

Relations between joints, fissures or faults and concentration of Radon gas in some caves of Dinaric karst in Croatia and caves on Cyprus

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In last ten years in some caves of Croatian Dinaric karst of Croatia concentration of Radon gas was measured. Only in some measured caves on fissures or joints concentration were larger than on faults inside the caves. It is strange but it could be explained by intensive air circulation in places where active faults made cave channels. Fissures and joints are mainly very near narrow and closed in caves but radon gas still passing through these places in caves better than through some active faults. The same phenomena were measured in some caves on Cyprus in March and October 2017. Air pressure, altitude, cave temperature and outside temperature, groundwater characteristics, position of entrance, air circulation in caves, lithostratigraphic factors of rocks, neotectonic activity, carbon dioxide percentage, etc were compared to get some answers about these relations. On Cyprus the deepest explored cave is about 125 meters deep and the longest about 350 meters long (January 2018). In Croatia the deepest cave is about 1431 meters deep and the longest cave is about 34305 meters long (January 2018). Totally on Cyprus are known about 160 caves and in Croatia is known about 11500 caves. International team of scientists from Cyprus, Lebanon and Croatia explored and measured concentration of Radon gas on special places of geological discontinuity in some caves on Cyprus in year 2017. The name of this EU Project is: "The Caves of Kyrenia Mountain Project - Research, Conservation and Education".