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Prediction capabilities of VLF/LF Emission as the main Precursor of earthquake

Manana Kachakhidze (1) and Nino Kachakhidze ()

(1) St. Andrew The First-Called Georgian University of The Patriarchy of Georgia, Physics, Geophysics, Tbilisi, Georgia (manana_k@hotmail.com), (2) St. Andrew The First-Called Georgian University of The Patriarchy of Georgia, Physics, Geophysics, Tbilisi, Georgia (nino_k_k@hotmail.com)

Prediction Capabilities of VLF/LF Emission as the Main Precursor of Earthquake

M. Kachakhidze and N. Kachakhidze Saint Andrew the First-Called Georgian University, Tbilisi, Georgia $(manana_k@hotmail.com)$

Recent satellite and ground-based observations proved that in earthquake preparation period in the seismogenic area VLF/LF and ULF electromagnetic emissions are fixed. According to the opinion of the authors of the present work this phenomenon is more universal and reliable than other earthquake indicators. Hypothetically, in case of availability of adequate methodological grounds, in the nearest future, earth VLF/LF electromagnetic emission might be declared as the main precursor of earthquake. In particular, permanent monitoring of frequency spectrum of earth electromagnetic emission generated in the earthquake preparation period might turn out very useful with the view of prediction of large (M 5) inland earthquakes. The present work offers a scheme of the methodology according to which the reality of the above given hypothesis can be checked up. To prove the prediction capabilities of Earth electromagnetic emission we have used avalanche-like unstable model of fault formation and an analogous model of electromagnetic contour, synthesis of which, according to our opinion, is rather harmonious.