References

- Andrady, A. L. (2017). $\delta^{13}C$ values determined in various petroleum- and plant-derived polymers. Retrieved from https://www.researchgate.net/
- Animals Eat Ocean Plastic Because it Smells Like Food. (2016, July 24). National Geographic. Retrieved from https://www.nationalgeographic.com/science/article/animals-eat-ocean-plastic-because-of-smell-dms-algae-seabirds-fish
- Banaei, G., et al. (2024). Teabag-derived micro/nanoplastics (true-to-life MNPLs) as a surrogate for real-life exposure scenarios. *Chemosphere, 368*, 143736. https://doi.org/10.1016/j.chemosphere.2024.143736
- Berg, E. (2018, April 23). *Microplastic processing protocol* [Video]. YouTube. https://www.youtube.com/watch?v=esFTU-9RcaA
- Berto, D., Rampazzo, F., Gion, C., Noventa, S., Formalewicz, M., Ronchi, F., ... Giorgi, G. (2019). Elemental Analyzer/Isotope Ratio Mass Spectrometry (EA/IRMS) as a Tool to Characterize Plastic Polymers in a Marine Environment. IntechOpen. doi: 10.5772/intechopen.81485
- Birch, Q. T., Potter, P. M., Pinto, P. X., Dionysiou, D. D., & Al-Abed, S. R. (2021). Isotope ratio mass spectrometry and spectroscopic techniques for microplastics characterization. *Talanta*, 224, 121743. https://doi.org/10.1016/j.talanta.2020.121743
- Centenary University. (2021, March 19). *Chemistry Wet peroxide oxidation* [Video]. YouTube. https://www.youtube.com/watch?v=pxfjEYBTESo
- Duxbury, A. B., Duxbury, A. C., & Sverdrup, K. A. (n.d.). *Fundamentals of oceanography* (4th ed.).
- Hendry, M. J., Schmeling, E., Wassenaar, L. I., Barbour, S. L., & Pratt, D. (2015). Determining the stable isotope composition of pore water from saturated and unsaturated zone core: Improvements to the direct vapour equilibration laser spectrometry method. *Hydrology* and Earth System Sciences, 19(11), 4427–4440. https://doi.org/10.5194/hess-19-4427-2015
- Hipsey, M. R., & Sivapalan, M. (2003). Parameterizing the effect of a wind shelter on evaporation from small water bodies. *Water Resources Research, 39*(12). https://doi.org/10.1029/2002WR001784
- How Plastics Breakdown into Microplastics. (2019, July 24). Plastic Action Centre. Retrieved from https://plasticactioncentre.ca/directory/how-plastics-breakdown-into-microplastics/
- International Atomic Energy Agency (IAEA). (n.d.). *IAEA-CH-7 reference sheet*. Retrieved May 23, 2025, from https://nucleus.iaea.org
- Lake Winnipeg. (n.d.). Government of Manitoba. Retrieved from https://www.gov.mb.ca/sd/water/lakes-beaches-rivers/lake-winnipeg.html

- Masura, J., Baker, J., Foster, G., & Arthur, C. (2015). Laboratory methods for the analysis of microplastics in the marine environment: Recommendations for quantifying synthetic particles in waters and sediments. *NOAA Technical
- Memorandum NOS-OR&R-48.* Retrieved from https://repository.oceanbestpractices.org/bitstream/handle/11329/1076/noaa_microplastic s methods manual.pdf
- Microplastics. (2019, July 24). Britannica. Retrieved from https://www.britannica.com/technology/microplastic
- Microplastics in freshwaters and drinking water: Critical review and assessment of data quality. (2019, February 25). *National Center for Biotechnology Information.* Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6449537/
- National Oceanic and Atmospheric Administration. (2021, July 24). *What are microplastics?* Retrieved from https://oceanservice.noaa.gov/facts/microplastics.html
- Nihart, A. J., Garcia, M. A., & Campen, M. J. (2024). Bioaccumulation of microplastics in decedent human brains. *Nature Medicine.* https://doi.org/10.1038/s41591-024-03453-1
- NOAA Global Monitoring Laboratory. (n.d.). *What carbon-13 tells us*. Retrieved May 23, 2025, from https://gml.noaa.gov/education/isotopes/c13tellsus.html
- Pratt, D. (2021). Quantifying the origin, transport, and fate of microplastics in Lake Winnipeg using field sampling and numerical modelling [Master's thesis, University of Manitoba]. MSpace. https://mspace.lib.umanitoba.ca
- Penn State Extension. (2016, September 12). *Wet sieving* [Video]. YouTube. https://www.youtube.com/watch?v=Vj1gjepTfu4
- Plastic waste and climate change: What's the connection? (2021, February 25). WWF Australia. Retrieved from https://www.wwf.org.au/news/blogs/plastic-waste-and-climate-change-whats-the-connect ion
- RanMarine Technology. (n.d.). *WasteShark.* Retrieved from https://www.ranmarine.io/products/wasteshark-3/
- Research on the Influence of Microplastics on Marine Life. (2021, July 24). *IOP Science.* Retrieved from https://iopscience.iop.org/article/10.1088/1755-1315/631/1/012006/pdf
- Schmidt Ocean Institute. (n.d.). *The complexity of measuring microplastics.* Retrieved from https://schmidtocean.org/cruise-log-post/the-complexity-of-measuring-microplastics/
- Smith, S. D. A., & Markic, A. (2013). Estimates of marine debris accumulation on beaches are strongly affected by the temporal scale of sampling. *PLOS ONE, 8*(12). https://doi.org/10.1371/journal.pone.0083694
- Steinbach, R. M., Whitner, S., & Amend, A. S. (2024). Marine fungi degrade plastic and can be conditioned to do it faster. *Applied Mycology.* https://doi.org/10.1080/00275514.2024.2422598
- The Ocean Cleanup. (n.d.). Retrieved from https://theoceancleanup.com

- University of Saskatchewan, Centre for Hydrology. (n.d.). *Stable isotope analysis water*. Retrieved May 23, 2025, from
 - $https://water.usask.ca/hillslope/lab_services/lab.php \#Stable Isotope Analysis Water$
- Valipour, R., León, L. F., Rao, Y. R., & Zhao, J. (2021). High-resolution hydrodynamic modelling to study year-round circulations and inter-basin exchanges in Lake Winnipeg. *Journal of Great Lakes Research, 47*, 798–811. https://doi.org/10.1016/j.jglr.2020.12.004
- Wassenaar, L. I., Hendry, M. J., Chostner, V. L., & Lis, G. P. (2008). High resolution pore water $\delta^2 H$ and $\delta^{18} O$ measurements by $H_2 O$ (liquid)– $H_2 O$ (vapor) equilibration laser spectroscopy. *Environmental Science & Technology, 42*(24), 9262–9267. https://doi.org/10.1021/es802065s
- Wu, Y., et al. (2024). Revivable self-assembled supramolecular biomass fibrous framework for efficient microplastic removal. *Science Advances, 10*(48). https://doi.org/10.1126/sciadv.adn8662
- Zhao, J., Rao, Y. R., & Wassenaar, L. I. (2012). Numerical modeling of hydrodynamics and tracer dispersion during ice-free period in Lake Winnipeg. *Journal of Great Lakes Research, 38*, 147–157. https://doi.org/10.1016/j.jglr.2011.02.005
- Zooming in on the Five Types of Microplastics. (2016, January 18). Waterkeeper. Retrieved from http://www.waterkeeper.ca/2016/11/15/zooming-in-on-the-five-types-of-mixroplastics