

## **Daisen Volcano One-day Excursion**

Michael Walter and Shigeru Yamashita

Institute for Study of the Earth's Interior, Okayama University

### **Description**

We are planning an optional one-day excursion to nearby Daisen volcano on Saturday, October 6. This trip is designed as a combination geologic field trip and outdoor activity. Daisen volcano is a Quaternary arc volcano associated with the subduction of the Philippine Sea Plate beneath the Eurasian Plate. The highest peak of Daisen volcano is some 1760 meters above sea level, with the Japan Sea only 30 km to the North. The volcano is actually a volcanic group that includes many peaks comprised of lava flows and lava domes. Misen lava dome, the largest in Japan, is dacitic in composition as is most of the volcano. The genesis of Daisen volcano is controversial. Geochemically, depletions in Y and heavy rare earth elements in combination with high Sr/Y indicate an origin by melting of the subducting slab. Thus, Daisen dacites may be akin to "adakites", presumed slab melts at other arcs around the world. Conversely, Daisen may represent melting of lower crust, or could be a differentiate of a primary calc-alkaline magma generated within the mantle wedge.

We will leave by charter bus from Kurayoshi at 8 A.M., and arrive at Daisen village at about 9:30 A.M. Daisen village is located at about 800 meters and is situated beneath Misen lava dome on the Northern flank of the volcano. A short lecture on the local geology will be given at this time. There will be a few options for how to spend the day. For those who are interested, there will be a round-trip hike to the peak at 1760 meters. This hike offers a spectacular view of the San-in coastline and surrounding region when the weather is clear, a good probability in October. The hike is rigorous, Japan being "the land of the straight up trails", so this is an excellent opportunity to get some exercise after several days of meeting sessions, and to rid oneself of any grain-based pollutants one might have acquired. There is a mountain hut at the top where lunch will be taken. Others may wish to take in the sights surrounding Daisen village, including a 1000 year old temple and numerous hiking trails. We will leave Daisen village at about 4:30, and make a stop for Dinner on the return trip. We should arrive back in Kurayoshi by 8 P.M. or so on Saturday evening.

This trip is a good option for those who wish to enjoy some of the local scenery and culture before returning to their home.