

Air quality in low energy buildings: why it is important and how do we manage it

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Abstract

The energy efficiency requirements in building sector are constantly rising and soon only low energy homes will be built. At the same time, some data indicate that low energy consumption does not always equal healthy air quality and microclimate in these buildings. The lecture will present an overview on this issue, including methods of assessment of indoor air quality based on measurements of key pollutants (such as volatile organic compounds, particulate matter), effects of ventilation towards the management of IAQ as well as strategies and engineering approaches towards the abatement of indoor air pollution, including methods of filtration and advanced oxidation.