

Precursory electric field observation cubesat demonstrator: Prelude

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Small satellites have already been used for earthquake precursory phenomena observation in other countries, but CubeSat-class satellite has not existed yet. The French seismo-electromagnetic satellite DEMETER reported statistically the reduction of the radio wave intensity 4 hours before earthquakes, but its mechanism and dependence on local time is unknown.

The 3U CubeSat "Prelude" under development is aimed at verifying the reduction of radio wave intensity 4 hours before earthquakes by installing only one pair of electric field probes which is already proven by DEMETER in the vertical direction, constructing the satellite constellation in a low cost.

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