

## Review of seismo-electromagnetics and earthquake predictology

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This paper consists of a few parts. The 1st part deals with the review of electromagnetic precursors to the 2011 Japan earthquake (EQ). The 2nd part is based on the general review of seismo-electromagnetics, and the 3rd, the proposal of a new science field of EQ predictology. In the 1st paper we present our own results on electromagnetic precursors to the 2011 EQ, including (1) subionospheric VLF/LF propagation anomaly, (2) ULF (ultra-low-frequency) magnetic field depression, and (3) atmospheric VLF/ELF radiation. The 2nd part deals with the present situation of seismo-electromagnetics (DC geoelectric measurement, ULF emissions, atmospheric effect and ionospheric effects), in which the ionospheric precursor has already been found to be statistically correlated with EQs based on long-term data. Finally, by using such EQ precursors we are ready to perform the short-term EQ prediction and to propose a new science field of EQ predictology.

Keywords: Earthquake precursors, Earthquake predictology