Earthquake observation at the Kamaishi Mine -Characteristics of seismic ground motion at deep underground-

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In order to clarify characteristics of seismic ground motion in a deep underground area, seismic observations in the Kamaishi Mine were started in 1990. Since then 344 earthquakes were observed in 9 years till March 1998.From earthquake records obtained in the Kamaishi Mine, following results can be drawn. 1) The maximum acceleration amplitude and response spectra of earthquakes depend on focal depths. If hypocentral distance and magnitude are the almost same, the deeper the focal depth the larger becomes the maximum acceleration amplitude and response spectra of earthquake. 2) The maximum acceleration observed at several depths in a vertical array has a tendency to decrease to about 1/2 of that at the ground surface.