

Master thesis in chemistry with environmental application

Would you like to be part of a research that deals with indoor health quality markers in residential homes?

This project aims to investigate the presence of different plastic matter in common house dust of various size fractions. It is important to gain more information about dust fractions that humans are exposed to, since the biodegradation of e.g. plastics within the body may give rise to harmful chemicals.

Fourier-transform infrared (FTIR) spectroscopy is an excellent tool for non-destructive, high-throughput, label-free chemical compositional analysis of a broad range of samples. In the current project, this technique would be applied to different micrometer-size fractions of common household dust to simultaneously track the presence of a broad range of artificial and natural products, from plastics to skin flakes and hair. This will help us estimate the health risks associated with dust.

This master thesis is a collaboration between Umeå University and Swetox in Södertälje. All laboratory work will be performed at Umeå University.

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