



Mechanism for Seismic Source on a Solid Interface as a Fault

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This work is a part of monitoring for seismic source point on a solid interface as a seismic fault. An actual discontinuity beyond the elastic speed of the interface is not yet well understood except some relation between earthquakes and faults in the past which was included in the restricted numbers of some land-surface-based monitoring. Then, a simplified and basic model is introduced in order to get a key to see what reaction could be found between an interested fault, seismic source, and mechanism of seismic energy release. That is in brief, (1) Packet of reflected wave ray generated by some magma undulations in travelling and accelerating motion on an internal discontinuity in a model elastic crust model. The internal discontinuity is in a form of an undulation with a curvature of radius. Then, speed of this motion on the surface of the interested discontinuity as a function of the curvature of the radius and the reflection point travelling along the circle of the curvature on the surface of the discontinuity. A seismic source point is assumed to be located at the point where the speed for yielding to breaking on the surface of discontinuity is in a state beyond the elastic speed in the crust layer model. (2) Adding to this, geometry of a set of some incident waves in a form of rays undulating surface of the discontinuity forms a seismic caustics or seismic focus where a seismic source point completed to a state ready to breaking. The author is introduced above as a key to realizing for mechanism of seismic source point in his deterministic manner. A more advanced research must be followed for the next step to the much more contributive advanced research works in the related fields.