

Interactive comment on “Real-time setup to record radon emission during rock deformation: implications for geochemical surveillance” by P. Tuccimei et al.

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Received and published: 13 March 2015

The main intent of the paper is the study of the correlation between rock deformation and radon emission in the framework of the efforts to verify the possibility to use the measurement of the “radon concentration” parameter in soil gas and in groundwater as indicator of the dynamics of the earth’s crust. Many problems (distance between the radon production site and the radon measurement point, the inhomogeneity of the medium between the two points, the possible multiplicity of radon production sites in the same area, and so on ...) make this general goal difficult to achieve for now

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but, the used apparatus and the adopted technique allowed the authors to carry out optimally their work spent for the observation in laboratory of the mechanism of the radon emission during rocks compression. Also the use of the thoron is interesting, being the isotope able to follow quickly the effect of the rock deformation and breaking. The authors use a spectroscopic instrument for radon activity measurement, useful for well separate the two main radon isotopes. This allows a clean observation of the alpha line of the Po-216 thoron daughter. When they observe the radon by the Po-218 line, the interference of this line with the Bi-212 line is taken in to account ?

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., 5, 39, 2015.

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