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Final results of the Radon concentration study in volcano Popocatepetl area, Mexico, Dec 2007 - Dec 2009

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Radon concentration study in the area of volcano Popocatepetl, Mexico during period December 2007-December 2009 are presented.

Continuous monitoring of Radon concentration was performed at 3 different sites in volcano area (Paso de Cortes, Tlamacas and Tlamacas 2) and reference station in Amecameca site. As it was mentioned in previous studies, eruptive phases of volcano are accompanied by depressions of Radon concentration the most pronounced of taking place at Tlamacas station.

On the other hand, the combined survey of Radon concentration and Gamma ray spectrometry (total response, K, U and Th concentration) in the area between Paso de Cortes and in the vicinity of Tlamacas site revealed enormously active degassing region localized in Tlamacas mountain.

The results of the monitoring and survey are comparied with those obtained previously by other scientific groups and discuss possible useful applications for future volcanic and seismic activity monitoring.