

A search for CMB D" Layer Silent Earthquakes

Kentaro Funo[1], Ichiro Kawasaki[2], Yuichi Imanishi[3], Jun Funasaki[4], Osamu Kamigaichi[5]

[1] Earth Sci., Toyama Univ, [2] Earth Sci, Toyama Univ., [3] ORI, Univ. of Tokyo, [4] JMA, [5] MRI

Long period records of two component extensometer and SG at Matsushiro Seismological Observatory, JMA, for a period from March 1998 to the end of 1999 are analyzed. About 630 strain records of two day length of the extensometer strain records with a mutual time lag of 1 day are high-pass filtered with a cutoff period of 3000s to remove Earth's tides and corrected for atmospheric pressure disturbance by linear regression. Computing FFT spectra of the strain records, a lot of the D"SE modes, 0S5, 0S6, 2S4, 2S7, 4S4, 0T5, 0T6, 0T7, 1T4, 1T5, 1T6, 1T7 and 1T8 are identified in the period range longer than 500 s of the spectrum of the record of November 2 to 3. This can be interpreted as an evidence of a silent earthquake in the D" layer just above CMB.