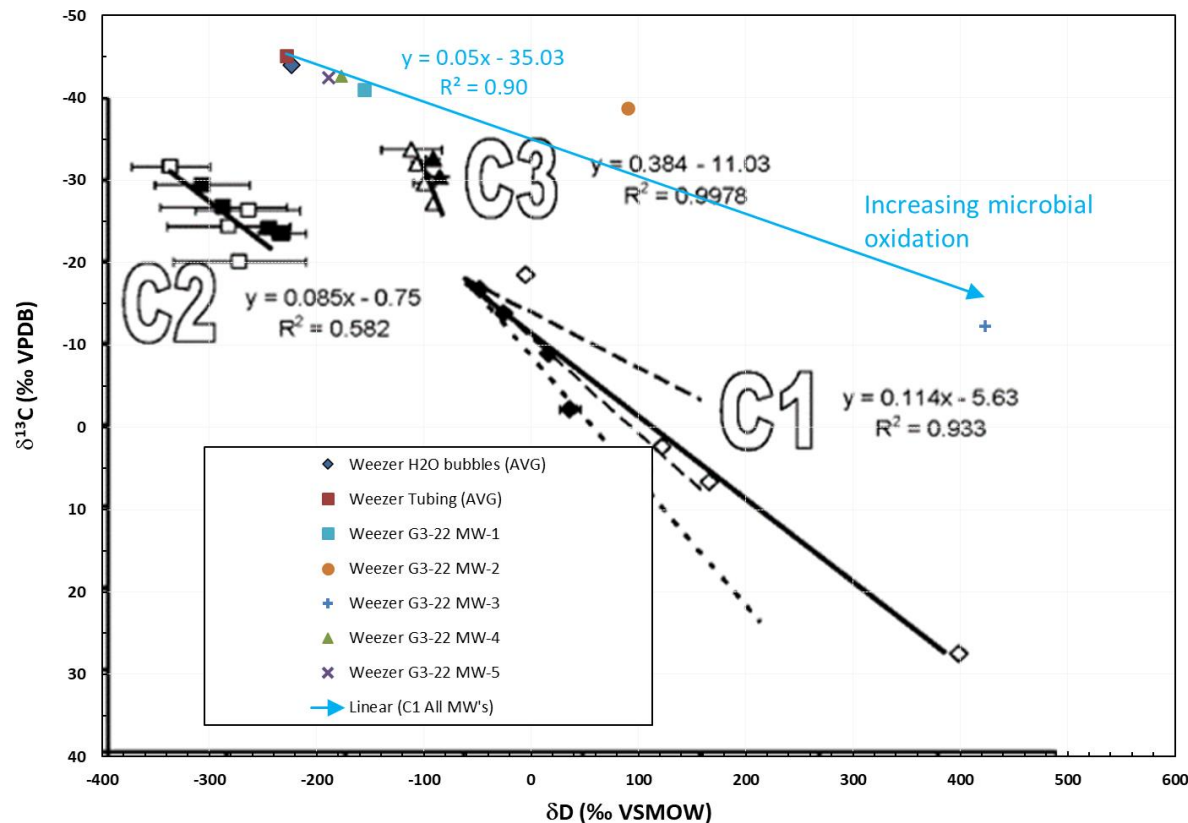


Degree of Microbial Oxidation



Degree of C_1 microbial oxidation (least to most):
MW-5 < MW-4 < MW-1 << MW-2 << MW-3

- Kinnaman et al (2007) determined carbon and hydrogen fractionation factors associated with the aerobic consumption of C_1 - C_4 alkanes by microbes.
- Though the starting isotopic composition of the Weezer gas is different than the gas used in their experiment, the Weezer C_1 data show a strong trend with a similar isotopic fractionation effect (similar slope).
- This trend shows varying amounts of microbial oxidation in the different MW's.
- Only C_1 isotopes from the Weezer site are shown here, due to the lack of δD data for C_2 and C_3 .