

## Proposal of hypothesis for understanding a preparing process of caldera forming eruption

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It is a big problem for all citizens, administrative officials and volcanologists how we overcome a huge volcanic eruption after long term resting phase. Caldera forming eruption is a typical case. This talk considers this problem from researcher's standpoint. We can know what happened in the past by investigating the eruptive history, and we can imagine what kind of impacts we will receive if the similar eruption occur in the future. But we have a high hurdle to overcome this large eruption. Because we have to keep watching for a long term ranging thousands of years from hundreds of years, although we can detect significant precursor just before the eruption by sufficient observations. From this reason, caldera forming eruption has been removed from the object of the prediction program in Japan. The authors paid attention to the facts that magma stops rising in many volcanoes which have attempted eruptions. After repeated examinations, we set up the following hypothesis; magma has been stored after repeated intrusive events under a certain favorite condition, and reaching newly supplied basic magma to stored magma cause a huge eruption. This hypothesis leads that significant amount of magma will be detected beneath volcano which has caldera forming eruption in the future. It is also important to know where magma stops rising and why. The first step to understand a preparing process of caldera forming eruption is to clear those questions.