



FIG. 2.6 Heat transfer from a metal surface to liquid nitrogen, showing *nucleate-boiling* curves (for various pressures) and *film-boiling* curves (for various wire diameters D). (Adapted from correlation summaries by Richards et al. 1961 and data summaries by Touloukian 1948, 1970; the nucleate-boiling curves are from a correlation by Kutateladze 1952 and the film-boiling curves from a correlation by Breen and Westwater 1962.) The predicted *critical heat flux* is shown by a circle at the top of the nucleate-boiling curves; the points of minimum film boiling at the bottom of the film-boiling curves are from correlations by Lienhard and Wong (1964), and Zuber and Tribus (1958).