

## CURRICULUM VITAE

Dutournié Patrick (48 years old)

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### ACADEMIC QUALIFICATIONS

- HDR, University Bretagne Sud, France (*December 2007*), Title: “*Heat and mass transfer modeling with physicochemical transformations*”
- Ph.D in Energy and chemical engineering, University of Pau, France (*October 2000*)  
Thesis Title: “*Modelling of organic waste treatment in supercritical water oxidation reactor*”
- Master Degree Energy and chemical engineering, University of Pau (*June 1997*)

### PROFESSIONAL EXPERIENCE

|                |  |
|----------------|--|
| 2010 – present | Professor, Faculté des sciences et techniques de Mulhouse: Teaching heat transfer, thermodynamic, energy management, renewable energies, ...                         |
| 2001 – 2010    | Associate professor, Institut Universitaire de Technologie de Lorient: Teaching waste management, numerical methods, design of experiments, ...                      |
| 2000 - 2001    | Assistant professor, Ecole Nationale Supérieure d'Ingénieur de Génie des Technologies Industrielles (Pau): teaching heat transfer, fluid mechanic, unitary operation |
| 1997-2000      | Assistant professor, Institut Universitaire de Technologie de Pau: teaching heat transfer and electrothermics  |

### AWARDS AND HONORS

- Best PhD thesis award (2000)
- National Research Excellence Award for researcher with high level scientific activity in their area of research, 2008-2015

### RESEARCH INTERESTS

1. **Nano and UltraFiltration:** Understanding of transport mechanisms of saline solutions in membrane pores. Experimental and numerical investigations of mass transfer.
2. **Heat and mass transfer modeling** applied to heat storage system, to the control release of active compounds and biomass drying.

## **TEACHING INTERESTS**

Heat transfer, thermodynamics, renewable energies, energy management, fluid dynamic.

## **PROFESSIONAL ACTIVITIES**

Reviewer for different international journals: AIChE J., Ind. Eng. Chem. Res, J. of Membr Sci, Comptes Rendus de Chimie, Energies, Fuel, Desalination, Microporous and Mesoporous Materials, Chem; Eng. J., Membranes, ...

Scientific Expert for projects submitted in the frame of:

- ANR (JC, blanc)

### Conferences and Schools Organization Activities

- Scientific committee of l'IREC-2015, The 6th International Renewable Energy Congress, Sousse, March 2015, Tunisia.
- Scientific committee of l'IREC-2016, The 7th International Renewable Energy Congress, Hammamet, March 2016, Tunisia.

## **THESIS SUPERVISION**

### Doctor of Philosophy

1. Jocelin Yao (2017/2020) – Subject: study of home-made inorganic membranes for water treatment.
2. Simona-Mélania MIRON (2016/2019) – Subject: Study of proteins-surface interactions. influence of hydrodynamic and physical operating conditions.
3. Jacques Bikai (2012-2015) – Subject: Study of surface properties modifications of a microporous material during ultra/nanofiltration tests.
4. Lucia Blas (2011-2014) - Subject: Chemical looping combustion: study of an oxygen carrier performances and estimation of the binder contribution.
5. Elodie Chevereau (2008-2011) - Subject: Physicochemical characterization of a porous medium: experimental and numerical investigations of membrane performances
6. Pascal Le Bideau (2005-2008) - Subject: Control of heat radiation for a superficial vulcanization of polymer.
7. Sébastien Déon (2004-2007) - Subject: Mass transfer in nanofiltration membranes: experimental and numerical investigations of membrane selectivity.

## **SCIENTIFIC PRODUCTION :**

### • **Book Chapters**

- 1 P. Dutournié, *Modélisation des transferts couplés de masse et de chaleur*, EUe, Sarrebruck, Allemagne, 2010. ISBN : 978-613-1-51169-1

- 2 J. Mercadier, P. Dutournié, *Modélisation de réacteurs en milieu fluide supercritique*, pp 283-325, in F. Cansell, M.H. Delville, P. Subra, *Fluides Supercritiques et Matériaux*, INPL Vandoeuvre, 1999. ISBN : 2-905-267-31-3

- Articles in International Journals

- [P1] P. Dutournié, S. Blancher, R. Creff, F. Montel, *Thermodiffusion dans un mélange binaire en convection forcée dans un canal périodique*, Entropie, 214, 1998, pp 43-47
- [P2] P. Dutournié, J. Mercadier, C. Aymonier, A. Gratias, F. Cansell, *Determination of hydrothermal oxidation reaction heats by experimental and simulation investigations*, Ind. Eng. Chem. Res. 40, 1, 2001, pp 114-118.
- [P3] P. Dutournié, J. Mercadier, *Simulation numérique du comportement de réacteurs tubulaires de traitement hydrothermal de déchets en régime d'écoulement laminaire*, Entropie, 243, 2002, pp 16-23.
- [P4] P. Dutournié, C. Aymonier, F. Cansell, J. Mercadier, *Experiments and simulations of time-dependant phenomena in a hydrothermal oxidation tubular reactor*, Ind. Eng. Chem. Res. 42, 2003, pp 4708-1714.
- [P5] P. Dutournié, J. Mercadier, *Supercritical waste hydrothermal treatment. Modelisation of non stationary phenomena in a reactor*, J. Supercrit. Fluid 32, 1-3, 2004, pp 153-160.
- [P6] P. Salagnac, P. Dutournié, P Glouannec, *Curing of composite materials by radiative and natural convection exchanges in an autoclave*, AIChE J. , 50, 12, 2004, pp 3149-3159.
- [P7] P. Salagnac, P. Dutournié, P Glouannec, *Simulations of heat transfers in an autoclave. Applications to the curing of composite material parts*, J. Phys IV, 120, 2004, pp 467-472.
- [P8] P. Dutournié, J. Mercadier, *The unsteady behaviour of hydrothermal oxidation reactors: Theoretical and numerical studies near the critical point*, Journal of Supercritical Fluid, 35, 2005, pp 247-253.
- [P9] P. Dutournié, P. Salagnac, P Glouannec, *Optimisation of radiant-convective drying of a porous medium by design of experiments methodology*, Drying Technology, 24, 8, 2006, pp. 953-963.
- [P10] P. Dutournié, J. Mercadier, D. Matéos, F. Cansell, *Hydrothermal oxidation treatment reactor: experimental and simulated study of a non anticipated phenomenon at the reactor inlet*, Journal of Supercritical Fluid, 42, 2, 2007, pp.234-240.
- [P11] S. Déon, P. Dutournié, P. Bourseau, *Transfer of ionic solutes through nanofiltration membranes : a model combining polarization layer and pores transport*. AIChE J., 53, 8, 2007, pp 1952-1969.
- [P12] S. Déon, P. Dutournié, P. Bourseau, *Transfer of charged molecules through nanofiltration membranes: a model combining transport through pores and polarization layer*, Ind. Eng. Chem. Res., 46, 21, 2007, pp 6752-6761.
- [P13] P. Salagnac, P. Dutournié, P Glouannec, *Optimal operating conditions of microwave-convective drying of a porous medium*, Ind. Eng. Chem. Res. 47, 1, 2008, pp 133-144.
- [P14] P. Le Bideau, J. P. Ploteau, P. Dutournié, P. Glouannec, *Experimental and modelling study of superficial elastomer vulcanisation by short wave infrared radiation*, International Journal of Thermal Sciences, 48, 3, 2009, pp 573-582.
- [P15] A. Chabeaud, P. Dutournié, F. Guerard, L. Vandajon, P. Bourseau, *Design Of Experiments (DOE) methodology to optimise the antioxidant activity of a Saithe (pollachius virens) muscle hydrolysate*, Marine Biotechnology, 11, 4, 2009 , pp 445-455.

- [P16] S. Déon, P. Dutournié, L. Limousy, P. Bourseau, *Transport of salt mixtures through nanofiltration membranes: identification of electric and dielectric contributions*, Separation and Purification Technology, 69, 3, 2009, pp 225-233.
- [P17] L. Limousy, P. Dutournié, D. Hadjiev, *Influence of operating conditions upon  $\text{NO}_2^-$  reduction by Zn in batch reactor: determination of kinetical parameters*, Water Environment Research, 82, 7, 2010, pp 648-656.
- [P18] E. Chevereau, N. Zouaoui, L. Limousy, P. Dutournié, S. Déon, P. Bourseau, *Surface properties of ceramic ultrafiltration  $\text{TiO}_2$  membranes: effects of surface equilibriums on salts retention*, Desalination, 255, 1-3, 2010, pp 1-8.
- [P19] S. Déon, P. Dutournié, L. Limousy, P. Bourseau, *A new version of the 2-D Pore and Polarization Transport Model to describe the selectivity of mixtures separation by nanofiltration: Model validation*, AIChE J., 2011, 57, 4, pp 985-995.
- [P20] P. Dutournié, L. Limousy, S. Déon, P. Bourseau, *Unsteady transport of divalent salt through a mineral membrane of ultrafiltration: evolution of ionic adsorption equilibrium*, Desalination, 265, 2011, pp 184-189.
- [P21] E. Chevereau, L. Limousy, P. Dutournié, *Use of Mordenite Surface Acidity Properties for the Selective Separation of Halide Salts: Modification of Dielectric Effects*, IECR, 50, 7, 2011, pp 4003-4010.
- [P22] P. Dutournié, L. Limousy, N. Zouaoui, H. Mahzoul, E. Chevereau, *Facilitated transport of monovalent salt mixture through ultrafiltration Na-Mordenite membrane: Numerical investigations of electric and dielectric contributions*, Desalination, 280, 2011, pp 397-402.
- [P23] E. Chevereau, L. Limousy, P. Dutournié, P. Bourseau, *Réalisation et modification des propriétés de sélectivité d'une membrane minérale d'ultrafiltration : étude de la rétention de solutions salines*, Revue des Sciences de l'Eau, 25, 2012, pp 21-30.
- [P24] S. Déon, A. Escoda, P. Fievet, P. Dutournié, P. Bourseau, *How to use a multi-ionic transport model to fully predict rejection of mineral salts by nanofiltration membranes*, Chem. Eng. J., 189-190, 2012, pp 24-31.
- [P25] L. Limousy, P. Dutournié, E. Chevereau, *Description of the preferential transport of monovalent salts through Na-Mordenite membrane: physico-chemical aspects*, Microporous & Mesoporous Materials, 167, 2013, pp 133-136
- [P26] L. Limousy, M. Jeguirim, P. Dutournié, N. Kraiem, M. Lajili, R. Said, *Gaseous products and particulate matter emissions of biomass residential boiler fired with spent coffee grounds pellets*, Fuel, 107, 2013, pp 323-329.
- [P27] S. Déon, P. Dutournié, P. Fievet, L. Limousy, P. Bourseau, *Concentration polarization phenomenon during the nanofiltration of multi-ionic solutions: influence of the filtrated solution and operating conditions*, Water Res. 47, 7, 2013, pp 2260-2272.
- [P28] L. Blas, S. Dorge, N. Zaououi, A. Lambert, P. Dutournié, *Influence of the oxidation step on the behaviour and the performances of an oxygen carrier in fixed bed reactor*, Materials Research, 17, 2014, pp 219-226
- [P29] P. Dutournié, L. Limousy, W. Blel, S. Déon, P. Fievet, *Understanding of Ion Transport in a Na-Mordenite Membrane: Use of Numerical Modeling To Estimate Surface-Solute Interactions in the Pore*. Ind. Eng. Chem. Res., 53, 2014, pp 8221-8227.
- [P30] S. Déon, P. Dutournié, L. Limousy, P. Bourseau, P. Fievet, *Numerical ways to characterize the deterioration of nanofiltration membranes*, Int J. Memb. Sci. Technol., 1, 2014, pp 1-8.

- [P31] M Jeguirim, L Limousy, P Dutournié, *Pyrolysis kinetics and physicochemical properties of agropellets produced from spent ground coffee blended with conventional biomass*, Chemical Engineering Research and Design, 92, 2014, pp 1876-1882.
- [P32] L. Blas, S. Dorge, P. Dutournié, A. Lambert, D. Chiche, S. Bertholin, L. Josien, *Study of an oxygen carrier performances: experimental investigation of the binder contribution and characterization of its structural modifications*, Comptes Rendus Chimie, 18, 2015 pp 45-55.
- [P33] P. Dutournié, A. Saïd, T. J. Daou, J. Bikai, L. Limousy, *Hydraulic Performance Modifications of a Zeolite Membrane after an Alkaline Treatment: Contribution of Polar and Apolar Surface Tension Components*, Advances in Materials Science and Engineering, ID 524259, 2015.
- [P34] J. Bikai, L. Limousy, P. Dutournié, L. Josien, W. Blel, *Stabilisation of the Water Permeability of Mineral Ultrafiltration Membranes: A Numerical Approach of Surface and Pore Hydration*, Comptes Rendus Chimie, 18, 2015, pp 56-62.
- [P35] L. Blas, S. Dorge, L. Michelin, P. Dutournié, A. Lambert, D. Chiche, S. Bertholin, *Influence of the regeneration conditions on the performances and the microstructure modifications of NiO/NiAl<sub>2</sub>O<sub>4</sub> for chemical looping combustion*, Fuel, 153, 2015, 284-293.
- [P36] A. Said, T.J. Daou, L. Limousy, J. Bikai, J. Halwani, J. Toufaily, T. Hanieh, P. Dutournié, *Surface energy modification of a Na-mordenite thin layer treated by an alkaline solution*, Material Express, 5, 2015, 451-456.
- [P37] A. Said, L. Limousy, H. Nouali, L. Michelin, J. Halwani, J. Toufaily, T. Hanieh, P. Dutournié, T.J. Daou, *Synthesis of mono- and bi-layer MFI zeolite films on macroporous alumina tubular supports: Application to nanofiltration*, J. of Crystal Growth, 428, 2015, 71-79.
- [P38] A. Saïd, H. Nouali, L. Limousy, P. Dutournié, L. Josien, J. Toufaily, T. Hamieh, T. J. Daou, *Synthesis of mono- and bi-layer zeolite films on alumina substrate*, Comptes Rendus Chimie, 19, 2016, 486-495.
- [P 39] L. Blas, P. Dutournié, S. Dorge, L. Josien, D. Kehrli, A. Lambert, *Thermal stability study of NiAl<sub>2</sub>O<sub>4</sub> binders for Chemical Looping Combustion application*, Fuel, 182, 2016, 50-56.
- [P 40] G. Rioland, P. Dutournié, D. Faye, T.J. Daou, J. Patarin, *Prediction of the mechanical properties of zeolite pellets for aerospace molecular decontamination applications*, Beilstein Journal of Nanotechnology, 7, 2016, 1761-1771.
- [P41] S. Déon, P. Dutournié, P. Fievet, L. Limousy, *Theoretical understanding of how solution properties govern nanofiltration performances*, International Journal of Membrane Science and Technology, 3, 2016, 85-93.
- [P 42] W. Blel, L. Limousy, P. Dutournié, A; Ponche, A. Boucher, M. Le Fellic, *Study of antimicrobial and antifouling properties of different oxide surfaces*, Environmental Science and Pollution Research, 24, 2017, 9847-9858.
- [P 43] L. Blas, P. Dutournié, M. Jeguirim, L. Josien, D. Chiche, S. Bertholin, A Lambert, *Numerical modeling of oxygen carrier performances (NiO/NiAl<sub>2</sub>O<sub>4</sub>) for chemical-looping combustion*, Energies, 2017.
- [P 44] K. Haddad, M. Jeguirim, B. Jerbi, A. Chouchene, P. Dutournié, N. Thevenin, L. Ruidavets, S. Jellali, L. Limousy, *Olive mill wastewater: from a pollutant to green fuels agricultural water source and bio-fertilizer*, ACS Sustainable Chemistry & Engineering, 5, 2017, 8988-8996.

- [P45] M. Jeguirim, P. Dutournié, A.A. Zorpas, L. Limousy, *Olive mill wastewater: from a pollutant to green fuels agricultural water source and bio-fertilizer - Part 1. The drying kinetics*, Energies 10, 2017, 1423
- [P46] P. Dutournié, L. Limousy, J. Anquetil, S. Déon, *Modification of the selectivity properties of tubular ceramic membranes after alkaline treatment*, Membranes, 77, 2017, 65

- Congres, Symposium Communications

Invited speakers

- [Inv1] J. Mercadier, P. Dutournié, *Modélisation des réacteurs fonctionnant en milieu fluide supercritique*, conférence orale invitée, Réunion française de l'ISASF, Bordeaux, janvier 2000.
- [Inv2] P. Dutournié, *Utilisation de matériaux à porosités contrôlées pour le traitement d'effluents aqueux. Application à la filtration membranaire et au piégeage de molécules organiques*, journée de recherche sur l'eau, pôle de compétitivité Hydréos, Strasbourg, France, 2013.
- [Inv3] L. Limousy, P. Dutournié, *Evolution of the hydraulic permeability of a low cut-off Na-Mordenite membrane during the conditioning and the operating steps*, (Keynote), Int. Chem. Eng. Congress, Djerba, Tunisie, 2013.
- [Inv4] G. Schlatter, P. Dutournié, S. Vuilleminier, C. Ghimbeu, L. Limousy, *Hierarchical Carbon-Based Fibrous Composite Membranes for Catalytic Water Clean-Up*, collegium des écoles doctorales, Strasbourg, 2016.
- [Inv5] P. Dutournié, *Procédé de stockage de chaleur innovants*, Table ronde : l'innovation au service de la récupération de la chaleur, colloque sur la performance énergétique, Benfeld, 2017.
- [Inv 6] P. Dutournié, S. Bennici *Procédé de stockage thermochimique de la chaleur*, congrès TRION-Climate, Mulhouse, 2017.

Oral communications

- [C1] P. Dutournié, S. Blancher, R. Creff, F. Montel, *Thermodiffusion dans un mélange binaire en convection forcée dans un canal périodique*, 5<sup>ème</sup> Journées Européennes de la Thermodynamique Contemporaine, Toulouse, septembre 1997.
- [C2] P. Dutournié, J. Mercadier, *One-dimensional simulation of a tubular reactor for waste oxidation*, Global Symposium on Recycling, Waste Treatment and Clean Technology, REWAS 1999, San-Sebastian, Septembre 1999.
- [C3] P. Dutournié, L. Borthaire, P. Cézac, J. Mercadier, *Simulations of supercritical water oxidation: effect of carbon dioxide, nitrogen and oxygen concentrations on temperature profiles*, 7<sup>ème</sup> meeting on Supercritical Fluids, Antibes, décembre 2000.
- [C4] P. Dutournié, S. Vielcazal, P. Cézac, J. Mercadier, *Simulations of a new concept of reactor for supercritical water oxidation*, 8<sup>ème</sup> meeting on Supercritical Fluids, Bordeaux, Avril 2002.
- [C5] P. Dutournié, C. Aymonier, F. Cansell, J. Mercadier, *Experimental and simulated study of a hydrothermal oxidation reactor: unsteady reactor behaviour after a reactor stop*, 6<sup>th</sup> International Symposium on Supercritical Fluids, Versailles, Avril 2003.

- [C6] A. Chabaud, P. Dutournié, F. Guerard, L. Vadajon P. Bourseau, *Production of antioxidant peptides from saithe hydrolysate: study of hydrolysis parameters using response surface methodology*, TAFT, Quebec, 2006.
- [C7] S. Déon, P. Dutournié, P. Bourseau, *Modeling transfer of charged molecules through nanofiltration membrane to control the separation selectivity of salt mixtures*, First Mediterranean Congress Chemical Engineering for Environment, Venise, octobre 2006.
- [C8] S. Déon, P. Dutournié, L. Limousy, P. Bourseau, *A transport model for nanofiltration membranes characterization*, GPE EPIC, Venise, juin 2009.
- [C9] E. Chevereau, L. Limousy, P. Dutournié, P. Bourseau, *Modification des propriétés de sélectivité d'une membrane d'ultrafiltration : étude de la rétention de solutions salines*, GRUTTEE 2009, Nancy, octobre 2009.
- [C10] E. Chevereau, L. Limousy, P. Dutournié, P. Bourseau, *Preparation of mordenite ultrafiltration membrane and reversible modification of selectivity properties: application on retention of monovalent salt-water solutions*, IZMM 3, Loutraki, Grèce, mai 2010.
- [C11] L. Limousy, P. Dutournié, W. Blel, *Numerical approximation of water permeability stabilization in Na-Mordenite membrane : characterization of surface and intracrystalline hydration*, Advances in Zeolite Science & technology, Naples, Italie, septembre 2011.
- [C12] P. Dutournié, L. Limousy, E. Chevereau, *Description of the preferential transport of monovalent salts through Na-Mordenite membrane: physico-chemical aspects*, Advances in Zeolite Science & technology, Naples, Italie, 2011.
- [C13] L. Limousy, Y. El May, M. Jeguirim, D. Kehrli, P. Dutournié, *Pyrolysis and combustion characteristics of agropellets produced from spent ground coffee blended with Conventional biomass*, 4th International Conference on Engineering for waste and Biomass Valorisation, Porto, Portugal, 2012.
- [C14] L. Blas, S. Dorge, P. Dutournié, A. Lambert, *Validation of a laboratory-scale protocol to study the performances of NiO/NiAl<sub>2</sub>O<sub>4</sub> in fixed bed reactor for CLC process*, IREC, Sousse, Tunisie, 2012.
- [C15] S. Déon, P. Dutournié, P. Bourseau, L. Limousy, P. Fievet, *Is it really possible to predict concentration polarization during nanofiltration of ionic mixtures*, Int Conf. on Desalination using membrane technology, Sitges, Espagne, 2013.
- [C16] P. Dutournié, L. Limousy, J. Bikai, M. Jeguirim, S. Déon, P. Fievet, *Modification of membrane performances: Experimental and numerical investigation of electrical and dielectrical interactions in the pores*, Int. Conf. on Desalination using membrane technology, Sitges, Espagne, 2013.
- [C17] L. Blas, S. Dorge, P. Dutournié, A. Lambert, D. Chiche, S. Bertholin, *Study of an oxygen carrier performances: estimation of the binder contribution by experimental investigation and DOE methodology*, Int. Chem. Eng. Congress, Djerba, Tunisie, 2013.
- [C18] W. Blel, A. Boucher, M. Le Fellic, L. Limousy, P. Dutournié, *Comparative study of the antimicrobial activity of Cu-Mordenite intended to membrane filtration applications*, Int. Chem. Eng. Congress, Djerba, Tunisie, 2013.
- [C19] A. Saïd, L. Limousy, J. Bikai, T.J. Daou, P. Dutournié, *Filtration of aqueous solutions using ultrafiltration zeolite membranes: a new way to investigate the interactions between the surface and solvent*, Int Renewable Ener. Congress, Sousse, Tunisie, 2015.
- [C20] L. Blas, S. Dorge, P. Dutournié, A. Lambert, D. Chiche, S. Bertholin, *Binder's contribution to the activity of NiO/NiAl<sub>2</sub>O<sub>4</sub> oxygen carrier for Chemical Looping Combustion*, EMChIE, Tarragone, Espagne, 2015.

- [C21] L. Blas, P. Dutournié, S. Dorge, L. Josien, A. Lambert, D. Chiche, S. Bertholin, *Chemical Looping Combustion: influence of the regeneration conditions on the oxygen carrier performances*, ECCE 10, Nice, 2015.
- [C22] S. Déon, A. Efligenir, P. Fievet, P. Dutournié, L. Limousy, *Predictive modeling of nanofiltration performances myth or reality*, ECCE 10, Nice, 2015.
- [C23] L. Limousy, A. Saïd, T.J. Daou, P. Dutournié, *Design of new tubular ceramic membranes using a double layered ZSM-5 thin film*, ECCE 10, Nice, 2015.
- [C24] P. Dutournié, L. Limousy, J. Bikai, M. Quenot, S. Déon, *Comprehension of the selectivity modification of a treated ceramic membrane*, ECCE 10, Nice, 2015.
- [C25] P. Dutournié, M. Bruneau, J. Brendlé, L. Limousy, *Mass transfer modelling in clay-based material: estimation of apparent diffusivity of molecule of interest*, 2nd International and Interdisciplinary Symposium "Clays and Ceramics", Riga, Lettonie, 2018
- [C26] S. M. Miron, P. Dutournié, L. Limousy; A. Ponche, *Ultrafiltration of protein-based solution. Study of membrane fouling*, 6th international conference on sustainable solid waste management, Naxos, Greece, 2018.
- [C27] P. Dutournié, M. Jeguirim, L. Limousy, *Drying of olive mill wastewater for material recovery*, 6th international conference on sustainable solid waste management, Naxos, Greece, 2018

Posters:

- [Af1] P. Dutournié, J. Mercadier, P. Cézac, *Simulation of a tubular reactor for supercritical water oxidation*, 2<sup>ème</sup> Congrès Européen de Génie des Procédés, ECCE 2, Montpellier, octobre 1999..
- [Af2] P. Dutournié, J. Mercadier, J.M. Renaume, A. Gratias, F. Cansell, *Estimation of reaction heat by supercritical reactor simulation*, 6<sup>ème</sup> Meeting on Supercritical Fluids, Nottingham, Avril 1999..
- [Af3] J. Mercadier, P. Dutournié, *Traitemet de déchets organiques en milieu aqueux supercritique*, Journée de rencontres sur l'environnement, Pau, septembre 2000,
- [Af4] J. Mercadier, P. Dutournié, *Traitemet de déchets organiques en milieu aqueux supercritique*, salon ADEME énergies Pollutec 2000, Lyon, octobre 2000..
- [Af5] J. Mercadier, P. Dutournié, *Traitemet de déchets organiques en milieux aqueux supercritique*, Journées de rencontres sur l'environnement, Pau, septembre 2000.,
- [Af6] J. Mercadier, P. Dutournié, *Dimensionnement de réacteurs supercritiques : une nouvelle voie de traitement des déchets organiques*, Journée de rencontres sur Energétique et Procédés, Pau, octobre 2001.
- [Af7] P. Salagnac, P. Dutournié, P. Glouannec, *Simulations of heat transfers in an autoclave. Application to the firing of composite material parts*, 2<sup>ème</sup> International Conference on Thermal Process Modelling and Computer Simulation, Nancy, Avril 2003.
- [Af8] S. Vielcazals, J. Mercadier, F. Marias, P. Dutournié, M. Bottreau, F. Cansell, *Modelling of new reactor concept for hydrothermal oxidation*, 6<sup>th</sup> International Symposium on Supercritical Fluids, Versailles, Avril 2003.
- [Af9] S. Vielcazals, J. Mercadier, F. Marias, P. Dutournié, F. Cansell, *Modelisation of a new concept of reactor for hydrothermal oxidation*, 6<sup>th</sup> International Symposium on waste Treatment Technologies, Sheffield, Juillet 2003..

- [Af10] P. Salagnac, P. Dutournié, P. Glouannec, *Simulation des transferts de chaleur dans un autoclave. Application à la cuisson de pièces en matériaux composites*. Journée d'étude thématique SF2M Ouest, Lorient, mars 2003.
- [Af11] S. Déon, P. Dutournié, P. Bourseau, *Transferts de matière dans des membranes de nanofiltration. Etude et maîtrise de la sélectivité*, réunion plénière du Club Français des Membranes, Paris, novembre 2005.
- [Af12] P. Dutournié, J. Mercadier, *Stability study of supercritical water oxidation reactor in laminar flow*, WasteEng 05, Albi, mai 2005..
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