

## **Reaction of radon in soil and groundwater to stress-strain state of the Earth's crust**

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**Abstract.** A brief review of the literature, reflecting the main achievements and prospects of the radon method as an indicator of stress-strain state of the Earth's crust, and the results of almost 20 years of studies at the Petropavlovsk-Kamchatsky geodynamic test site is given. The predictive anomalies are generally considered to be of deformation origin and can occur indirectly in various geophysical fields, including radon in soil and groundwater. A variety of forms with different duration is typical for radon precursors, and they are registered at considerable distances from the earthquake epicenters. The regularities discussed in the article and conclusions derived on their basis give with great credibility a reason to consider the possibility of using the dynamics of soil Rn for the prediction of earthquake, especially shallow ones.

**Keywords:** soil radon, earthquakes, precursor, forecast, radon migration.