

**7 *sensational*
examples of the
Sensor QRM 010
Indoor Air Quality Module**



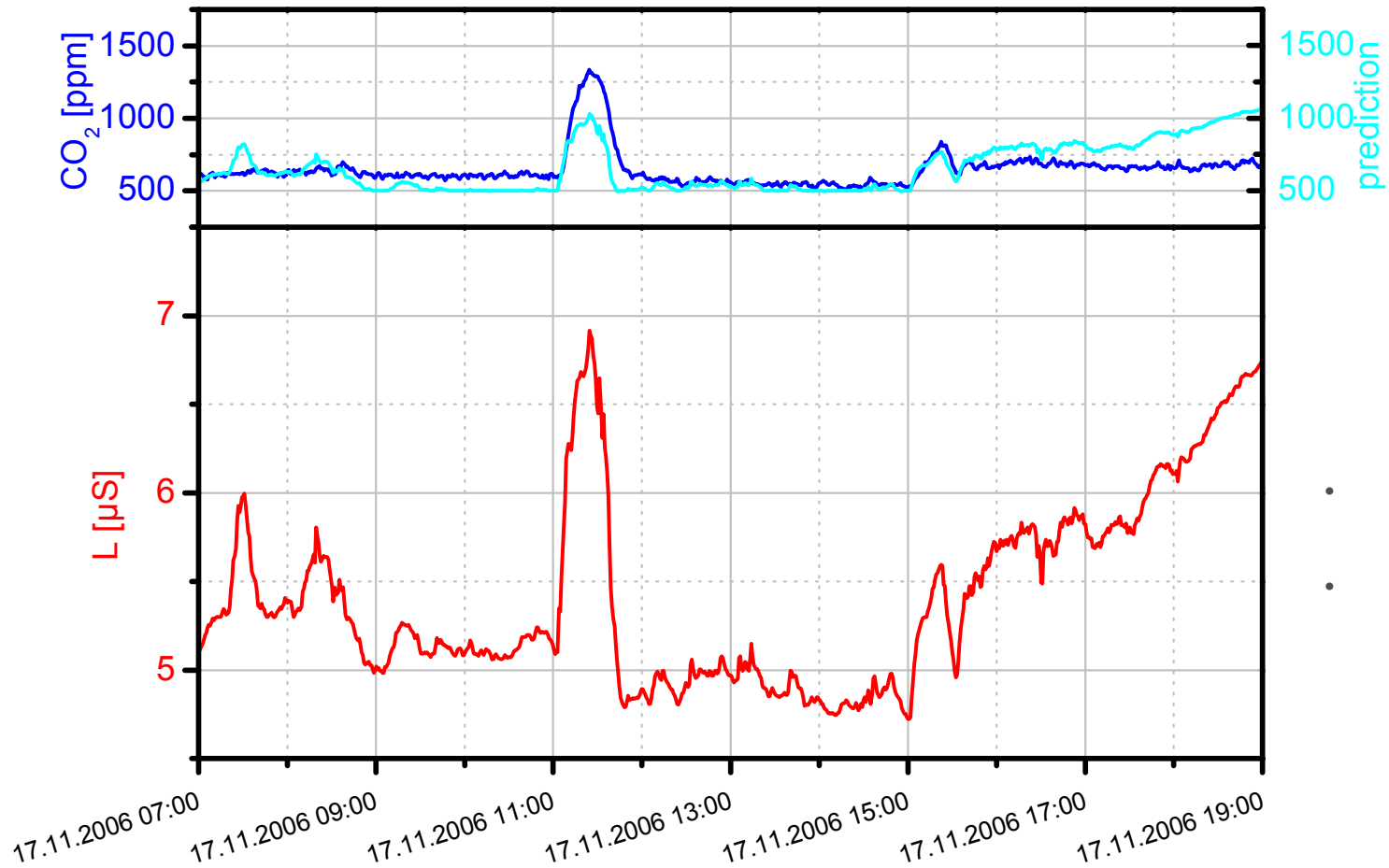
Introduction

- The QRM 010 Module for Demand Controlled Ventilation comprises of
 - one VOC sensor to detect and quantify odors
 - one proprietary algorithm to
 - scale/normalize odor events to CO₂ equivalents
 - predict the current CO₂-concentration
- This combination is currently unrivaled in the market and survives without costly CO₂-sensing technology
- The following slides of real-life application test results, taken from various applications, locations, and countries clearly depict the performance of the QRM 010
- As a guideline for the interpretation of the data shown:
 - Red curve: QRM 010 VOC sensor's raw data [Siemens]
 - Blue curve: CO₂ concentration [ppm CO₂], measured by independent, CO₂-Sensor, running in parallel
 - Turquoise curve: QRM 010 prediction of CO₂-Values + VOC concentration [ppm CO₂-equivalent], based on VOC-sensor's raw-data and Sensor's unique algorithm

Meeting Room

Detail 1: Morning Session

Meeting room 17.11.2006



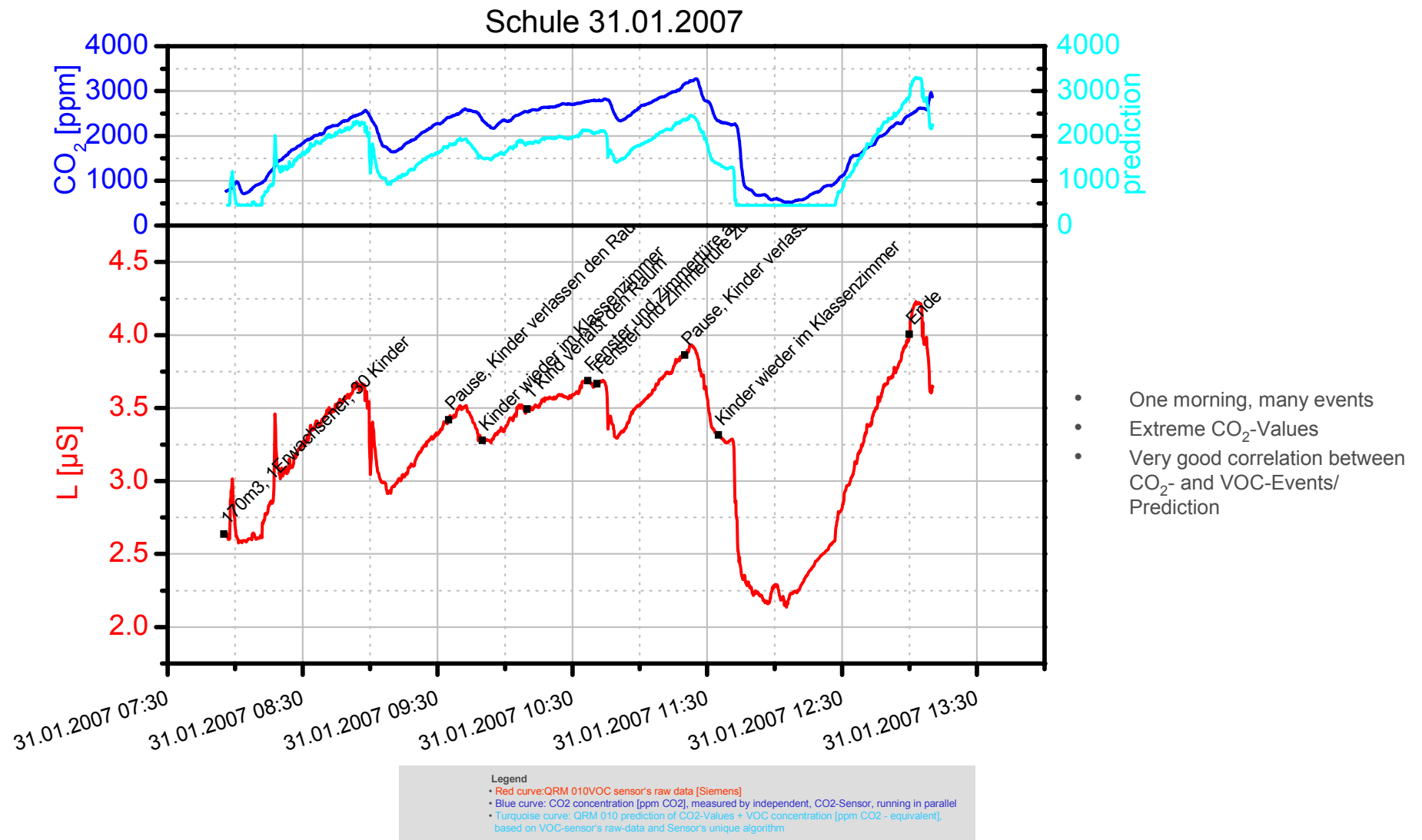
- Perfect correlation between CO₂ and VOCs
- Perfect correlation with prediction algorithm

Legend

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Classroom

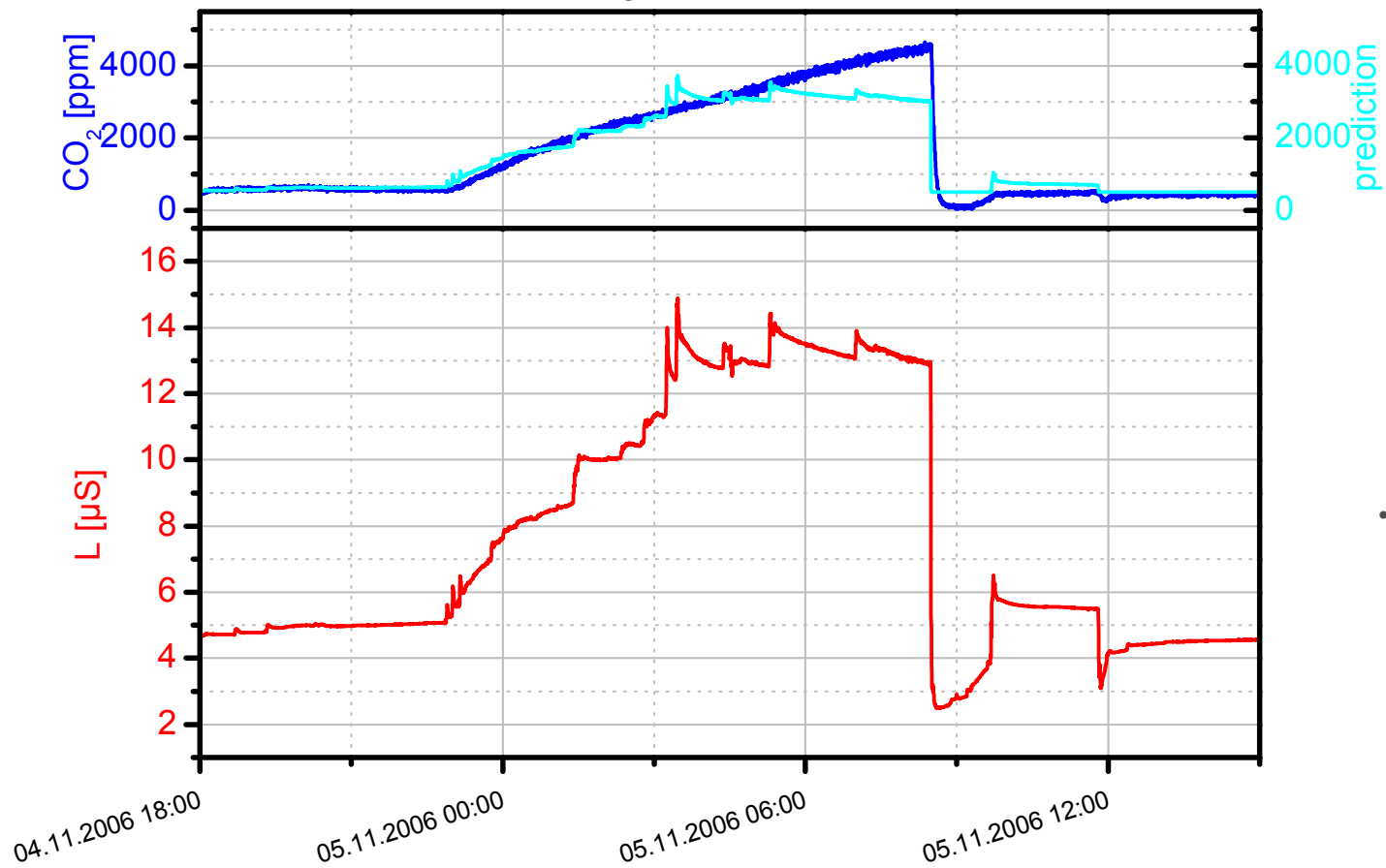
170m³, 30 Students, 1 Teacher



Bedroom

One night, 2 adults, 18m² bedroom with 2.3m ceiling height, window closed

Sleeping room 04.-05.11.2006



- Perfect correlation between CO₂ and VOCs

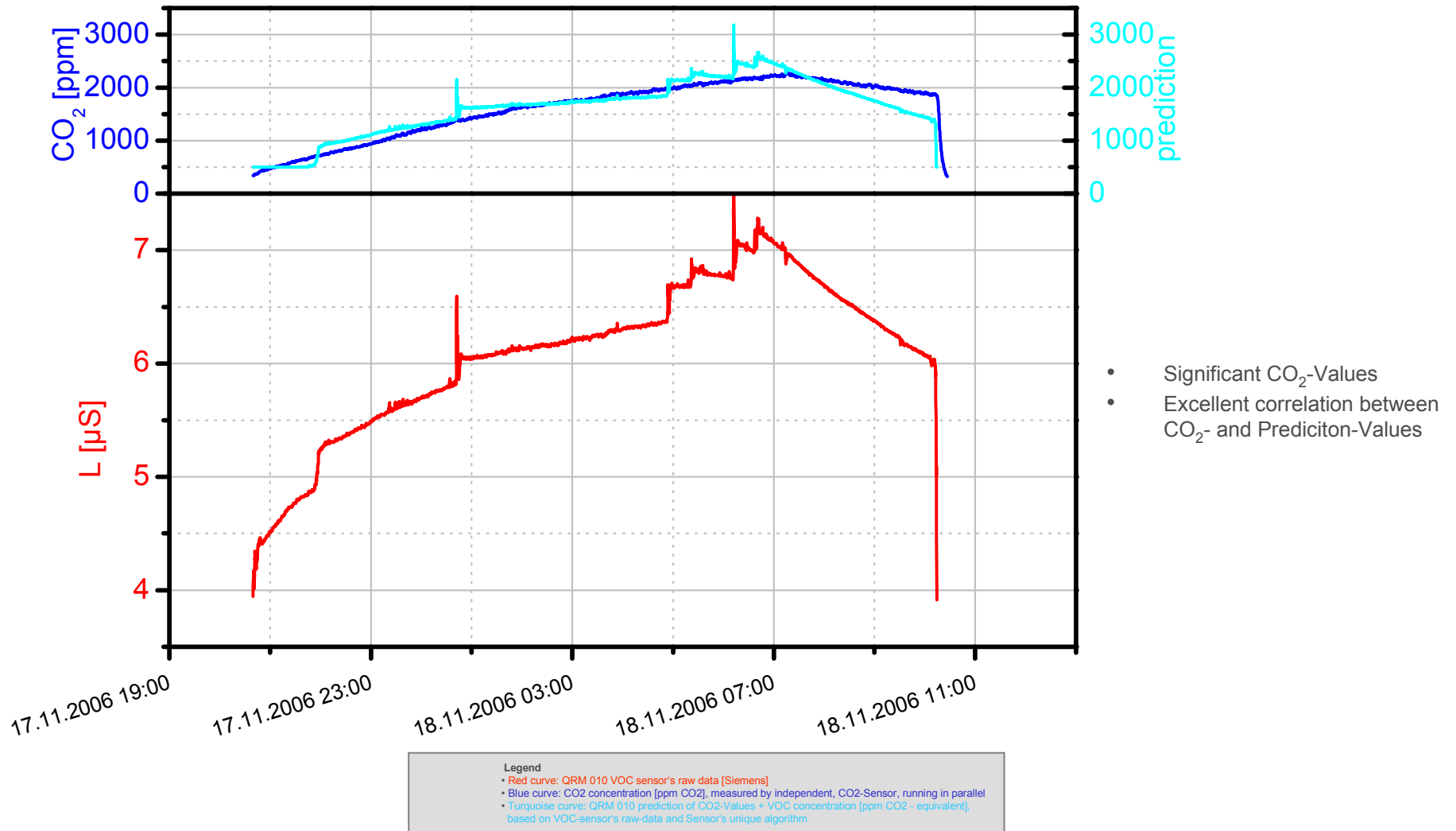
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Children's Room

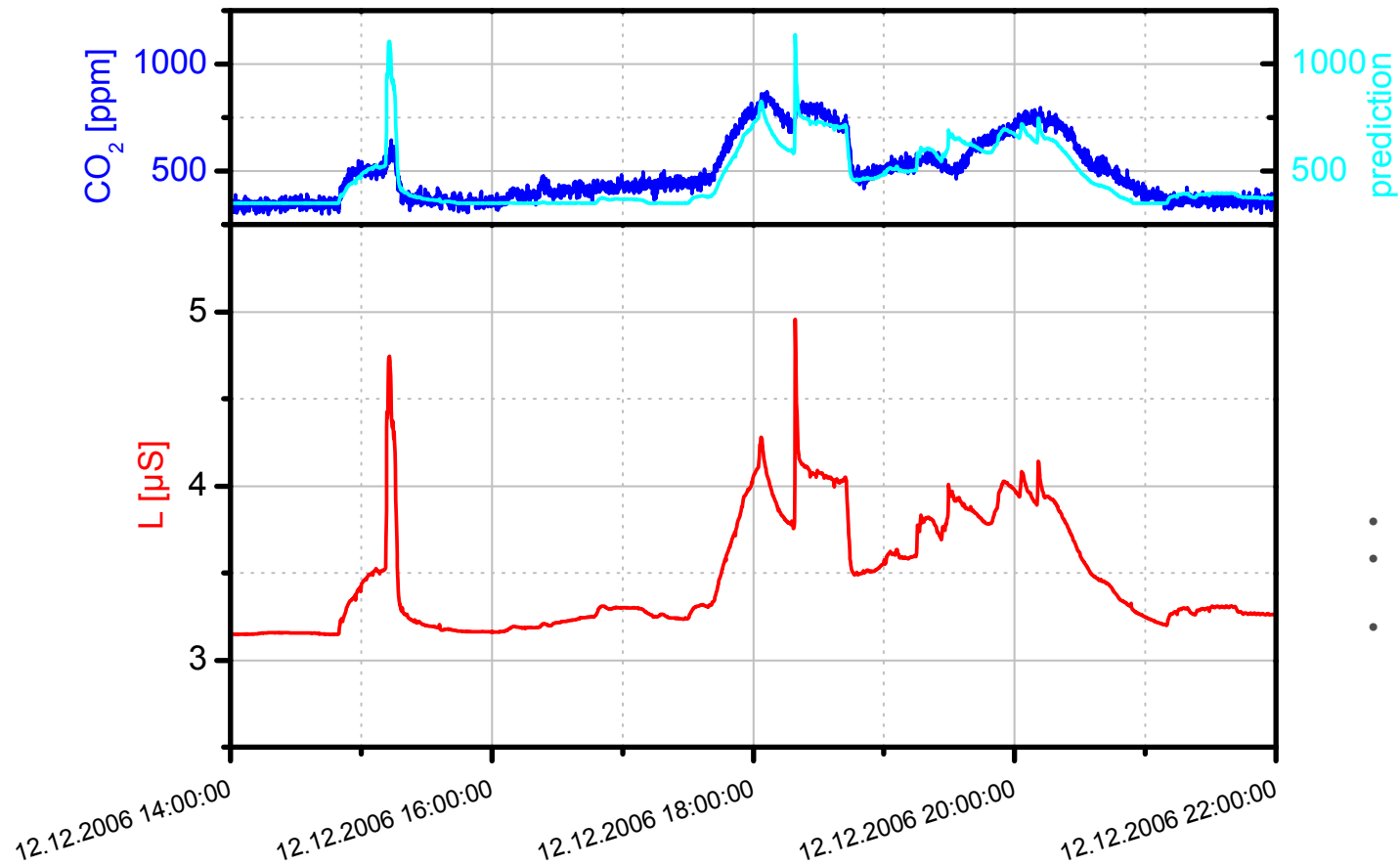
One night

Kinderzimmer 17.-18.11.2006



Gym

Fitnessstudio



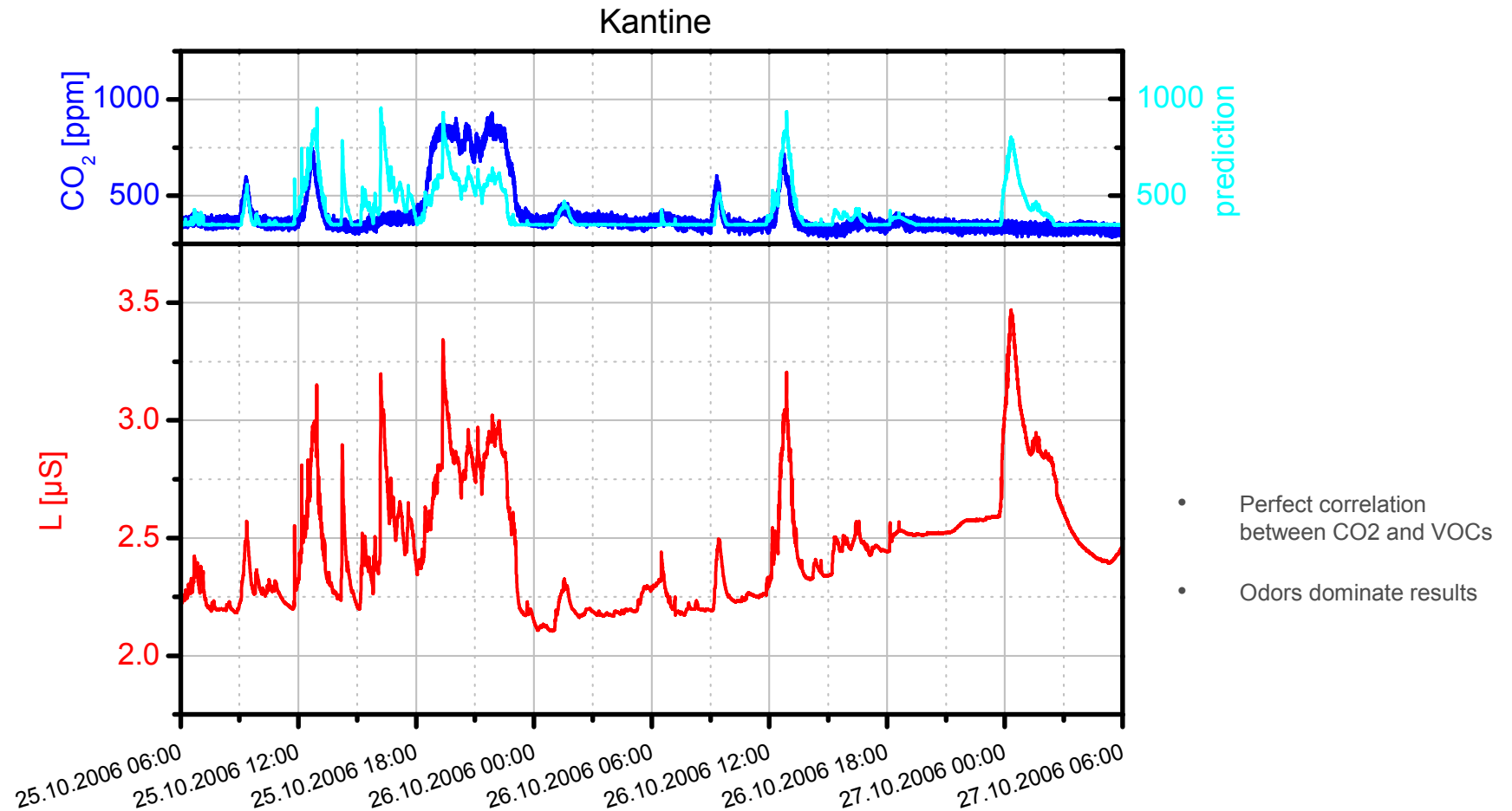
- 1/2-day surveillance
- Mixtures of VOC- and CO₂ events
- Excellent consistency between true CO₂ levels and VOC-based prediction

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Cantina

Where plain CO₂ –sensors fail

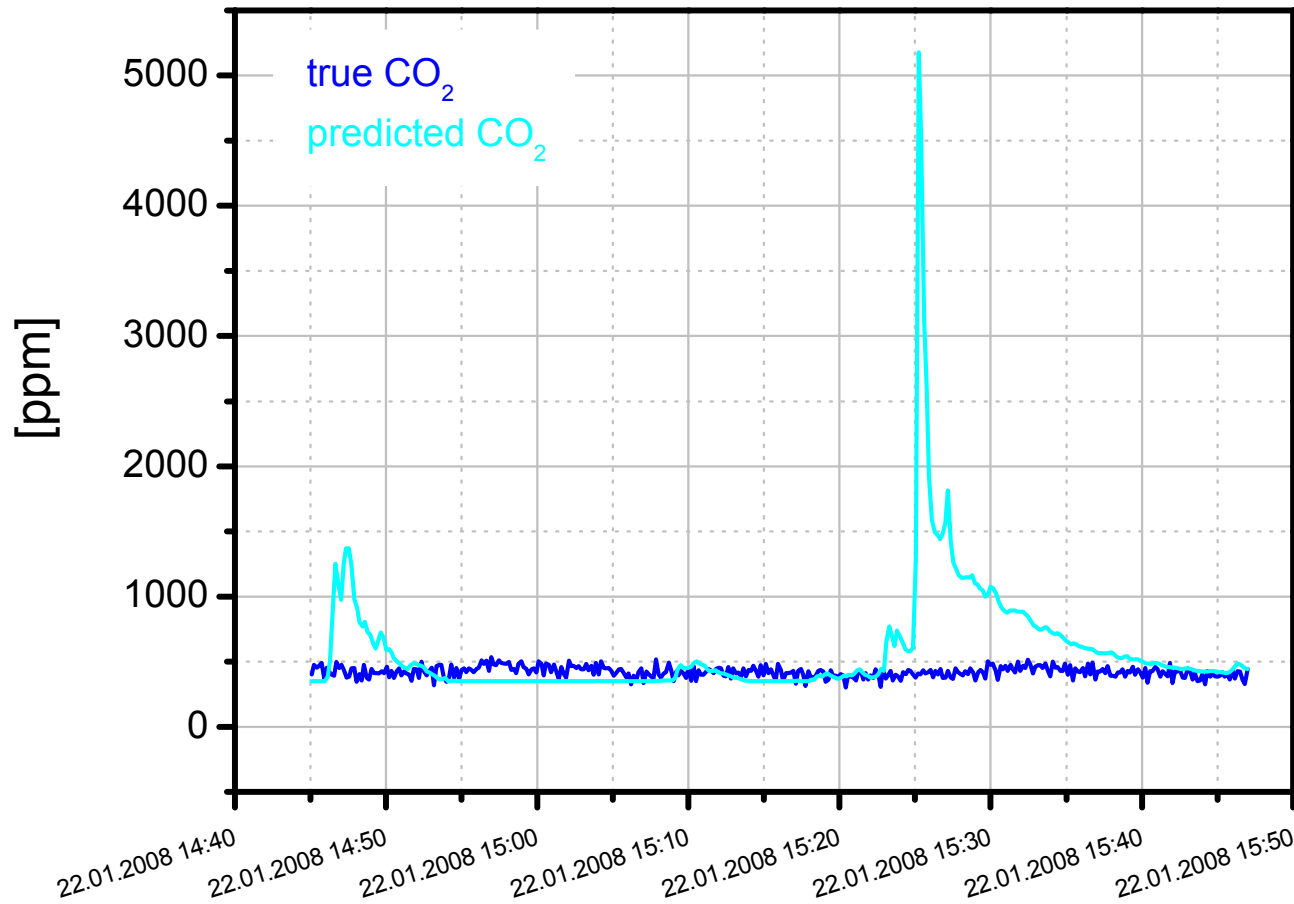


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Restroom

Where plain CO₂ –sensors fail again



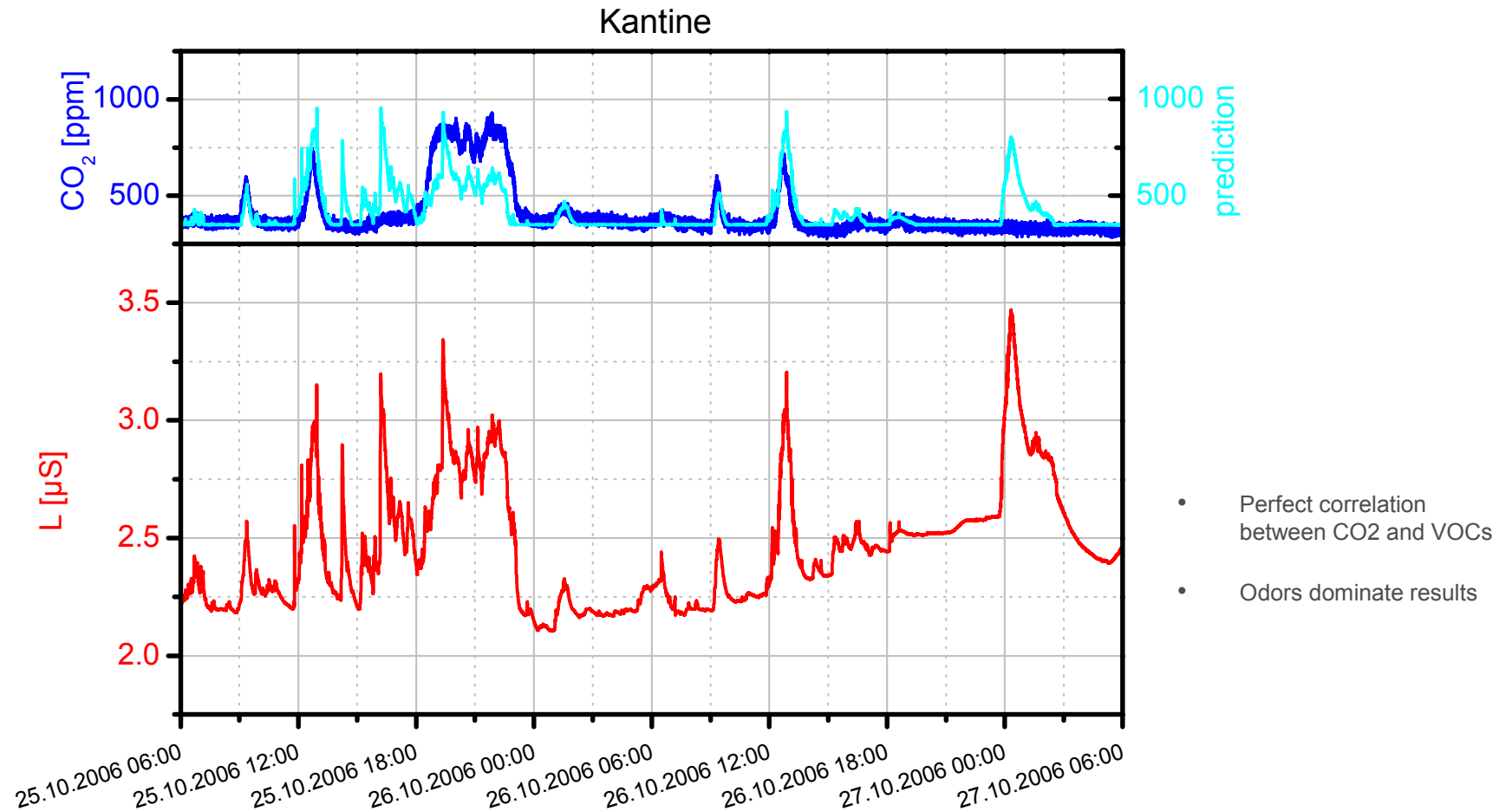
- CO₂ remains calm whereas VOC-based prediction identifies larger event

Legend

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Cantina

Where plain CO₂ –sensors fail



Legend

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