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# Techniques to mitigate the admission of radon inside buildings

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## Abstract

In this work, the factors that influence indoor radon (Rn) level and most usual methods to prevent or mitigate Rn are presented and discussed, according to their way of action. The findings show that it is possible to select the most appropriate and effective solutions for each situation, even in cases where there is a high risk of Rn concentration, by combining these methods to increase overall efficiency. Finally, most relevant strategic recommendations are presented to guarantee the success of Rn protection measures, to reduce problems associated with Rn.

**Keywords:** [radon](#); [buildings](#); [remediation](#); [prevention](#); [ventilation](#); [depressurization](#); [sealing](#)

## 1. Introduction

Radon (Rn) is a radioactive gas that has no color, smell, or taste, which can be found in soil due to radioactive decay of naturally present elements such as uranium and radium. Rn is the greatest natural source of ionizing radiation and exposure of population to high levels of Rn for prolonged periods can become a public health problem. According to the World Health Organization, Rn is the second cause of lung cancer after smoking [1].

Rn can also be present in building materials and water, although at much lower concentrations.

Rn can enter and accumulate in buildings causing lung cancer when people are exposed to high levels of Rn for prolonged periods.