## **Abstract**

Study is focused on possibilities of radon isotope (222Rn) as a natural as well as artificial tracer. It contains examples of radon use for hydrogeological, or tectonic research, especially for interactions between groundwater and surface water, contaminants free phase delineation and estimation of residence time of water. The used methodology is described as well. Finally, importance of radon is emphasized given its low financial and time costs and low environmental impact.