

**Groupe “Activités Microbiennes et Bioprocédés”**  
**EA 4297 “Transformations Intégrées de la Matière Renouvelable”**

**Département de Génie des Procédés Industriels**  
**Département de Génie Biologique**

**Principales publications**

**I. Journaux à comité de lecture**

2009

- Kitous O., Cheikh A., Lounici, Grib H., Pauss A., and Mameri N. (2009) Application of the electrosorption technique to remove Metribuzin pesticide, *J. Hazard. Mat.*, **161**, (2-3), 1035-1039, doi:10.1016/j.jhazmat.2008.04.091

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- Bouvier J.-C., Bekri M., Mazouni D., Schoefs O., Harmand J., Ribeiro T., Pham N., and Pauss A. (2008). On-line monitoring of nitrate, nitrite by UV spectrophotometry in a SBR process used for the treatment of industrial wastewaters, *Int. J. Chem. React. Eng.*, **6**, A106, 20 pages.
- Canziani R., Ficara E., Fiocchi N., Ratini P., Pirani M., Mariani S., Bekri M., Pauss A., Ribeiro T., Schoefs O., Bouvier J.-C., Harmand J., and Mazouni D. (2008). Development of hardware sensors for the online monitoring of SBR used for the treatment of industrial wastewaters, *Math. Comput. Model. Dynamic. Syst.*, **14** (1), 27-38.
- Pham H. N., Benitez A., Hommet F., Bombe D., Schoefs O. and Pauss A. (2008) A new quantitative and low-cost determination method of nitrate in vegetables, based on deconvolution of UV spectra, *Talanta*, **76**, 936-940, doi:10.1016/j.talanta.2008.04.048.

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- El Zakhem H., Lanoiselle J.-L., Lebovka N.I., Nonus M. and Vorobiev E. (2007). Influence of temperature and surfactant on *Escherichia coli* inactivation in aqueous suspensions treated by moderate pulsed electric fields, *Int. J. Food Microbiol.*, **120** (3), 259-265.
- Ribeiro T. and Pauss A. (2007). Utilisation de l'impédancemétrie pour la mesure d'activités microbiennes. *Bull. Soc. Franc. Microbiol.*, **22** (2), 108-114.
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- El Zakhem H., Lanoiselle J.-L., Lebovka N. I., Nonus M. and Vorobiev E. (2006). The early stages of *Saccharomyces cerevisiae* yeast suspensions damage in moderate pulsed electric fields. *Colloids and Surfaces B: Biointerfaces*. **47**(2), 189-197.

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- Djeribi R., Dézenclos, T., Pauss A. and Lebeault J.M. (2005). Removal of styrene from waste gas using a biological trickling filter. *Eng. Life Sci.* **5**, 5, 450-457.
- Schoefs O., Jean L., Ellert A., Perrier M. and Samson R. (2005). Modeling the kinetics of contaminant biodegradation by a mixed microbial consortium based on carbon mass balance. *Soil Sediment Contam.* **14**, 171-182.

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- Douge M., Nonus M., Thomasset T., Teissier P. and Barbeau J.-Y. (2004). ESEM study of effects of hydrolytic enzymes on wheat bran structure. *Microsc. Anal.* novembre, 21-22.
- Drouiche M., Le Mignot V., Grib H., Abdi N., Belhocine D., Lounici H., Pauss A. and Mameri N. (2004). Treatment of olive oil mill wastewater by an advanced oxidation process UV/H<sub>2</sub>O<sub>2</sub>. *Desalination*. **169**, 1, 81-88.
- Giacomazzi S. and Cochet N. (2004). Environmental impact of diuron transformation : a review. *Chemosphere*. **56**, 11, 1021-1032.
- Schoefs O., Perrier M. and Samson R. (2004). Estimation of contaminant depletion in unsaturated soils using a reduced-order biodegradation model and carbon dioxide measurement. *Appl. Microbiol. Biotechnol.* **64**, 53-61.

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- Dochain D., Grégoire S., Pauss A. and Schaeffer M. (2003). Dynamical modelling of a waste stabilisation pond. *Bioprocess Biosyst. Eng.* **26**, 1, 19-26.
- Ribeiro T., Romestant G., Depoortere J. and Pauss A. (2003). Development, validation, and applications of a new laboratory-scale indirect impedancemeter for rapid microbial control. *Appl. Microbiol. Biotechnol.* **63**, 1, 35-41.
- Schoefs O., Dochain D., Perrier M. and Samson R. (2003). Estimation of the hydrodynamic and biokinetic models of soil bioremediation processes. *Chem. Eng. Res. Des.* **81**, 9, 1279-1288.
- Schoefs O., Perrier M., Dochain D. and Samson R. (2003). On-line estimation of biodegradation in an unsaturated soil. *Bioprocess Biosystems Eng.* **26**, 1, 37-48.
- Widehem P. and Cochet N. (2003). *Pseudomonas syringae* as an ice nucleator: application to freeze-concentration. *Process Biochem.* **39**, 4, 405-410.

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- Kharoune M., Kharoune L., Lebeault J.M. and Pauss A. (2002). Aerobic degradation of ethyl tert-butyl ether by a microbial consortium : selection and evaluation of its biodegradation ability. *Environ. Toxicol. Chem.* **21**, 10, 2052-2058.

## II. Conférences et congrès

2007

- Bouvier J.C., Bekri M., Mazouni D., Schoefs O., Harmand J., Ribeiro T., Pham N., and Pauss A. (2007). On-line monitoring of nitrate, nitrite and soluble COD by UV spectrophotometry in a SBR process used for the treatment of industrial wastewaters. 11ème Congrès SFGP, Saint-Etienne, 9-11 octobre. Conférence. Récents Progrès en Génie des Procédés – Numéro 96.
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- El Zakhem H., Lanoisellé J.-L., Lebovka N. I., Nonus M. and Vorobiev E. (2007). Batch treatment of *Saccharomyces cerevisiae* suspensions by moderate pulsed electric field : Effects of agitation, 11ème Congrès de la Société Française de Génie des Procédés (SFGP), Siant-Etienne, France, 9-11 Octobre 2007. Conférence. Récents Progrès en Génie des Procédés – Numéro 96.
- Pauss A and Schoefs O. (2007) Etat de l'art des capteurs pour le contrôle et le suivi des bioprocédés. Congrès International sur l'Environnement, Ghardaia, Algérie, 10-11 mars 2007. Conférence invitée.
- Schoefs O. (2007) Les procédés biologiques et le traitement des sols contaminés – Considérations économiques, techniques, environnementales et sociales. Congrès International sur l'Environnement, Ghardaia, Algérie, 10-11 mars 2007.

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- Bouvier J.-C., Bekri M., Mazouni D., Schoefs O., Harmand J. and Pauss A. (2006). Mesure en ligne de nitrate, nitrite et DCO soluble par déconvolution spectrale de spectres UV. 4<sup>ème</sup> colloque STIC et Environnement, Narbonne, 5-7 avril 2006. Text available on the web : <http://www.montpellier.inra.fr/narbonne/se2006/>
- Canziani R., Ficara E., Fiocchi N., Ratini P., Pirani M., Simone Mariani S., Bekri M., Pauss A., Ribeiro T. and Schoefs O., Bouvier J.-C., Harmand J. and Mazouni D. (2006). Development of hardware sensors for the on-line monitoring of SBR used for the treatment of industrial wastewaters. 5th MATHMOD VIENNA, IMACS Symposium on Mathematical Modelling, Vienna (Austria), February 8-10 2006. Number 223, 10 pages on CD.
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- El Zakhem H., Lanoisellé J.-L., Lebovka N. I., Nonus M. and Vorobiev E. (2006). Treatment of *Saccharomyces cerevisiae* suspensions by Pulsed Electric Fields: Effects of yeast cells concentration and non-ionic surfactant additives, 13th World Congress of IUFoST (International Union of Food Science and Technology), 17- 21 September 2006, Nantes, France.
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- El Zakhem H., Lanoisellé J.-L., Lebovka N. I., Nonus M. and Vorobiev E. (2005). Inactivation of *Saccharomyces cerevisiae* by pulsed electric field treatment : Early stages of yeast damage, EFFOST INTRADFOOD 2005 Conference, 25-28 October, 2005-Valencia Spain.
- Schoefs O., Dochain D., Perrier M., Chapuis R. and Samson S. (2005). Software Sensors to Evaluate On-line the Efficiency of Soil Clean-up Bioprocesses, CONSOIL 2005, Bordeaux, France, published on CD-ROM.
- Schoefs O., Taok M., Cochet N. and Pauss A. (2005). On-line Monitoring of Microbial Activity in Soil Using BOD Measurement and Indirect Impedancemetry, 3rd European Bioremediation Conference, Chania (Crete), Greece,

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- Dochain D., Gregoire S., Pauss A. and Schaeffer M. (2004). Dynamical modelling of a waste stabilisation pond in France. 6<sup>th</sup> International IWA Specialist Group Conference on Waste Stabilisation Ponds, Avignon (France), 28 September – 1 October, 2004. pp. 413-421.
- Douge M., Teissier P., Nonus M. and Barbeau J.-Y. (2004). Fermentation as a tool for technological improvement of cereal raw materials. International Congress on Engineering and Food ICEF9, Montpellier, France, 7-11 March 2004.
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- Fibranto H., Dochain D. and Schoefs O. (2004) Optimal sensor location based on the observability measures for an anaerobic wastewater treatment process. Proc. CAB9, Nancy, France, CD-ROM paper 021.
- Ribeiro T., Lehtihet R., Lux E., Couteau G., Schoefs O., Cochet N. and Pauss A. (2004). Combination of respirometry and indirect impedancemetry to evaluate the microbial activity of soils. European Symposium on Environmental Biotechnology (ESEB 2004), Oostende (Belgium), April 25-28 , 2004. pp.851-852.