



The proposal of an integrated approach for the Radon mapping and indoor air measurements in volcanic and hydrothermal areas as tool for volcano surveillance and health issues

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Radon mapping gives us the opportunity to identify the areas of major emissions and diffuse degassing, being also very useful in land-use planning. However, this gas and its carriers are affected by environmental parameters such as variations in soil and air temperatures, atmospheric pressure, humidity and earth tides. Nevertheless, indoor measurements need to be periodically performed in volcanic areas to assess radioactive emissions due to background levels and building materials to minimize their effects on public health. This paper is addressed to the application of radon measurements techniques in volcanic areas, focused in better understanding volcano dynamics, surveillance methods and environmental monitoring with the application of novel methods and instrumentation.