Modelling of source mechanism for EQL

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Recently, mechanical process at a focal zone has been clarified by means of an inverse earthquake modeling of rupture process, GPS/SAR observation vis satellites, as well as laboratory rock friction experiments. On the other hand, mechanism of seismic physicochemical phenomena including earthquake lightning (EQL) have little been understood, though the process should be understand in relation to mechanical process. So far, any precursor phenomena described in historical documents have been statistically analyzed in terms of the precursor period, but little discussion has been made on the source mechanism,

In order to investigate a possible source mechanism for seismic physocchemical process conventional scientific method, in a manner that new hypotheses or findings should be confirmed by the following reproduction experiments, can hardly been analyzed from any seismic observation data taken in a modern ages. This is because a period of any earthquake is so long until it occurs in the nest at the same are, and any focal environments and other pysical onditions are different with each other earthquakes even if the magnitude is comparable.

On this background, description related to various types of EQL were chosen from histrical literatures since 818 A.D. The correlation analysis among EQL, seismic/tsunami's parameters, and other earth scientific parameters based on a data mining method may lead to a possible source model for EQL phenomena