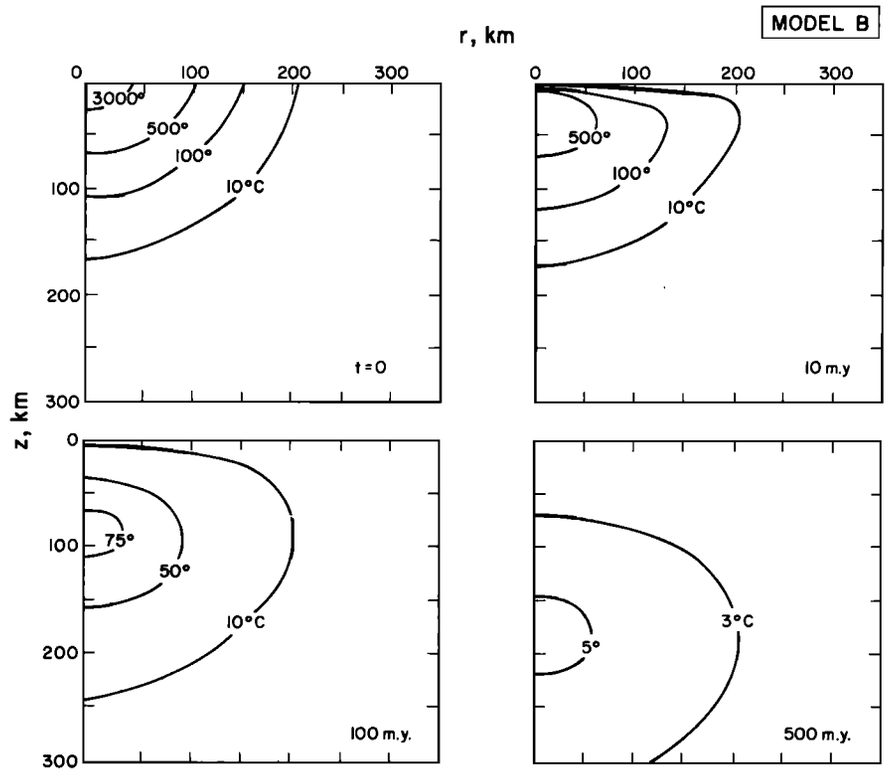

Fig. 12. Basin thermal evolution for model B. The initial anomalous temperature field is due to implanted impact kinetic energy; the total heat E_B buried beneath the basin is 10^{32} erg and the decay constant s is 25 km (see equation (19)). Also shown are the anomalous temperature fields at 10, 100, and 500 m.y. after basin formation.

mediately beneath the central basin region exceeds 1000°C. By 100 m.y. after basin formation, only 27% of the initial energy remains beneath the basin. The initial heat is distributed over a larger volume in model C relative to model B, and therefore the initial temperatures are considerably reduced. For the same reason, heat leaves the basin more slowly. About 60% of the initial energy remains buried in the subsurface after 100 m.y. The thermoelastic effects of cooling are illustrated for

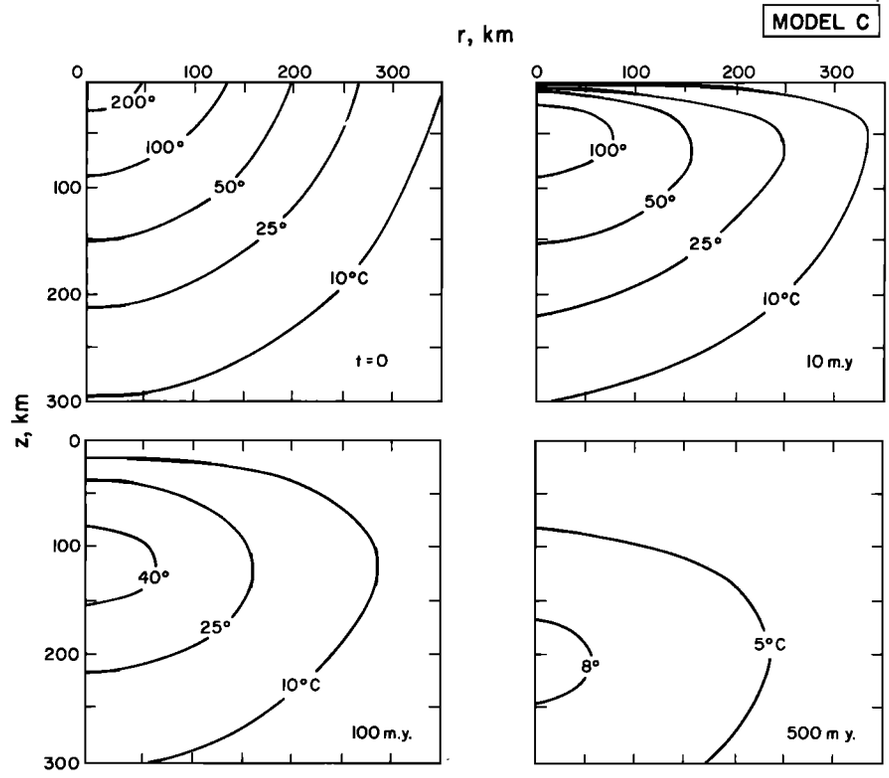

Fig. 13. Basin thermal evolution for model C. The model includes impact heating with $E_B = 10^{32}$ erg and $s = 90$ km. See Figure 12 for further explanation.