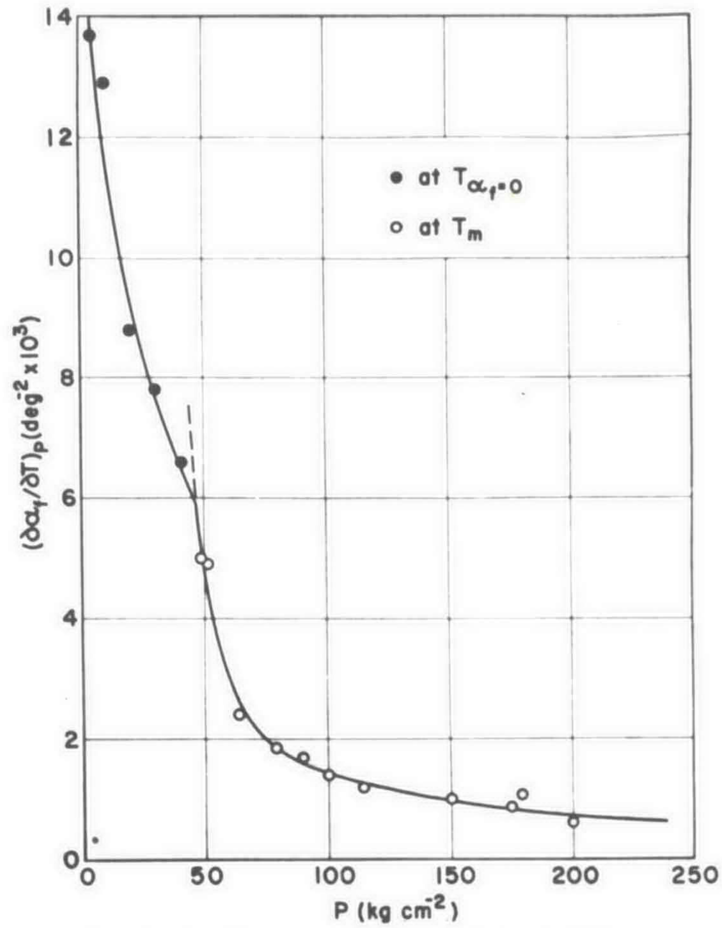

FIG. 6. $(\partial\alpha_f/\partial T)_P$ as a function of P for fluid He^3.

1.8°K. Although these values are somewhat higher than the more accurate, directly determined values (31 kg/cm^2 and 1.77°K) of Swenson (*5*) and Keesom and Keesom (*9*) for $P_{m\lambda}$ and $T_{m\lambda}$, the point where the lambda line intersects the melting curve, the discontinuity in slope in ΔV_m is quite definite. The results of Swenson (*6*) are plotted also in Fig. 2. They show a positive deviation from the present values at $P_m > P_{m\lambda}$ and a negative deviation at $P_m < P_{m\lambda}$. The maximum deviation is about 5 percent in the vicinity of $P_{m\lambda}$. Swenson made no corrections to his ΔV_m measurements to account for the thermal expansion of solid and fluid over the ΔT region in which he worked; he assumed equilibrium in freezing and melting. With decreasing P_m the thermal expansion co-