GEOL 135 12-03-10 Next-day assignment - Isotope equilibrium Fall 2010

If calcite precipitates in equilibrium with meteoric water having a D=+74‰, what is it’s 18O value at 20° C? To solve this you will need to consider the following equations describing the global meteoric water line and the temperature dependence of the fractionation factor between calcite and water:

GMWL: D = 8\*18O + 10

103ln(calcite-water) = (2.78 x 106 / T2) – 2.89

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