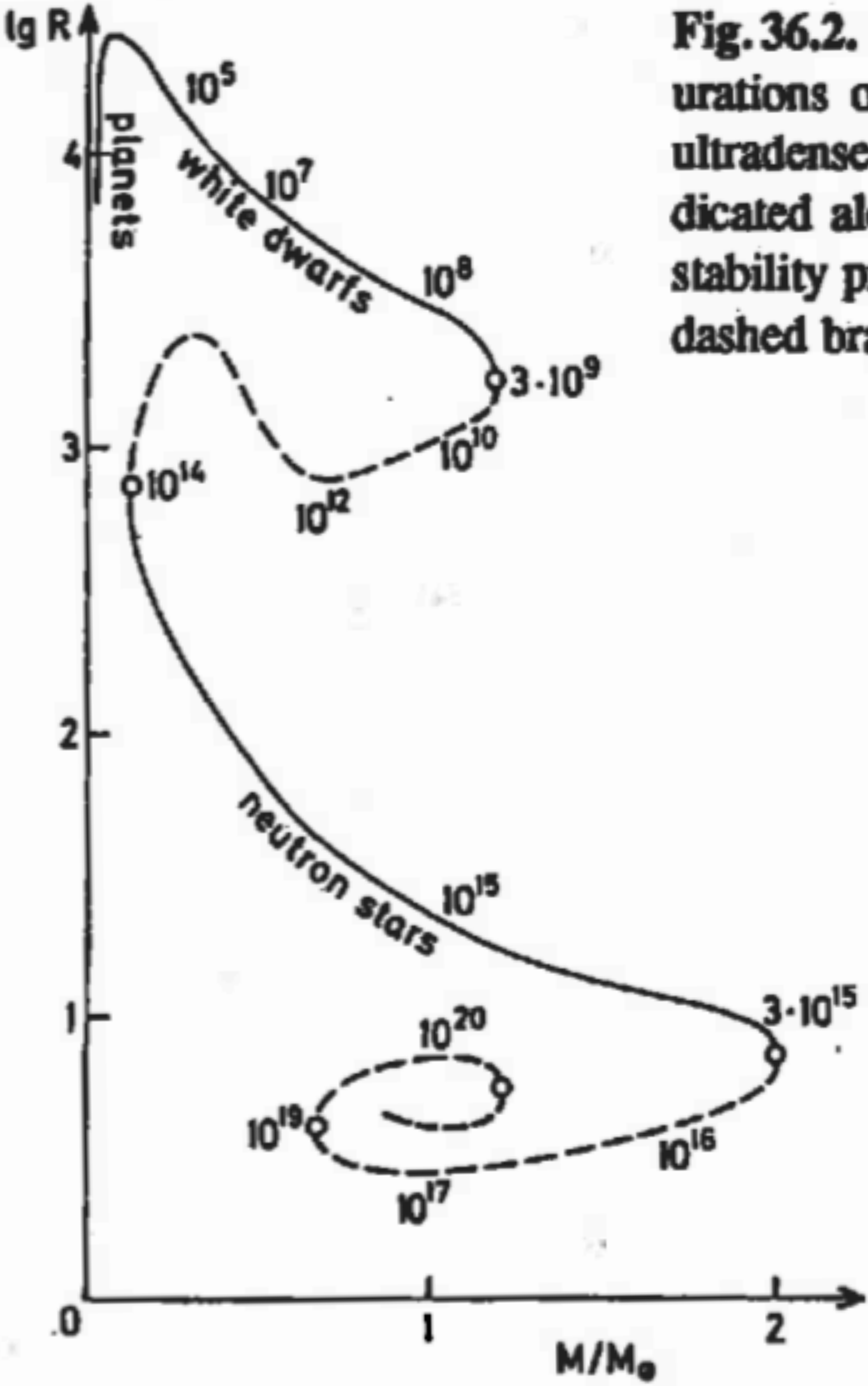

Fig. 36.2. Schematic mass–radius relation (R in km) for configurations of cold catalyzed matter, from the planetary regime to ultradense neutron stars. Some values of ϱ_c (in g cm^{-3}) are indicated along the curve. At the extrema of M (*open circles*) the stability problem has a zero eigenvalue. Solid branches are stable, dashed branches are unstable

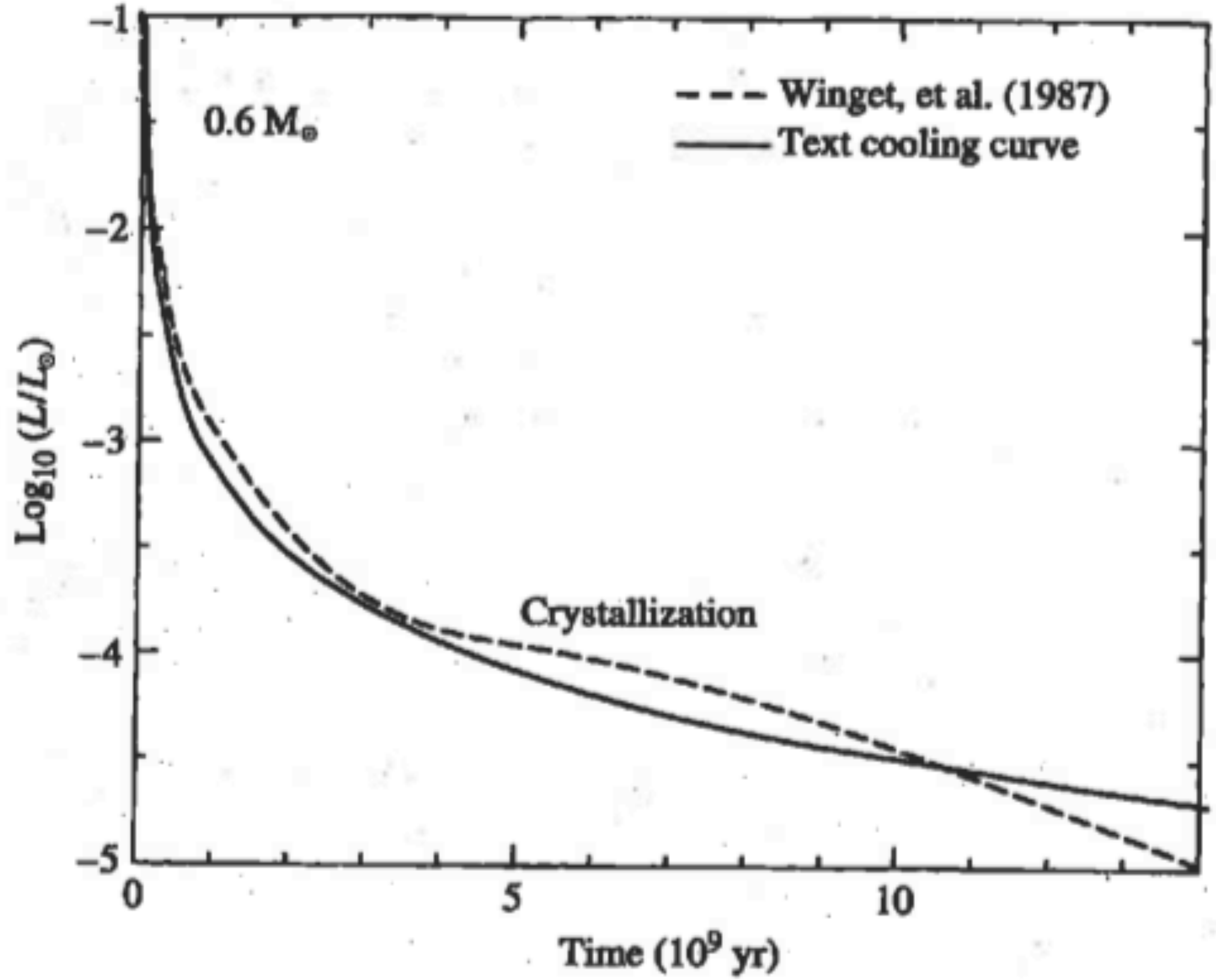

FIGURE 16.9 Theoretical cooling curves for 0.6 $M_\odot$ white-dwarf models. [The solid line is Eq. (16.23), and the dashed line is from Winget et al., *Ap. J. Lett.*, *315*, L77, 1987.]

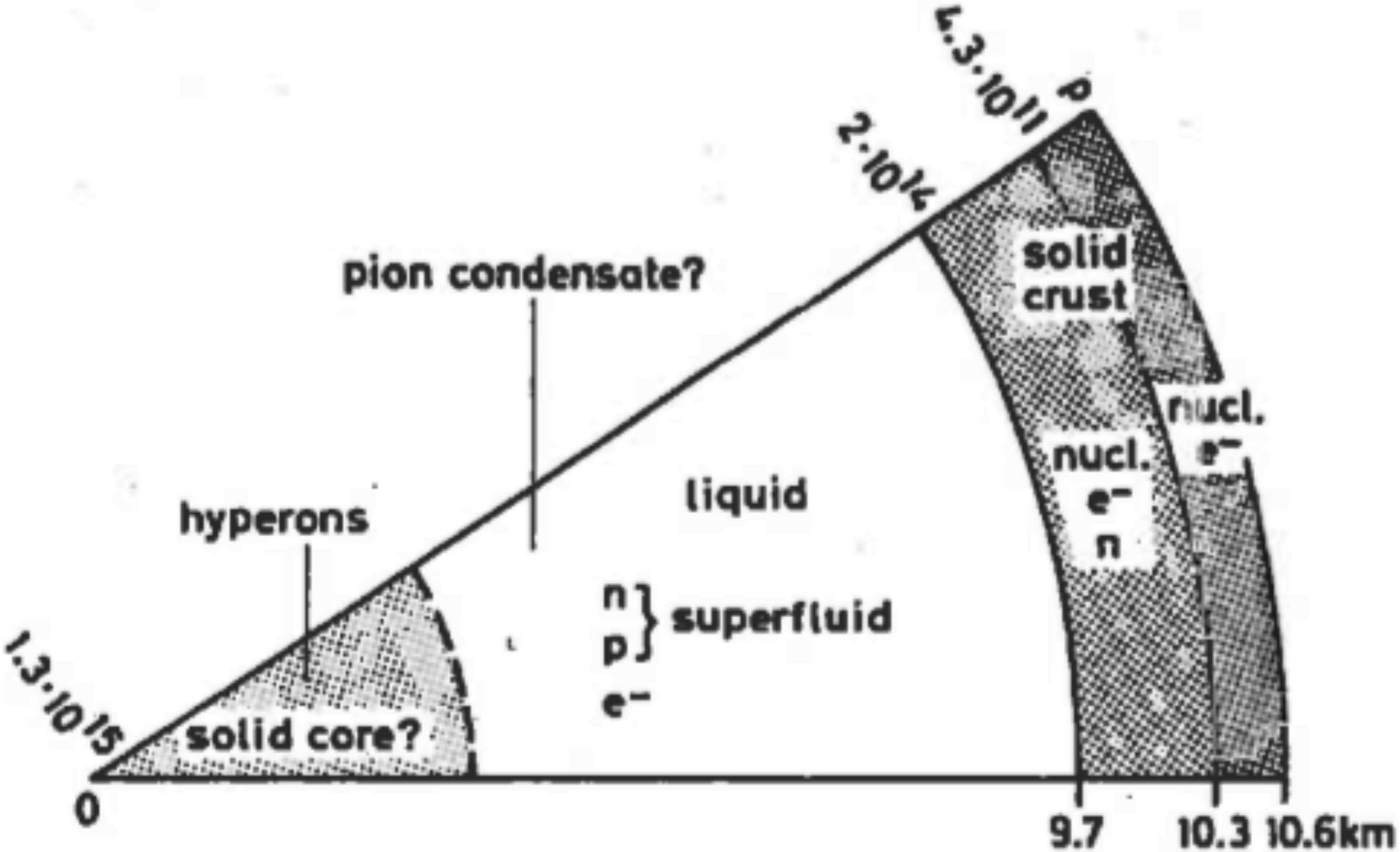

Fig. 36.3. Illustration of the interior structure of a neutron-star model with $M = 1.4 M_{\odot}$ calculated with the same equation of state as the sequence labelled 4 in Fig. 36.1. A few characteristic values of the density (in g cm^{-3}) are indicated along the upper radius. (After PINES, 1979)

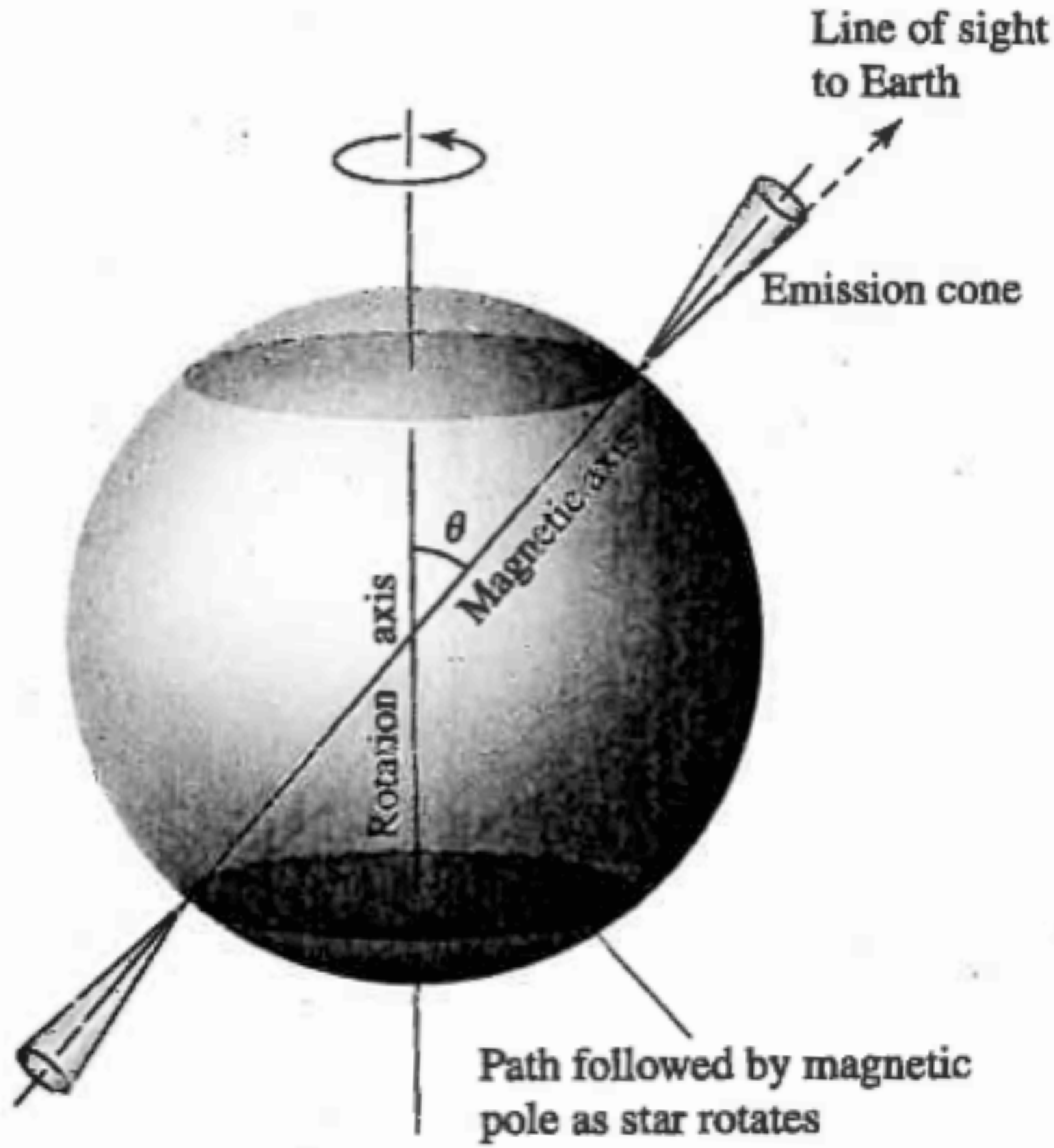

FIGURE 16.25 A basic pulsar model.

Stellar pulsation

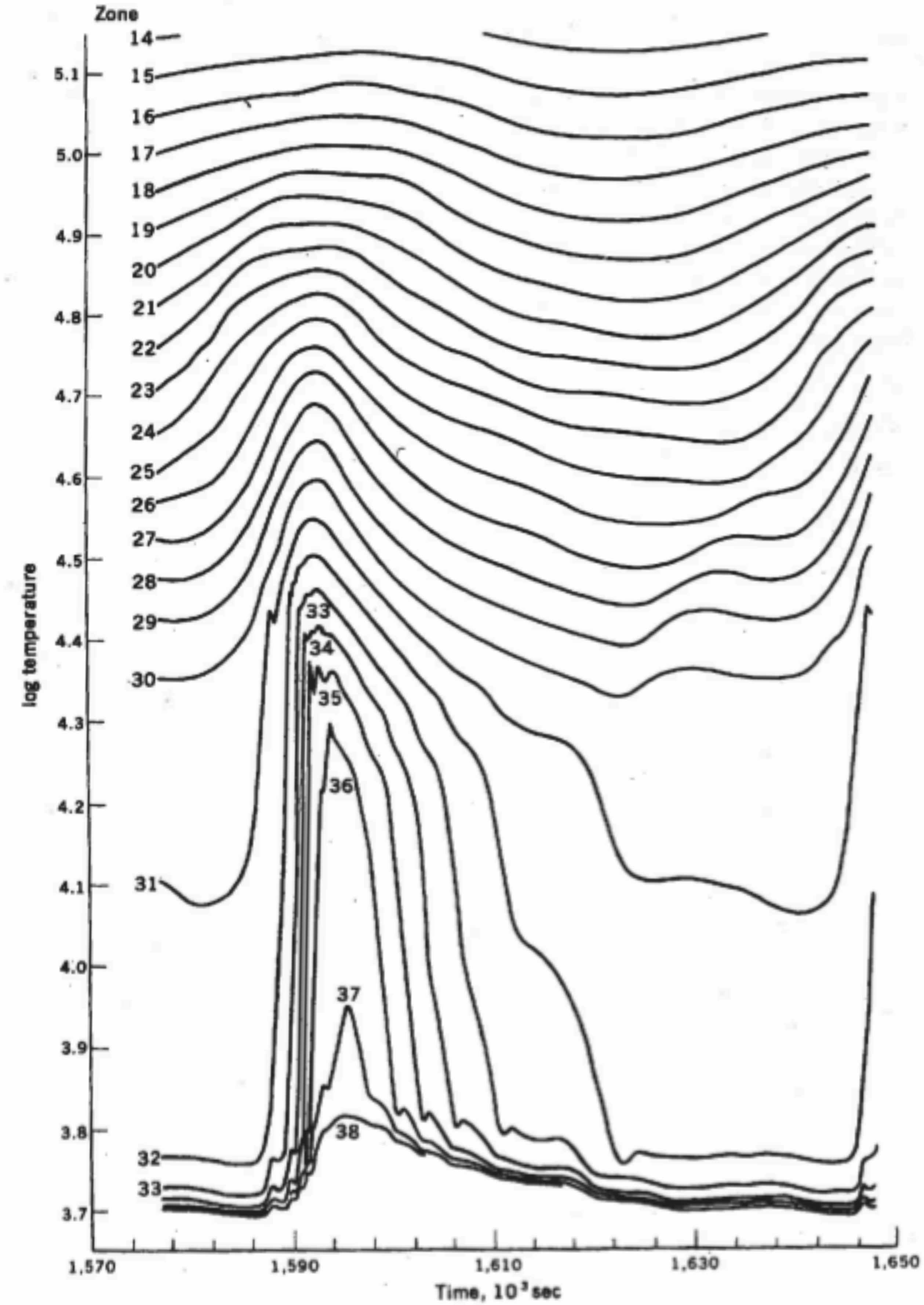

Fig. 6-22 The variation of temperature with time in several mass zones of an RR Lyrae model. The hydrogen ionization zone centers at shell 33, and the HeII ionization zone centers at shell 27. The amplitude of the temperature oscillations in these zones is even larger than the quiescent temperature in the static model, and the overall problem is nonlinear. [*After R. F. Christy, Astrophys. J.*, **144**:108 (1966). *By permission of The University of Chicago Press. Copyright* 1966 *by The University of Chicago.*]

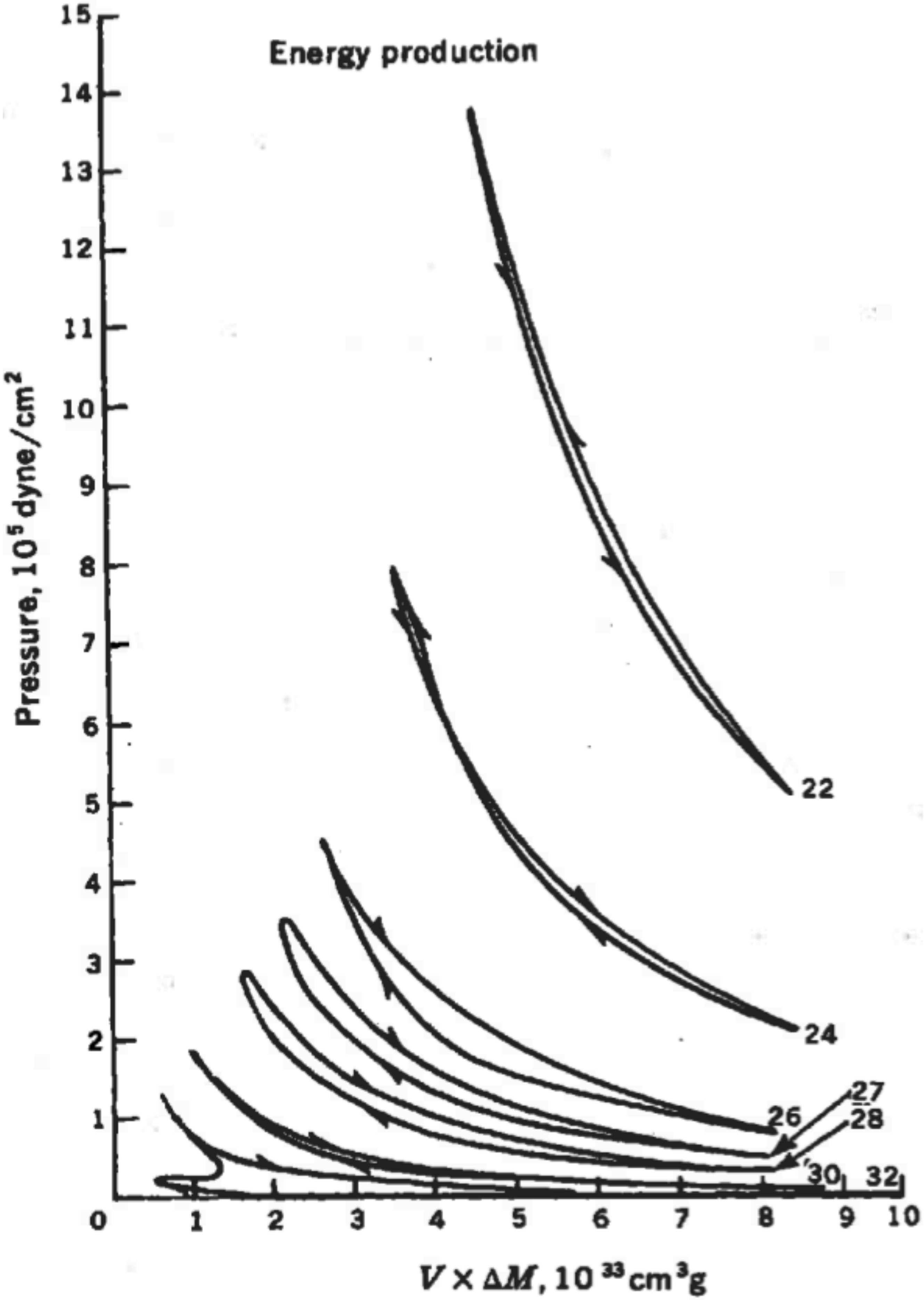

Fig. 6-23 The PV cycles for selected mass shells within a model of an RR Lyrae variable. A clockwise cycle performs positive mechanical work equal to the enclosed area. [*After R. F. Christy, Rev. Mod. Phys.*, **36**:555 (1964).]

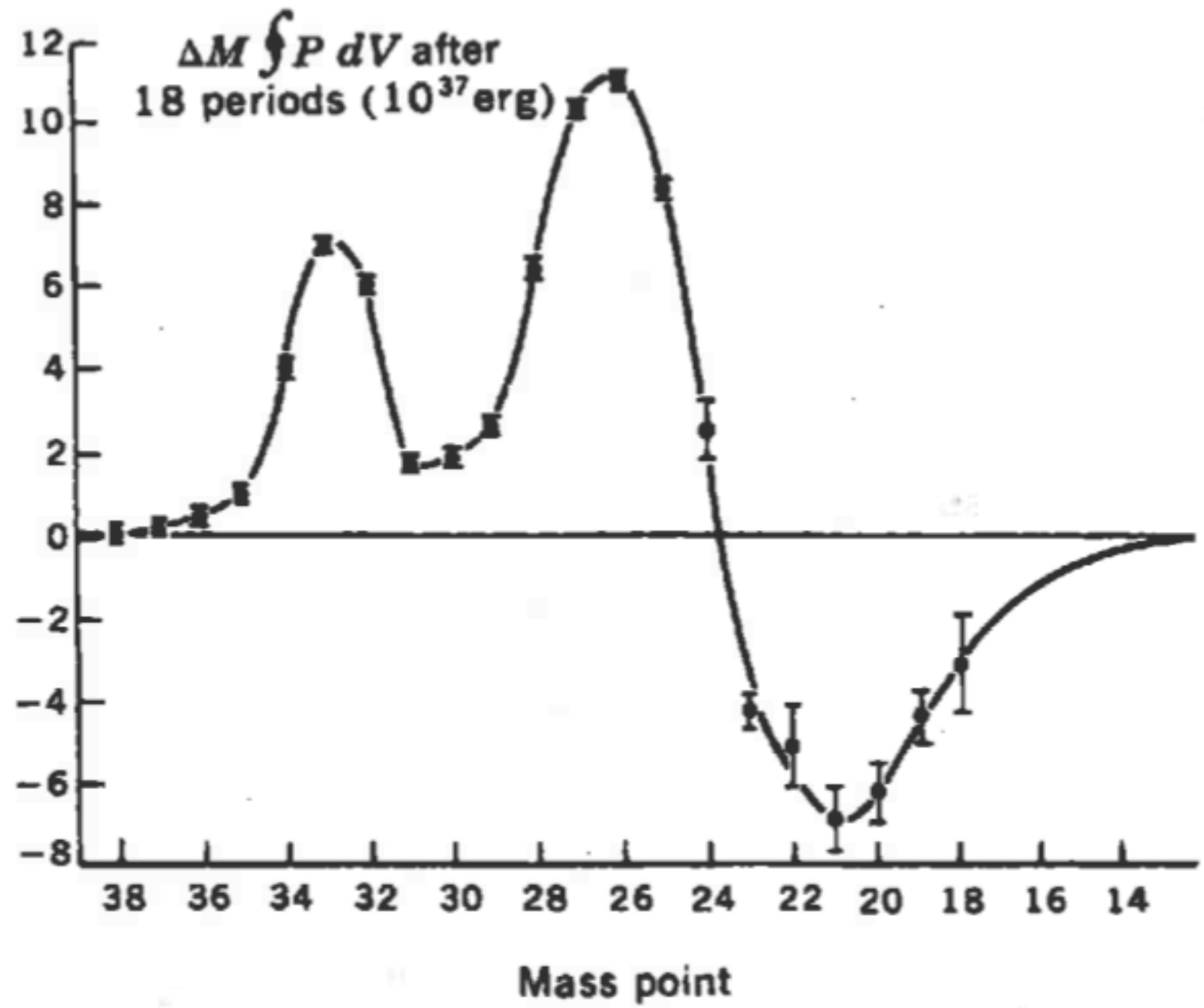

Fig. 6-24 The work done per period by the outer mass shells of an RR Lyrae model. Most of the positive work comes from the ionization zones of hydrogen and helium, whereas the regions interior to those zones are largely dissipative. [*After R. F. Christy, Rev. Mod. Phys.*, **36**:555 (1964).]