

# Novel methodology for diagnosis of causes associated with mould growth in dwellings

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Increased occupancy rates, inappropriate ventilation and intermittent heating regimes in dwellings can result in excessive atmospheric moisture levels, potentially leading to mould growth and lower indoor air quality. Identifying the causes associated to mould growth and taking correct remedial actions can be essential in reducing the prevalence of this problem. In practice it is often complex, even for experts, to accurately identify some of these causes and this can lead to costly and unnecessary interventions. Towards development of a novel systematic diagnostic procedure an extensive monitoring exercise has been undertaken involving collection of environmental data from dwellings with and without mould issues. The data has been analysed, considering building characteristics and occupancy's lifestyle features, with the objective to identify thresholds on measurable parameters that are indicative of mould growth risks. The proposed methodology links key parameters to identify factors that contribute to surface condensation and mould growth in buildings. This research presents a process towards environmental data collection, post-processing to compute and interpret pertinent environmental parameters, and displaying them in a clear and easy-To-interpret manner. © Published under licence by IOP Publishing Ltd.