

and perhaps to solid stars as well. Thus any planet which has substantive surface features may be expected to have an appreciable reservoir of elastic energy, including an angular term arising from a misorientation of its rotation and elastic axes. Under these circumstances free precession of the planet (or star) is likely to occur in such a way that resonant coupling between the indirect seismic activity and polar motion acts to pump that precessional motion. In view of its prominent surface features, Mars would seem an especially promising candidate for such a planetary wobble.

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Erratum

In the article "Quadrupolar Analysis of Storage and Release of Elastic Energy in the Earth" by D. Pines and J. Shaham (*Nature phys. Sci.*, **243**, 122; 1973), equation (4) should read:

$$\delta I_{\Omega} = I_0 \epsilon_{\Omega} (3n_{\Omega} n_{\Omega} / 2 - e/2)$$

Equation (7) should read:

$$\delta I_{\mu} = I_0 \epsilon_{\mu} (3n_{\mu} n_{\mu} / 2 - e/2)$$

Equation (8) should read:

$$\delta I_{\mu} = \epsilon_{\mu} (3n_{\mu} n_{\mu} / 2 - e/2) + \eta_{\mu} (l_{\mu} l_{\mu} - m_{\mu} m_{\mu})$$

Line 5, column 7, Table 1, should read [0.933, 0.217, -0.337]. In both parts of Fig. 2 the angle between n_R and n_C should be 2° and not 0.2° .

Preliminary Characterization of Two Species of dsRNA in Yeast and their Relationship to the "Killer" Character

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Two high molecular weight dsRNA species have been found in yeast and strains have been found which possess either the larger, or both, of these molecules. From genetic evidence, we conclude that, together, these two dsRNAs determine the cytoplasmically inherited killer character.

THE occurrence of high molecular weight double stranded (dsRNA) in some strains of the yeast *Saccharomyces cerevisiae* was reported recently by Berry and Bevan¹, and confirmed by Vodkin and Fink². The molecule was discovered during a search for the genetic determinant of the cytoplasmically inherited "killer" character³⁻⁶, and was characterized as dsRNA mainly on the basis of its nuclease resistance. We now wish to confirm that characterization,

to report the occurrence of a further species of dsRNA and to correlate its presence with the killer character.

Total nucleic acid was prepared by first disrupting the cells with an Eaton press⁷ and using the phenol method of Kirby and Parish⁸. Sodium *tri*-isopropyl naphthalene-sulphonate (TNS) was used as a detergent in the aqueous phase of the extraction. The change to this detergent abolished the breakdown of rRNA in extractions from killer strains reported by Berry and Bevan¹. When total nucleic acid was extracted for the bulk isolation of dsRNA the cells were not passed through the Eaton press but were subjected to a cycle of freezing and thawing in TNS buffer before phenol extraction. This method yielded DNA, tRNA and dsRNA but gave little rRNA and thus simplified the subsequent separation.

Isolation of the dsRNA was achieved by CF11 chromatography⁹. The nucleic acid was first dissolved in 0.15 M sodium acetate buffer, pH 6.9, and spun at 15,000g for 1 h to remove high molecular weight polysaccharides¹⁰. Transfer RNA was removed by permeation chromatography of the supernatant using a 40×2.2 cm column of Corning