C. Mavon, F. Tatin-Froux, M. Fromm, P.M. Badot. Variations of conversion rate from Tissue Free Water Tritium to Organically-Bound Tritium in lettuces continuously exposed to atmospheric HT and HTO. Radioprotection, 44, 671-676.
- (2009) C. Boyer, L. Vichot, M. Fromm, Y. Losset, F. Tatin-Froux, P. Guétat, P.M. Badot. Tritium in plants: a review of current knowledge. Environ. Exp. Botany, 67, 34-51.
- (2009) F. Renault, B. Sancey, J. Charles, N. Morin-Crini, P.M. Badot, P. Winterton, G. Crini. Chitosan flocculation of cardboard-mill secondary biological wastewater. Chemical Engineering Journal. 155, 775–783.
- (2009) B. Besson, L. Pourcelot, E. Lucot, P.M. Badot. Variations in the Transfer of 137Cs and 90Sr from Milk to Cheese. Journal of Dairy Science, 92, 5363-5370.
- (2010) G. Crini, P.M. Badot. Starch-based biosorbents for dyes in textile wastewater treatment. International Journal of Environmental Technology and Management, 12, 129-150.
- (2010) O. Adam, F. Degiorgi, G. Crini, P.M. Badot., High sensitivity of *Gammarus* sp. juveniles to deltamethrin:outcomes for risk assessment. Ecotoxicology and Environmental Safety, 13, 1402-1407.
- (2010) B. Sancey, G. Trunfio, J. Charles, J.F. Minary, S. Gavoille, P.M. Badot, G. Crini. Heavy metal removal from industrial effluents by sorption on cross-linked starch: Chemical study and impact on water toxicity, Journal of Environmental Management, 92, 765-772.
- (2010) B. Sancey, N. Morin-Crini, L.F. Lucas, J.F. Minary, P.M. Badot, G. Crini. Biosorption on crosslinked starch for metal removal from industrial effluents. J. Water Sci., 23, 275-287.
- (2011) S. Maas, F. Gimbert, E. Lucot, N. Crini, P.M. Badot. Trace metals in raw cows'milk and assessment to transfer to Comté cheese. Food Chemistry, 129, 7-12. (do:10.1016/j.foodchem.2010.09.034).

- (2011) B. Sancey, G. Trunfio, J. Charles, P.M. Badot, G. Crini. Sorption onto crosslinked cyclodextrin polymers for industrial pollutants removal: An interesting environmental approach. *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, 70, 315-320 (doi: 10.1007/s10847-010-9841-1)
- (2011) F. Hispard, A Devaufleury, C. Schaeffer, R. Scheifler, P.M. Badot, L. Richert, H. Martin. Differential liver proteome mapping of control and cadmium-fed rats. *Ecotoxicology and Environmental Safety*, 74, 576-583.
- (2011) M. Guéguen, J.C. Amiard, N. Arnich, P.M. Badot, D. Claisse, T. Guérin, J.P Vernoux. Shellfish and residual chemical contaminants: hazard analysis, monitoring and risk assessment along the French coasts. *Rev Environ Contam Toxicol*, 213, 55-111.
- (2011) G. Pimou-Heumou, E. Lucot, N. Crini, M. Briot, P.M. Badot. Spatial variability of <sup>137</sup>Cs activities in soils from the watershed of the Doubs river: range and main sources of variations. *Radioprotection*, 46, 89-108.
- (2011) B. Sancey, J. Charles, G. Trunfio, P.M. Badot, M. Jacquot, X. Hutinet, S. Gavoille, G. Crini. Effect of Additional Sorption Treatment by Cross-Linked Starch of Wastewater from a Surface Finishing Plant. *Ind. Eng. Chem. Res.*, 50, 1749–1756.
- (2011) J. Charles, G. Crini, B. Sancey, G. Trunfio, P.M. Badot, N. Morin-Crini, J.F. Minary, S. Gavoille, C. Lagarrigue, G. Torri, E. Vismara, P. Winterton. Monitoring and optimization of a wastewater decontamination station operating in the surface treatment industry: chemical abatement and ecotoxicological impact. *J. Water Sci.*, 24, 329-341.
- (2011) F. Bosch-Cano, N. Bernard, B. Sudre, F. Gillet, M. Thibaudon, H. Richard, P.M. Badot, P. Ruffaldi. Human exposure to allergenic pollens: a comparison between urban and rural areas *Environmental Research*, 111, 619-625.
- (2011) F. Cobert, A.D. Schmitt, P. Bourgeade, F. Labolle, P.M. Badot, F. Chabaux, P. Stille. Experimental identification of Ca isotopic fractionations in higher plants. *Geochimica & Cosmochimica Acta*, 75, 5467-5482.
- (2011) J. Charles, B. Sancey, N. Morin-Crini, P.M. Badot, F. Degiorgi, G. Trunfio, G. Crini. Evaluation of the phytotoxicity of polycontaminated industrial effluents using the lettuce plant (*Lactuca sativa*) as a bioindicator. *Ecotoxicology and Environmental Safety*, 74, 2057-2064.
- (2011) P.M. Badot. Is the assessment of mixture toxicity an impossible challenge? *Archives des Maladies Professionnelles et de l'Environnement*, 72, 600-612.
- (2012) M. Babut, C. Lopes, S. Pradelle, H. Persat, P.M. Badot. BSAFs for freshwater fish and derivation of a sediment quality guideline for PCBs in the Rhone basin, France, *Journal of Soils and Sediments*, 12, 241-251.
- (2013) L. Brioschi, M. Steinmann, E. Lucot, M.C. Pierret, P. Stille, J. Prunier, P. M. Badot. Transfer of rare earth elements (REE) from natural soil to plant systems: implications for the environmental availability of anthropogenic REE. *Plant Soil*, 366 ( 1-2 ) pp. 143 - 163, DOI 10.1007/s11104-012-1407-0
- (2013) A.D. Schmitt, F. Cobert, P. Bourgeade, D. Ertlen, F. Labolle, S. Gangloff, P.M. Badot, F. Chabaux, P. Stille. Calcium isotope fractionation during plant growth under a limited nutrient supply. *Geochimica & Cosmochimica Acta*, 110, 70–83.
- (2014) J. Charles, G. Crini, C. Bradu, G. Torri, S. Gavoille, B. Sancey, N. Morin-Crini, G. Trunfio, P.M. Badot, P. Winterton, C. Lagarrigue. Optimisation of an industrial wastewater decontamination plant: An environment-oriented approach. *Canadian Journal of Chemical Engineering*, 92, 391-400.
- (2014) J. Charles, G. Crini, N. Morin-Crini, P.M. Badot, G. Trunfio, B. Sancey, M. de Carvalho, C. Bradu, S. Avramescu, P. Winterton, S. Gavoille, G. Torri. Advanced

- oxidation (UV-ozone) and cyclodextrin sorption: Effects of individual and combined action on the chemical abatement of organic pollutants in industrial effluents. *Journal of the Taiwan Institute of Chemical Engineers*, 45, 603-608.
- (2014) P. Le Goff, J.M. Duda, P. Guétat, P. Rambaud, C. Mavon, L. Vichot, P.M. Badot, M. Fromm. Measurement of tritium in the free water of milk : spotting and quantifying some biases and proposing ways of improvement *Journal of Environmental Radioactivity*, 127 1-10, doi: 10.1016/j.jenvrad.2013.09.006.
  - (2014) J. Charles, G. Crini, F. Degiorgi, B. Sancey, N. Morin-Crini, P.M. Badot. Unexpected toxic interactions in the freshwater amphipod *Gammarus pulex* (L.) exposed to binary copper and nickel mixtures *Environmental Science and Pollution Research*, 21, 1099-1111.
  - (2014) P. Le Goff, M. Fromm, L. Vichot, P.M. Badot, P. Guétat. Isotopic fractionation of tritium in biological systems. *Environnement International*, 65, 116-126.
  - (2014) M. Bourioug, L. Alaoui-Sossé, X. Laffray, N. Raouf, M. Benbrahim, P.-M. Badot, B. Alaoui-Sossé. Evaluation of Sewage Sludge Effects on Soil Properties, Plant Growth, Mineral Nutrition State, and Heavy Metal Distribution in European Larch Seedlings (*Larix decidua*). *Arabian Journal for Science and Engineering*, 39, 5325-5335.
  - (2014) L. Mauchamp, A. Mouly, P.M. Badot, F. Gillet. Impact of management type and intensity on multiple facets of grassland biodiversity in the French Jura Mountains. *Applied Vegetation Science*, 17, 645-657.
  - (2014) N. Bemrah, J. Jean, G. Rivière, M. Sanaa, S. Leconte, M. Bachelot, Y. Deceuninck, B. Le Bizec, X. Dauchy, A.-C. Roudot, V. Camel, K. Grob, C. Feidt, N. Picard-Hagen, P.M. Badot, F. Foures, J.-C. Leblanc. Assessment of dietary exposure to bisphenol A in the French population with a special focus on risk characterisation for pregnant French women. *Food and Chemical Toxicology*, 72, 90-97.
  - (2015) J. Mudry, F. Degiorgi, E. Lucot, E., P.M. Badot. Middle term evolution of water chemistry in a karst river: Example from the Loue River (Jura Mountains, Eastern France). In: *Hydrogeological and Environmental Investigations in Karst Systems - Environmental Earth Sciences*, Publisher : Springer, Editors : B. Andreo, F. Carrasco, J.J. Duran, P. Jimenez, J.W. LaMoreaux, pp.147-151. DOI : 10.1007/978-3\_642-17435-3
  - (2015) C. Vigreux-Besret, A. Mahé, G. Ledoux, A. Garnier, C. Rosin, A. Baërt, M. Joyeux, P.M. Badot, P. Panetier G. Rivière. Perchlorate: water and infant formulae contaminations and risk assessment in infants. *Food Additives and Contaminants*, 32 (7), 1148 - 1155.
  - (2015) A. Chiffre, F. Degiorgi, N. Morin-Crini, A. Bolard, E. Chanez, P.M. Badot. PAH occurrence in chalk river systems from the Jura region (France). Pertinence of suspended particulate matter and sediment as matrices for river quality monitoring, *Environmental Science and Pollution Research*, 22 (22) 17486-17498, DOI 10.1007/s11356-015-4897-5
  - (2015) M. Bourioug, F. Gimbert, L. Alaoui-Sehmer, M. Benbrahim, P.M. Badot, B. Alaoui-Sossé, L. Aleya. Effects of sewage sludge amendment on snail growth and trace metal transfer in the soil-plant-snail food chain, *Environmental Science and Pollution Research*, 22, 17925-17936, DOI, 10.1007/s11356-015-5006-5.
  - (2016) P. Le Goff, Ph. Guétat, L. Vichot, N. Leconte, P.M. Badot, F. Gaucheron, M. Fromm. Tritium levels in milk in the vicinity of chronic tritium releases. *J. Environ. Rad.* 151, 282-292..

- (2016) J. Charles, C. Bradu, N. Morin-Crini, B. Sancey, P. Winterton, G. Torri, P.M. Badot, G. Crini. Pollutant removal from industrial discharge water using individual and combined effects of adsorption and ion-exchange processes: Chemical abatement. *Journal of Saudi Chemical Society*, 20, 185-194.
- (2016) M. Bourioug, F. Gimbert, L. Alaoui-Sehmer, M. Benbrahim, P.M. Badot, B. Alaoui-Sossé, L. Aleya. Land spreading of sewage sludge in forest plantations: effects on the growth of the duckweed *Lemna minor* and trace metal bioaccumulation in the snail *Cantareus aspersus*. *Environmental Science and Pollution Research*, 23:9891–9900, DOI 10.1007/s11356-016-6222-3
- (2016) L. Mauchamp, A. Mouly, P.M. Badot, F. Gillet. Impact of nitrogen inputs on multiple facets of plant biodiversity in mountain grasslands: does nutrient source matter? *Applied Vegetation Science*, 19. 206-217.
- (2016) F. Gillet, L. Mauchamp, P.M. Badot, A. Mouly. Recent changes in mountain grasslands: a vegetation resampling study. *Ecology and Evolution*, 6, 2333-2345.
- (2016) A. Chiffre, F. Degiorgi, N. Morin-Crini, A. Bolard, E. Chanéz, P.M. Badot. How to Assess Temporal Changes of Point and Diffuse Contamination in a Rural Karstic Watershed? Relevance of Suspended Particulate Matter (SPM) for Efficient Monitoring, *Water, Air, & Soil Pollution*, DOI: 10.1007/s11270-016-3044-3, 227:384.
- (2016) A. Chiffre, F. Degiorgi, A. Buleté, L. Spinner, P.M. Badot Occurrence of pharmaceuticals in WWTP effluents and their impact in a karstic rural catchment of Eastern France. *Environmental Science and Pollution Research*, DOI 10.1007/s11356-016-7751-5, Volume 23, Issue 24, pp 25427–25441.
- (2017) V. Desvignes, A. Mahé, X. Laffray, C. Vigreux-Besret, C. Feidt, P.M. Badot, J.L. Volatier, G. Rivière. Polychlorobiphenyls in freshwater fish: a new strategy to set maximum contamination limits. *Food Additives and Contaminants*, 34,241-247.
- (2017) A. Priac, P.M. Badot, G. Crini. Treated wastewater phytotoxicity assessment using *Lactuca sativa*: Focus on germination and root elongation test parameters, *Comptes Rendus Biologies*, 340, 188-194,  
<http://dx.doi.org/10.1016/j.crvi.2017.01.002>
- (2019) Collas, Claire, Mahieu, Maurice, Tricheur, Alexandre, Nadia Crini, Pierre-Marie Badot, Harry Archimède, Guido Rychen, Cyril Feidt, Stefan Jurjanz. Cattle exposure to chlordcone through soil intake. The case-study of tropical grazing practices in the French West Indies? *Science of the Total Environment*, 668, 161-170.
- (2020) Claire Collas, Maurice Mahieu, Pierre-Marie Badot, Nadia Crini, Guido Rychen, Cyril Feidt, Stefan Jurjanz. Dynamics of soil ingestion by growing bulls during grazing on a high sward height in the French West Indies. *Scientific reports*, *naturererearch*, <https://doi.org/10.1038/s41598-020-74317-0>.
- (2020) Géraldine Carne, Stéphane Leconte, Véronique Sirot, Nicolas Breysse; Pierre-Marie Badot, Antonio Bispo, Isabelle Deportes, Camille Dumat, Gilles Rivière, Amélie Crepet. Mass balance approach to assess the impact of cadmium decrease in mineral phosphate fertilizers on health risk: the case-study of French agricultural soils. *Science of the Total Environment* 760 (2021) 143374,  
<https://doi.org/10.1016/j.scitotenv.2020.143374>
- (2022) Amélie Crépet, Paule Vasseur, Julien Jean, Pierre-Marie Badot, Fabrice Nesslany, Jean-Paul Vernoux, Cyril Feidt, and Sakina Mhaouty-Kodja, Integrating Selection and Risk Assessment of Chemical Mixtures: A Novel Approach Applied to a Breast Milk Survey, *Environmental Health Perspectives*, in press, //doi.org/10.1289/EHP8262.
- (2023) Claire Collas, Jean-Luc Gourdine, David Beramice, Pierre-Marie Badot, Cyril Feidt, Stefan Jurjanz. Soil ingestion, a key determinant of exposure to environmental

contaminants. The case study of chlordécone exposure in free-range pigs in the French West Indies. Environmental Pollution, 316 (2023) 120486,  
<https://doi.org/10.1016/j.envpol.2022.120486>.

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#### Books and articles in books :

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*Tel est le monde*

*Nous ne le voyons pas très longtemps : juste assez*

*Pour en garder ce qui scintille et va s'éteindre,...*

P. Jaccottet

*True genius resides in the capacity for evaluation of uncertain, hazardous, and conflicting information.*

Winston Churchill 1874-1965

*Ничего не найти, это сложный план.*

*Finding is nothing, it's the plan that is difficult.*

Fiodor Dostoïevski 1821-1881

*La vraie science est une ignorance qui se sait.*

*True science is ignorance which is known.*

Michel de Montaigne 1533-1592

*We affirm our belonging to European culture precisely by our ability to keep a critical distance from ourselves, to want to look at ourselves through the eyes of others, to esteem tolerance in public life, skepticism in intellectual work, need to confront all possible reasons both in legal and scientific procedures, in short to leave open the field of uncertainty.*

Leszek Kolakowski 1927-2009

*Entia non sunt multiplicanda sine necessitate*  
*Entities must not be multiplied without necessity*  
William of Ockham 1287-1347