

A geologic study on the seamount seismogenic-asperity hypothesis for the subduction zone seismicity

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We study the seamount seismogenic-asperity hypothesis for the subduction zone seismicity in terms of geological observations. Power law distribution of seamounts on the oceanic plate, tectonic behavior of seamounts during subduction, physical properties of effusive rocks of seamounts, and geological occurrence of fragmented seamounts within the ancient accretion complex on land suggests intimate relationship between the underthrusting of seamounts and its effect on seismogenic asperities.