

## **Electromagnetics in Earthquake Prediction**

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Despite general pessimistic views on earthquake prediction, in particular on short-term prediction, researches based on electromagnetic methods have recently been extremely active, revealing promising results in many parts of the world such as Greece, China, Italy, Russia, Ukraine, France, USA, Mexico, Japan to name a few. In some cases, actual short-term prediction has been in practice. Major recent developments in this new science are reviewed critically, but constructively, because their recognition in wider scientific community seems to be unduly lagging far behind the real progress of investigation. Important characteristics of probable electromagnetic precursors are their appearances in a wide frequency band, covering from DC to VHF ranges, possibly involving many different processes. Reported precursory phenomena can be classified into two categories: one is the pre-seismic emission of signals from focal zone and the other is the anomalous transmission of electromagnetic waves over focal regions. The methods of measurement and the physical mechanisms for their generation, transmission and reception can be diverse and close international and interdisciplinary cooperation would be vital for comprehensive understanding of the whole process that may be called "Lithosphere - Atmosphere - Ionosphere Interaction". Interdisciplinary cooperation would be particularly useful as the researchers on this subject are specialists of widely different fields, including geoelectromagnetism, solid state physics, radio sciences and engineering, informatics, seismology and of course geology.