

CURRICULUM VITAE

David Paulo Fanguero

March 2010

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1. PERSONNAL DETAILS

Identity

Surname and Names: David Paulo Fangueiro
Date of Birth: 25 March 1976

Address: Instituto Superior de Agronomia - Universidade
Tecnica de Lisboa
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Degree PhD in Chemistry – University of Aveiro (Portugal) and Institut National Agronomique (France).

Languages Mother tongues: French and Portuguese
Other languages:

	English	Spanish	Italian
<i>Reading skills</i>	Excellent	Good	Basic
<i>Writing skills</i>	Excellent	Basic	Basic
<i>Speaking skills</i>	Excellent	Good	Basic

Areas of Scientific Activity Environmental Chemistry and Agricultural Sciences with special emphasis in:

- Water, soil and sediments contamination by trace elements (heavy metals) and nutrients (nitrogen and phosphorous);
- Nutrients and carbon cycling: N mineralization and nitrification and carbon sequestration in soil after slurry application;
- Management, treatment and valorization of liquid and solid effluents (organic wastes) from agricultural activities (dairy farms);
- Management of nutrients (nitrogen, phosphorous and potassium) at farm and field scale;
- Soil and water contamination by nitrates and phosphates;
- Emissions of greenhouse gases (CO₂, CH₄, N₂O) and ammonia from agricultural activities, mainly dairy farming.

2. HIGHER EDUCATION

Dates November 1999 to July 20004
Academic Degree PhD (Hons) in Chemistry (Analytical and Environmental Chemistry area)
Institution Institut National Agronomique Paris-Grignon (France) and University of Aveiro (Portugal)
Principal subject “Methodologies for Trace Metals Fractionation in Estuarine Waters and Sediments”

Dates September 1998 to July 1999
Academic Degree Master in Quality and Analytical chemistry (“Diplome d’Etudes Approfondies: Physico-chimie et qualités des bioproduits”)
Institution Institut National Agronomique Paris-Grignon (France)
Principal subject “Study of the influence of humic acids on trace metals speciation in natural waters using Anodic Stripping Voltammetry”

Dates September 1997 to July 1998
Academic Degree Degree (Hons) in Chemistry
Institution University of Paris Sud-Orsay (France)
Principal subject Organic chemistry

Dates September 1994 to July 1997
Academic Degree Bachelor of Chemistry
Institution University of Paris Sud-Orsay (France)
Principal subject Chemistry

3. TRAINING COURSES

Dates September 2005 to January 2006
Principal subject Environmental Education and Monitoring
Organization University of Trás-os-Montes e Alto Douro (Portugal)

<i>Dates</i>	9-13 February 2009
<i>Principal subject</i>	Environmental Microbiology and Indicators of Soil Quality
<i>Organization</i>	University of Coimbra (Portugal)

4. RESEARCH ACTIVITIES

4.1 Research activities at Trás-os-Montes and Alto Douro University (UTAD)

4.1.1 Collaboration in research projects

2004/2007 “Green Dairy – Atlantic Dairy Systems and Environment” project financed by INTERREG IIIB – Atlantic Area (FEDER). Started in June 2004 and ended in May 2007. Head of project: André Le Gall (France). Other staff from UTAD involved in the project: Profs. Henrique Trindade and Nuno Moreira.

Work performed: Monitoring of nutrient fluxes (nitrogen, phosphorous and potassium) in a network of 24 dairy farms from the Vila do Conde council (Portugal); Improvement of the N and P -use efficiency as well as agricultural practices at farm scale in order to decrease the production costs and environmental impacts.

2004/2007 “Composting of the solid fraction of slurry in dairy farms for economical and environmental benefits” project financed by IFADAP (AGRO 794 project). Started in 2004 and ended in 2006. Head of project: Prof. Miguel Brito (Escola Superior Agrária de Ponte de Lima). Other staff from UTAD involved in the project: Prof. Henrique Trindade.

Work performed: Analysis of soils and composted materials for determination of dry matter, nitrate-N and ammoniacal-N content.

4.1.2 Laboratory and Field activities

- Cattle manure and slurry treatment by separation and acidification: process optimization and characterization of the fractions obtained.
- Quantification of the gaseous emissions (CO₂, CH₄, N₂O e NH₃) from treated and untreated animal slurry and slurry fractions obtained after mechanical and chemically enhanced separation during storage.
- Nitrogen degradation and gaseous emissions after application to soil of treated and untreated animal slurry and various fractions of slurry obtained after mechanical and chemical separation.

- Effect of the incorporation of nitrification inhibitors (DCD and DMPP) with cattle slurry on the annual ryegrass yield and soil mineral N dynamics after application to soil.

4.2 Research activities performed in other institutions

Dates July to August 2008
Organization North Wyke Research (United kingdom)
Supervisor Dr David Chadwick
Principal subject “Effect of slurry particle size and position in the soil profile on nitrogen release and carbon turnover”
Summary: *The objective of the proposed research project was to examine the effects of OM inputs on nutrient release and losses to water and air, namely to study the interactions between its composition, the soil’s physicochemical environment, microbial activity and hydrology.*
Hence, the work performed proposed to examine the effect of the position of livestock derived-organic matter (cattle slurry) in the soil profile on: a) the nitrogen dynamics (mineralization/immobilisation), b) N release via nitrous oxide emissions and c) carbon turnover.

Dates July to August 2006
Organization Institute of Grassland & Environmental Research (United kingdom)
Supervisor Dr David Chadwick
Principal subject “Effect of cattle slurry pre-treatment by mechanical and chemical separation on gaseous emissions (CH₄, CO₂, NH₃ and N₂O) and organic nitrogen degradation after application to grassland”
Summary: *Assessment of carbon and nitrogen gaseous emissions after application to grassland of different slurry fractions obtained after mechanical separation and chemically enhanced settling after flocculants addition (polyacrylamide). Determination of the mineral N content of the soil amended with each fraction in order to follow the degradation of the organic nitrogen added to soil. Study of the agronomic effect of each slurry fraction and comparison with mineral fertilizers.*

Dates July to September 2005
Organization Institute of Grassland & Environmental Research (United kingdom)
Supervisor Dr David Chadwick and Dr Roland Bol
Principal subject “Determination of the proportions and characteristics of particle size fractions in cattle slurries and study of the influence of the slurry particle size on CO₂ emissions after incorporation in agricultural soils”
Summary: *Development and optimization of a new method for slurry physical fractionation; Aerobic incubation of the different slurry fraction incorporated in agricultural soil and measurement of the CO₂ emissions. Utilization of a new technique based on the natural isotopic abundance of*

carbon to identify the sources (soil or slurry) of C lost by CO₂ emissions. Assessment of the potential mineralization of each slurry fraction.

Dates November 1999 to July 2004
Organization University of Aveiro (Portugal) and Institut National Agronomique Paris-Grignon (France)
Supervisor Dr Alain Bermond and Dr Armando Duarte.
Principal subject "Methodologies for trace metals (Cu, Cd and Pb) fractionation in estuarine waters and sediments"

Summary:

a) Development and optimization of a kinetic scheme for trace metals fractionation in sediments; modelling of the trace metals extraction by EDTA in sediments and study of the influence of the oxic/anoxic state of the sediment on the amount of trace metals removed by EDTA.

b) Study of trace metals speciation in estuarine waters: optimization of voltammetric methods (anodic and cathodic stripping voltammetry) and development of a fractionation scheme using solid phase extraction with two cation exchange resins; influence of organic ligands on the trace metals lability in waters; development of a new method based on solid phase extraction to assess the fraction of metal non complexed by organic ligands in saline waters.

Dates January to June 1999
Organization University of Aveiro (Portugal)
Supervisor Dr Armando Duarte
Principal subject "Study of the influence of humic acids on trace metals speciation in natural waters using Anodic Stripping Voltammetry"

Summary: Optimization of the experimental conditions for Cu, Cd, Pb and Zn determination by Anodic Stripping Voltammetry (ASV); Study of the complexation capacity of natural humic acids by titration using ASV and selective electrodes.

Dates April to June 1998
Organization University of Aveiro (Portugal)
Supervisor Dr Graça Neves
Principal subject "Porphyrines, sensors and potential applications to environment"

Summary: Synthesis, purification and characterization of metal-porphyrines.

Dates June 1996
Organization University of Paris XI (France)
Supervisor Dr Joelle Mayrargue
Principal subject "Synthons preparation for synthesis of fluor compounds analogous to Artémisinine"

Summary : Synthesis, purification and characterization of crystals used to prepared analogous compounds of artémisinine

5. TEACHING AND SUPERVISING EXPERIENCE

5.1 Teaching activities

2008/2009	Invited teacher in bachelor (B) and master (M) courses of Agriculture, Environmental Engineering, and Biology. Instituto Superior de Agronomia – UTL
2001/2002	Teaching of practical classes of Analytical Chemistry. University of Aveiro
2001/2002	Teaching of practical classes of Chemistry – BSc level. University of Aveiro
2000/2001	Teaching of practical classes of Chemistry – BSc level. University of Aveiro
1999/2000	Preparation of practical classes of Chemistry – BSc level. University of Aveiro

5.2 Supervising activities

2008/2009	co-supervision of the Master thesis: "Reutilização das águas residuais/lamas de uma ETAR como fonte de azoto na agricultura -Caso de estudo da ETAR da Vila de Coruche". Instituto Superior de Agronomia
2001/2002	Informal co-supervision of the graduation project: "fractionation of copper, cadmium and lead by solid phase extraction with two cation-exchange resins: optimization of the experimental conditions". University of Aveiro
2002/2003	Informal co-supervision of the graduation project: "Study of the complexation capacity of natural humic acids by solid phase extraction". University of Aveiro

6. ORGANIZATION SKILLS

- Organization of work meetings with the farmers involved in the *Green Dairy* project for presentation and discussion of the results obtained during the whole project, **2004 to 2006**.

- Organization of the annual meeting of the *Green Dairy* project, with the participation of the scientific board and the research teams involved - La Corunha (Spain) and OPorto (Portugal), **February 28th to March 2th 2005**.
- Organization of the visit to Brittany (France) of the Portuguese farmers involved in the *Green Dairy* project and the visit of French farmers to the Entre-Douro e Minho region (Portugal): presentations and visit of dairy farms, **June 2006**.
- Organization of the final seminar of the *Green Dairy* Project - Vila do Conde, **January 25th 2007**.

7. PUBLICATIONS

7.1 Thesis

- [1] Fangueiro, D. **2004**. *Methodologies for Trace Metals Fractionation in Estuarine Waters and Sediments*. University of Aveiro (Portugal)/Institut National Agronomique (France), 265 pp.
- [2] Fangueiro, D. **1999**. *Study of the influence of humic acids on trace metals speciation in natural waters using Anodic Stripping Voltammetry*; Institut National Agronomique (France), 27 pp.

7.2 Papers published in international peer reviewed journals

- [3] Fangueiro D., Bermond A., Santos E., Carapuça H., Duarte A. **2002**. *Heavy metals mobility assessment in sediments based on a kinetic approach of the EDTA extraction: search for optimal experimental conditions*. *Analytica Chimica Acta*, 459(2): 245-256.
- [4] Fangueiro D., Bermond A., Santos E., Carapuça H., Duarte A. **2005**. *Kinetic approach to heavy metal mobilization assessment in sediments: choose of kinetic equations and models to achieve maximum information*. *Talanta*, 66 (4): 844-857.
- [5] Fangueiro D., Chadwick D., Dixon L., Bol R., **2007**. *Quantification of priming and CO₂ respiration sources following the application of different slurry particle size fractions to a grassland soil*. *Soil Biology and Biochemistry*, 39: 2608-2620.
- [6] Fangueiro D., Pereira J.L., Chadwick D., Coutinho J., Moreira N., Trindade H. **2008** *Laboratories estimates of the effect of cattle slurry pre-treatment on organic N degradation after soil application and N₂O and N₂ emissions*. *Nutrient Cycling in Agroecosystems*, 80: 107-120.
- [7] Fangueiro D., Trindade H., Senbayram M., Chadwick D. **2008**. *Cattle slurry treatment by screw-press separation and chemically enhanced settling: effect on*

greenhouse gas and ammonia emissions after land spreading. Bioresource Technology, 99: 7132-7142.

- [8] Fangueiro D., Pereira J.L., Coutinho J., Moreira N., Trindade H. **2008** *Analyses of nutrient farm gate balances between 2003 and 2005 in specialized dairy Farms from North-West Portugal.* European Journal of Agronomy, 28: 625-634.
- [9] Fangueiro D., Bol R., Chadwick D. **2008.** *Assessment of the potential N mineralization of six particle size fractions of two different cattle slurries.* Journal of Plant Nutrition and Soil Science, 171: 313-315.
- [10] Fangueiro D., Coutinho J., Chadwick D., Moreira N., Trindade H. **2008.** *Cattle slurry treatment by screw-press separation and chemically enhanced settling: effect on greenhouse gases and ammonia emissions during storage.* Journal of Environmental Quality, 37(6): 2322-2331.
- [11] Fangueiro D., Fernandes A., Coutinho J., Moreira N., Trindade H. **2009.** *Influence of nitrification inhibitors on annual ryegrass yield and soil mineral N dynamics after incorporation with cattle slurry.* Communication in soil Science and Plant Analysis, 40: 21, 3387-3398.
- [12] Fangueiro D., Ribeiro H., Vasconcelos E., Coutinho J., Cabral F. **2009.** *Treatment by acidification followed by solid-liquid separation affects slurry and slurry fractions composition and their potential of N mineralization.* Bioresource Technology, 10: 4914-4917.
- [13] Ribeiro H., Fangueiro D., Alves F., Vasconcelos E., Coutinho J., Bol R., Cabral F. **2010.** *Carbon mineralization kinetics in an organically managed Cambic Arenosol amended with organic fertilizers.* Journal of Plant Nutrition and Soil Science, 173(1): 39-45.
- [14] Ribeiro H., Fangueiro D., Alves F., Ventura R., Coelho D., Vasconcelos E., Cunha-Queda C., Coutinho J., Cabral F. **2010.** *Nitrogen mineralization from an organically managed soil and nitrogen accumulation in lettuce.* Journal of Plant Nutrition and Soil Science, *In Press*. doi: 10.1002/jpln.200900082
- [15] Pereira, J., Fangueiro D., Chadwick D., Misselbrook, T., Coutinho J., Trindade H. **2010** *Effect of cattle slurry pre-treatment by separation and addition of nitrification inhibitors on gaseous emissions and N dynamics: A laboratory study.* Chemosphere, *In Press* doi:10.1016/j.chemosphere.2010.02.029
- [16] Fangueiro D., Ribeiro H., Coutinho J., Cardenas L., Trindade H., Cunha-Queda C., Vasconcelos E., Cabral F. **2010** *Nitrogen mineralization and CO₂ and N₂O emissions in a sandy soil amended with original or acidified pig slurries or with the relative fractions.* Biology and Fertility of Soil, *In Press* doi 0.1007/s00374-010-0444-1
- [17] Fangueiro D., Gusmão M., Grilo J., Porfírio G., Vasconcelos E., Cabral F. **2010** *Proportion, composition and potential N mineralisation of particle size fractions*

obtained by mechanical separation of animal slurry. Biosystems Engineering. *In Press*

7.3 Edited contributions to conferences

- [18] Fernandes A., Fangueiro D., Coutinho J., Moreira N., Trindade H., *Effects of nitrification inhibitors in cattle slurry on annual ryegrass yield and soil mineral N dynamics*. pp. 146-148, 14th N workshop - N management in agrosystems in relation to the Water Framework Directive, Maastricht - Netherlands, 24-26 October **2005**.
- [19] Pereira J.L., Fangueiro D., Coutinho J., Moreira N., Trindade H., *Separation of solids and nutrients applying PAM and bentonite to cattle slurry* . pp. 497-501, XV Congresso de Zootecnia - ZOOTECH I&D / I Congresso Ibero-Americano de Zootecnia. Associação Portuguesa de Engenheiros Zootécnicos, UTAD, Vila Real - Portugal, 2-5 November **2005**.
- [20] Fangueiro D., Bol R., Chadwick D., *Assessment of the potential N mineralization of six particle size fractions of two different cattle slurries*. pp. 48-50. RAMIRAN, Aarhus – Denmark, 11-13 September **2006**.
- [21] Fangueiro D., Bol R., Chadwick D., *Proportions and characteristics of particle size fractions in two different cattle slurries*. pp. 50-52. RAMIRAN, Aarhus – Denmark, 11-13 September **2006**.
- [22] Fangueiro D. and Chadwick D., *Cattle slurry treatment by mechanical and chemical separation: separation: effect on N₂O emissions, mineral N dynamics and grass yields after application to grassland*. pp. 142. III CICS, Évora - Portugal, 1-4 July **2008**.
- [23] Ribeiro H., Fangueiro D., Vasconcelos E., Ventura R., Cunha-Queda C., Cabral F. *Utilização de composto como alternativa aos fertilizantes orgânicos comerciais na produção biológica de alface “Baby Leaf”*. pp. 143. III CICS, Evora - Portugal, 1-4 July, **2008**.
- [24] Pereira J.; Marques F.; Teixeira D.; Perdigão A.; Pinto A.; Rodrigues P.; Fangueiro D.; Trindade H. *Valorização de resíduos de curtumes através de compostagem com camas de ovinos e palha de trigo*. pp. 501-504. XVIII Congresso de Zootecnia - ZOOTECH 2009 / II Congresso Ibero-Americano de Zootecnia. APEZ/UTAD, Vila Real, Portugal, 6-9 May **2009**,
- [25] Ribeiro H.M., Bancessi A., Fangueiro D., Cabral E., Duarte E. *Effect of different sewage sludge treatments on CO₂ emissions and nitrogen mineralization after soil application*. pp.73-74. 16th Nitrogen Workshop, Turin - Italy, June, 28th - July, 1st **2009**.
- [26] Fangueiro D., Bol R., Dixon L., Hatch D., Walter N., Chadwick D. *Effect of slurry position in the soil profile on potential nitrogen mineralization and N₂O emissions*. pp.143-144. 16th Nitrogen Workshop, Turin - Italy, June, 28th - July, 1st **2009**.

- [27] Cabral F., Fangueiro D., Vasconcelos E., Ribeiro H., Coutinho J. *Pig slurry treatment by acidification followed by solid-liquid separation: characteristics and potential N mineralization of slurry fractions obtained.* pp.245-246. 16th Nitrogen Workshop, Turin - Italy, June, 28th - July, 1st **2009**.
- [28] Mendes S., Fangueiro D., Cabral F., Coutinho J. *Assessment of the potential N mineralization from different pig slurry particle size fractions using a short-time incubation method.* pp.261-262. 16th Nitrogen Workshop, Turin - Italy, June, 28th - July, 1st **2009**.
- [29] Fangueiro D., Cabral F., Vasconcelos E., Ribeiro H., Coutinho J. *Effect of pig slurry treatment by acidification followed by solid-liquid separation on nitrogen mineralization after application to soil.* pp.357-358. 16th Nitrogen Workshop, Turin - Italy, June, 28th - July, 1st **2009**.
- [30] Pereira J., Fangueiro D., Chadwick D.R., Misselbrook T.H., Coutinho J., Trindade H. *Influence of cattle slurry treatment by separation and nitrification inhibitors addition on N Dynamics and N₂O emissions after soil application.* pp.367-368. 16th Nitrogen Workshop, Turin - Italy, June, 28th - July, 1st **2009**.

7.4 Communications in scientific and technical meetings

- [31] Fangueiro D., Bermond A., Santos E., Carapuça H., Duarte A., *Assessment of the labile and non labile fractions of Cu, Cd e Pb in contaminated waters and sediments from Largo do Laranjo (Ria de Aveiro-Portugal).* pp 139. (Poster) Conferência Ibérica Sobre Protecção Ambiental – Interação entre a Química e a Biologia, Viseu - Portugal, 12-14 July **2001**.
- [32] Fangueiro D., Bermond A., Santos E., Carapuça H., Duarte A., *Determination of optimal experimental conditions for the study of the kinetics of the EDTA-trace metals extractions from contaminated sediments.* pp176. (Poster). 2nd European Meeting on Environmental Chemistry, Dijon - France, 12-15 December **2001**.
- [33] Fangueiro D., Bermond A., Santos E., Carapuça H., Duarte A., *Speciation of heavy metals in sediments based on kinetics considerations.* pp 59-60. (Poster). 7th ICOBTE, Uppsala - Sweden, 15-18 June **2003**.
- [34] Fangueiro D., Bermond A., Santos E., Carapuça H., Duarte A., *Comparison of methods used to study the chemical speciation of heavy metals in natural waters.* pp 128. (Poster). 4th European Meeting on Environmental Chemistry, Plymouth – United kingdom, 10-13 December **2003**.
- [35] Pereira J., Fangueiro D., Coutinho J., Moreira N., Trindade H. *Separação de sólidos e nutrientes com PAM e bentonite em chorumes bovinos.* (Oral Presentation) XV Congresso de Zootecnia - ZOOTECH I&D / I Congresso Ibero-Americano de Zootecnia. Associação Portuguesa de Engenheiros Zootécnicos, UTAD, Vila Real, Portugal, 2-5 November **2005**.
- [36] Fangueiro D., Pereira J.L., Coutinho J., Moreira N., Trindade H., *Effect of dairy effluents pre-treatment on N₂O emissions and N organic degradation after soil application.* pp 56. (Oral presentation). 6th European Meeting on Environmental Chemistry, Belgrade - Serbia and Montenegro, 6-10 December **2005**.

- [37] Fangueiro D., Bermond A., Santos E., Carapuça H., Duarte A., *Influence of the sediments exposure to anoxic conditions on EDTA extraction and fractionation of trace metals from sediments*. pp 288. (Poster). 6th European Meeting on Environmental Chemistry, Belgrade - Serbia and Montenegro, 6-10 December **2005**.
- [38] Fangueiro D., Bermond A., Santos E., Carapuça H., Duarte A., *A new method for the free+inorganic copper fraction assessment in saline solutions*. pp295 (Poster). 6th European Meeting on Environmental Chemistry, Belgrade - Serbia and Montenegro, 6-10 December **2005**.
- [39] Trindade, H.; Fernandes, A.; Fangueiro, D.; Coutinho, J.; Moreira, N. *Use of nitrification inhibitors in dairy cattle slurry – dynamics of nitrogen in soil and evaluation of the forage production*. (Oral presentation) XXVII Reunião de Primavera da SPPF, Açores - Portugal, 12th March **2006**.
- [40] Fangueiro D., Bol R., Chadwick D., *Assessment of the potential N mineralization of six particle size fractions of two different cattle slurries*. (Poster). RAMIRAN, Aarhus – Denmark, 11-13 September **2006**.
- [41] Fangueiro D., Bol R., Chadwick D., *Proportions and characteristics of particle size fractions in two different cattle slurries*. (Poster). RAMIRAN, Aarhus – Denmark, 11-13 September **2006**.
- [42] Fangueiro D. and Chadwick D., *Cattle slurry treatment by mechanical and chemical separation: effect on N₂O emissions, mineral N dynamics and grass yields after application to grassland*. (Poster). CICS, Evora -Portugal, 1-4 July **2008**
- [43] Ribeiro H., Fangueiro D., Vasconcelos E., Ventura R., Cunha-Queda C., Cabral F. *Utilização de composto como alternativa aos fertilizantes orgânicos comerciais na produção biológica de alface “Baby Leaf”*. (Poster). CICS, Evora - Portugal, 1-4 July **2008**
- [44] Pereira J.; Marques F.; Teixeira D.; Perdigão A.; Pinto A.; Rodrigues P.; Fangueiro D.; Trindade H. *Valorização de resíduos de curtumes através de compostagem com camas de ovinos e palha de trigo*. (Poster). XVIII Congresso de Zootecnia - ZOOTEC 2009 / II Congresso Ibero-Americano de Zootecnia. APEZ/UTAD, Vila Real, Portugal, 6-9 May **2009**.
- [45] Ribeiro H.M., Bancessi A., Fangueiro D., Cabral E., Duarte E. *Effect of different sewage sludge treatments on CO₂ emissions and nitrogen mineralization after soil application*. (Poster) 16th Nitrogen Workshop, Turin -Italy, June, 28th - July, 1st **2009**.
- [46] Fangueiro D., Bol R., Dixon L., Hatch D., Walter N., Chadwick D. *Effect of slurry position in the soil profile on potential nitrogen mineralization and N₂O emissions*. (Poster) 16th Nitrogen Workshop, Turin –Italy, June, 28th - July, 1st **2009**.
- [47] Cabral F., Fangueiro D., Vasconcelos E., Ribeiro H., Coutinho J. *Pig slurry treatment by acidification followed by solid-liquid separation: characteristics and potential N mineralization of slurry fractions obtained*. (Poster) 16th Nitrogen Workshop, Turin - Italy, June, 28th - July, 1st **2009**.

- [48] Mendes S., Fangueiro D., Cabral F., Coutinho J. *Assessment of the potential N mineralization from different pig slurry particle size fractions using a short-time incubation method.* (Poster) 16th Nitrogen Workshop, Turin - Italy, June, 28th - July, 1st **2009**.
- [49] Fangueiro D., Cabral F., Vasconcelos E., Ribeiro H., Coutinho J. *Effect of pig slurry treatment by acidification followed by solid-liquid separation on nitrogen mineralization after application to soil.* (Poster) 16th Nitrogen Workshop, Turin - Italy, June, 28th - July, 1st **2009**.
- [50] Pereira J., Fangueiro D., Chadwick D.R., Misselbrook T.H., Coutinho J., Trindade H. *Influence of cattle slurry treatment by separation and nitrification inhibitors addition on N Dynamics and N₂O emissions after soil application.* (Poster) 16th Nitrogen Workshop, Turin - Italy, June, 28th - July, 1st **2009**.
- [51] Pereira J.; Perdigão A.; Teixeira D.; Marques F.; Pinto A.; Rodrigues P.; Fangueiro D.; Trindade H. *Comparação do potencial fertilizante de resíduos compostados de curtumes.* (Poster) EACS'09 – Encontro Anual da Ciência do Solo, Universidade do Algarve, Faro - Portugal, 8-10 July **2009**.
- [52] Fangueiro D., Vasconcelos E., Cabral F., Ribeiro H., Coutinho J. *Tratamento de chorume de porco por acidificação e separação: efeito na mineralização do azoto e carbono após incorporação ao solo.* (Oral presentation) EACS'09 – Encontro Anual da Ciência do Solo, Universidade do Algarve, Faro - Portugal, 8-10 July **2009**.
- [53] Mendes S., Fangueiro D., Cabral F., Coutinho J. *Previsão do azoto mineralizável e disponível de diferentes frações de chorume de suínos incorporadas ao solo: método de incubação anaeróbia-extracção.* (Oral presentation) EACS'09 – Encontro Anual da Ciência do Solo, Universidade do Algarve, Faro - Portugal, 8-10 July **2009**.
- [54] Bancesi A., Fangueiro D., Duarte E., Cabral E., Vasconcelos E., Ribeiro H.M., *Efeito da digestão anaeróbia e da estabilização com cal no valor fertilizante de lamas de ETAR.* (Poster) EACS'09 – Encontro Anual da Ciência do Solo, Universidade do Algarve, Faro - Portugal, 8-10 July **2009**.

8. LECTURES

Invited speaker for the French seminar of the Green Dairy project. Title: Milk production in Entre Douro e Minho – NW Portugal. Nantes – France, 8th of February 2007.