Fast three-component magnetometer-variometer based on a cesium sensor

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Abstract: A new fast three-component variometer-magnetometer based on a cesium sensor is developed and tested. The device is intended for measuring the longitudinal component of the geomagnetic field in the range from 20 to 65 μT and two transverse components in the range ±1 μT. The reproducibility of measurements is ±0.15 nT, and the noise-limited sensitivity is 0.01 nT (in terms of the rms deviation) or 0.04″ for a measurement time of 0.1 s. © Pleiades Publishing, Inc., 2006.

Year: 2006
Source title: Technical Physics
Volume: 51
Issue: 1
Page : 112-117
Cited by: 1
Link: Scorpus Link
Document Type: Article
Source: Scopus

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