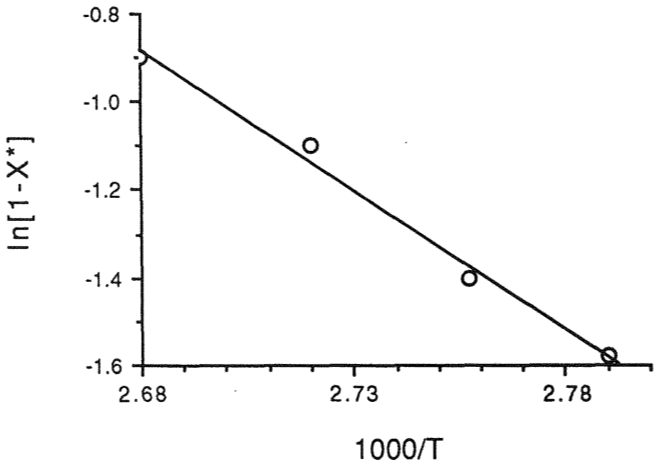

Fig. 11 $\ln[1-x^*]$ as a function of $1000/T$. Least squares equation: $y=16.19-6.37x$ ($R=1.00$). (Graph constructed from data by Carstensen and Kothari, 1983.)

liquidous line on a eutectic diagram. The melting point depression curve (Maron and Prutton, 1965) is given by

$$\ln(1-X^*)=\frac{\Delta H}{R}\left[\frac{1}{T_f}-\frac{1}{T}\right] \tag{6.30}$$

Such plots are quite linear, as shown in Fig. 11.

5. THE NG EQUATION

Ng (1975) suggested the following global equation for solid state decomposition:

$$\frac{dx}{dt}=x^n(1-x)^p \tag{6.31}$$

As pointed out earlier, a modification of this equation is

$$\ln\left\{\frac{x^n}{(1-x)^p}\right\}=-k'(t-t_i) \tag{6.32}$$

which may be written as

$$\ln\left\{\frac{x^q}{1-x}\right\}=-k(t-t_i) \tag{6.33}$$

where

$$k=\frac{k'}{p} \tag{6.34}$$