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Passman, F. J., Schmidt, J., and Nicoletti, D., "The relationship between microbial population ATP and quantitative PCR bioburdens in diesel fuel microcosms," Access Microbiology 2024:6:000695.v4 (2024). https://doi.org/10.1099/acmi.0.000695.v4.

Passman, F. J., "The continued importance of antimicrobial pesticides for controlling microbial contamination in industrial process fluids and systems," LUBE, Issue 181, pp 27-32 (2024).

Passman, F. J., Schmidt, J., and Lewis, R. E., "The relationship between microbial community vitality and ATP bioburden in bottom waters under fuel microcosms," Access Microbiology 2023;5:000411 (2023). http://doi.org/10.1099/acmi.0.000411.

Passman, F. J., "Minimizing the Risk of Turbine Oil and Turbine Oil System Biodeterioration," in Standard Guides and Practices That Support the Lubricant Condition Monitoring Industry, ed. M. Villalba and L. Williams (West Conshohocken, PA: ASTM International, 2022), 103–121. http://doi.org/10.1520/STP1634202000692.

Kowalski, W., Moeller, R., Walsh, T.J., Petraitis, V., and Passman, F.J. "Ultraviolet disinfection efficacy test method using bacteria monolayers," Journal of Microbiological Methods, 200 (2022). https://doi.org/10.1016/j.mimet.2022.106541.

Passman, F. J., "Do biofilms in metalworking fluid systems really matter?" "23rd International Colloquium Tribology." Technische Akademie Esslingen, Ostfildern, Germany (2022).

Energy Institute, "Guidelines on detecting, controlling, and mitigating microbial growth in oils and fuels used at power generation facilities."

https://publishing.energyinst.org/topics/power-generation/guidelines-on-detecting,-controlling-and-mitigating-microbial-growth-in-oils-and-fuels-used-at-power-generation-facilities. Energy Institute, London (2020). ISBN: 9781787251885.

Passman, F.J. and Küenzi, P., "Microbiology in Water-Miscible Metalworking Fluids." Tribology Transactions 63(6): 1147-1171 (2020). https://www.tandfonline.com/doi/full/10.1080/10402004.2020.1764684.

- Passman, F.J., Küenzi, P., and Schmidt, J., "Adenylate Energy Charge-New Tool for Determining Metalworking Fluid Microbial Population's Sublethal Response to Microbicide Treatment." 5pp. Amer. J. Biomed. Sci. Res. 7(4), AJBSR.MS.ID.001178 (2020). DOI: 10.34297/AJBSR.2020.07.001178.
- Passman, F.J., Schmidt, J, Lewis, R.P. and Christian, P., "The Relationship between Planktonic and Sessile Microbial Population Adenosine Triphosphate in Diesel Fuel Microcosms." In: R. E. Morris. *Ed. Proceedings of the 16th International Symposium on the Stability and Handling of Liquid Fuels*, 08 to 12 September 2019, Long Beach, USA (2019). http://iash.conferencespot.org/69070-iash-1.4569809/t001-1.4569870/f0010-1.4570090/a036-1.4570109/ap103-1.4570112
- Passman, F.J., Schmidt, J, Lewis, R.P. and Christian, P., "The Relationship between Microbial Community Vitality and ATP Bioburdens in Bottoms-waters under Fuel Microcosms." In: R. E. Morris. *Ed. Proceedings of the 16th International Symposium on the Stability and Handling of Liquid Fuels*, 08 to 12 September 2019, Long Beach, USA (2019). http://iash.conferencespot.org/69070-iash-1.4569809/t001-1.4569870/f0010-1.4570090/a037-1.4570103/ap106-1.4570106
- Passman, F. J., Kelly, J., and Whalen, P., "Interlaboratory Study Comparing Two Fuel Microbiology Standard Test Methods." International Biodeterioration & Biodegradation, 141: 17-23 (2019). https://doi.org/10.1016/j.ibiod.2018.07.005.
- Passman, F. J. "Chapter 35 Biodeterioration." In: R. Shah and D. R. Forester, Eds. ASTM Manual 37 Fuels and Lubricants Handbook: Technology, Properties, Performance, and Testing, 2nd Edition, ASTM International, West Conshohocken, pp:1231-1273 (2018). DOI: 10.1520/MNL3720150021.
- Passman, F. J. "Chapter 8 Sampling." In: S. J. Rand and A. W. Verstuyft, Eds. ASTM Manual 1 Significance of Tests for Petroleum Products–9th Edition, ASTM International, West Conshohocken, pp: 119-142 (2018). ISBN 978-0-8031-7108-4.
- Passman, F. J. "Chapter 11 Microbiology of Metalworking Fluids" In: J. Byers. Ed. Metalworking Fluids, 3rd Ed. CRC Press, Boca Raton, pp. 241-284 (2018). ISBN: 9781498722223.
- Passman, F. J., Kelley, J. and Whalen, P., "Collecting Appropriate Samples for Fuel & Fuel System Microbiological Examination an Interlaboratory Study Case Study." "11th International Colloquium Fuels Conventional and Future Energy for Automobiles." Technische Akademie Esslingen, Ostfildern, Germany. On CD. (2017).
- Montenaz, G., Passman, F., Machtiger, N., Montemayor, R. and Whalen, P., "Bioluminescence Testing for Rapid Detection of Microbial Contamination in Aqueous Polymer Emulsions." International Biodeterioration & Biodegradation 114:216-221 (2016). http://dx.doi.org/10.1016/j.ibiod.2016.06.007.

- Passman, F.J. and Eachus, A.C., "Impact of Biocidal Products Regulation on microbial contamination control in metalworking fluids." "20th International Colloquium Tribology." Technische Akademie Esslingen, Ostfildern, Germany. On CD. (2016)
- Passman, F.J., "Collecting appropriate samples for fuel & fuel system microbiological examination." In: Bartz, W. J. Ed. 10th International Fuels Colloquium. Technische Akademie Esslingen, Ostfildern, Germany. On CD. (2015)
- Koch, T., Passman, F., and Rabenstein, A., "Comparative study of microbiological monitoring of water-miscible metalworking fluids." International Biodeterioration & Biodegradation 98(1):19-25 (2015), http://dx.doi.org/10.1016/j.ibiod.2014.11.015.
- Passman, F.J. and Küenzi, P., "A Differential Adenosine Triphosphate Test Method for Differentiating between Bacterial and Fungal Contamination in Water-Miscible Metalworking Fluids" International Biodeterioration & Biodegradation 99:125-137 (2015), https://doi.org/10.1016/j.ibiod.2015.01.006.
- Passman, F. J., Duguay, J., Maradukhel, G., and Merks, M., "Adenosine triphosphate testing recent advances in the differentiation between bacterial and fungal contamination and detection of dormant microbes in fuel and fuel associated water samples. In: R. E. Morris. *Ed. Proceedings of the 13th International Symposium on the Stability and Handling of Liquid Fuels*; 06-10 October 2013, Rhodes, Greece. http://iash.omnibooksonline.com/ (2014)
- Passman, F. J., Maradukhel, G., and Merks, M., "Recent advances in the detection and quantification of microbial contamination in fuel systems." In: Bartz, W. J. Ed. 9th International Fuels Colloquium. Technische Akademie Esslingen, Ostfildern, Germany. On CD. (2013)
- Passman, F. J., "Microbial Contamination Control in Fuels and Fuel Systems Since 1980 A Review." International Biodeterioration & Biodegradation 81(1): 87-104 (2012), http://dx.doi.org/10.1016/j.ibiod.2012.08.002
- Passman, F.J. and Whalen, P.A., "Interlaboratory Study on the Analysis of Adenosine Triphosphate in Metalworking Fluids." In: Bartz, W. J. *Ed.* "18th International Colloquium Tribology." Technische Akademie Esslingen, Ostfildern, Germany. On CD. (2012)
- Passman, F. J., Kauffman, R. E., Munson, G. L. "The Use of Non-Chemical Technologies to Control Microbial Contamination in Aviation Fuels." In: Bartz, W. J. Ed. 8th International Fuels Colloquium. Technische Akademie Esslingen, Ostfildern, Germany. On CD. (2011)
- Passman, F. J. "Current Trends in MWF Microbicides." Tribol. Lub. Technol., 66(5): 31-38. (2010).
- Passman, F. J., Egger, G. L. II, Hallahan, S., Skinner, B. W. and DeSchepper, M. "New ASTM Test Method for Using Adenosine Triphosphate to Measure Biomass in

- Metalworking Fluids." In: Bartz, W. J. Ed. "17th International Colloquium Tribology." Technische Akademie Esslingen, Ostfildern, Germany. On CD. (2010)
- Passman, F. J., Lewis, R. P., Palmer, J.L. and Reid, H. "Effect of Ethanol on Microbial Proliferation in Unleaded Gasoline Microcosms." In: R. E. Morris. *Ed. Proceedings of the 11th International Conference on the Stability and Handling of Liquid Fuels*; 18-22 October 2009, Prague, Czech Republic. http://iash.omnibooksonline.com/ (2009)
- Passman, F. J., Egger, G. II, Hallahan, S., Skinner, B., and DeSchepper, M. "Real-time Testing of Bioburdens in Metalworking Fluids Using Adenosine Triphosphate." Tribol. Trans. 52(6): 288-292. (2009)
- Passman, F. J., Rossmoore, K. and Rossmoore, L. "Relationship between the Presence of Mycobacteria and Non-mycobacteria in Metalworking Fluids." Tribol. Lub. Technol. 65(3): 52-55. (2009)
- Passman, F. J. "Using Adenosine Triphosphate to Quantify Bioburdens in Various Liquid Fuels." 7th International Fuels Colloquium." Technische Akademie Esslingen, Ostfildern, Germany. On CD. (2009)
- Passman, F. J. "Filling the Data Gaps A Call for Collaborative Database." AB539, The Industrial Metalworking Environment: The 3rd Symposium on the Assessment and Control of Metal Removal Fluids. Independent Lubricant manufacturers Association, Alexandria, Virginia. On memory stick. (2008)
- Passman, F. J. "Metalworking Fluid Microbicides A Global Perspective." AB 531, The Industrial Metalworking Environment: The 3rd Symposium on the Assessment and Control of Metal Removal Fluids. Independent Lubricant manufacturers Association, Alexandria, Virginia (on memory stick) (2008)
- Passman, F. J. "Metalworking Fluid Microbes What We Need to Know to Successfully Understand Cause and Effect Relationships." Tribol. Trans. 51(1): 107-117 (2008)
- Passman, F. J. and Eachus, A.C. "Metalworking Fluid Microbes and Worker Health A U.S. Perspective." In: Bartz, W. J. *Ed.* "16th International Colloquium Tribology." Technische Akademie Esslingen, Ostfildern, Germany. On CD. (2008)
- Passman, F. J., English, E. Lindhardt, C. "Using Adenosine Triphosphate Concentration as a Measure of Fuel Treatment Microbicide Performance." In: R. E. Morris. *Ed. Proceedings of the 10th International Conference on the Stability and Handling of Liquid Fuels*; 7-11 October, 2007, Tucson, Arizona
- Passman, F. J. and A. C. Eachus. "Adenosine Triphosphate as a Rapid measure of Microbial Contamination in Fuel Systems. In: Bartz, W. J. *Ed.* "Fuels 2007 6th International Colloquium." Technische Akademie Esslingen, Ostfildern, Germany. pp: 689-695.

- Passman, F. J. "Chapter 9 Microbiology of Metalworking Fluids" In: J. Byers. *Ed.* Metalworking Fluids, 2nd Ed. CRC Press, New York, pp: 195-229 (2006) ISBN: 9781574446890.
- Passman, F. J. and A. C. Eachus. "Mycobacteria and Metalworking Fluids A U.S. Perspective." In: Bartz, W. J. *Ed.* "15th International Colloquium Tribology." Technische Akademie Esslingen, Ostfildern, Germany. On CD. (2006)
- Passman, F. J. "ASTM Symposium on the Recovery and Enumeration of Mycobacteria from the Metalworking Fluid Environment." Journal of ASTM Internat. **2**(9) JAI12835, www.astm.org (2005).
- Passman, F. J. and J. Dobranic. "Relative Biodegradability of B-100 Biodiesel and Conventional Low Sulfur Diesel Fuels." In: R. E. Morris. *Ed. Proceedings of the 9th International Conference on the Stability and Handling of Liquid Fuels*; 18 -22 September, Sitges, Spain. On CD. (2005)
- Eachus, A. C. and F. J. Passman. "Applications of a Morpholine-Derivative Product in Fuel Preservation." In: Bartz, W. J. *Ed.* "Fuels 2005 5th International Colloquium." Technische Akademie Esslingen, Ostildern, Germany. pp: 477-481. 20
- Passman, F. J., L. Loomis and J. Sloyer. "Non-conventional Methods for Estimating Fuel System Bioburdens Rapidly." In: R. E. Morris. *Ed. Proceedings of the 8th International Conference on the Stability and Handling of Liquid Fuels*; 14-19 September 2003, Steamboat Springs, CO.
- Passman, F. J. "Chapter 1 Introduction to Fuel Microbiology." In: Passman, F. J. *Ed*. "Manual 47 Fuel and Fuel System Microbiology: Fundamentals, Diagnosis and Contamination Control." ASTM International, West Conshohocken, pp. 1- 13 (2003).
- Passman, F. J. *Ed*. "Manual 47 Fuel and Fuel System Microbiology: Fundamentals, Diagnosis and Contamination Control." ASTM International, West Conshohocken, 114 p. (2003).
- Passman, F. J. "The Gentle Art of Writing Articles." Lub. Eng. 58 (7): pp: 39-41 (2002).
- Passman, F. J. and H. W. Rossmoore. "Reassessing the Health Risks Associated with Employee Exposure to Metalworking Fluid Microbes." Lub. Eng. 58 (7): pp: 30-38 (2002).
- Passman, F. J., B. L. McFarland and M. J. Hillyer. "Oxygenated Gasoline Biodeterioration and its Control in Laboratory Microcosms." Intl. Biodeter. Biodeg. 47 (2): 95-106 (2001).
- Passman, F.J. "New Guides for Diagnosing and Controlling Microbial Contamination in Fuels and Fuel Systems" *In* H. N. Giles, *Ed.*: Proceedings of the 7th International Conference on the Stability and Handling of Liquid Fuels; 24-29 September, 2000, Graz, Austria (2001).

- Passman, F. J., J. Summerfield and J. Sweeney. "Field Evaluation of a Newly Registered Metalworking Fluid Biocide" Lub. Eng. 56 (10): pp: 26-32 (2000)
- Passman, F. J. "Microbes and Fuel Retailing: The Hidden Costs of Quality." Nat. Petrol. News 91 (7): pp: 20-23 (1999).
- Passman, F. J., B. L. McFarland and M. J. Hillyer. "Ability of Fuel and Water Soluble Biocides to Prevent Microbial Succession Changes to Oxygenated Gasoline and Synthetic Tank Water Bottom Chemistry in Laboratory Microcosms." *In* H. N. Giles, Ed.: *Proceedings of the 6th International Conference on the Stability and Handling of Liquid Fuels*; 12 17 October, 1997, Vancouver, B.C., Canada (1998).
- Passman, F. J. "Biocides for Lubricant Rancidity and Biofouling Prevention." *Iron and Steel Eng.* 74 (10): 41 45 (1997).
- Passman, F. J. "Formaldehyde Risk in Perspective: A Toxicological Comparison of Twelve Biocides." *Lub. Eng.* 52 (1): 68 80 (1996). <u>LE52-1FormaldehydeRiskinPerspective-ToxicologicalComparisonof12Biocides-1996-Passman.pdf</u>
- Passman, F. J. "Opening Your Biocides Toolbox." Nat. Petrol. News 87 (9) (1995).
- Chesneau, H. L., F. J. Passman and D. A. Daniels. "Case Studies: Use of Filtration, Isothiazolin and Nitro-Morpholine Biocides to Control Microbial Contamination in Fuel Storage and Distribution Systems." *In* H. N. Giles, Ed.: *Proceedings of the 5th International Conference on the Stability and Handling of Liquid Fuels*; 03 07 October 1994, Rotterdam, The Netherlands. U.S. Department of Energy, Washington, DC; DOE/CONF-941022, 1995. pp 113 128.
- Passman, F. J., H.L. Chesneau and D.A. Daniels. "Catalase Measurement: A New Field Procedure for Rapidly Estimating Microbial Loads in Fuels and Water-Bottoms." *In* H. N. Giles, Ed.: *Proceedings of the 5th International Conference on the Stability and Handling of Liquid Fuels*; 03 07 October 1994, Rotterdam, The Netherlands. U.S. Department of Energy, Washington, DC; DOE/CONF-941022, 1995. pp 151 171.
- Passman, F. J. "Controlling Microbial Contamination." Nat. Petrol. News: 87 (1). (1995).
- Passman, F. J. "Knowing When You Have Contamination." Nat. Petrol. News: 86 (10). (1994).
- Passman, F. J. "Catalase as an Indicator of Microbial Contamination in Fuel Oils." Paper No. 94-8. *In* R.J. McDonald, Ed. *Proceedings of the 1994 Oil Heat Technology Conference and Workshop, March 24 25, 1994*. U.S. Department of Energy, Brookhaven National Laboratory, Upton. BNL-52430, 1994. pp. 103 122.

- Passman, F.J. "Controlling Microbial Contamination in Metal Working Fluids., In: *Metal Working Fluids*, March 16 18, 1992. Society of Manufacturing Engineers, Dearborn, MI. SME Technical Paper MF92-127, 1992. 15 pp.
- Passman, F. J. and S.R. Burak. "Contamination of Diesel Fuel: Impact, Causes & Prevention." *Mar. Report./Eng. News.* Jan., 1992. p. 16.
- Passman, F. J. and J. L. Pohlman. "Performance Characteristics of a Nitroparaffin-Based Fuel Preservative." *In* H. N. Giles, Ed. *Proceeding of the 4th International Conference on the Stability and Handling of Liquid Fuels*; Orlando, Florida, USA, November 19-22, 1991. U.S. Department of Energy, Washington, DC. DOE/CONF-911102, 1992. pp: 703 717.
- Soeder, K. and F. J. Passman. "Tris(hydroxymethyl)nitromethane: An Evaluation of a Versatile Cooling Water Treatment Cooling Water Treatment Microbicide. CTI Technical Paper Number TP90-06. Presented at *1990 Annual Meeting. Cooling Tower Institute*, Houston, TX. 24 pp.
- Passman, F. J. "Microbial Problems in Metalworking Fluids: A Primer." Presented at *SME Metalworking Coolants Clinic*, March, 1990. Society of Manufacturing Engineers, Dearborn, MI. 1990.
- Douglas, H., H. W. Rossmoore, F. J. Passman and L.A. Rossmoore. "Evaluation of Endotoxin-Biocides Interaction by the *Limulus* Amoebocyte Assay." *Devel. Ind. Microbiol.* **31**: 221-224 (1990).
- E. C. Hill, F. J. Passman and J. L. Pohlman. "A Bioassay for Estimating Biocide Concentrations in Used Metalworking Fluids." Presented at *Annual Meeting, Society for Tribology and Lubrication Engineering*, May, 1989.
- Passman, F. J. "Monitoring Microbial Contamination in Metalworking Fluids." Presented at *SME Metalworking Fluids Clinic*, May, 1989. Society of Manufacturing Engineers, Dearborn, MI. SME Technical Paper MR89-454. 1989. 25 pp.
- Passman, F. J. "Microbial Problems in Metalworking Fluids." *Lub. Eng.* **44**: 431-433 (1988).
- Robinson, G. N., J. L. Pohlman and F. J. Passman. "Optimizing Biocide Efficacy and Synergy Testing with Experimental Design Software." Presented at *Annual Meeting*, *Society for Tribology and Lubrication Engineering*, May, 1988. 32 pp.
- Passman, F. J. "Factors Affecting Biocide Performance in Metalworking Systems." Presented at *SME Metalworking Fluids Clinic*, March, 1988. Society of Manufacturing Engineers, Dearborn, MI.
- Passman, F. J. "Microbiology of Metalworking Fluids." *Metalfax*, October, 1987. 3 pp.

- Vahle, H. R. and F. J. Passman. "Controlling Coolant Contamination." *Machine and Tool Blue Book*, October, 1986. 7 pp.
- Passman, F. J. and G. E. Jones. "Preparation and Analysis of *Pseudomonas putida* Cells for Elemental Composition." *Geomicrobiol. J.* **4**: 191-206 (1985). http://dx.doi.org/10.1080/01490458509385931
- Passman, F. J. "A Catalase test for Quickly Estimating Microbial Loads in Metalworking Fluids." Presented at *SME Metalworking Fluids Clinic*, March, 1984. Society of Manufacturing Engineers, Dearborn, MI. SME Technical Paper MR84-916, 1984. 28 pp.
- Passman, F. J. "Recovery of *Aspergillus fumigatus* Aerospora from Municipal Sewage Sludge Composting Operations in the State of Maine." *Mycopathologia*, **83**: 41-51 (1983).
- Castor, T. P., J.B. Edwards and F. J. Passman. "Response of Mobility Control Agents to Shear, Electrochemical and Biological Stress." *In* D.O. Shah Ed. *Surface Phenomena in Enhanced Oil Recovery*. Plenum Press, NY. pp: 773-820 (1981).
- Passman, F. J. "Atmospheric Fungus Transport in the Vicinity of Woodwaste Handling Facilities." *In* National Council of the Paper Industry for Air and Stream Improvement, Special Report, 80-83, 1980. p. 3.
- Passman, F. J., T.J. Novitsky and S.W. Watson. "Surface Micro-Layers of the North Atlantic: Microbial Populations, Heterotrophic and Hydrocarbonoclastic Activities." *In Microbial-Degradation of Pollutants in Marine Environments*. U.S. Environmental Protection Agency. EPA-600/9-79-012. pp: 214-226 (1979).
- Passman, F. J. "Composting Municipal Sludge: Public Health and Legal Implications." *Harvard Env. Law Rev.* **3**: 381-398 (1979).
- Passman, F. J. "Evaluation of Procedures for Determining the Elemental Composition of *Pseudomonas cuprodurans*." Ph.D. Thesis, University of New Hampshire, Durham, NH (1977).
- Brock, T. D., F. J. Passman and I. Yoder. "Absence of Obligately Psychrophilic Bacteria in Constantly Cold Springs Associated with Caves in Southern Indiana." *Amer. Midland Natural.* **90**: 240-246 (1973).