

## E-sign, a revised detector of earthquake precursor of dropped nails from a magnet in the Ansei era

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[1] none

<http://e-sign.tv/>

Retrospectively reported precursor phenomena of the Kobe and Izmit earthquakes are considered to be rare natural phenomena from the spatial distributions of the observation points and from the temporal distribution of their precursory times (1, 2). Experiments to reproduce the phenomena by electric fields (3) were made on elephants and dolphins considering the reports in the Sumatra off-the coast earthquake.

Earthquake prediction apparatus utilizing the phenomenon of dropped nails from natural magnet two hours before the Ansei earthquake (160 years ago) (4) was restored as a modern E-Sign to prove/disprove electrostatic earthquake precursor considering electrostatic induction rather than magnetic anomalies before earthquakes. The E-sign gives signals by buzzer sounds and red LED light and now on sale as an educational apparatus to detect electrostatic induction in a high school science room as well as for a tiltmeter warning landslides.

(1) M. Ikeya: Earthquakes and Animals: From Folk Legends to Science (World Scientific, 2004).

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(3) M. Ikeya: Earthquake sensory perception in vertebrates. In 2006 McGraw Hill Encyclopedia of Science and Technology.

(4) M. Ikeya and H. Matsumoto: Reproduced earthquake precursor legends using a Van de Graaff electrostatic generator: Candle flame and dropped nails. Naturwissenschaften 84 (1997) 539-541.