Shear wave

@wikipedia

Synonym: Secondary wave (s-wave) = Shear wave

A body wave caused by oscillation of a shear stress in a matter and as such resulting in strain oscillations perpendicular to the direction of s-wave propagation.

In terms of corpuscular structure of the matter the s-wave is characterised by the fact that particles of the matter are moving back and forth perpendicular to the s-wave travel direction (see **Fig. 1**).

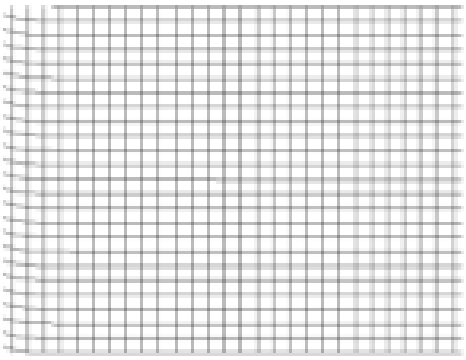

Fig. 1.1. Plane s-wave

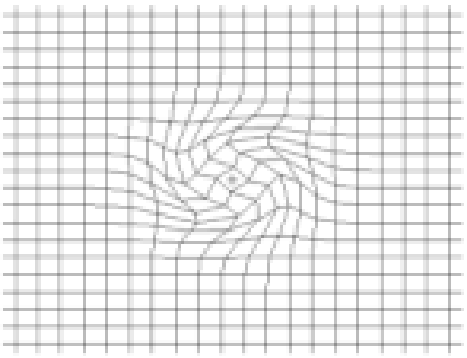

Fig. 1.2. Spherical s-wave

S-wave can propagate through solids only and move slower than p-wave.

When all body waves are excited at the same time the s-wave arrives after the p-wave to the sensor, hence the name "secondary".

See also

Physics / Mechanics / Continuum mechanics / Mechanical waves / Body wave

[p-wave]