

DETERMINATION OF EQUIVALENT MIXING HEIGHT AND ATMOSPHERIC STABILITY ASSESSMENT

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ABSTRACT

Atmospheric stability is an indicator that reflects the intensity of boundary layer mixing processes. This feature of the atmosphere is especially important since it defines dispersive atmospheric conditions and provides information on how effectively the anthropogenic pollution will be transferred to the higher levels of the atmosphere. The assessment of atmospheric dispersiveness plays a crucial role in the protection of air quality and public health in big cities. The presented paper deals with determination of atmospheric stability via so called *Equivalent Mixing Height (EMH)* quantity using a radioactive noble gas ^{222}Rn . A method of deriving a link between ^{222}Rn activity concentration, eddy diffusion coefficient and EMH using fluid mechanics is also outlined in this work.

Key words: Equivalent mixing height, stability, ^{222}Rn