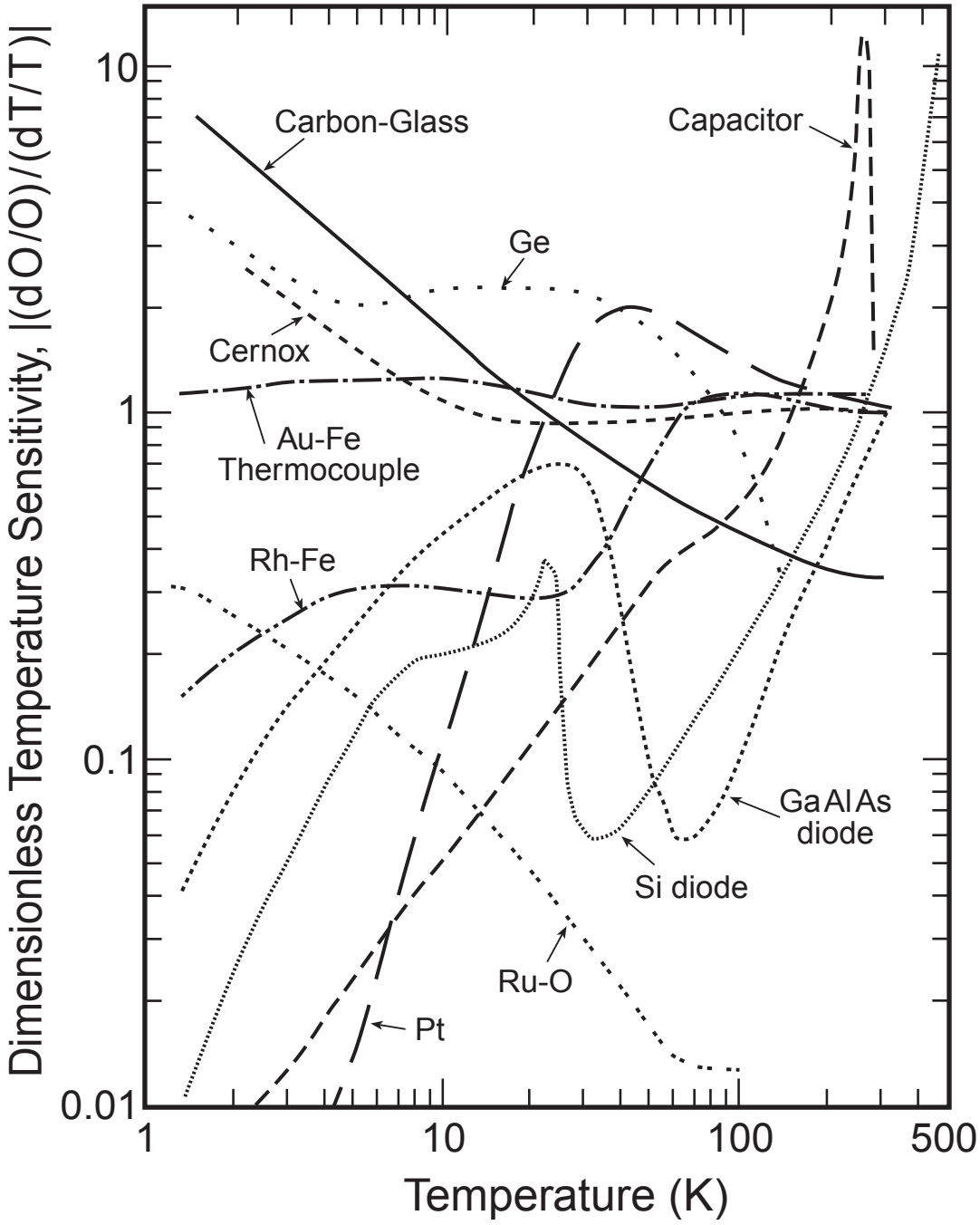

FIG. 5.5 Comparison of dimensionless sensitivity of various commercial cryogenic thermometers (given as an absolute value, since some of the sensitivities are negative) (from Lake Shore Cryotronics 2002 and product literature). The dimensionless sensitivity is defined as the relative change in a sensor's output d*O*/*O* from a given relative change in temperature d*T*/*T*; that is, |(d*O*/*O*)/(d*T*/*T*)|, or equivalently, |d ln*O* / d ln*T*|. The higher a curve's position on the plot, the better.

Au-Fe thermocouple: Thermocouple (KP chromel vs. Au-0.07%Fe referenced to 0 K; **Capacitor**: Capacitance thermometer; **Carbon-glass**: Carbon-glass resistor; **Cernox** : Zirconium-oxynitride resistor; **GaAlAs diode**: GaAlAs diode operating at 10 mA **; Ge**: Germanium resistor; **Pt**: Platinum resistor; **Rh-Fe**: Rhodium-iron resistor; **Ru-O**: Ruthenium-oxide resistor; **Si diode**: Silicon diode operating at 10 mA