

Observations of the Electric Field before and after the Armenia - Colombia Earthquake (25/01/99 - Mw=6.2)

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This article presents the analysis of registries of two monitoring stations of Earth Electric Field, located 10 km of Nevado del Ruiz Volcano - Colombia, in the temporal window 01/10/98 to 30/04/99, where it has evidenced precursors of seismic activity before and after of the Armenia (Colombia) Earthquake (25/01/99, Mw=6.2). Also, emissions of Radon gas were evidenced for the same window in sites near to electric field stations.

Two important electrical manifestations were observed (17/12/98 and 10/ 01/99) before the Armenia Earthquake and after a minor crisis of Nevado del Ruiz Volcano (06/01/99). Similarity, Electrical anomalies were observed between the 22/02/99 and 20/03/99 that suggests to be related to post - seismic activity of Armenia Earthquake (51 events, $3 > M_L > 4.5$) occurred between 25/02/99 to 08/04/99 and a small crisis of Nevado del Ruiz Volcano (15/04/99).

This scheme suggests that electrical and Radon emissions could correspond to conjugated events of geodynamic activity in the central region of Colombian Andes, whose manifestations make reference to the sismotectonic activity with the Armenia Earthquake and two small crises of the Nevado del Ruiz Volcano.