



FIG. 7.11 Current-transfer length  $x_{\min}$  for typical Nb-Ti and Nb<sub>3</sub>Sn multifilamentary superconductors, determined from Eq.(7.9), where  $D$  is the wire diameter, and  $\rho^*$  is the resistivity limit (usually determined by the apparatus voltage-detection limit). Here,  $n$  is the nonlinearly index of the  $V$ - $I$  characteristic (Eq. 7.10), and  $\rho_m$  is the resistivity of the superconductor's matrix material. (From Ekin 1978.)