

**INTRODUCTION OF RADON (<sup>222</sup>Rn) NOBLE GAS ACTIVITY  
MEASURING CALIBRATOR AT MKEH METROLOGY  
AUTHORITY, SECTION OF RADIATION PHYSICAL AND  
CHEMICAL MEASUREMENTS**

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Approximately two-third of natural background radiation exposure can be originated from radon and its decay products. According to the new EU Basic Safety Standards and the governmental decree 487/2015. (XII.30) VIII. 30. § 49:

National action plan must prepare and perform for the reduction of health risk caused by radon and its desintegration products in public buildings and workplaces.

Reference levels of radon and its desintegration products measured in air expressed with annual average activity concentration value:

in buildings: 300 Bq/m<sup>3</sup>,

workplaces: 300 Bq/m<sup>3</sup>

The reference levels of radon and its desintegration products must be revised in every fifth year.

At Hungary, while necessary tasks are increased, the calibration of measuring devices are not solved. This is why we are interested in creating the radon noble gas radiation field for calibration purposes.

In our office, based on decades of experiences, we planned and created a authentic Rn radiation field.

In our presentation, we are introducing the technical details, the radon chamber and our measuring results up to now.