

Dr Florence PORTET-KOLTALO

Pers. address : 294 rue Marcel Pagnol
27930 Gravigny, France

Prof. address : University of Rouen
COBRA laboratory, UMR CNRS 6014
IUT, 55 rue Saint Germain
27000 Evreux, France
www.lab-cobra.fr

Phone: +33 2 32 29 15 35

Mail : florence.koltalo@univ-rouen.fr

CURRICULUM VITAE

Researcher Teacher
Normandy University – Rouen (France)

Environment and analytical chemistry

EDUCATION

Jan 2011 : HDR: Habilitation thesis to supervise research – University of Rouen, France
Thesis: “*Separation Sciences and Environment*”.

Oct 1992-sept 1996: **PhD** – University Pierre et Marie Curie (UPMC), Paris, France
Thesis : « *Study of the adsorption of complex formulations of nonionic surfactants at liquid/solid interfaces by high performance liquid chromatography.* »
LASOC laboratory (Evreux, France). Dir.: Pr P.L. Desbène

Oct 1991-Jul 1992 : Master degree « Spectroscopy, organic and biological analyses », University Pierre et Marie Curie (UPMC), Paris, France
Thesis : “ *Complexation of metal cations by polyethyleneoxide surfactants. Application to the analysis on nonionic surfactants by exchange ion chromatography.* ”
LASOC laboratory (Evreux, France). Dir.: Pr P.L. Desbène

RESEARCH EXPERIENCE

Jan 2011-2015 : Associate Professor – University of Rouen, France – COBRA laboratory, UMR CNRS 6014. Dir: Pr X. Panecoucke.

Projects 2015-2017: “*Evolution of the toxicity of dredged sediments (containing mixed pollutants PAHs, PCBs, heavy metals) decontaminated by an electrokinetic process.* » Upper-Normandy Region funding, multi-disciplinary research network SCALE, SEDEVAR research project.

“ *Persistent organic and inorganic contaminants in fluvial sediment cores: quantification and bioavailability evolution for 80 years accumulation.* ” Upper-Normandy Region funding, multi-disciplinary research network SCALE, TYRECS research project.

Projects 2012-2014: “ *Study of contaminant evolution (PAHs, heavy metals) in water/soil/plant systems. Case of LID (Low Impact Development) urban roadways constructions.* ” Funding from INFRA-SERVICES society, Canteleu, France.

“ *Influence of bio- geo-chemical factors and biosurfactant addition on PAH bioavailability and biodegradation in diffusively contaminated soils.* ” Upper-Normandy Region funding, research network SCALE, RESSOLV research project.

Project 2012: “*Analysis of hydroxylated metabolites of PAHs in soils using molecularly imprinted polymers.*” Partnership with GTS research group of University of Barcelona (Spain) and Polyintell society (Val de Reuil, France).

Sept 1997-dec 2010: Associate Professor – University of Rouen, France – LASOC laboratory EA3233. Dir: Pr P.L. Desbène.

Projects 2009-2012: “ *Study of electrokinetic remediation process applied to dredged sediment cleanup.* ” Upper-Normandy Region funding, research network SCALE, RESSOLV project.

“ Production and purification of cyclolipopeptidic biosurfactants for environmental use (desorption of lipophilic organic compounds from soils or sediment).” Upper-Normandy Region funding, research network SCALE, RESSOLV project.

Project 2008: *“Study of the potentialities of a laser induced native fluorescence detector for capillary electrophoresis and nano-LC.”* Partnership with Flowgene Society (St Beuzire, France).

Project 2002-2008: *“ Optimisation of sample preparation and analytical tools for the analysis of PAHs and nitrated derivatives sorbed on Diesel soot.”* TOPAASE research program (Toxicology of Atmospheric Pollutants - Aerothermochemistry, Health, Environment), French government-Region contract plan, partnership with the CERTAM (Centre for Study and Technological Research in Aerothermics and Engines), Le Madrillet, France.

Project 2001-2002: *“Collect in aqueous phase of COVs present at trace level in an air stream and quantification by SPE-HPLC.”* CRAFT European research program (*“Depollution of COVs from gaseous releases”*); Partnership with the CERTAM, Le Madrillet, France.

Project 1998-2001: *“ Mixtures of nonionic and ionic surfactants at water/solid interfaces: competitive or synergistic sorption phenomena.”* French government-Upper-Normandy Region contract plan.

Oct 1995- Sept 1996: Temporary lecturer and research assistant - University of Rouen, France.

Project: *“Solid Phase Extraction (SPE) for simultaneous trace analysis of anionic and nonionic surfactants in water.”* French government-Region contract plan, partnership with the soap and detergent industry's association.

Oct 1992- Sept 1995: Doctoral research fellow (Research grant from the French Ministry of Education and Research).

Project: *“Analysis of traces of laundry surfactants in water”.* French government-Region contract plan, partnership with the soap and detergent industry's association.

Sub-project (6 months): *“Isolation of pure polyethyleneoxide surfactant oligomers by preparative liquid chromatography.”* Partnership with Janssen-Cilag pharmaceutical society.

Thesis supervision:

Supervision of 4 doctoral thesis, defended in 2006, 2013, two in 2015, and 2 others in progress

Supervision of 4 Master 2 degree thesis, defended in 2000, 2002, 2006, 2007.

Projects coordination:

Coordination of the regional SEDEVAR project (Contaminated Sediments: decontamination, Valorization or reuse for Ecological Restoration) (2014-2015), pooling the expertise of 5 research teams of Universities of Rouen and Le Havre (France).

Coordination of the regional RESSOLV project (Restoration of Vulnerable Sediments and Soils) (2010-2013), pooling the expertise of 4 research teams of Universities of Rouen and Le Havre (France).

Reviewer:

Talanta, J. Chrom. A, Analytica Chimica Acta...

J. Hazard. Mater., STOTEN, Pedosphere, Chemosphere, Env. Sci. technol., Env. Sci. Pollut. Res...

TECHNICAL SKILLS

Liquid chromatography (HPLC, nanoLC), gas chromatography/mass spectrometry. Sample preparation: trace enrichment (solid phase extraction), extractions from environmental matrix (hot soxhlet, microwave-assisted extraction, pressurized liquid extraction, supercritical fluid extraction). Spectroscopy (UV, IR, fluorimetry). Experimental designs.

TEACHING EXPERIENCE

Teaching at Licence degree at University Institute of Technology IUT of Evreux (France) since 1994, in various fields of chemistry, for students or professionals (permanent formation):

Thermodynamics, atomistic, polymers, crystallography, analytical chemistry, spectroscopy (UV, IR, Mass Spectrometry, RMN), chromatography, environment chemistry...

6 years educational support of the "Measurement Physics" department of IUT of Evreux.

PUBLICATIONS

Total articles: 34 of which 29 International articles

For publications, see my research ID: <http://www.researcherid.com/rid/H-8793-2015>

my ORCID number: <https://orcid.org/orcid.org/0000-0001-8665-1856>

my research gate: http://www.researchgate.net/profile/Florence_Portet-Koltalo

9 international and 18 French oral communications; 20 international and 24 French poster communications.

N° DOI	AUTHOR	TITLE	JOURNAL	IF
10.1007/BF02263883	B. Desmazières, F. Portet, P.L. Desbène	Analytical study of highly condensed nonionic surfactants. Separation on cation exchangers	<i>Chromatographia</i> , 1993, 36, 307-317	1.37
10.1016/0021-9673(95)01087-4	P.L. Desbène, F. Portet, G.J. Goussot	Quantitative trace analysis of surfactant mixtures by reversed-phase high-performance liquid chromatography with refractometric detection	<i>Journal of Chromatography A</i> , 730, 1996, 209-218	4.26
10.1006/jcis.1996.0614	F. Portet, P.L. Desbène, C. Treiner	Nonideality of mixtures of pure non-ionic surfactants both in solution and at silica/water interfaces	<i>Journal of Colloid and Interface Science</i> , 184, 1996, 216-226	3.55
10.1006/jcis.1997.74884	P.L. Desbène, F. Portet, C. Treiner	Adsorption of pure non-ionic alkylethoxylated surfactants down to low concentrations at silica/water interface as determined using a HPLC technique	<i>Journal of Colloid and Interface Science</i> , 1997, 190, 350-356	3.55
10.1006/jcis.1997.75113	F. Portet, P.L. Desbène, C. Treiner	Adsorption isotherms at a silica/water interface of the oligomers of polydispersed non-ionic surfactants of the alkylpolyethoxylated series	<i>Journal of Colloid and Interface Science</i> , 1997, 194, 379-391	3.55
10.1006/jcis.1998.85851	F. Portet, P.L. Desbène, C. Treiner	Polydispersity of non-ionic surfactants as related to their adsorption characteristics on porous silica particles in water	<i>Journal of Colloid and Interface Science</i> , 1998, 208, 415-421	3.55
10.1016/S0021-9673(00)00225-9	F. Portet, C. Treiner, P.L. Desbène	Simultaneous quantitative trace analysis of anionic and non-ionic surfactants mixtures by reversed-phase liquid chromatography	<i>Journal of Chromatography A</i> , 2000, 878, 99-113	4.26
10.1021/la001785p	F. Portet-Koltalo, P.L. Desbène, C. Treiner	Self-desorption of mixtures of anionic and non-ionic surfactants from a silica/water interface	<i>Langmuir</i> , 17, 2001, 3858-3862	4.38
10.1016/S0021-9797(03)00050-X	F. Portet-Koltalo, P.L. Desbène, C. Treiner	Analytical investigation of the self desorption of the oligomers of mixtures of a polydispersed ethoxylated surfactant with sodium dodecylsulfate from a silica/water interface	<i>Journal of Colloid and Interface Science</i> , 2003, 261, 40-48	3.55
10.1016/j.talanta.2006.06.043	F. Portet-Koltalo, K. Oukebdane, L. Robin, F. Dionnet, P.L. Desbène	Quantification of volatile PAHs present at trace levels in air-flow by aqueous trapping-SPE and HPLC analysis with fluorimetric detection	<i>Talanta</i> , 2007, 71, 1825-1833	3.50
	F. Portet-Koltalo, K. Oukebdane, F. Dionnet, P.L. Desbène	De l'intérêt de l'utilisation de la pyridine pour l'extraction par micro-ondes des hydrocarbures aromatiques polycycliques à partir des particules de suies émises à l'échappement d'un moteur Diesel	<i>Spectra Analyse</i> , 2007, 254, 28-36	

10.1007/s00216-007-1684-2	F. Portet-Koltalo, K. Oukebdane, F. Dionnet, P.L. Desbène	Optimisation of the extraction of polycyclic aromatic hydrocarbons and their nitrated derivatives from Diesel particulate matter using microwave-assisted extraction	<i>Analytical and Bioanalytical Chemistry</i> , 2008, 390, 389-398	3.66
10.1002/pssc.200881098	E. Méry, S. Alekseev, F. Koltalo, C. Morin, D. Barbier, V. Zaitsev, P. L. Desbène	Porous silicon based microdevice for reversed phase liquid chromatography.	<i>Physica Status Solidi C</i> , Special Issue: 6th PSST 2008, 2009, 6, 1777-1781	
10.1016/j.aca.2009.07.038	F. Portet-Koltalo, K. Oukebdane, F. Dionnet, P.L. Desbène	Optimisation of supercritical fluid extraction of polycyclic aromatic hydrocarbons and their nitrated derivatives adsorbed on highly sorptive diesel particulate matter	<i>Analytica Chimica Acta</i> , 2009, 651, 48-56	4.31
10.1016/j.talanta.2010.04.027	Oukebdane, K.; Portet-Koltalo, F.; Machour, N.; Dionnet, F.; Desbène, P.L.	Comparison of hot Soxhlet and accelerated solvent extractions with microwave and supercritical fluid extractions for the determination of polycyclic aromatic hydrocarbons and nitrated derivatives strongly adsorbed on soot collected inside a diesel particulate filter	<i>Talanta</i> 2010, 82, 227-236	3.49
10.1111/j.1574-6941.2009.00788.x	Niepceron, M.; Portet-Koltalo, F.; Motelay-Massei, A.; Barray, S.; Bodilis, J.	Both <i>Cycloclasticus</i> spp. and <i>Pseudomonas</i> spp. as PAH-degrading bacteria in the Seine estuary (France)	<i>FEMS Microbiol. Ecol.</i> 2010, 71, 137-147	3.56
	Portet-Koltalo, F.; Ammami, M.T.; Benamar, A.; Duclairoir-Poc, C.; Groboillot, A.; Orange, N.	Pollution des sédiments de dragage - Procédés de bioremédiation alliés à l'électromigration	<i>Spectra Analyse</i> 2010, 277, 54-58	
10.3390/ijms12031787	Groboillot, A.; Portet-Koltalo, F.; Le Derf, F.; Feuilloley, M.J.G.; Orange, N.; Poc, C.D.	Novel Application of Cyclolipopeptide Amphisin: Feasibility Study as Additive to Remediate Polycyclic Aromatic Hydrocarbon (PAH) Contaminated Sediments	<i>Int. J. mol. Sci.</i> 2011, 12, 1787-1806	2.46
10.1016/j.chroma.2010.12.074	Portet-Koltalo, F.; Preterre, D.; Dionnet, F.	A new analytical methodology for a fast evaluation of semi-volatile polycyclic aromatic hydrocarbons in the vapor phase downstream of a diesel engine particulate filter	<i>J. Chromatogr. A</i> , 2011, 1218, 981-989	4.61
	Portet-Koltalo, F.; Ammami, M.T.; Benamar, A.; Groboillot, A.; Orange, N.; Duclairoir-Poc, C.;	Déséquestration de polluants de type hydrocarbures aromatiques polycycliques à l'interface de sédiments au moyen d'un tensioactif original d'origine biologique	<i>Spectra Analyse</i> 2011, 278, 21-27	
	Vieillard, J.; Morin, C.; Portet-Koltalo, F.; Le Derf, F.	Potentialités de la détection par fluorescence native induite par laser UV pour les sciences séparatives	<i>Spectra Analyse</i> 2011, 281, 20-27	
ISBN 979-953-307-1017-7	Portet-Koltalo, F.; Machour, N.	Analytical methodologies for the control of particle-phase polycyclic aromatic compounds from diesel engine exhausts	Diesel Engine, ed. S. Bari, INTECH Open Science, 2012	
10.1039/C3AY41227J	Baltrons, O.; López-Mesas, M.; Palet, C.; Le Derf, F.; Portet-Koltalo, F.;	Molecularly imprinted polymer-liquid chromatography/fluorescence for the selective clean-up of hydroxylated polycyclic aromatic hydrocarbons in soils	<i>Anal. Methods</i> , 2013, 5, 6297-6305	1.94
10.1016/j.jhazmat.2013.07.062	Portet-Koltalo, F.; Ammami, M.T.; Benamar, A.; Wang, H.; Le Derf, F.; Duclairoir-Poc, C.;	Investigation of the release of PAHs from artificially contaminated sediments using cyclolipopeptidic biosurfactants.	<i>J. Hazard. Mater.</i> 2013, 261, 593-601.	4.33
10.1051/e3sconf/20130101004	Ammami, M. T.; Benamar, A.; Koltalo, F.; Wang, H.Q.; Le Derf, F.	Heavy metals removal from dredged sediments using electro kinetics	E3S Web of Conferences, Proceedings, 16th International Conference on Heavy Metals in the Environment, EDP Sciences, 1, 2013,	

10.1016/j.envpol.2013.05.040	Niepceron, M.; Martin-Laurent, F.; Crampon, M.; Portet-Koltalo, F.; Akpa-Vinceslas, M.; Legras, M.; Bru, D.; Bureau, F.; Bodilis, J.;	GammaProteobacteria as a potential bioindicator of a multiple contamination by polycyclic aromatic hydrocarbons (PAHs) in agricultural soils.	<i>Environ. Pollut.</i> 2013, 180, 199-205.	3.73
10.1007/s13762-013-0395-9	Ammami, M.T.; Benamar, A.; Wang, H.; Bailleul, C.; Legras, M.; Le Derf, F.; Portet-Koltalo, F.;	Simultaneous electrokinetic removal of polycyclic aromatic hydrocarbons and heavy metals from an aged contaminated model sediment using mixed enhancing agents.	<i>Int. J. Environ. Sci. Te.</i> 2014, 11, 1801-1816,	1.84
10.1007/s11356-013-2258-9	Niepceron M.; Beguet J.; Portet-Koltalo F.; Martin-Laurent F.; Quillet L.; Bodilis J.	Low impact of phenanthrene dissipation on the bacterial community in grassland soil.	<i>Environ.Sci. Poll. Res.</i> 2014, 21, 2977-2987	2.76
10.1007/s11356-014-2799-6	Crampon, M.; Bureau, F.; Akpa-Vinceslas, M; Bodilis, J.; Machour, N.; Le Derf, F.; Portet-Koltalo, F.	Correlations between PAH bioavailability, degrading bacteria and soil characteristics during PAH biodegradation in five diffusely contaminated dissimilar soils	<i>Environ. Sci. Poll. Res.</i> 2014, 21, 8133-8145	2.76
10.1016/j.chemosphere.2014.03.012	Marcotte, S.; Poisson, T.; Portet-Koltalo, F.; Aubrays, M.; Basle, J.; de Bort, M.; Giraud, M.; Nguyen Hoang, T.; Octau, C.; Pasquereau, J.; Blondeel, C.	Evaluation of the PAH and water-extractable phenols content in used cross ties from the French rail network	<i>Chemosphere</i> 2014, 111, 1–6.	3.50
10.1007/s11356-014-3064-8	Crampon, M.; Copard, Y.; Favreau, G.; Raux, J.; Merlet-Machour, N.; Le Coz, M.; Ibrahim, M.; Peulon-Agasse, V.; Portet-Koltalo, F.	Occurrence of 1,1'-dimethyl-4,4'-bipyridinium (Paraquat) in irrigated soil of the Lake Chad Basin, Niger.,	<i>Environ. Sci. Poll. Res.</i> 2014	2.76
	M.C. Leroy, S. Marcotte, F. Le Derf, V. Moncond'huy, M. Legras, S. Marcotte	Infrastructures vertes : des outils paysagers et écologiques. Exemple des noues de voirie pour la remédiation des hydrocarbures aromatiques polycycliques (HAP) et des éléments traces (ET)	<i>Actual. Chimique</i> 2014, 390, 82-84	0.09
10.1016/j.chemosphere.2014.12.087	M.T. Ammami, F. Portet-Koltalo, A. Benamar, C. Duclair-Poc, H. Wang, F. Le Derf.	Application of biosurfactants and a periodic voltage gradient for enhanced electrokinetic remediation of metals and PAHs in dredged marine sediments.	<i>Chemosphere</i> , 2015, 125, 1-8	3.50
10.1016/j.scitotenv.2015.03.020	M.C. Leroy, M. Legras, S. Marcotte, V. Moncond'huy, N. Machour, F. Le Derf, F. Portet-Koltalo,	Assessment of PAH dissipation processes in large-scale outdoor mesocosms simulating vegetated road-side swales	<i>Science of the Total Environment</i> , 2015, 520, 146-153	3.16