Lista de lucrări

A. Teza de doctorat

Artificial Neural Networks in the modelling of the integrated urban wastewater systems. 2006. Universita degli Studi di Pavia, Italia, p. 1-210.

C. Lucrări ştiinţifice publicate

C1. Lucrări ştiinţifice publicate în reviste cotate ISI

1. Fikó, D. R**., Ráduly, B**., Máthé, I., Felföldi, T., Lányi, S., & Szilveszter, S. (2023). Bioaugmentation Potential Investigation Using a Phenol Affinity Analysis of Three Acinetobacter Strains in a Multi-Carbon-Source Condition. *Water*, *15*(15), 2815.
2. Szilveszter, S., Fikó, D. R., Máthé, I., Felföldi, T., & **Ráduly, B.** (2023). Kinetic characterization of a new phenol degrading Acinetobacter towneri strain isolated from landfill leachate treating bioreactor. *World Journal of Microbiology and Biotechnology*, *39*(3), 79.
3. Cocarta, D. M., Dumitru, D. M., Pesciaroli, L., Felli, M., **Raduly, B**., & Crognale, S. (2019). Cultivable hydrocarbonoclastic microbial community from historically polluted soil: Tests for consortium development. *Soil and Sediment Contamination: An International Journal*, *28*(3), 334-345.
4. András, C. D., Mátyás, L., **Ráduly, B**., & Salamon, R. V. (2019). Increasing the prediction efficiency of Hansen solubility parameters in supercritical fluids. *Periodica Polytechnica Chemical Engineering*, *63*(2), 286-293.
5. Gyenge, L., **Raduly, B.**, Crognale, S., Stazi, S. R., Lanyi, S., & Abraham, B. (2018). Biogas production from corn bioethanol whole stillage: evaluation of two different inocula. Environmental Engineering & Management Journal (EEMJ), 17(5).
6. Jung, M., Reichstein, M., Schwalm, C. R., Huntingford, C., Sitch, S., Ahlström, A., ... & Zeng, N. (2017). Compensatory water effects link yearly global land CO2 sink changes to temperature. *Nature*, *541*(7638), 516-520.
7. Tramontana, G., Jung, M., Schwalm, C. R., Ichii, K., Camps-Valls, G., **Ráduly, B.**, ... & Papale, D. (2017, April). Predicting carbon dioxide and energy fluxes with empirical approaches in FLUXNET. In EGU General Assembly Conference Abstracts (p. 15814).
8. Jung, M., Reichstein, M., Schwalm, C. et al. Compensatory water effects link yearly global land CO2 sink changes to temperature. Nature 541, 516–520 (2017). https://doi.org/10.1038/nature20780
9. Tramontana, G., Jung, M., Schwalm, C. R., Ichii, K., Camps-Valls, G., **Ráduly, B**., Reichstein, M., Arain, M. A., Cescatti, A., Kiely, G., Merbold, L., Serrano-Ortiz, P., Sickert, S., Wolf, S., and Papale, D.: Predicting carbon dioxide and energy fluxes across global FLUXNET sites with regression algorithms, Biogeosciences, 13, 4291–4313, https://doi.org/10.5194/bg-13-4291-2016, 2016.
10. **B. Ráduly**, L. Gyenge, Sz. Szilveszter, A. Kedves, S. Crognale (2016) Treatment of corn ethanol distillery wastewater using two-stage anaerobic digestion. *Water Science & Technology*, Available Online 5 May 2016, wst2016185; DOI: 10.2166/wst.2016.185
11. Papale, D., T. A. Black, N. Carvalhais, A. Cescatti, J. Chen, M. Jung, G. Kiely, G. Lasslop, M. D. Mahecha, H. Margolis, L. Merbold, L. Montagnani, E. Moors, J. E. Olesen, M. Reichstein, G. Tramontana, E. van Gorsel, G. Wohlfahrt and **B. Ráduly** (2015) Effect of spatial sampling from

European flux towers for estimating carbon and water fluxes with artificial neural networks, *J. Geophys. Res. Biogeosci*., 120, 1941–1957, doi:10.1002/2015JG002997.

12. Gyenge L, **Ráduly B**., Crognale S., Stazi SR., Lányi Sz., Ábrahám B (2014) Biogas production from corn bioethanol whole stillage: evaluation of two different inocula *Environmental Engineering and Management Journal*, in press.
13. Gyenge L, **Ráduly B**., Crognale S., Lányi Sz., Ábrahám B (2014) Cultivating conditions optimization of the anaerobic digestion of corn ethanol distillery residuals using response surface methodology. *Central European Journal of Chemistry*, Vol 12, Issue 8, pp 868-876
14. Crognale S., Máthé I., Cardone V., Stazi S.R., Ráduly B. (2013) Halobacterial Community Analysis of Mierlei Saline Lake in Transylvania (Romania), *Geomicrobiology Journal*, in press, DOI:10.1080/01490451.2013.774073
15. Szilveszter, Sz., **Ráduly, B**., Lányi, Sz., Ábrahám, B., (2012) In situ imaging of biopolymers and extracellular enzymes in activated sludge flocs of a municipal wastewater treatment plant. *Journal of Chemical Technology & Biotechnology*. Published online: 6 DEC 2012,DOI: 10.1002/jctb.3975
16. Szilveszter, Sz., **Ráduly, B**., Bucs, Sz., Ábrahám, B., Lányi, Sz, Robescu, N. (2012) Activated sludge floc characterization by confocal laser scanning microscopy, *Environmental Engineering and Management Journal*, 11, 3, pp. 669-674.
17. Szilveszter, Sz., **Ráduly, B**., Miklóssy, I., Ábrahám, B., Lányi, Sz., Robescu, N. (2010) Lab scale sequencing batch reactor (SBR) construction and characterization for dynamic modeling with activated sludge model (ASM). *Studia Universitatis Babes-Bolyai Seria Chemia*, 55, Special Issue, pp.119-133.
18. Szilveszter Sz., **Ráduly B**., Ábrahám B., Lányi Sz. and Robescu D.N. (2010). Mathematical models for domestic biological wastewater treatment process. *Environmental Engineering and Management Journal*, Vol.9 No. 5, pp. 629-635, ISSN 1582-9596
19. **Ráduly B**. Crognale S., Szilveszter Sz. and Mészáros S. (2009) Modelling of the Biochemical Processes of the Activated Sludge Wastewater Treatment Technology*, Studia Universitatis Babes-Bolyai Seria Chemia*, ISSN 1224-7154. Vol. 54 Special Issue 2, pp. 135-146
20. Szilveszter Sz., **Ráduly B.**, Miklossy I., Lanyi Sz., Dan Robescu N. (2009) "Enzymatic activity studies of biological wastewater treatment", *Studia Universitatis Babes-Bolyai Seria Chemia, Vol. 54 Special Issue* 2,pp.113-122, 2009.
21. **Ráduly B.**, Gernaey K.V., Capodaglio A.G., Mikkelsen P.S. and Henze M. (2007) Artificial neural networks for rapid WWTP performance evaluation: methodology and case study. *Environmental Modelling & Software*, 22, 1208-1216

C2. Lucrări ştiinţifice publicate în reviste indexate în baze de date internaţionale (indicaţi şi baza de date)

1. László Gyenge , **Botond Ráduly,** Silvia Crognale, Szabolcs Lányi, Beáta Ábrahám (2014) Anaerobic digestion of corn-DDGS: Effect of pH-control, agitation and batch repetition. *UPB Scientific Bulletin, Series B: Chemistry And Materials Science*, in press (SCOPUS)

2. Szilveszter Szabolcs, Miklóssy Ildiko, Mészáros Alexandru, Ábrahám Beata, **Ráduly Botond**, Robescu Dan Niculae, Lányi Szabolcs, "Enzyme activities and distribution in activated sludge in a lab-scale sequencing batch reactor (SBR)", *UPB Scientific Bulletin, Series B: Chemistry And Materials Science*, Vol. 72 Issue 2., pp 141-150, 2010 (SCOPUS)

C6. Lucrări ştiinţifice publicate în volumele manifestărilor ştiinţifice

1. Gyenge, L., **Ráduly, B.,** Barrera, R., Font, X., Lanyi, S., Abraham, B. (2013) *Efficiency of biogas production from corn bioe-thanol by-products using different inocula.* Proceeding of. 4th International Youth Conference on Energy (IYCE), 2013, Siofok, Hungary. DOI: 10.1109/IYCE.2013.6604171
2. Szilveszter, Sz., **Ráduly, B**., Bucs, Sz., Robescu D-N, Lányi, Sz., Characterization of activated sludge flocs by CLSM microscopy with different staining methods (2011) Proceedings of the 1st Danube – Black Sea Regional Young Water Professionals Conference, Innovations in the field of water supply, sanitation and water quality, 14-15 june, 2011, pp. 102-113, ISBN 978-973-768198-0.
3. **Ráduly B.,** Belli. C., Papale, D. (2008) *Considerazioni sugli errori nel calcolo della georeferenzazione diretta: interpolazione del DEM e controdistorsione dell'ottica (Consideratii pe ororile in calculul de georeferentiare directa: interpolarea modelului digital de elevatie si corectia distorsiunii optice).* Proceedings of the 12ª Conferenza Nazionale ASITA 2008, L'Aquila 21-24 ottobre 2008, Italia
4. **Ráduly B.,** Gernaey K.V., Lindblom, E. (2007) *A hybrid modelling approach in the simulation of integrated urban wastewater systems.* Book of Abstracts, European Congress of Chemical Engineering (ECCE-6) Copenhagen (Denmark), 16-20 September 2007
5. **Ráduly B.,** Gernaey K.V., Capodaglio A.G., Lindblom, E. (2006) *Model reduction using neural networks applied to the modeling of integrated urban wastewater systems*. Proceedings of the 20th European Conference on Modelling and Simulation ECMS 2006, 28th - 31 May, 2006, Bonn, Germany
6. **Ráduly B**., Gernaey K.V. and Capodaglio A.G. (2005) *Artificial neural network identification for modelling of ASM3-based WWTP models*. Oral presentation. Proceedings of the European Modeling and Simulation Symposium (EMSS) 2005, 20-22 October, Marseilles, France.
7. **Ráduly B**., Gernaey K.V,. Capodaglio A.G., Mikkelsen P.S. and Henze M. (2005)*A strategy for rapid WWTP performance evaluation combining deterministic and black-box models*. Oral presentation. Proceedings of the 31st IAHR Biennial Congress, Seoul (Korea), 11 – 16 September
8. **Ráduly B.**, Gernaey K.V., Capodaglio A.G., Mikkelsen P.S. and Henze M. (2005) *Rapid WWTP Performance Evaluation over a Wide Range of Operating Conditions Using Artificial Neural Networks*. Oral presentation. Proceedings of the 10th International Conference on Urban Drainage, 21-26 August, Copenhagen (Denmark).
9. **Ráduly B.,** Tapia G., Baeza J.A., Gabriel D., Capodaglio A.G. and Gernaey K.V. (2004) *Variable-volume sludge blanket reactor - a simple way to model denitrification in secondary settler tanks*. Oral and poster presentation. Proc. IWA World Water Congress & Exhibition, 19-24 September, Marrakech, Morocco.
10. **Ráduly B**., Capodaglio A.G. and Vaccari D.A. (2004) *Data-driven models in the integrated urban water modeling*. Oral presentation on the 19th European Junior Scientist Workshop on Process Data And Integrated Urban Water Modelling, 11-14 March, Lyon, France.
11. **Ráduly B.,** Capodaglio A.G. and Vaccari D.A. (2004) *Simplification of wastewater treatment plant models using empirical modelling techniques*. Oral presentation. Proc. 2nd IWA Young Researchers Conference, 22 -24 April, Wageningen, the Netherlands.
12. **Ráduly B.,** Capodaglio A.G. and Vaccari D.A.(2003) *Integrated modelling of wastewater treatment and river water quality processes. Oral presentation.* 2nd WWW-Yes World Wide Workshop for Young Environmenal Scientists; 14th -17th May, Val-de-Marne, France. **E. Editare, coordonare de volume**

1. Lindblom E., **Ráduly B**. and Mikkelsen P.S. (eds.), (2005): *System process modelling report*. Environment & Resources DTU, Technical University of Denmark. EU project report (project code: HPRN-CT-2001-00200). Net-publication hosted by the DTU and available for download at URL: http://www.er.dtu.dk/publications/fulltext/2005/MR2005-018.pdf

G. Contracte de cercetare (menţionaţi calitatea de director sau membru)

1. EUROPEAN RESEARCH TRAINING NETWORK (PROJECT CODE: HPRN-CT-2001-00200) -
WASTEWATER TREATMENT AND SYSTEM ENGINEERING (WWT & SYSENG). 10.2002 – 01.2006. Finantat de UE. Membru.
2. CENTRO DI ECCELLENZA TECNOLOGICO PER LO STUDIO E IL MONITORAGGIO AMBIENTALE TRAMITE VETTORI AERIE (Centrul De Excelenta Tehnologica Pentru Studierea Si Monitorarera Ambientala Cu Ajutorul Platformelor Aeriane). 01.2007 – 09.2008 Finantat de UE si cofinantat de statul Italian. Membru.

K. Participări la conferinţe naţionale şi internaţionale

1. **Ráduly B.,** Belli. C., Papale, D. (2008) *Considerazioni sugli errori nel calcolo della georeferenzazione diretta: interpolazione del DEM e controdistorsione dell'ottica (Consideratii pe ororile in calculul de georeferentiare directa: interpolarea modelului digital de elevatie si corectia distorsiunii optice)*. 12ª Conferenza Nazionale ASITA 2008, L'Aquila 21-24 ottobre 2008, Italia
2. **Ráduly B.,** Gernaey K.V., Lindblom, E. (2007) *A hybrid modelling approach in the simulation of integrated urban wastewater systems.* European Congress of Chemical Engineering (ECCE-6) Copenhagen (Denmark), 16-20 September 2007
3. **Ráduly B.,** Gernaey K.V., Capodaglio A.G., Lindblom, E. (2006) *Model reduction using neural networks applied to the modeling of integrated urban wastewater systems*. 20th European Conference on Modelling and Simulation ECMS 2006, 28th - 31 May, 2006, Bonn, Germany
4. **Ráduly B**., Gernaey K.V. and Capodaglio A.G. (2005) *Artificial neural network identification for modelling of ASM3-based WWTP models*. European Modeling and Simulation Symposium (EMSS) 2005, 20-22 October, Marseilles, France.
5. **Ráduly B**., Gernaey K.V,. Capodaglio A.G., Mikkelsen P.S. and Henze M. (2005)*A strategy for rapid WWTP performance evaluation combining deterministic and black-box models*. 31st IAHR Biennial Congress, Seoul (Korea), 11 – 16 September
6. **Ráduly B.**, Gernaey K.V., Capodaglio A.G., Mikkelsen P.S. and Henze M. (2005) *Rapid WWTP Performance Evaluation over a Wide Range of Operating Conditions Using Artificial Neural Networks*. 10th International Conference on Urban Drainage, 21-26 August, Copenhagen (Denmark).
7. **Ráduly B.,** Tapia G., Baeza J.A., Gabriel D., Capodaglio A.G. and Gernaey K.V. (2004) *Variable-volume sludge blanket reactor - a simple way to model denitrification in secondary settler tanks*. IWA World Water Congress & Exhibition, 19-24 September, Marrakech, Morocco.
8. **Ráduly B**., Capodaglio A.G. and Vaccari D.A. (2004) *Data-driven models in the integrated urban water modeling*. 19th European Junior Scientist Workshop on Process Data And Integrated Urban Water Modelling, 11-14 March, Lyon, France.
9. **Ráduly B.,** Capodaglio A.G. and Vaccari D.A. (2004) *Simplification of wastewater treatment plant models using empirical modelling techniques*. 2nd IWA Young Researchers Conference, 22 24 April, Wageningen, the Netherlands.
10. **Ráduly B.,** Capodaglio A.G. and Vaccari D.A.(2003) *Integrated modelling of wastewater treatment and river water quality processes.* 2nd WWW-Yes World Wide Workshop for Young Environmenal Scientists; 14th -17th May, Val-de-Marne, France.

Data
10/10/ 2026