

## THE POLYWAVES SEISMIC TECHNIQUE OF RAYLEIGHT WAVE FOR INVESTIGATION SURFACE HETEROGENEOUS

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THE POLYWAVES SEISMIC TECHNIQUE OF RAYLEIGHT WAVE FOR INVESTIGATION SURFACE HETEROGENEOUS Sedov B.M. North-East Interdisciplinary Science Research Institute RAS, Magadan, Russia Rayleigh {R} waves are used in seismology for the study of lithosphere composition. On seismology they are used only at sounding, when special generator of R wave radiates oscillations of various frequencies. They are taken by the single-channel seismic station, where their cinematic and dynamic characteristic are analyzed. Then they are used for construction on vertical velocity column. Using the dependence between the velocity of surface wave and lithology, it will be possible to make transition to geology section. This method is the point sounding. That is why it is difficult sometimes to use it at the study of horizontal velocity heterogeneous. Investigations have shown that R waves which usually were suppressed in seismology both during generation and receiving the oscillations, because they belong to interferences, nevertheless could be used at the study of surface heterogeneous along profile. It was established that when R waves reach the velocity heterogeneous which is located near the surface then they form the wave line at homogeneity boundaries. Among them we distinguish uniform passing R1R2, reflection R1R1, polytype exchange R1P2, R1S2. It was also established that direct volumetric waves that spread along the day surface on heterogenetics, generate exchange R waves of PR, SR, sound-R types. On all this dynamic characteristics of exchange R waves generated on the heterogenetics, depend on relation of their horizontal size with the wave length R waves are used for investigation of desolated wells, mine boreholes, tectonic breakes, stocks, intrusive contacts, and others.