

Manten project -Development of seismometer of the next generation-

Tsutomu Miura[1]; Yoshihisa Iio[1]; Hiroshi Katao[1]; Takuo Shibutani[1]; Masatoshi Miyazawa[1]; Masato Iguchi[2]; Norio Hirano[3]; Kazuhiro Nishimura[1]; Shiro Ohmi[1]; Kazuro Hirahara[4]; Takahiro Ohkura[5]; Satoshi Matsumoto[6]; Kazunori Takabatake[7]; Yoshikazu Ohashi[8]; Kazuo Furuya[9]

[1] DPRI, Kyoto Univ.; [2] SVO; [3] DPRI, Kyoto Univ.; [4] Geophysics, Sciences, Kyoto Univ.; [5] AVL, Kyoto Univ.; [6] SEVO, Kyushu Univ.; [7] New Project, Kinkei System Co.; [8] Kinkei; [9] none

To obtain enormous earthquake observation data with high quality to clarify the earthquake fault, we develop a miniaturized three-component seismometer that is capable of functioning similar to L-22D seismometer manufactured by Mark products company. We develop a new magnetic circuit, where lines of magnetic force align in a parallel direction, by using the powdery metallurgy manufacturing method, and reconstruct a nonlinear spring with spiral shape which makes it possible to provide an arbitrary natural frequency. This seismometer will be about one fifth as heavy as L-22D.