P wave anomalous propagation beneath Sakurajima volcano, by using the aftershocks of the 1997 Kagoshima-Ken Hokuseibu earthquake

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In order to investigate the anomalous propagation of seismic wave beneath Sakurajima volcano, we conducted temporal dense seismic observation in the southeastern part of Sakurajima to obtain the seismic wave from the aftershocks of the 1997 Kagoshima-Ken Hokuseibu earthquake. We read the P wave initial amplitudes and arrival times from the observed vertical waveforms, and compared them with those of permanent seismic stations, to which seismic waves do not pass the area beneath Sakurajima. As a result, it is clarified that the P wave amplitudes are attenuated to be 0.01 - 0.1 after passing beneath central cone of Sakurajima volcano. By the way, travel time analysis suggests that the P wave passing through the above attenuation region does not show travel time anomaly.