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Institute of Chemical Science of Rennes, UMR, CNRS 6226
Chemical Engineering School of Rennes (ENSCR)
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EDUCATION

- | | |
|------|---|
| 2004 | Ph. D in Chemical Engineering, supported by ESA (European Space Agency)
Blaise Pascal University, Polytech, Department of Chemical and Biochemical
Engineering, Clermont-Ferrand, France
Dissertation: "Kinetic and stoichiometric study of <i>Rhodospirillum rubrum</i>
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

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|------------------------|---|
| 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
(6 months) | Visiting Researcher, European Commission grant for mobility of
researchers, Center for Material Forming (CEMEF), Mines ParisTech, Sophia
Antipolis, France |

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

SELECTED PEER-REVIEWED PUBLICATIONS

1. Jari Y., Favier L., Chaker Necibi M., Gourich B., Vial C., Imgharn A., Najid N., Barhoumi A., Chafi M., Alonzo, V., Roche N. (2026). Enhanced visible-light degradation and mineralization of Bisphenol A using Cu-doped TiO₂ photocatalysts: characterization, effectiveness, mechanism and DFT insights. *Water Resources and Industry*, 35, 100335.
2. Simion A. I., Grigoras C.-G., Favier L. (2025). Batch adsorption of Orange II dye on a new green hydrogel- Study on working parameters and process enhancement. *Gels*, 11, pp.79.
3. Honselmann genannt Humme J., Ossowicz-Rupniewska P., Jurkiewicz M., Gano M., Dubrowska K., Augustyniak A., Janus E., Mijowska E., Favier L., Rakoczy R. (2024). The Comparison of typical organic solvents and ionic liquid for more environmentally and user-friendly pyocyanin extraction. *Industrial and Engineering Chemistry Research*, 64, 781-787
4. Janani F.Z., Khair H., Taoufik N., Sadiq M., Favier L., Ezzat A.O., Elhalil A., Barka N. (2024). Mn₃O₄/ZnO-Al₂O₃-CeO₂ 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.
5. 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.
6. 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.
7. Nutescu Duduman C., Gómez de Castro C., Apostolescu G.A.; Ciobanu G., Lutic D., Favier L., Harja, M. (2022). Enhancing the TiO₂-Ag photocatalytic efficiency by acetone in the dye removal from wastewater, *Water*, 14, 2711.
8. 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.
9. Sescu, A.M.; Favier, L.; Lutic, D.; Soto-Donoso, N.; Ciobanu, G.; Harja, M. (2021). TiO₂ Doped with noble metals as an efficient solution for the photodegradation of hazardous organic water pollutants at ambient conditions. *Water*, 13, 19.
10. 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.
11. Bouras H.D., Isikc 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.
12. 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.
 13. 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.
 14. 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.
 15. Droniuc H.E., Favier L., Rusu L., Cretescu I., Ciobanu G., Harja M. (2020). Packed column simulation for CO₂ chemisorption in activated solutions, *Environmental Engineering and Management Journal*, 19 (2), 325-333.
 16. 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.
 17. 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.
 18. Vrinceanu N., Hlihor R.M., Simion 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.
 19. Khenniche L., Benissad-Aissani F., Amrane A., Bouzaza A., Fourcade F., L. Favier. (2019). The photocatalytic degradation of bezacryl yellow in a presence of TiO₂ – hydrodynamic contribution. *Int. J. Environment and Waste Management*, 23 (4), 370-390.
 20. 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.
 21. 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.
 22. 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.

23. 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.
24. 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*, DOI:10.1080/01496395.2018.1556298.
25. 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*. DOI : 10.1007/s11270-018- 3684-6.
26. 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-Al₂O₃ nanocomposite. *Desalination and Water Treatment*. doi: 10.5004/dwt.2017.21587.
27. Agueniou F., Chebli D., Reffas A., Bouguettoucha A., Benguerba Y., Favier L., Amrane A. (2017). Impact of TiO₂-Cation Exchange Resin Composite on the Removal of Ethyl Violet. *Arabian Journal of Science and Engineering*, *Arabian Journal of Science and Engineering*. DOI 10.1007/s13369-017-2857-8.
28. Hlihor R.M., Gavrilesco M., Tavares T., Favier L., Olivieri G. (2017). Bioremediation: An Overview on Current Practices, Advances, and New Perspectives in Environmental Pollution Treatment. *BioMed Research International*.
29. 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.
30. 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.
31. 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.

32. 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 and Management Journal* (in press).
33. Favier L., Simion A. I., Matei E., Grigoras C.G, Kadmi Y., Bouzaza. A. (2016). Photocatalytic oxidation of a hazardous phenolic compound over TiO₂ in a batch system. *Environmental Engineering and Management Journal* (in press).
34. Kadmi Y., Favier L., Simion A.I., Rusu L., Pacala M.L., Wolbert D. (2016). 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*, DOI:10.1016/j.psep.2016.04.026.
35. 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.
36. 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.
37. Ounnar A., Bouzaza A., Favier L., Bentahar F. (2016). Macrolide antibiotics removal using a circulating TiO₂-coated paper photoreactor: parametric study and hydrodynamic flow characterization. *Water Science and Technology*, 73(11), 2627-2637.
38. 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.
39. Comanita E.D., Ghinea C., Rosca M., Smaranda C., Favier L., Gostin I., Iordache S., Gavrilescu M. (2015). *Lucrari Stiintifice Seria Horticultura*, vol. 58(2) /, U.S.A.M.V. IASI, 253- 260 (BDI).
40. 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.
41. 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.

42. Kadmi Y., Favier L., Yehya T., Soutrel I., Simion A.I., Vial C., Wolbert D. (2015). Controlling contamination for determination of ultra-trace levels of priority pollutants chlorophenols in environmental water matrices. *Arabian Journal of Chemistry* (10.1016/j.arabjc.2015.06.005).
43. 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.
44. Comaniță E.D., Ghinea C., Hlihor R.M., Simion I.M., Smaranda C., Favier L., Roșca M., Gostin I., Gavrilescu M. (2015). Challenges and opportunities in green-plastics: an assessment using the electre decision-aid method. *Environmental Engineering and Management Journal*, 14(3), 689-702.
45. 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.
46. 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.
47. Simion A. I., Ionita I., Grigoras C.G., Favier-Teodorescu L. G., Gavrilă L. (2015). Development and optimization of water based paint formula in order to reduce VOCs emissions. *Environmental Engineering and Management Journal*, 14(2), 277-288.
48. 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.
49. 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.
50. 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.
51. 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.
52. 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.
53. Khenniche L., Favier L., Bouzaza A., Fourcade F., Aissani F., Amrane A. (2015). Photocatalytic degradation of Bezacryl yellow in batch reactors – Feasibility of the

54. combination of photocatalysis and a biological treatment. *Environmental Technology*, 36(1), 1-10.
55. Popa C., Favier L., Dinica R., Semrany S., Djelal H., Amrane A., Bahrim G. (2014). Potential of newly wild *Streptomyces* stains as agents for the biodegradation of a recalcitrant pharmaceutical, carbamazepine. *Environmental Technology*, 35(24), 3082-3091.
56. 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.
57. Rusu L., Harja M., Simion A.I., Suteu D., Favier L. (2014). Removal of astrazone blue from aqueous solutions onto brown peat. Equilibrium and kinetic studies. *Korean Journal of Chemical Engineering*, 31(6), 1008-1015.
58. 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.
59. 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.
60. 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.
61. 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.
62. 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.
63. 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.
64. 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.
65. 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.

66. Cornet J.-F., Favier L., Dussap C.-G. (2003). Modelling stability of photoheterotrophic continuous cultures in photobioreactors. *Biotechnology Progress*, 19(4), 1216-1227.

EUROPEANREPORTS(ESA)in EUROPEANPROJECTS

Favier-Teodorescu G.L., Cornet J.F., Dussap C.G. (2003). Kinetic and stoichiometric analysis of *Rhodospirillum rubrum* growth in a cylindrical photobioreactor 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). Stoichiometric 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). Stoichiometric 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