



FIG. 5.10 Temperature error, $(T_{\text{apparent}} - T_{\text{actual}})/T_{\text{actual}}$ (%), at different magnetic fields, for platinum-resistance thermometers (data calculated from magnetoresistance data by Brandt et al. 1988 and replotted here as temperature error). The standard deviation for this set of sensors is approximately $\pm 10\%$ of the magnetic-field correction at all fields and temperatures shown. A detailed tabulation of the magnetic-field corrections for platinum-resistance sensors, along with examples of how to use the correction factors, is given in Appendix A5.5. Results apply equally well to both wire-wound and film-type platinum sensors. For wire-wound platinum sensors, the orientation is such that the long axis of the package is parallel to the magnetic field (an illustration of the package is shown in Fig. 5.17 in Sec. 5.5.1). Film-type platinum sensors depend little on orientation.