

Publications and Scholarly Presentations

Publications submitted or in preparation:

1. Hermanowicz, S.W. Energy and Entropy: Towards the Definition of Physical Sustainability. *submitted to Environmental Science and Technology*
2. Park, C., Hermanowicz, S.W. A New Approach to Characterization of Foam Stability in Complex Foams. *submitted to Journal of Physics-Condensed Matter*
3. Hermanowicz, S.W. Restoration of Colorado River: An Evidence from Dynamic System Theory. *submitted to PNAS*

Refereed publications:

1. Xia, S., Gu, Z., Zhang, Z., Zhang, J., Hermanowicz, S. (2014) High-Efficiency Removal of Chloramphenicol from Aqueous Solution by Nanoscale Zero-Valent Iron Particles. *Chemical Engineering Journal, in print*
2. Duan, L.; Song, Y. H.; Yu, H.B.; Xia, S. Q.; Hermanowicz, S. W. (2014). The effect of solids retention times on the characterization of extracellular polymeric substances and soluble microbial products in a submerged membrane bioreactor. *Bioresource Technology, in print*
3. Park, C.; Hermanowicz, S. W. (2014). A Multi-Point Electrical Resistance Measurement System for Characterization of Foam Drainage Regime and Stability. *AIChE Journal, in print* doi: [10.1002/aic.14489](https://doi.org/10.1002/aic.14489)
4. Park, C.; Hermanowicz, S. W.; Jolis, D. (2013). A novel technique for evaluating foam dynamics in anaerobic digesters. *Water Science and Technology* 2013, 67 (11), 2595-2601.
5. Jiang, W.; Xia, S. Q.; Liang, J.; Zhang, Z. Q.; Hermanowicz, S. W. (2013). Effect of quorum quenching on the reactor performance, biofouling and biomass characteristics in membrane bioreactors. *Water Research*, 47 (1), 187-196.
6. Guadie, A.; Xia, S. Q.; Zhang, Z. Q.; Guo, W. S.; Ngo, H. H.; Hermanowicz, S. W. (2013). Simultaneous removal of phosphorus and nitrogen from sewage using a novel combo system of fluidized bed reactor-membrane bioreactor (FBR-MBR). *Bioresource Technology*, 149, 276-285.
7. Duan, L.; Song, Y. H.; Xia, S. Q.; Hermanowicz, S. W. (2013). Characterization of nitrifying microbial community in a submerged membrane bioreactor at short solids retention times. *Bioresource Technology*, 149, 200-207.

8. Duan, L.; Song, Y. H.; Jiang, W.; Hermanowicz, S. W. (2013). Development of an Integrated Moving Bed Biofilm Reactor-Membrane Bioreactor for Wastewater Treatment. In *Sustainable Cities Development and Environment Protection, Pts 1-3*, Xu, N.; Tian, L.; Dai, F., Eds. 2013; Vol. 361-363, pp 611-614.
9. Duan, L.; Jiang, W.; Song, Y. H.; Xia, S. Q.; Hermanowicz, S. W. (2013). The characteristics of extracellular polymeric substances and soluble microbial products in moving bed biofilm reactor-membrane bioreactor. *Bioresource Technology*, *148*, 436-442
10. Duan, L., Song, Y.H., Jiang, W., Hermanowicz, S.W. (2013). The Effect of Media Fill Ratio on Membrane Fouling in Moving Bed Bioreactors-Membrane Bioreactor. *Advanced Materials Research*, **726-731**, 470-473 doi:10.4028/www.scientific.net/AMR.726-731.470
11. Duan, L., Song, Y.H., Jiang, W., Hermanowicz, S.W. (2013). Development of an Integrated Moving Bed Biofilm Reactor-Membrane Bioreactor for Wastewater Treatment. *Applied Mechanics and Materials* **361-363** 611-614
12. Cho, J., Hermanowicz, S.W., Hur, J. (2012). Effects of Experimental Conditions on Extraction Yield of Extracellular Polymeric Substances (EPS) by Cation Exchange Resin. *The Scientific World Journal*, Article: 751965 DOI:10.1100/2012/751965
13. Xia, S., Duan, L., Song, Y, Li, J., Piceno, Y.M., Andersen, G.L., Alvarez-Cohen, L., Moreno-Andrade, I., Huang, C-L., Hermanowicz, S.W. (2010). Bacterial Community Structure in Geographically Distributed Biological Wastewater Treatment Reactors. *Environmental Science and Technology*, **44** (19), 7391-7396
14. Isoaari, P., Hermanowicz, S.W. and Rubin, Y. (2010). Sustainable Natural Systems for Treatment and Disposal of Food Processing Wastewater. *Critical Reviews in Environmental Science and Technology*, **40**, (7), 662 - 697.
15. Duan, L.; Moreno-Andrade, I.; Huang, C-L.; Xia, S.; Hermanowicz, S.W. (2009). Effect of Solids Retention Time on Microbial Community in a Membrane Bioreactor. *Bioresource Technology*, **100**, 3489-3496
16. Trussell, R.S., Jang, N.J., Merlo, R.P., Kim, I.S., Hermanowicz, S.W., Jenkins, D. (2009). Changes in Mixed Liquor and Organic Foulant Properties Impact Membrane Fouling for Non-Nitrifying and Nitrifying Biological Conditions. *Water Environment Research*, **81**, 255-264.
17. Duan, L., Xia, S., Song, Y., Piceno, Y.M., Hermanowicz, S.W. (2009). Using High-density Universal 16S rRNA Microarray in Microbial Molecular Ecology Research. *Huanjing Kexue*, **30** (12), 3691-3697.
18. Duan, L., Xia, S., Song, Y., Hermanowicz, S.W. (2009). Kinetics model of extracellular polymeric substances extraction. *China Environmental Science*, **29** (9), 951-954.

19. Hermanowicz, S.W. (2008). Sustainability in Water Resources Management - Changes in Meaning and Perception. *Sustainability Science*, **3**, 181-188
20. Liu, S.X., Hermanowicz, S.W. (2008). Empirical Correlation of Volumetric Mass Transfer Coefficient for a Rectangular Internal-loop Airlift Bioreactor. *Journal of Environmental Engineering and Science*, **7**, 411-415
21. Merlo, R.P.; Trussell, R.S.; Hermanowicz, S.W.; Jenkins, D. (2007). A Comparison of the Physical, Chemical and Biological Properties of Submerged Membrane Bioreactor and Activated Sludges. *Water Environment Research*, **79**, 320-328
22. Merlo, R.P.; Trussell, R.S.; Hermanowicz, S.W.; Jenkins, D. (2007). Effects of Sludge Properties on the Thickening and Dewatering of Waste Activated Sludge. *Water Environment Research*, **79**, 2412-2419
23. Trussell, R.S.; Merlo, R.P.; Hermanowicz, S.W.; Jenkins, D. (2007). Influence of Mixed Liquor Properties and Aeration Intensity on Membrane Fouling in a Submerged Membrane Bioreactor at High Mixed Liquor Suspended Solids Concentrations. *Water Research*, **41**, (5), 947-1168
24. Trussell, R.S.; Merlo, R.P.; Hermanowicz, S.W.; Jenkins, D. (2006). The Effect of Organic Loading on Process Performance and Membrane Fouling in a Submerged Membrane Bioreactor Treating Municipal Wastewater. *Water Research*, **40**, 2675-2683
25. Hermanowicz, S.W.; Trussell, R.S.; Merlo, R.P. and Jenkins, D. (2006) Discussion of: A comparison of membrane bioreactor and conventional-activated-sludge mixed liquor and biosolids characteristics, R. David Holbrook, Kevin A Massie, John T. Novak, *77*, 323 (2005). *Water Environment Research* **78**(13), 2524-2526.
26. Wozei, E., Hermanowicz, S.W. (2006). Application of a yeast-based assay protocol developed to monitor total oestrogenic activity induced by 17 β -oestradiol in activated sludge supernatants from batch experiments. *Water SA*, **32**, 345-354
27. Wozei, E., Hermanowicz, S.W. (2006). Developing a yeast-based assay protocol to monitor total oestrogenic activity induced by 17 β -oestradiol in activated sludge supernatants from batch experiments. *Water SA*, **32**, 355-364
28. Wozei, E., Hermanowicz, S.W., Holman, H-Y. N. (2006). Developing a Biosensor for Estrogens in Water Samples: Study of the Real-time Response of Live Cells of the Estrogen-sensitive Yeast Strain RMY/ER-ERE Using Fluorescence Microscopy. *Biosensors and Bioelectronics*, **21** (8): 1654-1658
29. Ng, H.Y., and Hermanowicz, S.W. (2005). Membrane Bioreactor Operation at Short Solids Retention Times: Performance and Biomass Characteristics. *Water Research*, **39** (6), 981-992

30. Ng, H.Y., and Hermanowicz, S.W. (2005). Specific Resistance to Filtration of Biomass from Membrane Bioreactor Reactor and Activated Sludge: Effects of Exocellular Polymeric Substances and Dispersed Microorganisms. *Water Environment Research*, 77 (2), 187-191
31. Liu, S.X., Hermanowicz, S.W., Peng M. (2003). Nitrate Removal from Drinking Water Through the Use of Encapsulated Microorganisms in Alginate Beads. *Environ. Technol.*, 24 (9) 1129-1134
32. Hermanowicz, S.W. (2002). Biofilm Structure: An Interplay of Models and Experiments. In: Wuertz, S. Wilderer, P.A., Bishop, P.L. (eds.) *Biofilms in Wastewater Treatment: An Interdisciplinary Approach*, International Water Association Publishing, ISBN: 1843390078
33. Hermanowicz, S.W., Sanchez Diaz, E., Coe, J. (2001). Prospects, Problems and Pitfalls of Urban Water Reuse: A Case Study. *Water Sci. Technol.*, 43 (10) 9-16
34. Hermanowicz, S.W. (2001). A Simple 2D Biofilm Model Yields a Variety of Morphological Features. *Mathematical Biosciences*, 169 (1), 1-14
35. Hermanowicz, S.W., Bellamy, W.D., Fung, L.C. (2000). Hydrodynamic Evaluation of a Turbine Ozone Contactor. *Ozone Sci. Engng*, 22 (4), 351-367
36. Sawyer, L.K., Hermanowicz, S.W. (2000). Detachment of *Aeromonas hydrophila* and *Pseudomonas aeruginosa* due to Variations in Nutrient Supply. *Water Sci. Technol.* 41 (4-5), 139-145
37. Lage Filho, F. A., Hermanowicz, S. W. (1999). Efeitos da Desinfecção na Aderencia Microbiana e na Distribuição de Colônias em Superfícies de PVC. *Engenharia Sanitária e Ambiental*, 4 (4), 168 - 173, Out/Dez 1999.
38. Hermanowicz, S.W. (1999). 微生物起因の水質：規制、科学、工学 (Microbial Water Quality: Regulations, Science and Engineering). *Japanese Water Works Association Journal*, 68 (7), 53-63
39. Hermanowicz, S.W. (1999) 微生物による水質汚染とその管理 (Microbiological Water Quality). [in:] Asano, T., Tambo, N., Igarashi, T., Watanabe, Y. (Editors), **水環境の工学と再利用** (*Engineering of Water Environment and Water Reuse*), Hokkaido University Press, Sapporo, Japan, pp. 195-215
40. Hermanowicz, S.W., Asano, T. (1999). エーベル・ウルマンの「都市の代謝」を再訪して (Water Reuse and Metabolism of Cities). [in:] Asano, T., Tambo, N., Igarashi, T., Watanabe, Y. (Editors), **水環境の工学と再利用** (*Engineering of Water Environment and Water Reuse*), Hokkaido University Press, Sapporo, Japan, pp. 21-34

41. Hermanowicz, S.W., Asano, T. (1999). Abel Wolman's "The Metabolism of Cities" Revisited: A Case for Water Recycling and Reuse. *Water Sci. Technol.*, 40 (4-5), 29-36
42. Hermanowicz, S.W. (1999). Two-Dimensional Simulations of Biofilm Development: Effects of External Environmental Conditions. *Water Sci. Technol.*, 39:7, 107-114
43. Hermanowicz, S.W., Bellamy, W.D., Fung, L.C. (1999). Variability of Ozone Reaction Kinetics in Batch and Continuous Flow Reactors. *Water Research*, 33:9, 2130-2138
44. Sawyer, L.K., Hermanowicz, S.W. (1998). Detachment of Biofilm Bacteria due to Variations in Nutrient Supply. *Water Sci. Technol.*, 37:4-5, 211-214
45. Mousseau, F., Liu, S.X., Hermanowicz, S.W., Lazarova, V., Manem, J. (1998). Modeling of TURBOFLO - A Novel Biofilm Reactor for Wastewater Treatment. *Water Sci. Technol.*, 37:4-5, 177-181
46. Hermanowicz, S.W. (1998). A Model of Two-Dimensional Biofilm Morphology. *Water Sci. Technol.*, 37:4-5, 219-222
47. Hermanowicz, S.W. (1998). Chemical Phosphorus Removal. [in:] Water Environment Federation Task Force on Biological and Chemical Systems for Nutrient Removal. *Biological and Chemical Systems for Nutrient Removal*. Water Environment Federation, Alexandria, VA. pp. 39-58
48. Hermanowicz, S.W. (1998). Secondary Clarification of Activated Sludge: Development of Operating Diagrams. *Water Environment Research*, 70, 10:13.
49. Hermanowicz, S.W., Schindler, U., Wilderer, P. (1996). Anisotropic Morphology and Fractal Dimensions of Biofilms. *Water Research*, 30, 753-755
50. Hermanowicz, S.W., Schindler, U., Wilderer, P. (1995). Fractal Structure of Biofilms: New Tools for Investigation of Morphology. *Water Sci. Techn.*, 32:8, 99-105
51. Lage Filho, F., Hermanowicz, S.W. (1994). Effects of Disinfection on Attachment Strength of Bacteria on PVC. Geesey, G.G. *et al.* (Eds). *Biofouling/Biocorrosion in Industrial Water Systems*. Lewis Publishers, Chelsea, MI
52. Price, M.L., Bailey, R.W., Enos, A.K., Hook, M., Hermanowicz, S.W. (1993). Evaluation of Ozone/Biological Treatment for Disinfection Byproducts Control and Biologically Stable Water. *Ozone Sci. Eng.*, 15, 95-130
53. Hermanowicz, S.W. (1993). Theoretical Aspects of Bulking in Activated Sludge. *Water Environment Research*, 65, 245-249.

54. Hermanowicz, S.W., Lage Filho, F. (1992). Disinfection and Attachment of Bacterial Cells. *Water Sci. Techn.*, 26, 655-664.
55. Hermanowicz, S.W., Cheng, Y.W. (1990). Biological Fluidized Bed Reactor: Hydrodynamics, Biomass Distribution, and Performance. *Water Sci. Techn.*, 22, 193-202
56. Hermanowicz, S.W., Danielson, R.E., Cooper, R.C. (1989). Bacterial Deposition on and Detachment from Surfaces in Turbulent Flow. *Biotechn. Bioengng*, 33, 157-163.
57. Luedecke, C., Hermanowicz, S.W., Jenkins, D. (1988). Precipitation of Phosphate in Activated Sludge: A Chemical Model and Its Verification. *Water Sci. Technol.* 21, 325-338.
58. Logan, B.E., Hermanowicz, S.W., Parker, D.S. (1987). Fundamental Model for Trickling Filter Process Design. *Jour. Water Poll. Control Fed.*, 59, 1029-1049.
59. Logan, B.E., Hermanowicz, S.W., Parker, D.S. (1987). Engineering Implications of New Trickling Filter Model. *Jour. Water Poll. Control Fed.*, 59, 1017-1028.
60. Logan, B.E., Hermanowicz, S.W. (1987). Application of the Penetration Theory to Oxygen Transfer to Biofilms. *Biotechn. Bioengng*, XXIX, 762-766.
61. Hermanowicz, S.W. (1986). Dynamic Changes in Population of the Activated Sludge Community: Effects of Dissolved Oxygen Variations. *Water Sci. Techn.*, 19, 889-895.
62. Hermanowicz, S.W., Ganczarczyk, J.J. (1985). Mathematical modelling of biological packed and fluidized bed reactors. Jorgensen, S.E., Gromiec, M.J. (Eds.). *Mathematical Models in Biological Waste Water Treatment*. Elsevier, Amsterdam, pp. 473-524
63. Hermanowicz, S.W., Ganczarczyk, J.J. (1984). Dynamics of nitrification in a biological fluidized bed reactor. *Water Sci. Techn.*, 17, 351-366
64. Hermanowicz, S.W., Ganczarczyk, J.J. (1983). Some fluidization characteristics of biological beds. *Biotechn. Bioengng.*, XXV, 1321-1330
65. Hermanowicz, S.W., Ganczarczyk, J.J. (1981). Some hydrodynamic characteristics of three-phase fluidized beds. *Water Poll. Res. Jour. Canada*, 16, 23-31
66. Hermanowicz, S.W., Roman, M. (1980). A comparison of packed-bed and expanded-bed adsorption systems. Pawlowski, L. (Ed.). *Physicochemical methods for water and wastewater treatment*. Pergamon Press, Oxford. pp. 141-152

Selected other publications and presentations:

1. Hermanowicz, S.W. (2014). Characterization of natural and regulated river flows through

- dynamic system theory. *Symposium on Directions in Ecological Modeling: Principles and Practice, IESP Workgroup on Modeling of Ecological Systems, TU Munich, December 4, 2014*
2. Hermanowicz, S.W. (2012). Urban Water Systems for the Future - New Models and Macro Trends. *invited panelist 3rd BlueTech Forum, May 30, 2012, Redwood City, CA*
 3. Hermanowicz, S.W. (2012). How biology and membrane biofilm impact MBR System operations. *invited presentation Ovivo's 7th Annual MBR Operator's Workshop -The Fishbone (Cause and Effect) Approach to MBR Operations, April 19, 2012, Austin TX*
 4. Hermanowicz, S.W., Muller, M.F, Jolis, D., Sierra, N. (2011) Life Cycle Assessment of Food Waste Management: A Conceptual Plan Analysis. *LCM2011 Life Cycle Management Conference, Berlin, Sept. 2011*
 5. Hermanowicz, S.W. (2011). Water and Soil under Pressure - The Basis of our Life and its Future. *Invited six day seminar (with W. Blum), Alpbach European Forum, Alpbach, Austria, August 2011*
 6. Hermanowicz, S.W. and Muller, M.F (2011). Entropy and Energy: Toward a Definition of Physical Sustainability. *ISIE 2011, 6th International Conference on Industrial Ecology Science, Systems, and Sustainability. Berkeley, June 2011*
 7. Hermanowicz, S.W. (2011). Sustainable Water Management and the Role of Water Reuse. *Invited Keynote Speaker, 2nd Water Reuse Forum, Prince Khalid Bin Sultan Chair for Water Research (PKC), College of Engineering, King Saud University, Riyadh, Saudi Arabia, May 2011*
 8. Hermanowicz, S.W. (2011). Membrane Bioreactors: Past, Present and Future. *Invited presentation, 2nd Water Reuse Forum, Prince Khalid Bin Sultan Chair for Water Research (PKC), College of Engineering, King Saud University, Riyadh, Saudi Arabia, May 2011*
 9. Hermanowicz, S.W. (2011). Past, Present and Future of Water Management. *Invited panelist, Blue Tech Valley Water Conference, Water Innovation Alliance, Fresno, May 2011*
 10. Hermanowicz, S.W. (2010). Energy and Materials from Water: New Technological Options. *Invited presentation, Corporate Water Vision Conference, Washington, DC June 2010,*
 11. Liang, D., Yonghui, S., Siqing, X., Jixiang, L., Hermanowicz, S.W. (2010). The microbial community structures in two membrane bioreactors detected by microarray. *2010 4th International Conference on Bioinformatics and Biomedical Engineering (iCBBE 2010), June 18- 20, 2010 Chengdu, China.*

12. J. Comas, I. Rodríguez-Roda, T. Hug, J. Copp, X. Flores-Alsina, K.V. Gernaey, S.W. Hermanowicz, U. Jeppsson, K. Pagilla, M. Poch, C. Rosen, J.P. Steyer. Modelling of microbial-related operational problems in WWT. *WWTMod 2010 Conference, Mont-Sainte-Anne, Quebec*, March 28-30, 2010
13. Hermanowicz, S.W. (2010). Chair and organizer: Science and Technology Primer on Water Management Workshop, *Corporate Water Footprint Conference, February 24, 2010, San Francisco, CA*
14. Hermanowicz, S.W. (2010). Where is Our Water Coming From? - A New Look at Sustainable Water Management. *Invited presentation, Corporate Water Footprint Conference, February 24, 2010, San Francisco, CA*
15. Liang, D., Yonghui, S., Siqing, X., Hermanowicz, S.W. (2010). Detection of microbial communities in continuous and discontinuous membrane bioreactor using high-density oligonucleotide Microarray. *AIP Conference Proceedings, 1251*.
16. Hermanowicz, S.W. (2010). Conclusion - Will Water Be the Oil of the 21st Century? *Invited presentation, Corporate Water Footprint Conference, February 24, 2010, San Francisco, CA*
17. Hermanowicz, S.W. (2009). *Invited panelist, Green Power Conferences 2nd Annual Industry Leading Conference - Corporate Water Footprinting, San Francisco, 2-3 December 2009*
18. Hermanowicz, S.W. (2009). Metrics of Sustainability: Future of Recoverable Resources. *Invited presentation, Recoverable Resources Seminar, Tacoma, WA, July 31, 2009*
19. Hermanowicz, S.W. (2009). *Invited panelist "Global Water Distress: Factors Driving Growth in the Global Market" session at the Annual Water Finance & Investment Summit, Financial Research Associates, LLC, Atlanta, January 29-30, 2009*
20. Hermanowicz, S.W. (2009). Will Water Be "The Oil of the 21st Century"? *Fulbright BOKU Distinguished Chair in Sustainability Special Lecture, Universität für Bodenkultur, Vienna, January 9, 2009* <http://www.boku.ac.at/oilwater.html>
21. Hermanowicz, S.W. (2008). Future of Water Treatment. *Invited presentation at The Water and Business Summit, Ethical Corporation, November 26-27, 2008, London*
22. Cho, J-W.; Kim, J-Y.; Jung, T-H.; Hermanowicz, S.W.; Ahn, K-H. (2008). Mathematical Tool for Predicting Extraction Yield and Rate of Extracellular Polymeric Substances by Cation Exchange Resin from Activated Sludge. *Presented at the International Conference on Membranes in Drinking Water Production and Wastewater Treatment. Toulouse October 20 - 22, 2008*

23. Hermanowicz, S.W. (2008). Membrane Biofilm Management: Membrane Bioreactors - What We Know and What We Don't. *Invited presentation at 4th Annual MBR Operator's Workshop and Forum November 5 -- 6, 2008 Austin, Texas*
24. Hermanowicz, S.W. (2008). Future and Sustainability of MBR. *Invited presentation, MBR Workshop at WEFTEC 2008, Chicago, October 2008*
25. Hermanowicz, S.W. (2008). Membrane Filtration - Dynamic Model. *Invited presentation at WWTmod2008 IWA/WEF Wastewater Treatment Modeling Seminar, Mont-Sainte-Anne, Quebec, June 2008*
26. Hermanowicz, S. W., Cho, J. W., Trussell, R. S., Merlo, R. P., Jenkins, D., Dozzi, R. (2008). Dynamics of Biomass Membrane Filtration. *Invited presentation at Membrane Technology for Water Treatment and Reuse Session, American Chemical Society Annual Meeting, New Orleans, April 2008*
27. Rubin, Y., Benito, P., Miller, G., McLaughlin, J., Hou, Z., Hermanowicz, S., Mayer, U. (2007). Modeling Land Application of Food-Processing Wastewater in the Central Valley, California. *Eos Trans. AGU, 88(52), Fall Meet. Suppl., Abstract H54D-01, San Francisco*
28. Rubin, Y., Benito, P., Miller, G., McLaughlin, J., Hou, Z., Hermanowicz, S., Mayer, U. Silin, D. (2007). Characterization of Wastewater Discharges from the Food Processing Industry in the San Joaquin Valley. [in:] Rubin, Y., Sunding, D., Berkman, M. (eds.), Hilmar Supplemental Environmental Project. *Submitted to the California Regional Water Quality Control Board - Central Valley Region, in compliance with Order No. R5-2006-0025, November 2007*
29. Trussell, R.S., Jang, N., Merlo, R.P., Kim, I.S., Hermanowicz, S.W., Jenkins, D. (2007). Why Are MBRs Commonly Designed To Nitrify? Because Changes in Organic Foulant Properties Impact Membrane Fouling. *Proceedings, WEF Annual National Conference WEFTEC 2007, San Diego, CA, October 2007.*
30. Hermanowicz, S.W. (2007). Percolation Theory, Colloid Filtration and Cake Formation. *Presented at the IWA International Conference on Particle Separation (PS2007), Toulouse (France), 9 – 11 July 2007*
31. Wozel, E.; Holman, H-Y.N.; Hermanowicz, S.W.; Borglin, S. (2007). Detecting estrogenic activity in water samples with estrogen-sensitive yeast cells using spectrophotometry and fluorescence microscopy. *SDW Symposium - Mar. 16-17, 2006*
<http://www.osti.gov/bridge/purl.cover.jsp?purl=/889626-9WTw6w/>
32. Merlo, R.P.; Trussell, R.S.; Hermanowicz, S.W.; Jenkins, D. (2007). Properties Affecting Thickening and Dewatering of Biological Sludges. *WEF Residuals and Biosolids Conference. Denver, CO. April 15-17, 2007*

33. Hermanowicz, S W. (2006). Sustainable Development: Physical and Moral Issues. Water Resources Center Archives. Working Papers. Paper swr_1206
http://repositories.cdlib.org/wrca/wp/swr_1206
34. Hermanowicz, S.W. (2006). Is Scarcity a Real Driver for Water Reuse ? Water Resources Center Archives. Working Papers. Paper swr_706.
http://repositories.cdlib.org/wrca/wp/swr_706
35. Merlo, R.P.; Trussell, R.S.; Cheng, S.; Jolis, D.; Sukapantharam, P.; Hermanowicz, S.W.; Jenkins, D. (2006). Treating Wet Weather Flows in a Membrane Bioreactor: Changes in Mixed Liquor Properties Cannot Be Neglected. *Proceedings, WEF Annual National Conference WEFTEC 2006, Dallas, TX, October 2006*
<http://www.ingentaconnect.com/content/wef/wefproc/2006/00002006/00000011/art00025?to ken=0046158ddff187b76504c48763f2550232b6c78http://bit.ly/N1nWtF>
36. Hermanowicz, S.W. (2005). Sustainability in Water Resources Management: Changes in Meaning and Perception. (December 1, 2005). Water Resources Center Archives. Working Papers. Paper swr_v3. http://repositories.cdlib.org/wrca/wp/swr_v3
37. Hermanowicz, S.W. (2005). Entropy and Energy: Toward a Definition of Physical Sustainability (December 1, 2005). Water Resources Center Archives. Working Papers. Paper swr_v2. http://repositories.cdlib.org/wrca/wp/swr_v2
38. Hermanowicz, S.W. (2005). Sustainability in Water Resources Management. *Newsletter, Specialist Group on Water Reuse*, International Water Association, November 2005
39. Trussell, R.S.; Merlo, R.P.; Hermanowicz, S.W.; Jenkins, D. (2005). The Effect of High Mixed Liquor Suspended Solids Concentration, Mixed Liquor Properties, and Coarse Bubble Aeration Flow Rate on Membrane Permeability. *Proceedings, WEF Annual National Conference WEFTEC 2005, Washington, DC, November 2005*
40. Hermanowicz, S.W. Sustainability in Water Resources Management: Changes in Meaning and Perception. *6th International Conference EWRA 2005, Menton, France, September 2005*
41. Jang, N.J., Trussell, R.S., Merlo, R.P., Jenkins, D., Hermanowicz, S.W., Kim, I.S. (2005). Exocellular Polymeric Substances Molecular Weight Distribution and Filtration Resistance as a Function of Food to Microorganism Ratio in the Submerged Membrane Bioreactor. *International Congress on Membranes and Membrane Processes ICOM2005, August 2005, Seoul, Korea*
42. Hermanowicz, S.W., Trussell, S.R., Merlo, R.P., Jenkins, D. (2005). Mixed Liquor Properties and Process Performance of a Submerged Membrane Bioreactor at a Wide Range of Mean Cell

Residence Times. *WEF 2nd Joint Specialty Conference for Sustainable Management of Water Quality Systems for the 21st Century, San Francisco, August 2005*

43. Asano, T., Hermanowicz, S.W. (2005). Sustainable Wastewater Reclamation and Reuse. *Engineering Sustainability 2005 Conference, Mascaro Sustainability Initiative, University of Pittsburgh, PA April 10-12, 2005*
44. Hermanowicz, S.W. (2005). Sustainable Development: Beyond Water Supply and Demand. *Engineering Sustainability 2005 Conference, Mascaro Sustainability Initiative, University of Pittsburgh, PA April 10-12, 2005*
45. Hermanowicz, S.W. (2004). Membrane Fouling in MBR Systems. *Invited Presentation, Pacific Northwest Clean Water Association 2004 Annual Conference, Pre-conference Workshop: Membranes in Wastewater Treatment - The Technology, Applications, Challenges, and Future. October 24, 2004, Seaside, OR*
46. Hermanowicz, S.W. (2004). Biofiltration and Biostability of Drinking Water. *Invited presentation at CA-NV AWWA Annual Conference, Sacramento, CA Oct. 15, 2004*
47. Hermanowicz, S.W. (2004). Assessment of Biostability in Drinking Water. *Invited presentation at CA-NV AWWA Annual Conference, Sacramento, CA Oct. 15, 2004*
48. Merlo, R.P., Trussell, R. S., Hermanowicz, S.W., Jenkins, D. (2004). Physical, Chemical And Biological Properties Of Submerged Membrane Bioreactor And Conventional Activated Sludges. *Proceedings, WEF Annual National Conference WEFTEC, New Orleans, Oct. 2004*
49. Trussell, R. S., Merlo, R.P., Hermanowicz, S.W., Jenkins, D. (2004). The Effects of the Food to Microorganism (F:M) Ratio on Membrane Fouling in a Submerged Membrane Bioreactor Treating Municipal Wastewater. *Proceedings, WEF Annual National Conference WEFTEC, New Orleans, Oct. 2004*
50. Hermanowicz, S.W. (2004) Biofilm Modeling: Invisible Hand or Self -Organization. *Invited presentation, Department of Physics, University of Illinois, Urbana Champaign, Sept. 28, 2004*
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