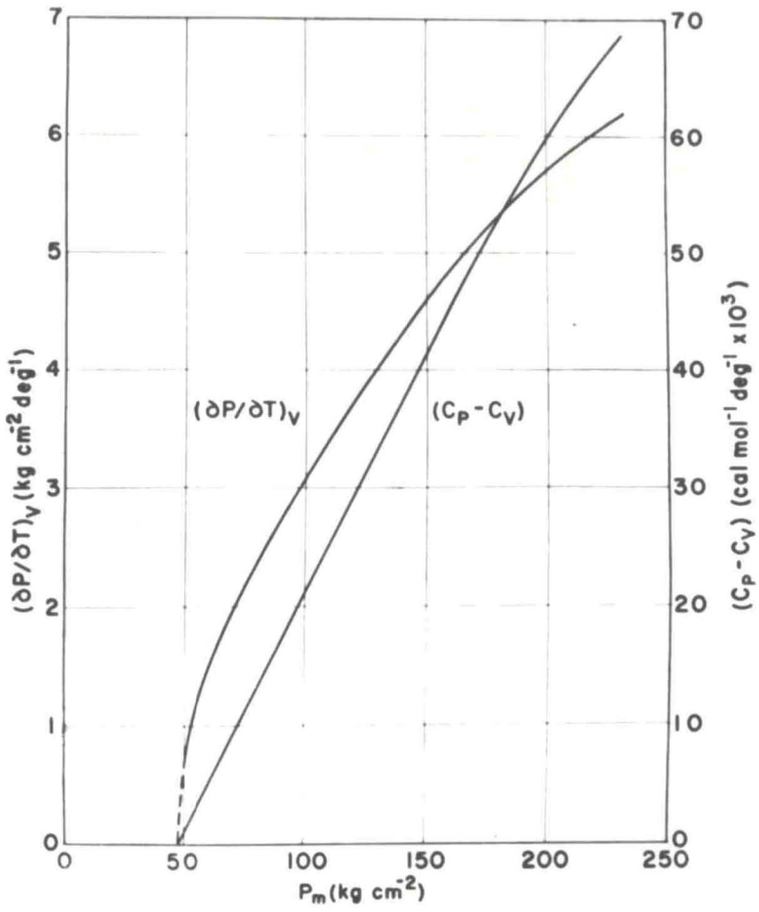

FIG. 10. $(\partial P/\partial T)_V$ and $(C_P - C_V)$ for fluid He^3 along the melting curve.

lowest accessible mean temperature for the present α_f measurements. It is seen that the curve of Fig. 5 intersects the melting curve at 47 kg cm^{-2} in good agreement with the extrapolations made in Figs. 4 and 10. Temperatures where $\alpha_f = 0$, derived from pressure-volume-temperature data by Brewer and Daunt (*28*) and Sherman and Edeskuty (*29*), are in general agreement with the measurements of Fig. 5.

The slopes, $(\partial\alpha_f/\partial T)_P$ and $(\partial\beta_f/\partial P)_T$, decrease with increasing melting pressure as shown in Figs. 6 and 7, respectively. From the thermodynamic formulas,

$$(\partial C_P/\partial P)_T = -T(\partial^2 V/\partial T^2)_P = -TV[\alpha^2 + (\partial\alpha/\partial T)_P] \qquad (7)$$