

## LIDIA FAVIER

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Chemical Engineering School of Rennes (ENSCR)  
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## EDUCATION

- 2004**      **Ph. D in Process Engineering** supported by **ESA (European Space Agency)**  
Blaise Pascal University, Polytech, Department of Chemical and Biochemical  
Engineering, Clermont-Ferrand, France  
Disertation: "Kinetic and stoichiometric study of *Rhodospirillum rubrum* growth  
in photobioreactor"; Advisor: Professor Gilles Dussap  
Award : "Congratulations of the examination committee"
- 1996**      **MSc in Enzyme Engineering, Bioconversion and Microbiology**, University of  
Compiègne and AgroParisTech, Massy, France
- 1993**      **Engineer Degree** in Process Engineering, Faculty of Food Science, University of  
Galati, Romania

## PROFESSIONAL AND RESEARCH EXPERIENCE

- 2006-Present**    **Associate Professor**, Department of Environmental Processes and Analysis  
Chemical Engineering School of Rennes (ENSCR), France
- 2006**  
**(5 months)**      **Assistant Lecturer and Researcher**  
Department of Chemistry and Engineering of Processes (CIP), ENSCR (France)
- 2002-2003**      **Assistant lecturer and Researcher**  
Department of Chemical and Biochemical Engineering, Polytech, Blaise Pascal  
University, Clermont-Ferrand, France
- 1999-2000**      **Researcher** , ESA (European Space Agency) and Department of Chemical and  
Biochemical Engineering, Polytech, Blaise Pascal University, Clermont-Ferrand,  
France  
"Preliminary studies on the modelisation of the photoheterotrophic compartment  
of the MELiSSA loop (Microbial Ecological Life Support System Alternative)"
- 1995-1996**  
**(6 month)**      **Advanced training period for MSc**, Department of Industrial Microbiology,  
AgroParisTech, Massy, France
- 1994**            **Visiting Researcher**, European Commision grant for mobility of researchers

- (6 months)** Center for Material Forming (CEMEF), Mines ParisTech, Sophia Antipolis, France
- 1993-1999** **Junior Lecturer**, Department of Food Chemistry, University of Târgoviste, Romania
- 1993** Graduate Student Research, European Commission grant
- (4 months)** Center for Material Forming (CEMEF), Mines ParisTech, Sophia Antipolis, France

## SELECTED PEER-REVIEWED PUBLICATIONS

1. Janani F.Z., Khiar H., Taoufik N., Sadiq M., Favier L., Ezzat A.O., Elhalil A., Barka N. (2024). Mn<sub>3</sub>O<sub>4</sub>/ZnO-Al<sub>2</sub>O<sub>3</sub>-CeO<sub>2</sub> mixed oxide catalyst derived from Mn-doped Zn-(Al/Ce)-LDHs: efficient visible light photodegradation of clofibric acid in water. *Environment Science and Pollution Research*, 31, 25373–25387.
2. Favier L., Simion A.-I., Hlihor R.M., Fekete-Kertész I., Molnár M., Harja M., Vial C. (2023). Intensification of the photodegradation efficiency of an emergent water pollutant through process conditions optimization by means of response surface methodology, *Journal of Environmental Management*, 328, 116928.
3. Soto-Donoso N., Favier L., Fuentes Villalobos S., Paredes-García V., Bataille T., Marco J. F., Hlihor R. M., Le Fur E., Venegas-Yazigi D. (2023). Lanthanum hydroxychloride/anatase composite and its application for effective UV-light driven oxidation of the emergent water contaminant cetirizine, *Chemical Engineering Research and Design*, 196, 685-700.
4. Nutescu Duduman C., Gómez de Castro C., Apostolescu G.A.; Ciobanu G., Lutic D., Favier L., Harja, M. (2022). Enhancing the TiO<sub>2</sub>-Ag Photocatalytic Efficiency by Acetone in the Dye Removal from Wastewater, *Water*, 14, 2711.
5. Grigoraş, C.-G.; Simion, A.-I.; Favier, L.; Drob, C.; Gavrilă, L. (2022). Performance of dye removal from single and binary component systems by adsorption on composite hydrogel beads derived from fruits wastes entrapped in natural polymeric matrix, *Gels*, 8, 795.
6. Sescu, A.M.; Favier, L.; Lutic, D.; Soto-Donoso, N.; Ciobanu, G.; Harja, M. (2021). TiO<sub>2</sub> Doped with noble metals as an efficient solution for the photodegradation of hazardous organic water pollutants at ambient conditions. *Water*, 13, 19.
7. Buema G., Lupu N., Chiriac H., Ciobanu G., Bucur R.-D., Bucur D., Favier L., Harja M. (2021). Performance assessment of five adsorbents based on fly ash for removal of cadmium ions, *Journal of Molecular Liquids*, 333, 115932.
8. Bouras H.D., Isik Z., Arikanc E.B., Yeddoua A. R., Bouras N., Cherguia A., Favier L., Amrane A., Dizgec N. (2021). Biosorption characteristics of methylene blue dye by two fungal biomasses, *International journal of environmental studies*, 78(3), 365-381.

9. Sescu, A.M.; Harja, M.; Favier, L.; Berthou, L.O.; Gomez de Castro, C.; Pui, A.; Lutic, D. (2020). Zn/La Mixed Oxides Prepared by Coprecipitation: Synthesis, Characterization and Photocatalytic Studies. *Materials*, 13, 4916.
10. Harja M., Sescu A.-M., Favier L., Lutic D. (2020). Doping titanium dioxide with palladium for enhancing the photocatalytic decontamination and mineralization of a refractory water pollutant. *Revista de Chimie -Bucharest- Original Edition*, 71 (7), 145-152.
11. Ivaniciuc L., Sutiman D., Ciocinta R.C., Favier L., Sendrea G., Ciobanu G., Harja M. (2020). Studies regarding advanced recovery of calcium carbonate waste as filler in waterborne paint, *Environmental Engineering and Management Journal*, 19 (2), 317-325.
12. Droniuc H.E., Favier L., Rusu L., Cretescu I., Ciobanu G., Harja M. (2020). Packed column simulation for CO<sub>2</sub> chemisorption in activated solutions, *Environmental Engineering and Management Journal*, 19 (2), 325-333.
13. Grigoraş C.G., Simion A.I., Favier L., Gavrilă, L. (2020). Congo Red Removal from Aqueous Effluents by Adsorption on Cherry Stones Activated Carbon, *Environmental Engineering and Management Journal*, 19 (2), 247-254.
14. Machrouhi A., Farnane M., Tounsadi H., Kadmi Y., Favier L., Qourzal S., Abdennouri M., Barka N. (2019). Activated carbon from *Thapsia transtagana* stems: central composite design (CCD) optimization of the preparation conditions and efficient dyes removal. *Desalination and Water Treatment*, 166, 259-278.
15. Vrinceanu N., Hlihor R.M., Simion<sup>3</sup> A.I., Rusu L., Fekete-Kertész I., Barka N., Favier L. (2019). New evidence on the enhanced elimination of a persistent drug used as lipid absorption inhibitor by advanced oxidation with UV-A and nanosized catalysts. *Catalysts*, 9, 761.
16. Khenniche L., Benissad-Aissani F., Amrane A., Bouzaza A., Fourcade F., L. Favier. (2019). The photocatalytic degradation of bezacryl yellow in a presence of TiO<sub>2</sub> – hydrodynamic contribution. *Int. J. Environment and Waste Management*, 23 (4), 370-390.
17. Favier L., Rusu L., Simion A.I., Hlihor R., Pacala M. L., Augustyniak A. (2019). Efficient degradation of clofibric acid through a heterogeneous photocatalytic oxidation process. *Environmental Engineering and Management Journal*, 18, 1683-1692.
18. Matei E., Predescu A.I., Râpă M., Tarcea C., Pantilimon C. M., Favier L., Berbecaru A.C., Sohaciu M., Predescu C. (2019). Removal of Chromium (VI) from Aqueous Solution Using a Novel Green Magnetic Nanoparticle–Chitosan Adsorbent. *Analytical Letters*, 4(9), 1-23.
19. Madi K., Yahiaoui I., Aissani-Benissad F., Vial C., Audonnet F., Favier L. (2019). Basic red dye removal by coupling electrocoagulation process with biological treatment. *Environmental Engineering & Management Journal (EEMJ)*, 18 (3), 563-573.

20. Kadmi Y., Favier L., Yehya T., Soutrel I., Simion A.I., Vial C., Wolbert D. (2019). Controlling contamination for determination of ultra-trace levels of priority pollutants chlorophenols in environmental water matrices. *Arabian Journal of Chemistry*, 12(8), 2905- 2913.
21. Semrany S., Taha S., Djelal H., Favier L., Amrane A. (2018). Influence of stirring speed and gas-to-liquid ratio on activated sludge performance in carbamazepine elimination using response surface methodology and principal component analysis. *Environmental Engineering and Management Journal*, 17(12), 2837-2845.
22. Madi-Azegagh K., Yahiaoui Y., Boudrahem F., Aissani-Benissad F., Vial C., Audonnet F., Favier L. (2018). Applied of central composite design for the optimization of removal yield of the ketoprofen (KTP) using electrocoagulation process. *Separation Science and Technology*, 54(18), 3115–3127.
23. Hemidouche S., Favier L., Amrane A., Dabert P., Le Roux S. Sadaoui Z. (2018). Successful biodegradation of a refractory pharmaceutical compound by an indigenous phenol-tolerant *Pseudomonas aeruginosa* strain. *Water air and soil pollution*. 229, 1-16.
24. Semrany S., Taha S., Djelal H., Favier L., Amrane A. (2018). Influence of stirring speed and gas-to-liquid ratio on activated sludge performance in carbamazepine elimination using response surface methodology and principal component analysis. *Environmental Engineering and Management Journal*, 17(12), 2837-2845.
25. Elhalil A., Elmoubarki R., Sadiq M., Abdennouri M., Kadmi Y., Favier L. Qourzal S., Barka N. (2017). Enhanced photocatalytic degradation of caffeine as a model pharmaceutical pollutant by Ag-ZnO-Al<sub>2</sub>O<sub>3</sub> nanocomposite. *Desalination and Water Treatment*, 94, 254-262.
26. Agueniou F., Chebli D., Reffas A., Bouguettoucha A., Benguerba Y., Favier L., Amrane A. (2017). Impact of TiO<sub>2</sub>-cation exchange resin composite on the removal of ethyl violet. *Arabian Journal of Science and Engineering*, *Arabian Journal of Science and Engineering*, 43, 2451-2463.
27. Hlihor R.M., Gavrilescu M., Tavares T., Favier L., Olivieri G. (2017). *BioMed Research International*.
28. Simion A.I., Grigoras C.G., Favier L., Moroi A.M., Kadmi Y., Bahrim G.E. (2017). Successful fodder yeast production from agro-industrial by products through a statistical optimization approach. *Romanian Biotechnological Letters*, 22(3), 12671-12679.
29. Rusu L., Suceveanu M., Şuteu D., Favier L., Harja M. (2017). Assessment of groundwater and surface water contamination by landfill leachate: a case study in Neamt country, Romania. *Environmental Engineering and Management Journal*, 16(3), 633-641.
30. Kadmi Y., Favier L., Simion A.I., Rusu L., Pacala M.L., Wolbert D. (2017). Measurement of pollution levels of N-nitroso compounds of health concern in water using ultra-

performance liquid chromatography- tandem mass spectrometry. *Process Safety and Environmental protection*, 108, 7-17.

31. Madi K., Yahiaoui I., Aissani-Benissad F., Vial C., Audonnet F., Favier L. (2016). Basic red dye removal by coupling electrocoagulation process with biological treatment. *Environmental Engineering & Management Journal (EEMJ)*, 18 (3), 563-573.
32. Favier L., Simion A. I., Matei E., Grigoras C.G, Kadmi Y., Bouzaza. A. (2016). Photocatalytic oxidation of a hazardous phenolic compound over TiO<sub>2</sub> in a batch system. *Environmental Engineering and Management Journal* (in press).
33. Ounnar A., Favier L., Bouzaza A., Bentahar F. (2016). Kinetic study of spiramycin removal from aqueous solution by heterogeneous photocatalysis. *Kinetics and Catalysis*, 57(2), 200-206.
34. Popa Ungureanu C., Favier L., Bahrim G. (2016). Screening of soil bacteria as potential agents for drugs biodegradation: A case study with clofibric acid. *Journal of Chemical Technology and Biotechnology*, 91, 1645-1653.
35. Ounnar A., Bouzaza A., Favier L., Bentahar F. (2016). Macrolide antibiotics removal using a circulating TiO<sub>2</sub>-coated paper photoreactor: parametric study and hydrodynamic flow characterization. *Water Science and Technology*, 73(11), 2627-2637.
36. Kadmi Y., Favier L., Simion A. I., Matei E., Wolbert D. (2015). Improved determination of dichloroacetic and trichloroacetic acids in water by solid phase extraction followed by ultra-high performance liquid chromatography tandem mass spectrometry. *Analytical Letters*, 49(3), 433-443.
37. Favier L., Simion A.I., Rusu L., Pacala M.L., Grigoras C., Bouzaza A. (2015). Removal of an organic refractory compound by photocatalysis in batch reactor – a kinetic study. *Environmental Engineering and Management Journal*, 14(6), 1327-1338.
38. Popa (Ungureanu) C., Balaes T., Favier L., Tanase C., Bahrim G., (2015). White-rot fungus implications in clofibric acid biodegradation. *Roumanian Biotechnological Letters*. 20(3), 10388-10395.
39. Comaniță E.D., Ghinea C., Hlihor R.M., Simion I.M., SmarandaC., FavierL., Roșca M., Gostin I., Gavrilescu M. (2015). Chanllenges and opportunities in green-plastics: an assessment using the electre decision-aid method. *Environmental Engineering and Management Journal*, 14(3), 689-702.
40. Kadmi Y., Favier L., Harja M., Simion A.I., Rusu L., Wolbert D. (2015). A new strategy for pentachlorophenol monitoring in water samples using ultra-high performance liquid chromatography-tandem mass spectrometry. *Environmental Engineering and Management Journal*, 14(3), 567-574.
41. Yehya T., Favier L., Kadmi Y., Audonnet F., Fayad N., Gavrilescu M., Vial C. (2015). Removal of carbamazepine by electrocoagulation: investigation of some key operational parameters. *Environmental Engineering and Management Journal*, 14(3), 639-645.

42. Simion A. I., Ionita I., Grigoras C.G., Favier-Teodorescu L. G., Gavrilă L. (2015). Development and optimization of water based pain formula in order to reduce VOCs emissions. *Environmental Engineering and Management Journal*, 14(2), 277-288.
43. Kadmi Y., Favier L., Simion A.I., Wolbert D. (2015). A rapid and sensitive method for the monitoring of N-nitrosodiphenylamine and N-nitrosodimethylamine in multiple water matrices. *Carpathian Journal of Earth and Environmental Sciences*, 1(10), 53-61.
44. Manea L., Simion A. I., Grigoras C. G., Favier-Teodorescu L. (2014), New viable industrial wastes mix for fodder yeast production, *Environmental Engineering and Management Journal*, 13(7), 1611-1621.
45. Predescu A.M., Matei E., Savastru D., Coman G., Predescu C., Vlad G., Favier L. (2014). Nanosstructures with iron oxides core applied for water treatment. *Digest Journal of Nanomaterials and Biostructures*, 9 (3), 987-995.
46. Kadmi Y., Favier L., Mouni L., Nasrallah N., Wolbert D. (2014). A highly sensitive liquid chromatography-tandem mass spectrometry method for the analysis of a toxic water disinfection by-product, N-nitrosomethylethylamine. *Analytical Methods*, 6, 3231-3234.
47. Kadmi Y., Favier L., Mouni L., Wolbert D. (2015). N-nitrosamines, emerging disinfection by-products of health concern: an overview of occurrence, mechanisms of formation and analysis in water. *Water Science and Technology*, 15(1), 11-25.
48. Khenniche L., Favier L., Bouzaza A., Fourcade F., Aissani F., Amrane A. (2015). Photocatalytic degradation of Bezacryl yellow in batch reactors – Feasibility of the combination of photocatalysis and a biological treatment. *Environmental Technology*, 36(1), 1-10.
49. Popa C., Favier L., Dinica R., Semrany S. , Djelal H., Amrane A., Bahrim G. (2014). Potential of newly wild *Streptomyces* strains as agents for the biodegradation of a recalcitrant pharmaceutical, carbamazepine. *Environmental Technology*, 35(24), 3082-3091.
50. Popa Ungureanu C., Favier L., Bahrim G., Amrane A. (2015). Response surface optimization of experimental conditions for carbamazepine biodegradation by *Streptomyces* MIUG 4.89. *New Biotechnology*, 32(3), 347-357.
51. Rusu L., Harja M., Simion A.I., Suteu D., Favier L. (2014). Removal of atrazine blue from aqueous solutions onto brown peat. Equilibrium and kinetic studies. *Korean Journal of Chemical Engineering*, 31(6), 1008-1015.
52. Kadmi Y., Favier L., Soutrel I., Lemasle M., Wolbert D. (2014). Ultratrace-level determination of N-Nitrosodimethylamine, N-Nitrosodiethylamine, and N-Nitrosomorpholine in waters by solid-phase extraction followed by liquid chromatography-tandem mass spectrometry. *Central European Journal of Chemistry*, 12(9), 928-936.

53. Popa Claudia, Favier L., Bahrim G., Amrane A. (2013). Study of *Streptomyces* as agents for clofibric acid biotransformation, *Current Opinion in Biotechnology* 24, Supplement 1.
54. Popa (Ungureanu) C., Favier L., Bahrim G. (2013). Testing of the new *Streptomyces* strains for production of phenoloxidases. *Analele Universitatii Dunarea de Jos din Galati. Fascicule VI- Food Technology*, vol. 37, No.2, pp. 35-46.
55. Dobrovici P.E., Simion A. I., Grigoras C G., Favier-Teodorescu L. (2013). Optimization of barley husks acid hydrolysis process using the response surface methodology. *Revue Roumaine de Chimie*, 58(6), pp. 517-525.
56. Simion A.I., Dobrovici P.E., Rusu L., Favier-Teodorescu L., Ciobanu D. (2012). Mathematical modelling of the process of sugar beet pulp valorisation by acid hydrolysis. *Revue roumaine de chimie*, 57 (11) 915-920.
57. Semrany S., Favier L., Djelal H., Taha S., Amrane A. (2012). Bioaugmentation: possible solution in the treatment of Bio-refractory organic compounds (Bio-ROCs). *Biochemical engineering journal*, 69, 75-86.
58. Assoumani A., Favier-Teodorescu L., Wolbert D. (2008). Adsorption kinetics and isotherm characteristics of selected endocrine disrupting compounds on activated carbon in waters. *Water Science and Technology*, 9, 51-58.
59. Favier-Teodorescu L., Cornet J.F., Dussap C.-G. (2003). Modelling continuous culture of *Rhodospirillum rubrum* in photobioreactor under light limited conditions. *Biotechnology Letters*, 25, 359-364.
60. Cornet J.-F., Favier L., Dussap C.-G. (2003). Modelling stability of photoheterotrophic continous cultures in photobioreactors. *Biotechnology Progress*, 19(4), 1216-1227. (IF 1.883).

#### **EUROPEAN REPORTS (ESA) in EUROPEAN PROJECTS**

Favier-Teodorescu G.L., Cornet J.F., Dussap C.G. (2003). Kinetic and stoichiometric analysis of *Rhodospirillum rubrum* growth in a cylindrical photobioreator at a constant incident light flux. ESA report 49.2, 12 924- 98-NL-MV.

Favier-Teodorescu G.L., Cornet J.F., Dussap C.G. (2000). Modelling phototrophic growth of *Rhodospirillum rubrum* in photobioreactors on different carbon substrates. Final Report for activity Memorandum of understanding ECT/FG/MMM/97.012.

Favier-Teodorescu G.L., Poughon L. Cornet J.F., Dussap C.G. (2000). Stoechiometric analysis of *R. rubrum* growth for transient and short residence time in a dark operative zone. ESA report 12 924-98-NL-MV.

Favier-Teodorescu G.L., Pons A., Poughon L. (1999). Stoechiometric analysis of *R. rubrum* growth on different carbon substrates. ESA report 13 323-98-NL-MV.

## **LIST RESEARCH GRANTS AS PARTNER TEAM LEADER**

- PHC Balaton 2016-2018
- ANR Green AlgOhol : 2015-2018.
- CMEP-Algerie (University of Bejaia) - Numéro de code du projet : 11MDU843
- PHC Brincusi: France-Romania (University « Dunarea de Jos » of Galati »)- PROJET N° - 29510YD
- PHC Brincusi: France- Roumanie (Université Politehnica of Bucarest»)- PROJET N° 32666QB

01.08.2024

Favier Gabriela-Lidia