Compressional wave velocity measurements of olivine aggregates under high pressures and temperatures

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Elastic wave velocity measurements of inferred constituents of the Earth mantle can provide a critical constraint to interpret the seismic data in terms of the chemical composition. It is thus important to obtain the elastic wave velocity of olivine, one of the principle constituents of the upper mantle.

Although the pressure range is confined, we have developed the method of compressional wave velocity measurement using a piston-cylinder type high pressure apparatus in order to attain simultaneous high P-T conditions.

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