



CURRICULUM VITAE

Name: HAMDI First name: Moktar
Born: 28. 04. 1959 in Tunisia Nationality: Tunisian

Actual situation

Head of Department of Biochemical Engineering,
Head of Laboratory of Ecology and Microbial Technology
National Institute of Applied Sciences and Technology. BP: 676. 1080 Tunis
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Academic Qualifications

- National diploma of Habilitation for research direction (equivalent to DSc) (University Paul SABATIER Toulouse, France) Juin 1997.
- Ph. Doctorat in Microbiology (University of Aix Marseille, France). New conception of bioprocess for olive mill wastewaters treatment (1991)
- Engineer of Industrial and Applied Microbiology (University of Aix Marseille) (1987)
- Mastery of Industrial and Applied Microbiology (University of Aix Marseille)(1986)
- Assistant Engineer of food industry (National School of Food Industry. Tunis) (1981)

Previous work experience

- 1982 - 1984 : Assistant Engineer in Center of Biotechnology Sfax (Tunisia).
- 1988 - 1989 : Researcher in laboratory of Microbiology of ORSTOM Marseille (France).
- 1989 - 1992 : Research Engineer in Center of Biotechnology. Sfax (Tunisia).
- 1992 - 1993 : Post-doctoral fellowship in Center of Transfer in Biotechnology and Microbiology at Toulouse (France)
- 1994- 1999 : Prof. Assistant of Microbiology and BIOprocesses in Superior School of Food Industries at Tunis.
- 1999- 2004 : Prof. Associate of Industrial and food Microbiology in National Institute of Applied Sciences and Technology.
- From 2004 : Prof. of Industrial and food Microbiology in National Institute of Applied Sciences and Technology.

Teaching Activities in University

1994-2006 : Courses on *General Microbiology, on Bioprocess Engineering, and on Bioseparations Engineering at ESIAT - Tunis (Engineer level).*
1997-2006 : Courses *General Microbiology, on Biotechnology Environ., on Industrial and Food Microbiology, on Biochemical Engineering, Environmental Bioprocess and on Bioseparations Engineering at INSAT – Tunis (Engineer level).*
1997-2006 : Courses on *Industrial Microbiology at Faculty of Sciences at Tunis (Master level).*
1997-2006 : Courses on *Environmental Bioprocess at Faculty of Sciences at Bizerte (Master level).*

Teaching Activities in Industry

1996-2006 : Courses on *Hygiene, on Good Manufacturing Process (GMP), on HACCP, on water treatment and on Wastes Management and Treatment at some companies.*

RESPONSIBLE OF SOME NATIONAL AND INTERNATIONAL PROGRAMS OF RESEARCHS:

Liste des publications dans des journaux à comité de lecture :

- 1 - Hamdi M., Kadir A. and Garcia JL. The use of *Aspergillus niger* for bioconversion of olive mill wastewaters. *Applied Microbiol. Biotechnol.* 34 (1991), 828 - 831.
- 2 - Hamdi M. Effect of agitation and pretreatment on the anaerobic digestion of olive mill wastewaters. *Bioresource Technol.* 36 (1991), 173 - 178.
- 3 - Hamdi M. and Garcia JL. Comparison between anaerobic filter and anaerobic contact process for fermented olive mill wastewaters. *Bioresource Technol.* 38 (1991), 23 - 29.
- 4 - Hamdi M. Effect of hydrodynamic conditions on methane formation by anaerobic sludge. External mass transfer study. *Environ. Technol.* 12 (1991), 907 - 913.
- 5- Hamdi M., Bouhamed H. and Ellouz R. Optimization of *Aspergillus niger* growth on olive mill wastewaters. *Applied Microbiol. Biotechnol.* 36 (1991), 285-288.
- 6- Hamdi M., Festino C. and Aubart C. Anaerobic digestion of olive mill wastewaters in fixed film reactors. *Process Biochem.* 27 (1992), 37-42.
- 7 - Hamdi M. and Ellouz R. Use of *Aspergillus niger* to improve filtration of olive mill wastewaters. *J. Chemical Technol. Biotechnol.* 53 (1992), 195-200.
- 8- Hamdi M., Brauman A. and Garcia JL. Effect of an anaerobic bacterial consortium isolated from termites, on the degradation of olive mill wastewaters. *Applied Microbiol. Biotechnol.* 37 (1992), 408-410.
- 9 - Hamdi M. and Ellouz R. Bubble column fermentation of olive mill wastewaters by *Aspergillus niger*. *J. Chemical Technol. Biotechnol.* 54 (1992), 331-335.
- 10- Hamdi M. Toxicity and biodegradability of olive mill wastewaters in batch anaerobic digestion. *Applied Biochem. Biotechnol.* 37 (1992), 155-163.
- 11 - Hamdi M. and Garcia J.L. Anaerobic digestion of olive mill wastewaters to prior a *Aspergillus niger*-detoxification. *Process Biochem.* 28 (1993), 155-159.
- 12- Hamdi M. and Ellouz R. Treatment of prefermented Olive Mill Wastewaters by anaerobic filter and aerobic fluidized bed processes. *Environ. Technol.* 14 (1993), 183-188.
- 13- Hamdi M. and Garcia J.L. and Ellouz R. Integrated Biological Process for Olive Mill Wastewaters Treatment. *Bioprocess Eng.* 8 (1992), 79-84.
- 14 - Hamdi M. Thermoacidic precipitation of darkly colored polyphenols of olive mill wastewaters. *Environ Technol.* 14 (1993), 495-500.
- 15 - Hamdi M. Future prospects and constraints of Olive Mill Wastewaters use and treatment: A review. *Bioprocess Eng.* 8 (1993), 209-214.
- 16 - Hamdi M. Industrial Microbiology is useful for olive mill wastewaters use and treatment. *Olivae.* 46 (1993), 20-24.
- 17 - Chakchouk M., Hamdi M., Foussard J.N. and Debellefontaine. H. Complete Treatment of olive mill wastewaters by Wet air oxidation process coupled with a biological device. *Environ. Technol.* 15 (1994), 323 - 332.
- 18 - Hamdi M. Biofilm thickness effect on the diffusion limitation in the bioprocess reaction. biofloc critical diameter significance. *Bioprocess Eng.* 12 (1995), 173 - 179.
- 19- Hamdi M. Anaerobic digestion of Olive Mill Wastewater: A review. *Process Biochem.* 31 (1996) 105-110.
- 20 - Hamdi M., Blanc P.J., and Goma G. Effect of aeration conditions on the production of red pigment by *Monascus purpureus*. growth on prickly pear juice. *Process Biochem.* 36 (1996) 534-547
- 21 - Hamdi M., Blanc, P.J., Loret, M.O., and Goma, G. A new process for red pigments production by *Monascus purpureus* on glucose and ethanol in a submerged culture. *Bioprocess Eng.* 17/1 (1997) 75 - 79.
- 22 - Hamdi M. Prickly pear fruit and cladodes a potential raw material for bioindustries: a review. *Bioprocess Eng.* 17/6 (1997) 387 - 391.
- 23 - M. Hamdi, S. Hamza, N. Mtimet, N. Hmida, C. Cornelius, S. Zgouli, A. Mahjoub, Ph. Thonart. Effect of Corn steep liquor supplementation and scale up on *Lactococcus* starter production. *Bioprocess Eng.* 22 (2000) 23 - 28.
- 24 - Asses N. Marouani L. Hamdi M. Scale down and optimisation of Olive mill wastewaters decolorization by *Geotrichum candidum*. *Bioprocess Eng.* 22 (2000) 503 - 507.
- 25 - Achour M., Khelifi O. Bouazizi I. Hamdi M. Integrated bioprocess for tuna processing wastewaters treatment. *Process Biochem.* 35 (2000) 1013 - 1017.
- 26 - Achour, N. Mtimet, N. Hmida, C. Cornelius, S. Zgouli, A. Mahjoub, Ph. Thonart., Hamdi, M. Survival freeze-dried *Lactococcus* during accelerated shelf life testing. *J. Chemical Technol. Biotechnol.* 76 (2001) 624 - 628.
- 27 - Oukili W., Chaouch M., Rafiq A., Hadji M., Hamdi M., Benlemlih M. Bleaching of olive mill wastewater by clay in the presence of hydrogen peroxide. *Ann. Chim. Sci. Mat.*, 26, (2001).
- 28 - Asses N. Ayed L., Marouani L. Hamdi M. Decolorization of fresh and oxidized Olive mill wastewaters by *Geotrichum candidum*. *Process Biochem.* 38 (2002) 361-365.
- 29 - Ayed L. Hamdi M. Culture conditions of tannase production by *Lactobacillus plantarum* *Biotechnol. lett.* 24 (2002) 1763-1765.

- 30 - Chammem N., Kachouri M., Peres C., Boudabbous A., Hamdi M. Distribution des espèces du genre *Lactobacillus* isolées dans la fermentation de variétés tunisiennes d'olives vertes. *Hyg. Microbiol. Alim.*, 14 (2002) 31 - 39.
- 31 - Bouzaiane T., Chammem N., Hamdi M. Etude de la microflore intestinale des poulets de chair commercialisés dans le marché tunisien. *Hyg. Microbiol. Alim.* 14, 41 (2003) 37- 41
- 32 - Bouallagui H., Ben Cheikh R., Marouani L., Hamdi M. Mesophilic biogas production from fruit and vegetable waste in a tubular digester. *Bioresource Technol.*, 86 (2003) 85-89.
- 33 - Bouzouita N., Kachouri F., Hamdi M., Chaabouni MM. Antimicrobial activity of essential oil from Tunisian aromatic plants. *Flavour and Fragrance Journal.* 18 (2003) 380-383.
- 34 - Ayed L. Hamdi M. Reductive decolorization of phenolic compounds contained in Olive mill wastewaters by *Lactobacillus plantarum* *Process Biochem.* 39, (2003) 59-65.
- 35 - Zaouali Y., Jaziri Ben Jemia I., Chammem N., Boussaid M. , Hamdi M. Effets de la fermentation lactique du thé vert et noir (*Camellia sinensis* L.) sur la composition de l'huile essentielle *Hyg. Microbiol. Alim.*, 15 (2003) 16-19.
- 36 - Chammem N., Ben Slama M., Kachouri M., Hamdi M. Evaluation statistique de la variabilité de la microflore de différents lots d'olives de tables. *Hyg. Microbiol. Alim.*, 15 (2003) 33-37.
- 37 - Achour M., Ben Amara S., Jbali A., Hamdi M. Effet des différents conditionnements sous vide et sous atmosphère modifiée sur la conservation des dattes Deglet Nour. *Fruit*, 58 (2003) 207 - 212.
- 38 - Kachouri F., Hamdi M. Enhancement of simple polyphenols in olive oil derived from a OMW fermentation by *Lactobacillus plantarum* *Process Biochem.* 39 (2004) 841-845.
- 39 - Ben Dhia O., Fardeau ML., Jouliau C., Thomas P., Hamdi M., Garcia JL., Ollivier B. (2004) *Clostridium tunisiense* sp. Nov., a new proteolytic, sulfur-reducing bacterium isolated from an olive mill wastewaters contaminated by phosphogypse. *Anaerobe* 10, 185-190.
- 40 - Bouzaiane T., Chammem N., Hamdi M. (2004) Sélection des lactobacilles probiotiques des volailles. *Hyg. Microbiol. Alim.* 16, 46, 24-27.
- 41 - Bouallagui, H. Shayeb, R. Ben Cheikh , L. Marouani, Y. Touhami & M. Hamdi. (2004) Mathematical modelling and scaling up of anaerobic digestion of fruit and vegetable wastes. *Les Annales Maghrébines d'Ingénieur.*
- 42 - Bouallagui, H. O. Haouari, Y. Touhami, R. Ben Cheikh, L. Marouani and M. Hamdi. Effect of temperature on the energy production from anaerobic digestion of fruit and vegetable waste. (2004) *Process Biochem.*, 39, 2143-2148.
- 43 - Bouallagui, H., M. Torrijos, J.J. Godon, R. Moletta, R. Ben Cheikh , Y. Touhami , J.P. Delgenes & M. Hamdi. (2004) Two-phases anaerobic digestion of fruit and vegetable wastes: Bioreactors performance. *Biochemical Eng. Journal*, 21, 193-197.
- 44 - Bouallagui, H., M. Torrijos, J.J. Godon, R. Moletta, R. Ben Cheikh, Y. Touhami, J.P. Delgenes & M. Hamdi. (2004) Microbial monitoring by molecular tools in two-phase anaerobic bioreactor treating fruit and vegetable wastes. *Biotechnol. Letters*, 26, 857-862.
- 45 - Bouzouita N, Kachouri F., Hamdi M., Ben Aissa R., Lognay G.C., Marlier M., Chaabouni M.H. (2005) Volatile constituents and antimicrobial activity of *Lavendula Stoechas* essential oil from Tunisia. *Journal of essential oil research* 17, 584-586.
- 46 - Ayed L., Assas N., Sayadi S., Hamdi M. (2005) Involvement of Lignin peroxidase in the decolorization of black olive mill waste-waters by *Geotrichum candidum*. *J Applied microbiol.* 40, 7-11.
- 47 - Bouallagui H., Y. Touhami, R. Ben Cheikh & M. Hamdi. (2005) Bioreactors performance used in anaerobic digestion of fruit and vegetable wastes : Review. *Process Biochem.*, 40, 989-995.
- 48 - Chammem N., Kachouri M., Mejri M., Peres C., Boudabbous A., Hamdi M. (2005) Combined effect of the lye pretreatment and sodium chloride addition on the olives fermentation process. *Bioresource Technol.* 96, 1311-1316.
- 49 - Ziadi M., Touhami Y., Achour M., Thonart Ph., Hamdi M. (2005) The effect of heat stress on freeze-drying and conservation of *Lactococcus*. *Biochem. Eng. J.* 24, 141-145.
- 50 - Bouzaiane T., Dubois R., Thonart Ph., Hamdi M. (2005) In vivo study of the adherence and colonization properties of *Lactobacillus rhamnosus* to chicken intestinal epithelial cells. *Lett. Appl. Microbiol.*, 40, 391-396.
- 51 - S. Halaouli, Mi. Asther, K. Kruus, L. Guo, M. Hamdi, J-C. Sigoillot, M. Asther and A. Lomascolo (2005). Characterization of a new tyrosinase from *Pycnoporus* species with high potential for food technological applications. *Journal of Applied Microbiology*, 98, 332-343.
- 52 - S. Kachouri, S. Halaouli, M. Asther and M. Hamdi. (2005) Decolourization of black oxidised olive mill wastewaters by a new tannin-degrading fungus isolated from soil. *World Journal Microbiol. Biotechnol.*, 21, 1465-1470.
- 53 - M'hir S. Mejri M. et Hamdi M. (2005) Caractérisation de la flore lactique de la farine fermentée Tunisienne. *Hyg. Microbiol. Alim.*, 17, 25-30.
- 54 - Jaziri I., Hamdi M. (2005) Etude comparative de l'effet des thés verts et noirs sur la survie et la croissance de la bactérie *Escherichia coli*. *Hyg. Microbiol. Alim.*, 17, 7-11.

- 55 - S. Halaouli, E. Record, L. Casalot, M. Hamdi, J-C. Sigoillot, M. Asther and A. Lomascolo. (2005) Cloning and characterization of a tyrosinase gene from the white-rot fungus *Pycnoporus sanguineus*, and overexpression of the recombinant protein in *Aspergillus niger*. Applied Microbiol. Biotechnol., 7, 1-10.
- 56 – Rezouga F., Boubaker O., Hamdi M., Sperandio M. (2005) Etude et optimisation du traitement biologique de molécules organiques inhibitrices: impacts des productions industrielles continues. Récents Progrès des Génies des Procédés, 92, 66-74.
- 57 – Halaouli S, E. Record, M. Hamdi, J-C. Sigoillot, M. Asther and A. Lomascolo. 2006. Fungal tyrosinases: new insights in biotechnological applications. Journal of Applied Microbiol. 100, 219 – 232.
- 58 - Hamdi M (2005) Nutritional and Medicinal Uses of Prickly Pear Cladodes and Fruits : Processing Technology Experiences and Constraints. Chapter in Hand Book Food Processing.
- 59 - M. Ziadi, L. Ayed, N. Mahmoudi, D. Ghorbel, M. Achour, P. Thonart et M. Hamdi (2005) Effet de l'utilisation des cultures pures et mixtes sur l'acidification et la rhéologie du Leben. Microbiol. Hyg. Alim. 17, 50, 19-24
- 60 – Mdaini N, Gargouri M, Hammami M, Monser L, Hamdi M (2006) Production of natural fruity aroma by *Geotrichum candidum*. Applied Biochem Biotechnol., 128, 3, 227-236.
- 61 - Kachouri F., Hamdi M. (2006) Use of *Lactobacillus plantarum* during olive oil processing and quality improvement. J. Food Eng. 77, 3, 746-752.

Many Conferences and Posters in national and international congresses,
Participations in many Exhibitions

Member of Editorial Board of International Journal of Bioprocess Engineering

Referee in some International symposia of IWA (Berlin 2001: Microbial quality and environmental bioprocesses)

Biotechnology Consulting Activities with some companies in Tunisia (Hygiene, safety, wastes treatment, food industries)

SCIENTIFIC SOCIETIES AND ASSOCIATIONS

- Member of "Association Tunisienne des Sciences Naturelles"
- Member of "Association Tunisienne des Sciences Biologiques"
- Member of "Association Tunisienne de Biotechnologie"
- Member of International Water Association (IWA)
- Member of Anaerobic Digestion Specialist Group Management comity: Responsible of Africa, India and Western Asian Region)
- Member of New York Academy of Sciences

Biographie in "The marquis who is who Publications Board from 2000

Prize of best young Arab researcher in life sciences 1997 from Chouman foundation

INDUSTRIAL PATENT:

- 1992 : Hamdi M., BelHedi N., Djemel W., Toumi N. Process to Filtration and oxidation of coloured industrial effluents. Tunisian Patent SN 92044.
- 2002: Hamdi M., Kachouri F., Kachouri M., Cherif A. Biopreservation of olive oil by *Lactobacillus plantarum* in order to produce olive oil with high quality. Tunisian Patent SN 02034.
- 2005 : Imène JAZIRI, Hana GANNOUN, Nada BEN OTHMANE, Mourad BEN SLAMA, Moktar HAMDI. Preparation of fermented milk with tea. Tunisian Patent SN 05039.

languages: Arabic, French and English.

HOBBY: Reading, Football (Trainer 1° degrees FFF)