

**PUBLICATIONS****a) Refereed Publications**

21. Bae, H.-J., **Turcotte, G.**, Soo Kim, Y., Vezina, L.-P. and Laberge, S. Cel6B of *Thermobifidus fusca* and a Cel5-CBM6 of *Ruminococcus albus* containing a cellulose binding site show synergistic effect on hydrolysis of native plant cellulose. FEMS Microbiol. Lett. 233(2):325-331, **2004**.
20. Davids, S.J., Yaylayan, V. A. and **Turcotte, G.** Effect of thermal treatment of incubated potato juice on the formation of Maillard volatiles. Int. J. Food Sci. Tech. 38(8):849-856, **2003**.
19. Bae, H.-J., **Turcotte, G.**, Chamberland, H., Karita, S. and Vezina, L.-P. A comparative study between an endoglucanase IV and its fused protein complex Cel5-CBM6. FEMS Microbiol. Lett. 227(2):175-181, **2003**.
18. Aroujalian, A., Belkacemi, K., Davids, S.J., **Turcotte, G.** and Pouliot, Y. Effect of protein on flux and selectivity in pervaporation of ethanol from a dilute solution. Separation Sci. Technol. 38(12/13):3239-3247, **2003**.
17. Belkacemi, K., **Turcotte, G.** and Savoie, P. Aqueous/steam fractionated agricultural residues as substrates for ethanol production. Ind. & Eng. Chem. Res. 41(2):173-179, **2002**.
16. Belkacemi, K., Larachi, F., Hamoudi, S., Sayari, A. and **Turcotte, G.** Inhibition and deactivation effects in catalytic wet oxidation of high-strength alcohol-distillery liquors. Ind. & Eng. Chem. Res. 38(6):2268-2274, **1999**.
15. Savoie, P., de Halleux, D., Belkacemi, K. and **Turcotte, G.** Enzymatic hydrolysis of forage and straw pretreated with ammonia. Can. Agric. Eng. 40(3):207-212, **1998**.
14. Oulé, K.M., **Turcotte, G.** and Beaulieu, Y. Croissance et activité cellulaire de *Brevibacterium casei* NCDO 2049 dans du perméat de lactosérum. Can. J. Microbiol. 43:1180-1188, **1997**.
13. Belkacemi, K., **Turcotte, G.**, Savoie, P. and Chornet, E. Ethanol production from enzymatic hydrolyzates of cellulosic fines and hemicellulose-rich liquors derived from aqueous/steam fractionation of forages. Ind. & Eng. Chem. Res. 36(11):4572-4580, **1997**.
12. De Kee, D., **Turcotte, G.** and Chan Man Fong, C.F. Use of steady, transient, and hysteresis tests in characterizing foodstuffs. J. Food Eng. 30:163-170, **1996**.
11. Chan Man Fong, C. F., **Turcotte, G.** and De Kee, D. Modelling steady and transient rheological properties. J. Food Eng. 27: 63-70, **1996**.
10. Alvo, P., Savoie, P., Surprenant, J., Tremblay, D., Gauthier, L., Émond, J.- P. and **Turcotte, G.** A systems approach for the evaluation of ethanol production based on forages. Bioresource Technol. 56:61-68, **1996**.
9. **Turcotte, G.** Yield stress measurements in paints. JOCCA 8:347-349, 351, **1994**.

8. Duvnjak, Z., **Turcotte, G.** and Duan, Z. D. Production of sorbitol and ethanol from Jerusalem artichokes by *Saccharomyces cerevisiae* ATCC 36859. Appl. Microbiol. Biotechnol. 35:711-715, **1991**.
7. Duvnjak, Z., **Turcotte, G.** and Duan, Z. D. Production and consumption of sorbitol and fructose by *Saccharomyces cerevisiae* ATCC 36859. J. Chem. Technol. Biotechnol. 52:527-537, **1991**.
6. **Turcotte, G.** and Kosaric, N. Lipid biosynthesis in oleaginous yeasts. Adv. Biochem. Eng./Biotechnol. 40:73-92, **1989**.
5. **Turcotte, G.** and Kosaric, N. The C/N ratio in N-limited cultures of *Rs. toruloides*. Biotechnol. Letters 11(9):637-642, **1989**.
4. **Turcotte, G.** and Kosaric, N. Biosynthesis of lipids by *Rhodospiridium toruloides* ATCC 10788. J. Biotechnol. 8:221-238, **1988**.
3. De Kee, D., **Turcotte, G.** and Code, R.K. Flow properties of time-dependent foodstuffs. J. Rheol. 27(6):581-604, **1983**.
2. De Kee, D. and **Turcotte, G.** Viscosity of biomaterials. Chem. Eng. Commun. 6:273-282, **1980**.
1. De Kee, D., Harrison, B., **Turcotte, G.** and Fidley, K. New method for the determination of yield stress. J. Texture Studies 10(3):281-288, **1980**.

**b) Refereed Proceedings**

3. Belkacemi, K., **Turcotte, G.**, de Halleux, D. and Savoie, P. Ethanol production from AFEX-treated forages and agricultural residues. Appl. Biochem. Biotechnol. 70-72:441-462, **1998**.
2. Alvo, P., Savoie, P., Surprenant, J., Tremblay, D., Gauthier, L., Émond, J.-P. and **Turcotte, G.** A systems approach for the evaluation of ethanol production based on forages. An Alternative Energy Conference, B.E.Dale (Ed.), ASAE:85-94, **1994**.
1. De Kee, D., **Turcotte, G.** and Code R.K. Rheological characterization of time-dependent foodstuffs. VIIIth International Congress on Rheology, Naples:609-614, **1980**.

**c) Other Proceedings**

12. Bae, H.-J., Kim, Y. S., Vézina, L.-P. and **Turcotte, G.** Simultaneous localization of  $\beta$ -1,4-glucans in plant cell wall using endo- and exo- glucanase-gold complexes. 4<sup>th</sup> Pacific Regional Wood Anatomy Conference, Chonnam National University, Kwangju, South Korea, IAWA (International Association of Wood Anatomists), **1998**.
11. Bae, H.-J., Karita, S., Vézina, L.-P. and **Turcotte, G.** Substrate specificity and mode of action of a recombinant enzyme from *Ruminococcus albus*, and its localization in alfalfa.

- MIE Bioforum 98: Genetics, Biochemistry and Ecology of Cellulose Degradation, Suzuka City, Japan:121-126, **1998**.
10. **Turcotte, G.**, Belkacemi, K., Savoie, P. and de Halleux, D. Éthanol et coproduits à partir de résidus agricoles et de fourrages pérennes. Demi-journée d'information sur les fourrages, Feb. 20, Notre-Dame-du-Bon-Conseil, Canada:12-19, **1998**.
  9. Belkacemi, K., **Turcotte, G.**, de Halleux, D. and Savoie, P. Ethanol production from AFEX-treated forages and agricultural residues. 3rd Biomass Conference of the Americas, Aug. 24-29, Montreal, Canada:1117-1130, **1997**.
  8. Belkacemi, K., Hamoudi, S., Larachi, F., Montero, J.P., Sayari, A. and **Turcotte, G.** TOC-reduction of alcohol distillery wastewater by wet oxidation using heterogeneous catalysts. 3rd Biomass Conference of the Americas, Aug. 24-29, Montreal, Canada:1105-1116, **1997**.
  7. Savoie, P., de Halleux, D., Belkacemi, K., **Turcotte, G.**, Nadeau, P. and Chiquette, J. Enzymatic hydrolysis of forage and straw pretreated with ammonia. Canadian Society of Agricultural Engineering Annual Conference, May 28-30, Sherbrooke. CSAE (Ed.), Saskatoon, Canada. Vol. A:357-366, **1997**.
  6. **Turcotte, G.**, Belkacemi, K., de Halleux, D. and Savoie, P. Hydrolysis of perennial forages into fermentable sugars. 1997 Ethanol Research and Development Workshop. Stumborg, M.A. (Ed.), Natural Resources Canada and Agriculture and Agri-Food Canada:94-98, **1997**.
  5. **Turcotte, G.**, Belkacemi, K. and Savoie, P. Ethanol fermentation from pretreated and hydrolyzed perennial forages. 1997 Ethanol Research and Development Workshop. Stumborg, M.A. (Ed.), Natural Resources Canada and Agriculture and Agri-Food Canada:99-102, **1997**.
  4. Belkacemi, K., **Turcotte, G.**, de Halleux, D. and Savoie, P. Enzymatic hydrolysis of timothy grass pretreated by Ammonia Freeze Explosion. 3rd Liquid Fuel Conference. Liquid Fuels and Industrial Products from Renewable Resources. Sept. 15-17, Nashville, TN:232-240, **1996**.
  3. de Halleux, D., Savoie, P., **Turcotte, G.**, Belkacemi, K., Perrier, J.P. and Laarabi, M. Ethanol production from lignocellulosic biomass: Optimization of hydrolysis by a simple economic model. 3rd Liquid Fuel Conference. Liquid Fuels and Industrial Products from Renewable Resources. Sept. 15-17, Nashville, TN:302-310, **1996**.
  2. Elaamadi, L., **Turcotte, G.** and Goulet, J. High pressure homogenization of skim milk containing *Pseudomonas fluorescens*. IDF Symposium on Heat Treatments and Alternative Methods. 6-8 Sept. 1995, Vienna, Austria:214-221, **1996**.
  1. **Turcotte, G.** and Kosaric, N. Effect of temperature and pH on the saturation of the lipids produced by *Rhodospiridium toruloides*. World Conference on Biotechnology for the Fats and Oils Industry, New Hamburg, West Germany:317-320, **1987**.

**d) Patents**

2. Bae, H.-J., Laberge, S. and **Turcotte, G.** Transgenic Plants Expressing Cellulase for Autohydrolysis of Cellulose Components and Method for Production of Soluble Sugars. Korean Patent **2004**.
1. Bae, H.-J., Laberge, S. and **Turcotte, G.** Transgenic Plants Expressing Cellulase for Autohydrolysis of Cellulose Components and Method for Production of Soluble Sugars. International Patent Application PCT/KR**2005**/002494.

**e) Reports**

3. **Turcotte, G.** Characterisation of Wastes from an Ethanolic Fermentation of a Forage Substrate. Green Plan Ethanol Research and Development Contract no. 01396-4-C028/01-XSK, Agriculture and Agri-Food Canada, **1997**.
2. Alvo, P., Savoie, P., Surprenant, J., Tremblay, D., Gauthier, L., Émond, J.-P. et **Turcotte, G.** Analyse systémique et énergétique de la production d'éthanol à partir de fourrages. Technical Research Report prepared for Ministère des Approvisionnements et Services et Agriculture Canada, **1994**.
1. Kosaric, N., Bell, P.C., Consentino, G., Magee, R., **Turcotte, G.** and Purcell, A. Non-conventional Microbial Food, Industrial and Economic Possibilities for Canada. Government of Canada, Office of Industrial Innovation, Report no. 96, Ottawa:1-213, **1984**.

**f) Conference Presentations**

51. Aroujalian Masshadi, A., Pouliot, Y. and **Turcotte, G.** Effect of residual sugars in fermentation broth on pervaporation flux and selectivity for ethanol, ICOM2005, Seoul, Korea, Aug. 21-26, **2005**.
50. Khan, Z., and **Turcotte, G.** Enzymatic synthesis of amoxicillin, 6<sup>th</sup> Quebec-Ontario Biotechnology Meeting, Quebec, June 10-11, **2004**.
49. Aroujalian Masshadi, A., Belkacemi, K., Davids, S., Pouliot, Y. and **Turcotte, G.** Pervaporation of ethanol-water mixtures, 12<sup>th</sup> Symp. Separation Science & Technology for Energy Applications, Gatlinburg, TN, Oct. 15-18, **2002**.
48. Aroujalian Masshadi, A., Pouliot, Y. and **Turcotte, G.** An experimental work on the effect of ethanol flux and selectivity, ICOM'99, Toronto, Canada, June 12-18, **1999**.
47. **Turcotte, G.**, Aroujalian Masshadi, A. and Pouliot, Y. Pervaporation as a means of recovering ethanol from lignocellulosic bioconversions, 21<sup>st</sup> Symp. Biotechnology for Fuels and Chemicals, Fort Collins, Colorado, May 2-6, **1999**.
46. **Turcotte, G.**, Bae, H.-J. and Vezina, L.-P. Visualization of preferred plant material substrates for endo- and exo-cellulases. 21<sup>st</sup> Symp. Biotechnology for Fuels and Chemicals, Fort Collins, Colorado, May 2-6, **1999**.
45. Bae, H.-J., Vezina, L.-P., **Turcotte, G.** and Kim, Y. S. Cytochemical localization of  $\beta$ -1,4-glucans in plant cell wall using an endo- or exo- glucanase-gold complex. 4<sup>th</sup> Pacific Regional Wood Anatomy Conference, Chonnam National University, Kwangju, South Korea, October 26-29, **1998**.

44. Bae, H.-J., Karita, S., Vezina, L.-P. and **Turcotte, G.** Substrate specificity and mode of action of a recombinant enzyme from *Ruminococcus albus*, and its localization in alfalfa. MIE Bioforum 98: Genetics, Biochemistry and Ecology of Cellulose Degradation, Suzuka City, Japan, Sept. 7-11, **1998**.
43. Mujawamariya, D., **Turcotte, G.** and de la Noue, J. Biotraitement d'un effluent de laiterie par culture de *Micractinium* sp. 66<sup>e</sup> Congrès de l'ACFAS, Québec, Québec, May 11-15, **1998**.
42. **Turcotte, G.** Éthanol et coproduits à partir de résidus agricoles et de fourrages pérennes. Demi-journée d'information sur les fourrages, Notre-Dame-du-Bon-Conseil, Quebec, February 20, **1998**.
41. **Turcotte, G.**, De Kee, D. and Chan Man Fong, C. Use of steady, transient and hysteresis tests in characterizing foodstuffs. AIChE, Los Angeles, CA, November 16-21, **1997**.
40. Savoie, P., de Halleux, D., Belkacemi, K., **Turcotte, G.**, Nadeau, P. and Chiquette, J. Enzymatic hydrolysis of forage and straw pretreated with ammonia. Canadian Society of Agricultural Engineering Annual Conference, Sherbrooke, Quebec, May 28-30, **1997**.
39. Belkacemi, K., **Turcotte, G.**, de Halleux, D. and Savoie, P. Evaluation of AFEX-treated forages for ethanol production. 3rd Biomass Conference of the Americas, Montreal, Quebec, August 24-29, **1997**.
38. Montero, J.-P., Belkacemi, K., Larachi, F., Sayari, A. and **Turcotte, G.** TOC-reduction of alcohol distillery waste water by wet oxidation using heterogeneous catalysts. 3rd Biomass Conference of the Americas, Montreal, Quebec, August 24-29, **1997**.
37. Belkacemi, K., **Turcotte, G.**, Savoie, P. and Chornet, E. Ethanol production from enzymatic hydrolysates of steam-exploded forages. Engineering Foundation Conferences, Chemical Reaction Engineering VI: Reactor Engineering for Sustainable Processes and Products, Banff, Alberta, June 8-13, **1997**.
36. Leclerc, N. and **Turcotte, G.** Fermentation éthanolique d'un hydrolysat de fléole des prés par *Yamadazyma stipitis*. 65<sup>e</sup> Congrès de l'ACFAS, Trois-Rivières, Québec, May 12-16, **1997**.
35. Belkacemi, K., Turcotte, G., de Halleux, D. and Savoie, P. Ethanol production from AFEX-treated forages and agricultural residues. 19th Symposium on Biotechnology for Fuels and Chemicals, Colorado Springs, May 4-8, **1997**.
34. **Turcotte, G.**, Belkacemi, K., Savoie, P. and de Halleux, D. Ethanol from forages and agricultural residues. Ethanol Research and Development Workshop, Ottawa, Ontario, March 16-19, **1997**.
33. Belkacemi, K., **Turcotte, G.**, Savoie, P. and Chornet, E. Ethanol production from enzymatic hydrolysates of steam-exploded forages and agricultural residues. AIChE, Houston, March 3-7, **1997**.
32. Alvo, P., Belkacemi, K. and **Turcotte, G.** Saccharification of hammermilled timothy and alfalfa. 46th Canadian Chemical Engineering Conference, Kingston, Ontario, September 29-October 2, **1996**.
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30. Belkacemi, K., **Turcotte, G.**, de Halleux, D. and Savoie, P. Enzymatic hydrolysis of timothy grass pretreated by Ammonia Fiber Explosion. 3rd Liquid Fuel Conference, Liquid Fuels and Industrial Products from Renewable Resources, Nashville, September 15-17, **1996**.
29. Lajoie, D., **Turcotte, G.** and Beaulieu, Y. Lactase (?) de *Trichoderma reesei*. 64<sup>e</sup> Congrès de l'ACFAS, Montréal, May 13-17, **1996**.

28. de Negri, N. P., Picard, G. and **Turcotte, G.** Assimilation de l'azote inorganique par *Scenedesmus bicellularis* immobilisée pour le traitement tertiaire des eaux usées. 64e Congrès de l'ACFAS, Montréal, May 13-17, **1996**.
27. Belkacemi, K., **Turcotte, G.**, de Halleux, D. and Savoie, P. Hydrolyse enzymatique de fourrages traités par la technologie AFEX (Ammonia Fiber Explosion). Journée d'information scientifique sur les fourrages, Université Laval, Québec, November 21, **1995**.
26. de Halleux, D., Savoie, P., **Turcotte, G.** and Belkacemi, K. Potentiel éthanolique des fourrages. Journée d'information scientifique sur les fourrages, Université Laval, Québec, November 21, **1995**.
25. El Aamadi, L., **Turcotte, G.** and Goulet, J. High pressure homogenization of skim milk containing *Pseudomonas fluorescens*. International Dairy Federation Symposium on Heat Treatments and Alternative Methods, Vienna, September 6-8, **1995**.
24. Savoie, P., Alvo, P., **Turcotte, G.**, Nadeau, P. and Émond, J.-P. High value extracts from forage and straw. NABEC-95, Bar Harbor, Maine, July 31-August 2, **1995**.
23. He, C., **Turcotte, G.** and de la Noue, J. Effet de l'intensité lumineuse, de la température et du pH sur l'épuration de solutions cuivrées par *Phormidium bohneri*. 63e Congrès de l'ACFAS, Chicoutimi, May **1995**.
22. He, C., **Turcotte, G.** and de la Noue, J. Influence de la concentration initiale de cuivre sur l'épuration de solutions cuivrées par *Phormidium bohneri*. 63e Congrès de l'ACFAS, Chicoutimi, May **1995**.
21. Lajoie, D., Gauthier, S., Beaulieu, Y. and **Turcotte, G.** Fermentation du perméat de lactosérum par *Trichoderma reesei* MCG80. 7e Symposium GIM94, Montréal, June 26-July 1, **1994**.
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19. de la Noue, J. and **Turcotte, G.** Utilisation des biomasses algales: produits à haute valeur ajoutée. Atelier Microalgues, Québec, October **1993**.
18. Talbot, P. and **Turcotte, G.** Conception de bioréacteurs et transfert de CO<sub>2</sub>. Atelier Microalgues, Québec, October **1993**.
17. Oulé, K. M., **Turcotte, G.** and Beaulieu, Y. Croissance de *Brevibacterium* sur perméat de lactosérum. 10e Congrès de l'AMQ, September 18-19, **1993**.
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15. Duan, Z.D., **Turcotte, G.** and Duvnjak, Z. Conversion of inulin from Jerusalem artichokes to sorbitol and ethanol by *Saccharomyces cerevisiae*. 15th Symposium of Biotechnology for Fuels and Chemicals, Colorado Springs, May 10-14, **1993**.
14. **Turcotte, G.**, Duan, Z.D. and Duvnjak, Z. Production de sorbitol et d'éthanol par *Saccharomyces cerevisiae* ATCC 36859 dans du jus de topinambours. 60e Congrès de l'ACFAS, Montréal, **1992**.
13. Duan, Z.D., **Turcotte, G.** and Duvnjak, Z. Production de sorbitol et de fructose par une levure mutante *Saccharomyces cerevisiae* ATCC 36859. 59e Congrès de l'ACFAS, Montréal, **1991**.
12. **Turcotte, G.** The role of membrane-related biotechnological applications in the food industry. 40th CSChE Conference, Halifax, NS, **1990**.
11. **Turcotte, G.**, Duan, Z.D. and Duvnjak, Z. Production of sorbitol by a mutant of *Saccharomyces cerevisiae* in batch fed processes. 40th CSChE Conference, Halifax, NS, **1990**.

10. **Turcotte, G.** Changes in types of food lipids during growth of *Rhodospiridium toruloides*. 32nd CIFST Annual Conference, Québec, **1989**.
9. **Turcotte, G.** and Kosaric, N. Food lipids from *Rhodospiridium toruloides* in batch-mode incubation. 5th International Congress on Engineering and Food, Cologne, Federal Republic of Germany, **1989**.
8. **Turcotte, G.** Évaluation de lipides microbiens par chromatographie en couche mince sur tiges. 57e Congrès de l'ACFAS, Montréal, **1989**.
7. **Turcotte, G.** and Kosaric, N. Changes in the saturation of microbial lipids during growth. Annual Meeting of AIChE, Washington, D.C., **1988**.
6. **Turcotte, G.** and Kosaric, N. Alternative oils and fats: microbial lipids. 31st CIFST Annual Conference, Winnipeg, Ma., **1988**.
5. **Turcotte, G.** and Kosaric, N. Variations du taux de saturation des huiles microbiennes pendant la croissance. 56e Congrès de l'ACFAS, Moncton, N.-B. **1988**.
4. **Turcotte, G.** and Kosaric, N. Effect of temperature and pH on the saturation of the lipids produced by *Rhodospiridium toruloides*. 2nd Annual Meeting of the Canadian Section of the American Oil Chemists' Society, Winnipeg, Ma., **1987**.
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2. De Kee, D., **Turcotte, G.** and Code, D. Rheological characterization of time-dependent foodstuffs. VIIIth International Congress on Rheology, Naples, Italy, **1980**.
1. De Kee, D., **Turcotte, G.** and Code, D. Viscosity of biomaterials. Second Joint Meeting, U.S. and Japan Societies of Rheology, Kona, **1979**.